*DEVELOPING GENERALIZED BEHAVIOR-MODIFICATION
SKILLS IN HIGH-SCHOOL STUDENTS WORKING WITH
RETARDED CHILDREN¹*

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Seven high-school trainees each conducted training sessions with two profoundly retarded children. Each trainee was asked to teach one child to follow the instruction "Bring ball" and the other child to follow the instructions "Sit down" and "Come here". During baseline sessions, before the trainees had been instructed in behavior-modification techniques, no trainee successfully taught either child to follow the instructions. After differing numbers of baseline sessions, trainees were exposed to training procedures designed to teach them to teach one child to follow the instruction "Bring ball". The training procedures consisted of videotaped modelling, rehearsal, and corrective feedback and praise. Following the training procedures, four of the seven trainees successfully taught their child to follow the instruction "Bring ball". Further, all trainees were able to teach their other children to follow the instructions "Sit down" and "Come here", even though they had received no modelling, rehearsal, or feedback on how to teach the children to follow these instructions. The ability of the trainees to teach new behaviors to different children indicates the development of generalized skills in behavior modification.

DESCRIPTORS: generalization, instruction following, retardates, teaching behavior modification, video tape

Despite the increasing use of behavior-modification techniques, experimental demonstrations of effective programs to teach such techniques are scarce. An effective training program should accomplish at least two things. First, teach a person to use specific procedures to modify or teach behavior that he or she could not teach before training. Second, establish a set of skills sufficiently general to allow the person to teach different behaviors to different people.

A number of studies published in the last decade leave little doubt that parents, school teachers, ward attendants, and others can successfully use behavior-modification procedures when supervised by experienced behavior modi-

fiers (e.g., Hall, Cristler, Cranston, and Tucker, 1970; Wahler, 1969a, 1969b; Wahler, Winkel, Peterson, and Morrison, 1965; Watson, Gardner, and Saunders, 1971; Zeilberger, Sampen, and Sloane, 1968). The primary purpose of these studies, however, was not to analyze the training procedures themselves, but to show that people other than experienced behavior modifiers could use the techniques successfully. These studies did not demonstrate that particular training procedures changed trainee behavior or that trainees acquired generalized skills as a result of training for the following reasons.

First, the procedures used to teach trainees to apply behavioral techniques were not described completely, precluding their analysis. Second, the studies lack experimental controls that would demonstrate convincingly that changes in trainee behavior were due to exposure to specific training procedures. The most common experimental design among these studies has been the reversal design (Baer, Wolf,

¹This research was supported by Program Project Grant HD 00870 to the Bureau of Child Research, University of Kansas. Reprints may be obtained from Bruce Gladstone, Department of Psychology, Carleton University, Colonel By Drive, Ottawa, Ontario, Canada, K1S 5B6, or James A. Sherman, Department of Human Development, University of Kansas, Lawrence, Kansas 66045, U.S.A.

and Risley, 1968), but its use was to demonstrate control over child behavior, rather than control over the behavior of those training the children (*e.g.*, the parents). Since the effects of training procedures for trainees may not reverse readily, it is more appropriate to use a multiple-baseline design (Baer *et al.*, 1968). Third, none of the studies provided reliable measures of generalized performance by trainees as a result of training. Generalization of trainee skills could be demonstrated by showing that after training was completed, the trainee could: teach the same child different responses, teach a different child the same responses, or teach a different child different responses.

A few investigations have attempted to analyze training procedures used either initially to teach behavior-modification techniques (Bricker, Morgan, and Grabowski, 1972; Brown, Montgomery, and Barclay, 1969; Buel, *unpublished*; Cooper, Thomson, and Baer, 1970; Herbert and Baer, 1972; Thomas, *unpublished*), or to maintain behavioral skills already developed through previous training (Gelfand, Elton, and Harmon, *in press*; Katz, Johnson, and Gelfand, 1972; Panyon, Boozer, and Morris, 1970). None of these investigations attempted to demonstrate that trainees acquired generalized skills as a result of training.

