

## **PROVIDING INCIDENTAL TEACHING FOR AUTISTIC CHILDREN: A RAPID TRAINING PROCEDURE FOR THERAPISTS**

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### **ABSTRACT**

Incidental teaching has been shown to promote generalization of autistic children's newly acquired language skills across persons and settings and to encourage spontaneous speech. Nevertheless, many teachers and therapists do not use incidental teaching procedures. Thus, this study assessed the effects of a brief (5-day) training procedure in helping trainees learn to engage in incidental teaching. The investigation was conducted in a community-based, family-style group home that served five autistic youngsters. The trainees were two therapists who were regularly employed in the home and a college student who was pursuing an internship there. The training package consisted of: (a) a definition of incidental teaching; (b) written examples of incidental teaching episodes; and (c) blank incidental teaching formats that were completed by trainees. Training was delivered when children were not present. Initially, both acquisition and generalization probes were conducted in one-to-one sessions, but later, group size was increased to two, and then four children during generalization probes. A multiple-baseline design across trainees was used to examine the acquisition and generalization of incidental teaching skills. This cost-effective and time-efficient training procedure not only enabled therapists to engage in incidental teaching with severely language-delayed autistic children, but also promoted generalization of their skills across materials, settings, children, and group size.

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The importance of incidental teaching as a component of intervention programs for autistic and other developmentally disabled youngsters has been increasingly well documented. Incidental teaching procedures have been used to teach receptive labelling (McGee, Krantz, Mason, & McClannahan, 1983); to increase the frequency and spontaneous use of targeted verbalizations including verbs, articles, simple sentences, and questions (Cavallaro & Poulson, 1985); to engender functional "yes" and "no" responses (Neef, Walters, & Egel, 1984); to facilitate generalization and spontaneous use of prepositions (McGee, Krantz, & McClannahan, 1985); and to foster the acquisition and generalization of sight-reading skills (McGee, Krantz, & McClannahan, 1986).

Hart and Risley's (1968, 1974, 1975, 1980) groundbreaking works on in-

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Sample data sheets and training packages are available from the authors.

cidental teaching have established the salutary effects of these procedures on the spontaneous use of descriptive adjectives, color adjective-noun combinations, and more elaborate vocabularies and sentences by disadvantaged preschool children. Their important monograph, *How to Use Incidental Teaching for Elaborating Language* (1982) offers step-by-step instructions and examples of how to help normal and language-delayed children and youth become more proficient communicators.

However, evaluations of staff training procedures suggest that written materials alone are not sufficient to change teachers' and therapists' performance (Reid & Whitman, 1983). Indeed, McClannahan, Krantz, McGee, & MacDuff (1980) found that when an offer of money was embedded in the text of assigned reading materials, only 36% of the trainees collected the proffered dollars. If incidental teaching technology is to become available to handicapped youngsters, the development of effective staff training procedures will be of critical importance.

McGee (1986) noted that, to date, training on how to do incidental teaching has typically been provided by experimenters. Hart and Rogers-Warren (1978) described teacher behaviors relevant to naturalistic teaching and Cavallaro and Poulson (1985) reported data on the frequency of models and in-kind consequences provided by teachers who were trained by an experimenter prior to a study of incidental teaching in classrooms for developmentally disabled children. However, the staff training literature is essentially devoid of data about the effectiveness of any training packages that prepare service providers to engage in ongoing incidental teaching with handicapped youngsters.

Because staff training procedures are difficult to disseminate, and because their effectiveness often depends upon the skills of the trainers, the multi-faceted training package assessed in this study included only written instructions (which were read aloud by the trainer); written models of incidental teaching episodes (all of which pertained to a specific, ongoing session); and worksheets that provided opportunities for trainees to practice writing their own incidental teaching episodes. Such a package, if effective, could be readily disseminated across sites.

## Method

### *Participating Adults*

All three adult trainees consented to participate in this study, which was described as an examination of teaching procedures that might be helpful to autistic children. The trainees were accustomed to direct observation and data collection concerning their performance, as these were typical procedures in the staff training and internship programs at the Princeton Child Development Institute. To the investigators' knowledge, none of the three women had received any instruction about incidental teaching procedures prior to the onset of the study.