The present investigation evaluated whether a set of training procedures consisting of videotaped modelling, rehearsal, and corrective feedback would teach persons to use behavior-modification techniques to teach a retarded child. It also examined whether a person so trained to apply specific techniques to teach one child a particular response, could apply the same techniques to teach a different child a different response without further training.

METHOD

Selection of Subjects

Trainees. Seven high-school students, two males and five females, aged from 15 to 18 yr, volunteered as trainees. These students were among many high-school students who volun-

teered to work with retarded children at the Kansas Neurological Institute during the summer months. Two criteria were used in their selection: their agreement to participate in the study for several weeks during the summer, and the absence of any formal instruction in operant conditioning or behavior modification. (None of the students selected had taken courses in operant psychology or had any previous experience with behavior modification or teaching retarded children.) There were no consequences for participating in the study, other than learning some new ways of teaching retarded children.

At the outset, trainees were told they would participate in a research project that would attempt to develop ways to teach people like themselves to teach a simple task to retarded children. They were also told that their participation would require about 1 hr a day, five days a week for several weeks.

Children. Fourteen profoundly retarded children (seven males and seven females) residing at the Kansas Neurological Institute in Topeka, Kansas, served as the child subjects. Their ages ranged from 6 to 14 yr and their IQs from 10 to 24 ($X = 14.0$). Length of residence in the institution ranged from seven months to 11 yr.

Seven of these children did not follow the instruction "Bring ball". In selecting these children, observers took them to a quiet place on the ward areas and said: "(Name of child), bring ball" on several different occasions and noted whether the child fetched the ball from a distance of about 10 ft (3 m). Similarly, the observers took seven other children aside, gave them the instructions: "(Name of child), sit down" and, "(Name of child), come here" and noted whether they complied. This selection procedure was repeated several times for each child over a period of one week. During that time, none of the selected children correctly followed these instructions. All children lived in the same Unit of the Institute, a Unit consisting of children generally lacking basic self-help skills and instruction-following ability.

Children who did not follow the instruction, "Bring ball", are referred to as *A* Children. Children who did not follow either of the two instructions, "Sit down" and "Come here", are referred to as *B* Children. Each trainee was assigned an *A* Child and a *B* Child to whom he would teach the appropriate instruction-following behavior.

Sessions and Setting

Trainees conducted sessions with each child for approximately 15 min once a day, five days a week. Sessions were held in a room containing a chair, a large ball, and a variety of edibles displayed on a shelf (applesauce, ice cream, coke, M&M's, etc.). Videotape recording equipment, a tape recorder, and an event recorder were used to record a trainee's behavior.

Design

A multiple-baseline design (Baer *et al.*, 1968) across individual trainees was used. Each trainee conducted separate baseline sessions with an *A* Child (Bring ball) and a *B* Child (Sit down and Come here). The multiple baselines ranged in length from five to 10 sessions across trainees and their *A* and *B* Children. When baseline sessions with both children ended for each trainee, training procedures for teaching them to teach the *A* Child only were introduced. While training sessions with the *A* Child were in progress, the sessions with the *B* Child were temporarily discontinued. When training sessions with the *A* Child ended, each trainee resumed sessions with the *B* Child under the same conditions as in the initial baseline.

Baseline: A Child and B Child

Before baseline sessions began, each trainee was read the following instructions describing what to teach the *A* Child and what to teach the *B* Child:

A Child: Teach the child to follow the instruction, "(Name of child), bring ball" so that he will walk across the room, pick up the ball, and bring it to you completely unassisted.

B Child: Teach the child to follow the instructions "(Name of child), sit down" and "(Name of child), come here" so that he goes to the chair and sits when you tell him to and gets up from the chair and comes to you when you tell him to, completely unassisted.