Trainee 1, a 26-year-old, had earned a B.A. in education, and Trainee 3,

age 22, held a B.A. in psychology. Both women were employed as therapists in the group home that was the setting for this investigation. When the study began, Trainee 1 had been employed for 16 months and Trainee 3 had been employed for 7 months. Both trainees had participated in a preservice workshop on group home intervention and both had received ongoing "hands-on" training on teaching and treatment skills.

Trainee 2, age 22, was an undergraduate student majoring in psychology at a local college. Just prior to this study, she began a 10-week internship in the group home. This trainee had little or no background in autism treatment. During her internship, she received training on direct observation and measurement of child performance, but did not receive training on teaching or treatment skills.

#### *Participating Children*

All five participating children were residents of the group home at the time of the study. In each case, their parents had provided written consent to participate in the study.

The children, four males and one female, ranged in age from 9 to 14 years (Mean = 10 years, 8 months). Three of these children were unable to achieve basal scores on the Peabody Picture Vocabulary Test (PPVT). The fourth child's raw score (22) prohibited calculation of a Mental Age Score, and the fifth, at a chronological age of 14, obtained a Mental Age Score of 5.7.

The Vineland Social Maturity Scale had been administered prior to the study, using the children's natural parents as informants. Their Age Equivalent Scores ranged from 4.8 to 7.0, with a mean of 5.4.

All five of the participating children were severely language delayed. Two were completely mute and the others' language was characterized by poor articulation, subvocal and noncontextual language productions, echolalia, and lack of spontaneous speech.

In addition, these youngsters demonstrated high levels of disruptive behaviors, including physical aggression, self injury, noncontextual laughing, vocal noisemaking, and shredding household materials. Three of the children had previously resided in large residential institutions because of their lack of adaptive skills and the severity of their problem behaviors. Outside agencies had conferred diagnoses of autism on all five participating children prior to their enrollment in the group home treatment program.

#### *Setting*

The research was conducted in a Teaching-Family Model group home for five autistic children. The teaching parents, a married couple, lived in the home with the autistic youngsters and their own two children, and served as on-site directors of the program. Like other Teaching-Family homes, the home was family-style, community-controlled, and consumer-evaluated (Phillips, Phillips, Fixsen, & Wolf, 1974; McClannahan, Krantz, McGee, & MacDuff, 1984).

Training sessions were conducted in the office of the group home, which

was furnished with four desks and chairs. During training, only the trainer and one trainee were present. They were seated face-to-face, approximately 1 m apart. A tape recorder, placed on the trainer's desk, was used to record randomly selected training sessions. These tapes were later reviewed by other members of the research team, who obtained independent agreement that the trainer did not provide any information not specified by the training procedure.

The play and snack activities selected for this study were typical of the skill acquisition sessions regularly conducted in the home. All of these sessions were 15 minutes in length. Each observation session for a trainee began with the target child/children seated on a bench in the living room. The investigator approached the trainee, and told her which session she should conduct (e.g., "I'd like you to help Joe have snack now."). Subsequently, the youth and trainee moved to the room designated for that activity (kitchen or family room) and began the session.

Play Session 1 took place in the kitchen. Upon entering the kitchen, the child and trainee were seated side-by-side at a trestle-type table. Five different toys (hand-held pinball game, Etch-a-Sketch, waterfall toy, Smurf puppet, and walking wind-up toy) were placed 50 cm from the edge of the table, and directly in front of the child.

Play session 2 was conducted in the family room. Five toys (top, Magic Slate, Viewmaster, Slinky, and Rubic's Cube) were displayed on the floor, equidistant from one another, in the middle of the room. When sessions were conducted with only one child, the child and trainee sat side-by-side on the floor, with toys placed 50 cm from the child. When two children were present, the trainee sat between them; when sessions included four youngsters, the trainee took a position to the right of the children, who were seated in a semi-circle.

The setting for Snack was the same as for Play Session 1 (i.e., the kitchen of the home). Five snacks (pudding, pretzel nuggets, cheeseballs, Oreo cookies, and milk) were placed 50 cm from the edge of the table and directly in front of the participating child or children. Pretzels, cheeseballs, and cookies were delivered in bite-sized pieces; pudding was delivered using 1 T measuring spoons; and 1 oz of milk was delivered in 3 oz plastic cups.