These instructions were given immediately before each baseline session. At the same time, the experimenter demonstrated the topography of the desired instruction-following behavior and stated that training would be finished when each child correctly followed 80% or more of the instructions given during any one session. No limit was placed on the number of instructions trainees could give.

With regard to the edibles displayed on a shelf in the experimental room, trainees were told simply that "Some children like ice cream, some like coke, applesauce, or M&Ms, etc. Feel free to give these to the child any time you like". During baseline sessions, the edibles were never referred to as rewards or reinforcements and no other instructions regarding their use were given.

Each trainee conducted two 15-min baseline sessions each day; one with the *A* Child and one with the *B* Child. While these sessions were in progress, the trainees were asked not to request information or feedback from the experimenter or observers about their performance or the children's performance.

Training Procedures: A Child

When baseline sessions with both the *A* Child and the *B* Child were finished, each trainee received specific training to teach only the *A* Child to follow the instruction "Bring ball". This training had three components; a video-tape, rehearsal and corrective feedback, and praise.

Videotape. Following the final baseline session, each trainee viewed a 25-min videotape in which a model, working with a retarded child, demonstrated the procedures to be used in teaching the *A* Child to follow the instruction, "Bring ball".

The tape was titled *Linda Learns to Follow an Instruction* and consisted of the following parts:

Part I, *Introduction to Linda*, described and modelled Linda's operant level of instruction-following to "Bring ball" and suggested the general importance of teaching her to follow instructions. Part II, *The General Approach*, simply stated the principle of reinforcement and described how the behavior involved in correctly following the instruction "Bring ball" could be broken down into easily learned steps, each of which was demonstrated by the model.² Part III, *The Training Procedures*, described six important trainee behaviors to be mastered. They were: giving instructions, giving rewards (reinforcers), not rewarding incorrect responses, using physical prompts, phasing out the physical prompts, and ignoring inappropriate and disruptive behavior. The model and Linda conspicuously demonstrated each of these techniques several times with accompanying narration. In Part IV, *Dealing With Unexpected Problems*, the model demonstrated how to respond to situations that might cause the trainees to ask "What should I do now?" For instance, the model demonstrated what to do when the child sits on the floor and "won't budge". Finally, Part V, *Some Useful Hints*, gave trainees further pointers on how to conduct a smooth session. For example, the narrator instructed trainees to begin training sessions by reinforcing a response or an approximation that the child could easily make, to get the edible reinforcer ready in hand before the child completed the response, not to increase the response requirement too fast, and to proceed slowly.

After viewing the videotape, trainees were given the opportunity to ask questions and discuss what they had seen. If they had nothing

to say, as was often the case, the experimenter asked a few questions about various sections of the tape and prompted their conversation. This was done primarily to create a more casual atmosphere and to help trainees relax.

Rehearsal. Immediately after viewing and discussing the videotape, each trainee rehearsed giving instructions, giving reinforcements, not reinforcing incorrect responses, using and fading physical prompts, and ignoring inappropriate and disruptive behavior, all of which were demonstrated in Part III of the tape. Rehearsal consisted of many trials during which the experimenter played the part of the *A* Child and provided praise and corrective feedback for the trainee's performance. Each of the six "trainee behaviors" described in Part III of the training tape were rehearsed separately and in the same sequence as they appeared in that tape. Rehearsal periods lasted about 20 min and ended when the trainee had correctly performed each of the procedures illustrated in Part III of the training tape on at least three successive practice trials. Before the first training session with the *A* Child, the trainees viewed the training tape a second and final time.

Corrective feedback and praise. During each 15-min training session with the *A* Child, the experimenter provided corrective feedback and praise for trainee performance in the following categories: giving instructions, giving reinforcements, using and fading physical prompts, ignoring inappropriate and disruptive behavior, and the reinforcement of successive approximations to the target response.