### *Response Definitions*

The definition of incidental teaching used in this research closely conformed to Hart and Risley's (1982) definition. An episode of incidental teaching was scored when: (a) a child made an "unprompted" initiation (i.e., an initiation not verbally, gesturally, or physically prompted by the trainee); *and* (b) the trainee requested an elaborated response from the child; *and* (c) the child gave a prompted or unprompted elaboration; *and* (d) the trainee provided the requested item; *and* (e) the trainee did not provide corrective feedback ("Put your hands down") or give repeated instructions ("nags") during the episode.

*Initiations* included reaching for, pointing to, or gesturing toward an item, as well as asking questions ("May I have a cookie?", "Pudding?") and making verbal requests ("Slinky", "I want toy, please", "Top", or "Tah"). Looking at a snack or toy was not counted as an initiation.

*Requests for elaboration* included requests for both verbal and nonverbal responses. Requests for more elaborate verbal responses included asking questions about a toy or snack (e.g., "How do pretzels taste?", "What color is the puppet?"); asking for verbal imitation (e.g., "Say, 'puppet'", "Say, 'puh'"); or asking for more appropriate volume, articulation, sentence construction, or word usage. Requests for nonverbal elaboration included yes/no questions that could be answered with head nods or head shakes (e.g., "Is this puppet blue?") or with gestures (e.g., "Point to the blue puppet").

Requests for elaboration were scored only if the trainee asked for a response that was contextually related to the item for which the child initiated; thus, if a child pointed to the Viewmaster, a trainee's question about the weather was not scored as a request for elaboration. Similarly, instructions and corrective statements directed toward children's self-stimulatory or disruptive behaviors were not scored as requests for elaboration.

*Child elaborations* were scored if they represented responses to the trainees' questions or requests. Child elaborations could be either verbal or gestural and could be either unprompted or the result of verbal, gestural, or manual prompts.

*Providing the requested item* was scored if the trainee gave a child the object for which he or she had initiated *before* the topic of conversation changed.

### *Experimental Design*

A multiple-baseline design (Baer, Wolf, & Risley, 1968) across the three trainees was used to assess acquisition and maintenance of incidental teaching skills in Play Session 1, which provided the illustrations used in written training materials.

Multiple-baseline designs across trainees were also used to examine the participants' generalization of incidental teaching skills to a different setting and different play materials (Play Session 2); to a different activity (Snack); and to additional children (both Play Session 2 and Snack). Neither Play Session 2 nor Snack was ever used as a topic for training.

### *Measurement Procedure*

During all 15-minute Play and Snack sessions, independent observers scored the occurrence or nonoccurrence of the four components of incidental teaching defined above. An episode of incidental teaching was considered to exist only if the primary observer scored all four components as present. Following a child initiation, if any of the next three components were absent, or if the trainee attended to a child's inappropriate behavior or gave a repeated instruction or "nag", data collection on that episode ceased and the observers waited for the next child initiation. This measurement procedure was used throughout all acquisition and generalization probes.

*Acquisition probes.* After obtaining five or more baseline probes for each trainee, training was initiated. Probes were scheduled on the day following each training session. When training was completed, maintenance probes were scheduled. All acquisition probes were conducted in Play Session 1 (in the

kitchen), because this session provided the examples of incidental teaching used during training.

*Generalization probes.* These probes were conducted both pre- and post-training. Probes in Play Session 2 assessed the trainees' abilities to generalize across settings (from kitchen to family room) and across different play materials. Probes in Snack examined whether trainees could generalize their incidental teaching skills across activities (from play sessions to a food-related activity). Subsequently, generalization probes in Play Session 2 and Snack evaluated whether the trainees could generalize their use of incidental teaching from one-to-one sessions to sessions with two and then four children. Throughout the study, the same child participated in all acquisition probes and in all generalization probes that included only one child. When group size was adjusted (to 2 and then 4 children), the composition of these small groups remained constant, but excluded the child who had participated in the one-to-one sessions.

Since the group home operated continuously (with the exception that children had approximately two home-visit weekends per month), the trainees' work schedules rotated across weekdays and weekends and acquisition and generalization probes were conducted on the basis of their scheduled work days. The trainees' staggered work days resulted in some nonparallel data points.