Corrective feedback and praise were given at 5-min intervals during the 15-min training sessions. Praise and feedback statements were brief (requiring about 2 min) and precise and did not encourage the trainee to respond verbally. An example of a praise statement was: "Your enthusiasm is great and you get the ice cream in there fast—beautiful." An example of a corrective feedback statement was: "Your prompts to help her lift the ball came too quickly and were too rough. Try to wait a few

²The model demonstrated how to teach a severely retarded child to follow the instruction "Bring ball" through "forward" shaping; that is, by reinforcing first the response of approaching the ball, then approaching and grasping it, then approaching, grasping and carrying it back to the trainee. At the same time, it was stated in the training tape that with some children it might not be necessary to teach the task in small approximations.

seconds before prompting and try to be gentler." All recording of child and trainee behavior stopped while the experimenter gave feedback. Feedback was given at regular intervals because continuous or sporadic feedback might have been distracting or annoying and withholding feedback until the end of the session might have prolonged trainee improvement.

In addition to the in-session feedback, trainees were shown a graph at the end of each session describing the daily percentage of instructions correctly (unassisted) followed by the *A* Child. This feedback was maintained for the duration of training sessions with the *A* Child. Training sessions with the *A* Child were terminated either when the child correctly (unassisted) followed 80% of the "Bring ball" instructions given in one session, or when the child's progress appeared to be unusually slow.

Baseline-2 Sessions, B Child:
(*Evaluation of Trainee Generalization*)

When training sessions with the *A* Child ended, each trainee resumed sessions with the *B* Child to teach that child to follow the instructions "Sit down" and "Come here". Before the first of these sessions with the *B* Children, the instructions describing what to teach that child were repeated once, and the desired topography of the target responses was demonstrated. In addition, trainees were instructed to alternate trials of "Sit down" with trials of "Come here", so that each instruction would receive roughly equal attention. No other instructions on teaching the *B* Child were given and no corrective feedback or praise was provided either during or after these baseline-2 sessions. The sessions with *B* Children ended when the child correctly (unassisted) followed 80% of each of the instructions given during any one session, or when trainees could no longer participate in the study due to summer vacations or other commitments.

Response Definitions: Trainee Behavior

The following trainee behaviors were re-

corded in every session with both *A* Children and *B* Children.

Verbal instructions. A correct instruction for *A* Children was recorded only when the trainee said the child's first name followed by the statement "Bring ball". Correct instructions for *B* Children were recorded only when the trainee said the child's first name followed by the statements "Sit down" or "Come here". Any other forms of these instructions (e.g., "Bring ball, Jack", "Bring me the ball, Jack", "Come here, Jack", "Come here and sit down", "Jack, come, come here".) were recorded as incorrect. Instructions that were irrelevant to bringing the ball, sitting in the chair, or coming to the trainee (e.g., "Don't do that") were not recorded.

Reinforcement. Delivery of reinforcers was recorded whenever the trainee gave the child anything to eat. For *A* Children, the delivery of edibles was divided into three categories to provide an indication of whether or not trainees delivered them contingent upon the target response or successive approximations to it. Contingent reinforcement was: (a) edibles following (within 5 sec) the child's movement toward the ball, (b) edibles following (within 5 sec) movement toward the ball *and* grasping the ball, *and* carrying the ball back to the trainee. Noncontingent reinforcement was the delivery of edibles not preceded by the target response (within 5 sec) or any of the above approximations to it. Contingent reinforcements for *B* Children were recorded as the delivery of edibles within 5 sec of a correct response to a "Sit down" instruction or a "Come here" instruction. For *B* Children, all other deliveries of edibles were scored as noncontingent reinforcement.

Physical prompts. A physical prompt was recorded whenever the trainee physically assisted the child to perform or initiate the performance of a "Bring ball", "Sit down", or "Come here" response that the child had been instructed to make. Physical prompts included gently pushing a child in the direction of the ball or the chair, leading a child by the hand

out of the chair or in the direction of the trainee, placing a child's hands on the ball, turning a child around by rotating his shoulders, *etc.* No distinctions were made between "full" or "partial" prompts. If a trainee physically guided a child through the entire correct response, and that guidance was continuous or uninterrupted, only one prompt was recorded.