### *Training*

Five one-to-one training sessions were conducted for each of the three trainees. During each of these sessions, trainees were presented with written materials, including: (a) a short description of the steps in incidental teaching, based on *How to Use Incidental Teaching for Elaborating Language* (Hart & Risley, 1982, pp. 6-8); (b) written examples of incidental teaching episodes that pertained to Play Session 1 and one example of an interaction that did *not* result in incidental teaching due to a child's inappropriate behavior; (c) worksheets that provided formats for the trainees to use in writing their own incidental teaching episodes; and (d) a one-paragraph description of how a therapist could use facial expression and visual attending to prompt child initiations. During the last training session, each trainee was also asked to write an example about "when you would not complete an episode of incidental teaching."

All training sessions were 30 minutes in length. In each session, the trainer read the materials aloud and provided opportunities for the trainee to ask questions or request clarification. After reviewing the written materials, the trainee was invited to write her own incidental teaching episodes using the format provided. Throughout the training sessions, the trainer remained available for questions and, when the trainee handed in her written episodes, the trainer again invited questions about incidental teaching.

Each trainee's participation in the construction of incidental teaching episodes was gradually increased. Thus, in training sessions 1 through 5, trainees received 6, 5, 4, 3, and 0 examples of incidental teaching and were asked to

write 2, 3, 4, 5, and 6 of their own episodes, including (in session 5) one example of "when you would not complete an episode of incidental teaching."

Although questions about incidental teaching were invited by the trainer, questions pertaining to the research were not. If a trainee asked, "What are you measuring?", the trainer responded by again asking whether the trainee had any questions about incidental teaching. Questions such as, "What should I do if the child is disruptive?" received a standard answer — "Run the session however you think it is best."

To document the training process, trainees' written incidental teaching episodes were scored by independent observers, using the definition of incidental teaching supplied above. During five one-to-one training sessions, each trainee was asked to write 19 incidental teaching episodes and one example of when not to do incidental teaching. Scoring of these 20 worksheets for each trainee indicated that Trainee 1 achieved 70% correct, Trainee 2 had 80% correct, and Trainee 3 correctly completed 85% of the worksheets. All three trainees correctly completed the example of when *not* to do incidental teaching.

#### *Interobserver Agreement*

In all instances, percentage interobserver agreement was calculated according to the formula:  $(\text{agreements} / (\text{agreements} + \text{disagreements})) \times 100\% = P\%$  (Araujo & Born, 1985). Each line on the observers' data sheets had to be identical in order to be coded as an agreement. Only complete incidental teaching episodes were scored.

*Written incidental teaching episodes.* Two independent raters scored the trainees' written episodes. They achieved 90%, 85%, and 85% agreement for Trainees 1, 2, and 3, respectively, on whether the Trainees' written examples qualified as episodes of incidental teaching. The scorers were blind regarding which worksheets were examples of "when you would not complete an episode of incidental teaching."

*Observer training.* Training for observers who collected data during acquisition and generalization probes not only included instruction on response definitions, measurement procedures, and the use of the data sheet, but also included practice data collection. Practice was accomplished with videotapes of the experimenters working with target and non-target children, and engaging/not engaging in incidental teaching. The primary observer was a teaching parent who, although not the trainer for this study, was customarily present in the house, and engaged in ongoing observations, data collection, and staff training activities.

Observers were instructed not to provide feedback to trainees; in fact, trainees never requested observer feedback, probably because, in this setting, data collection was conventionally recognized as incompatible with conversation.

*Acquisition probes.* Independent observers were stationed at opposite sides of the Play Session 1 activity area. Interobserver agreement was obtained during 7 of 14 sessions for Trainee 1 (50%); 8 of 15 sessions for Trainee 2 (53%); and 9 of 16 sessions for Trainee 3 (56%). These reliability assessments were

spread rather evenly across baseline, training, and maintenance conditions. Interobserver agreement during Play Session 1 was 100% for all sessions and for all three trainees.

*Generalization probes.* In Play Session 2 and Snack, independent observers were again stationed at opposite sides of the activity areas. For Trainee 1, interobserver agreement was obtained on 82% of data points in Play Session 2, and 82% of data points in Snack; for Trainee 2, these percentages were 67% and 75% respectively; and for Trainee 3, 69% and 62%. Again, reliability estimates were evenly distributed across conditions.