Ignoring. Ignoring (brief timeout) was recorded whenever the trainee turned his or her back to the child and remained about 6 ft (1.8 m) away for more than 10 sec.

Response Definitions: Child Behavior

Correct responses. A correct response for *A* Children was recorded whenever the child complied with an instruction to bring the ball; that is, whenever the child walked to the ball, picked it up, and carried it back to the trainee who was standing about 10 ft (3 m) away. Correct responses for *B* Children were recorded whenever the child complied with an instruction to sit down or to come to the trainee from a sitting position. For both *A* and *B* Children, correct responses that were physically prompted were distinguished from correct responses not prompted. For both children, a correct response had to be initiated within 5 sec of the most recent instruction. If a child initiated a correct response within 5 sec of an instruction, but did not complete it until 10 sec later, it was scored as correct.

Inappropriate and disruptive behavior. The duration of inappropriate or disruptive behavior was recorded whenever a child cried, screamed, wandered about the room, spat, bit, threw objects, pounded walls or doors, sat on the floor, *etc.*

Reliability

In all sessions, one observer recorded child behavior and one recorded trainee behavior using six pen-event recorders. The two observers periodically alternated to reduce the likelihood of observer bias for specific behaviors. Most of the sessions were videotaped and the tapes were later scored by a third observer to evaluate the reliability of recording. At least one tape from each experimental condition for each subject was scored by the third observer. (Usually, two tapes from each condition were scored by the third observer.)

For nonenduring behaviors (*e.g.*, prompts, reinforcements) an agreement was scored whenever observers recorded the same behavior within 5 sec. For enduring behaviors (*e.g.*, ignoring and inappropriate-disruptive behavior) the amount of time observers agreed on the occurrence or nonoccurrence of these behaviors was determined. The percentage of agreement between regular observers and the reliability observer was calculated by dividing the total number (or duration) of agreements by the total number (or duration) of disagreements

Table 1
Percentages of Agreement Obtained for All Trainee and Child Behaviors

<i>Behaviors</i>	<i>Total Number of Checks</i>	<i>Mean Percentage of Agreement</i>	<i>Modal Percentage of Agreement</i>	<i>Range of Percentages</i>
<i>Trainees</i>				
Prompts	30	86	100	50-100
Instructions	30	94	100	87-100
Reinforcements	29	99	100	89-100
Ignoring	29	98	100	70-100
<i>Children</i>				
Correct Response	26	98	100	92-100
Incorrect Response	27	92	100	86-100
Inappropriate Behavior	26	97	100	80-100

plus agreements and multiplying by 100. Table 1 presents the total number of reliability checks, the mean and modal percentages of agreement obtained, and the range of percentages obtained for all trainee and child behaviors. As Table 1 shows, agreement between observers was high for all response categories.

RESULTS

Trainee Behavior

Throughout the study, the trainees' contingent and noncontingent reinforcement, correct verbal instructions, physical prompts, and ignoring were recorded. Consistent and substantial changes occurred in only two behaviors, contingent reinforcement and verbal instructions.

Figure 1 presents the number of edible contingent reinforcers delivered by each trainee. During multiple baselines ranging from five to 10 sessions across trainees, all but two trainees (Trainees 3 and 4 in Figure 1) gave very little contingent reinforcement to either an *A* Child or a *B* Child. During the condition labelled Training *A* Child, after trainees viewed the videotape, rehearsed the procedures, and received corrective feedback and praise for their performance, the number of contingent reinforcements delivered by all trainees to *A* Children increased markedly over the baseline levels. During the baseline-2 sessions with *B* Children, similar increases are evident in the number of contingent reinforcements delivered by each trainee.