For Trainee 1, mean interobserver agreement was 96% for Play Session 2 (range 80% to 100%), and 99% for Snack (range 88% to 100%). Mean agreement for Trainee 2 was 100% in Play Session 2 and 100% in Snack. Mean agreement for Trainee 3 was 89% in Play Session 2 (range 0% to 100%) and 99% in Snack (range 88% to 100%). Trainee 3's range of 0% to 100% in Play Session 2 occurred because, during one baseline session, the primary observer scored a single incidental teaching episode that was not scored by the other observer.

## Results

Acquisition probes obtained in Play Session 1 (Figure 1) indicate that none of the trainees engaged in incidental teaching during baseline. During the 5-day training period, acquisition probes scheduled on the day following each evening training session show that Trainee 1 achieved a mean of 3.6 incidental teaching episodes (range 2 to 5); Trainee 2 a mean of 1 episode (range 0 to 2); and Trainee 3 a mean of 3.4 episodes (range 2 to 5). After training ceased (i.e., during the maintenance condition), Trainees 1 and 2 increased their use of incidental teaching. Trainee 3 was not available for maintenance probes.

Figure 2 displays generalization probes obtained during Play Session 2 and Snack. During Play Session 2, only one incidental teaching episode (by Trainee 3) occurred before training. After training, Trainees 1, 2, and 3 exhibited means of 3.3, 2.3, and 2.0 incidental teaching episodes during the 15-minute sessions.

In generalization probes during Snack, only Trainee 3 engaged in incidental teaching prior to training (1 episode). After training, the three trainees achieved means of 4.3, 7.3, and 6.3 episodes respectively. When two children were introduced into Play Session 2, Trainees 1 and 3 each provided six incidental teaching episodes, and Trainee 2 did not engage in incidental teaching (the data sheets indicated that neither observer scored any child initiations during this session). When group size was increased to four children, mean incidental teaching episodes were 21 for Trainee 1, 7 for Trainee 2, and 8 for Trainee 3.

Similar results were obtained in Snack. With two children present, Trainees 1, 2, and 3 engaged in 22, 22, and 23 episodes of incidental teaching. When four children participated in this activity, they achieved means of 37, 46, and 44 incidental teaching episodes.