The frequency with which any trainee deliv-

ered edibles noncontingently was either zero or near zero during the initial baseline sessions with each child. No edibles were delivered noncontingently by any trainee during training sessions with an *A* Child or during baseline-2 sessions with a *B* Child.

The only other trainee behavior that showed consistent change was verbal instructions. Table 2 presents the mean number of instructions given by all trainees during sessions with *A* Children and *B* Children.

With only two exceptions (Trainees 6 and 7), all trainees gave fewer instructions to both *A* and *B* Children after exposure to the training procedures. In addition, all instructions given by trainees during training sessions with *A* Children and during baseline-2 sessions with *B* Children were of the correct form "(Name of child), Bring ball . . . Sit down . . . Come here". This form was modelled in the training tape but only with respect to the instruction "Bring ball". During the initial baseline sessions with both children, nearly every "Sit down", "Come here", and "Bring ball" instruction given by trainees was incorrect.

The frequency of trainees' use of physical prompts showed no consistent change as a consequence of exposure to training procedures in training sessions with the *A* Child. In general, trainees used as many physical prompts during baseline sessions with the *A* Child as they did during training sessions with that child. The number of physical prompts used by trainees with the *B* Child during initial baseline sessions was, on the average, slightly greater than during

Table 2

Mean number of instructions given per session by all trainees during all sessions with *A* children and *B* children.

	<i>Baseline</i>			<i>Training</i>	<i>Baseline-2</i>	
	<i>A Child</i>		<i>B Child</i>		<i>B Child</i>	
	"Bring ball"	"Sit"	"Come"	"Bring ball"	"Sit"	"Come"
Mean	114	63	65	36	24	23
Range	29-222	22-141	35-88	26-50	21-31	19-31

Fig. 1. The number of contingent reinforcements delivered by trainees during baseline sessions with both A Child and B Child (far left), during training sessions with A Child (middle), and during baseline-2 sessions with B Child (far right). Contingent reinforcements for A Child are indicated by the solid line and contingent reinforcements for B Child are indicated by the dashed line.

baseline-2 sessions with that child. All trainees faded or, in some way, eliminated the physical prompts they used to teach *B* Children during baseline-2 sessions, so that those children correctly followed both instructions without assistance. Four *A* Children and five *B* Children displayed some form of inappropriate behavior during initial baseline sessions; usually wandering about the room, crying, or sitting on the floor. None of the trainees assigned to these children ignored any of that behavior (by turning around and waiting for the child to be quiet) during the initial baseline sessions. During training sessions, only two of the *A* Children displayed inappropriate behavior and both trainees responded appropriately on nearly every occasion by turning their backs and waiting until the child was quiet.

During baseline-2 sessions, only two *B* Children (those assigned to Trainees 5 and 6) displayed inappropriate behavior. Trainee 6 never ignored the inappropriate behavior displayed by her *B* Child during those sessions, whereas Trainee 5 did.

During training sessions with *A* Children, the trainees received corrective feedback on their performance in the following categories of behavior: giving reinforcements, giving instructions, using and fading physical prompts, ignoring inappropriate behavior, and reinforcing successive approximations to the target response.

Trainees 1 and 2 received approximately nine corrective feedback statements each during their brief training periods with *A* Children. On the average, the other five trainees each received 32 corrective feedback statements during their training. The majority of those statements fell in the category of using and fading physical prompts. On the one occasion where an independent observer recorded corrective feedback statements, the percentage of agreement between the observer and the experimenter on an item-by-item basis was 100%.

Changes in Child Behavior

Figure 2 presents the percentage of instruc-

tions followed (unassisted) by the children. During the initial baseline sessions, none of the *A* Children learned to follow the instruction "Bring ball" to the 80% criterion. The percentage of either "Sit down" or "Come here" instructions followed by *B* Children during baseline ranged from a low of zero to a high of 22%. No trends in the instruction-following behavior of either *A* Children or *B* Children are evident during multiple baselines ranging from five to 10 sessions.