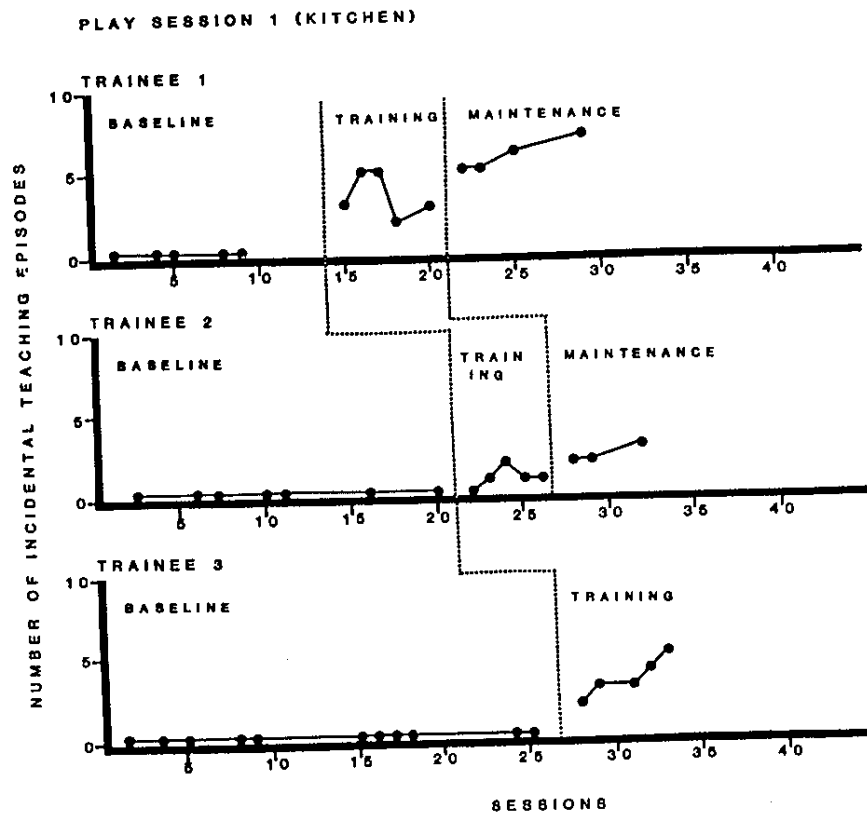


Figure 1. Acquisition probes conducted in Play Session 1 (in the kitchen). This graph displays the number of incidental teaching episodes completed by Trainees 1, 2, and 3 during baseline, training, and maintenance. (Trainee 3 was unavailable during maintenance.)

### Discussion

In one of the first investigations of a strategy to train service providers to engage in incidental teaching with severely developmentally disabled youngsters, a brief (30 minutes per day for 5 days) training sequence was shown to increase trainees' use of incidental teaching procedures.

Acquisition and generalization probes obtained before training showed that none of the trainees used incidental teaching during Play Session 1 and that, during Play Session 2 and Snack, only two incidental teaching episodes were observed during baseline (both by Trainee 3). It is interesting to note that, although incidental teaching was virtually absent prior to training, the participating child frequently came in contact with the available materials. During

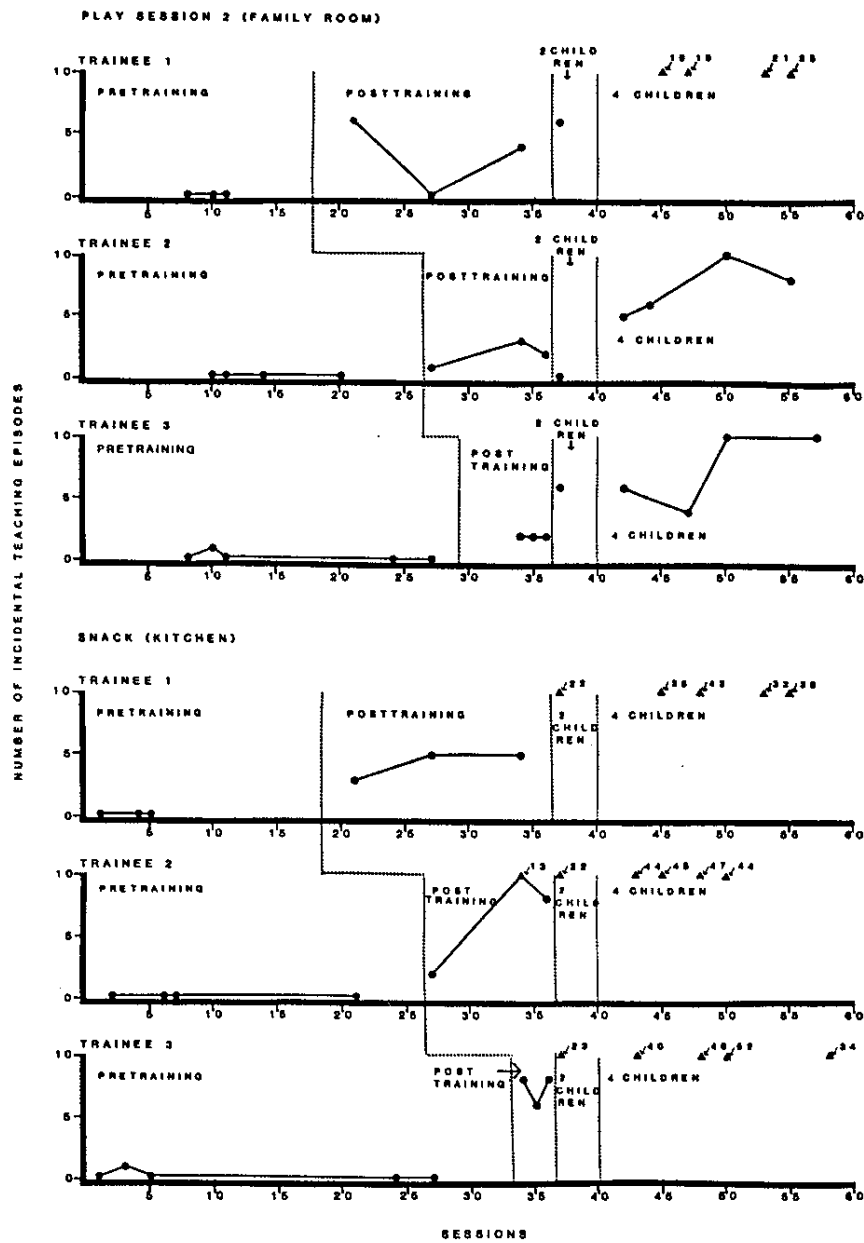


Figure 2. Generalization probes conducted in Play Session 2 (in the family room) and Snack (in the kitchen). This figure shows the number of incidental teaching episodes completed by the three trainees before training, after training, and with groups of 2 and 4 children.

one baseline probe in Play Session 2, for example, independent observers had 100% agreement that the youngster initiated 12 times and that Trainee 3 provided a toy on each of these occasions. These child initiations did not result in incidental teaching because the trainee did not request elaborations.

Although they missed many opportunities for incidental teaching, the trainees frequently interacted with the participating child and prompted him to respond. In addition, Trainees 1 and 3, who were regularly employed in the group home, often contingently delivered snacks and play materials when the child was following directions or displaying some other appropriate behavior.

The exceptionally high levels of interobserver agreement during acquisition probes (100% for all trainees and for all conditions) seemed attributable to the fact that trainees did no incidental teaching in baseline; and during training, they usually engaged in "standard" incidental teaching episodes that were similar or identical to the episodes included in their training materials.

As noted earlier, all training materials pertained to Play Session 1, held in the kitchen. Post-training generalization probes demonstrated that, in the absence of any prompts or instructions to generalize, the trainees did generalize to different play materials in a different room (Play Session 2) and to a different activity in the same room (Snack). In addition, their incidental teaching skills generalized to two, and then four, different children, none of whom had ever participated in Play Session 1, upon which training exemplars were based. It may also be noted that, when providing instruction to small groups of two or four children, trainees' incidental teaching episodes were relatively evenly distributed across youngsters.

Traditionally, written training materials have often been comparatively lengthy and detailed. In contrast, the training materials used in this study were brief, were presented on multiple occasions, and served as models for desired trainee responses. In addition, trainees' response requirements were rapidly increased, so that in training sessions 1 through 5, they were given 6, 5, 4, 3, and 0 examples of incidental teaching, and were asked to write 2, 3, 4, 5, and 6 of their own episodes.

The efficacy of the brief training procedure may also be an outcome of training to a "live" example (Play Session 1). The importance of training to "real" (i.e., currently scheduled) sessions and "real" (i.e., currently available) children are topics for future research.

Both acquisition and generalization data showed that the training sequence was effective, not only for Trainees 1 and 3 (who were employed in the group home), but also for Trainee 2 (an undergraduate student completing a 10-week internship in the home). Thus, prior instruction on intervention skills did not appear to be prerequisite to the development of incidental teaching skills.

Although only 2 episodes of incidental teaching were observed prior to training, child initiations were often scored during baseline. During baseline in Play Session 1, the child made 0 to 3 initiations in the presence of Trainee 1 (mean = .8); 0 to 9 initiations with Trainee 2 (mean = 2); and 0 to 1 initia-

tions with Trainee 3 (mean = .2). During training, the child initiated 4 to 6 times with Trainee 1 (mean = 5); 0 to 3 times with Trainee 2 (mean = 1.8); and 2 to 6 times with Trainee 3 (mean = 3.6). Initiations in maintenance ranged from 5 to 7 (mean = 6) for Trainee 1 and from 3 to 4 (mean = 3) for Trainee 2. Maintenance data could not be obtained for Trainee 3.

These data indicate that although each trainee encountered child initiations, none of the trainees used incidental teaching during baseline. Once the training procedure had been implemented, however, all three trainees engaged in incidental teaching.

During each training session, the trainees' were given opportunities to ask questions about the training materials and/or about the use of incidental teaching. Throughout training, trainees' questions focused on what was being measured in the study and how they should handle disruptive children. Their failure to ask questions that would have resulted in verbal feedback points to the importance of the training materials in promoting incidental teaching skills.

Finally, it should be emphasized that the five autistic youngsters who participated in this study were very severely disabled; they had either come to the community-based program after institutional experiences or were at risk for institutionalization before they were accepted for the group home program. Two of the children were mute and were just beginning verbal imitation activities and all five children were severely language delayed and frequently engaged in self-stimulatory and disruptive behaviors throughout the investigation. The child who participated in baseline acquisition probes and in pre- and post-training generalization probes was seen as the least difficult to teach. Thus, the trainees' generalization to two and then four of the other children in the home was accomplished under conditions of increasing difficulty.

The brevity of the training sequence that produced such major changes in trainee performance suggests that this training procedure is effective in transmitting important naturalistic teaching skills. Further, it is anticipated that because the training package features written instructions and models rather than a trainer's modeling and feedback, this technology will lend itself to dissemination across sites.

### References

- Araujo, J., & Born, D. G. (1985). Calculating percentage agreement correctly but writing its formula incorrectly. *The Behavior Analyst, 8*, 207-208.
- Baer, D. M., Wolf, M. M., & Risley, T. R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis, 1*, 91-97.
- Cavallaro, C. C., & Poulson, C. L. (1985). Teaching language to handicapped children in natural settings. *Education and Treatment of Children, 8*, 1-24.
- Hart, B., & Risley, T. R. (1968). Establishing use of descriptive adjectives in the spontaneous speech of disadvantaged preschool children. *Journal of Applied Behavior Analysis, 1*, 109-120.
- Hart, B., & Risley, T. R. (1974). Using preschool materials to modify the language of disadvantaged children. *Journal of Applied Behavior Analysis, 7*, 243-256.

- Hart, B., & Risley, T. R. (1975). Incidental teaching of language in the preschool. *Journal of Applied Behavior Analysis*, 8, 411-420.
- Hart, B., & Risley, T. R. (1980). In vivo language intervention: Unanticipated general effects. *Journal of Applied Behavior Analysis*, 13, 407-432.
- Hart, B., & Risley, T. R. (1982). *How to use incidental teaching for elaborating language*. Austin, TX: PRO-ED.
- Hart, B., & Rogers-Warren, A. (1978). A milieu approach to teaching language. In R. L. Schiefelbusch (Ed.), *Language intervention strategies*. Baltimore: University Park Press.
- McClannahan, L. E., Krantz, P. J., McGee, G. G., & MacDuff, G. S. (1980). *Evaluation of a workshop for teaching clinical skills to parent trainers*. Paper presented at the meeting of the Association for Advancement of Behavior Therapy, New York, NY.
- McClannahan, L. E., Krantz, P. J., McGee, G. G., & MacDuff, G. S. (1984). Teaching-Family Model for autistic children. In W. P. Christian, G. T. Hannah, & T. J. Glahn (Eds.), *Programming effective human services: Strategies for institutional change and client transition*. New York: Plenum Press.
- McGee, G. G. (1986). *An incidental teaching curriculum that promotes social integration*. Grant submitted to the U.S. Department of Education, Washington, DC.
- McGee, G. G., Krantz, P. J., Mason, D., & McClannahan, L. E. (1983). A modified incidental teaching procedure for autistic youth: Acquisition and generalization of receptive object labels. *Journal of Applied Behavior Analysis*, 16, 329-338.
- McGee, G. G., Krantz, P. J., & McClannahan, L. E. (1985). The facilitative effects of incidental teaching on preposition use by autistic children. *Journal of Applied Behavior Analysis*, 18, 17-31.
- McGee, G. G., Krantz, P. J., & McClannahan, L. E. (1986). An extension of incidental teaching procedures to reading instruction for autistic children. *Journal of Applied Behavior Analysis*, 19, 146-157.
- Neef, N. A., Walters, J., & Egel, A. L. (1984). Establishing generative yes/no responses in developmentally disabled children. *Journal of Applied Behavior Analysis*, 17, 435-460.
- Phillips, E. L., Phillips, E. A., Fixen, D. L., & Wolf, M. M. (1974). *The teaching-family handbook*. Lawrence, KS: University of Kansas Printing Service.
- Reid, D. H., & Whitman, T. L. (1983). Behavioral staff management in institutions: A critical review of effectiveness and acceptability. *Analysis and Intervention in Developmental Disabilities*, 3, 131-149.