After baseline sessions, each trainee viewed the videotape and rehearsed the procedures that were modelled. They then conducted training sessions with an *A* Child only, during which they received corrective feedback and praise for specific aspects of their performance. Figure 2 (middle) shows that under these conditions Trainees 1, 2, 6, and 7 increased the percentage of "Bring ball" instructions followed by their *A* Children to 80% or better in 3, 4, 10, and 11 training sessions respectively. Three of the *A* Children, those assigned to Trainees 3, 4, and 5, did not learn to bring the ball as instructed during training sessions.

When training sessions with *A* Children ended, the trainees resumed sessions with *B* Children under the same conditions as in initial baseline. The far right-hand section of Figure 2 shows that the percentage of both "Sit down" and "Come here" instructions followed by six of the *B* Children increased to 80% or more in these sessions. Trainee 2 suddenly withdrew from the study after his second baseline-2 session. Though he increased the percentage of "Come here" instructions followed by his *B* Child from 11% to 100%, he was able to increase the percentage of "Sit down" instructions followed from 4% to only 29% before he withdrew.

DISCUSSION

The present study demonstrated that training consisting of a video training tape, rehearsal of techniques modelled and described in the tape, and corrective feedback and praise during training sessions was effective for (1) teaching four

Fig. 2. The percentage of instructions followed by A Children and B Children during baseline sessions (far left), by A Children during training sessions (middle), and by B Children during baseline-2 sessions (far right).

of the seven trainees to teach a retarded child (the *A* Child) to follow an instruction and (2) for establishing a repertoire of behavioral techniques sufficiently general to allow the trainees to teach a different retarded child (the *B* Child) to follow different instructions without further training. In addition, the results for Trainees 3, 4, and 5 indicate that the degree of generalization they demonstrated during baseline-2 sessions with *B* Children was not dependent upon their success in applying training techniques during sessions with the *A* Child. Despite the fact that three *A* Children did not learn to bring the ball as instructed, changes in the behavior of Trainees 3, 4, and 5 who worked with them were comparable to changes in behavior of the other four trainees who were successful with their *A* Children (see Figure 2).

The reasons why three of the *A* Children (those assigned to Trainees 3, 4, and 5) did not learn to bring the ball as instructed during training are not unclear. The *A* Child assigned to Trainee 4 was discovered, after 10 training sessions, to have a partial hearing deficit, whereupon his training was terminated. The extent to which his hearing deficit may have contributed to his failure to learn the instruction "Bring ball" was not evaluated. *A* Children assigned to Trainees 3 and 5 had no known physical or physiological deficiencies that would prevent them from learning the instruction. It is possible, however, that poor control over the eating habits of these children on their wards, where they were often given candy and snacks between meals, reduced the effectiveness of edibles as reinforcers. It is also possible that given more training are unclear. The *A* Child assigned could have learned to follow the instruction.

A major problem that Trainees 3, 4, and 5 experienced with their *A* Children was difficulty using fading and physical prompts. All three children resisted physical prompting or assistance (*e.g.*, taking hold of their hands). When prompts could be introduced, they proved difficult to eliminate; the children did not respond correctly unless physically guided or "put

through" the desired responses. The initial screening procedures for selecting the children possibly were not sensitive enough to detect behavioral characteristics such as resistance to prompting, handling, or physical contact. Nor was thorough screening for food preference done to identify the most powerful reinforcers.

The present experimental design did not evaluate *how* general were the repertoires of behavioral techniques that the trainees developed. It simply evaluated whether their repertoires were general with respect to teaching a *B* Child. Optimum evaluation of the effectiveness of the training procedures presented here would require baseline and posttraining measures of trainee performance on a variety of different tasks with different children, and in different situations or settings. Practically stated, the question that needs to be answered is: how many different tasks could trainees teach to different (or the same) children as a consequence of exposure to specific training procedures and limited experience in training one child? Given this sort of information, behavior modifiers could refine training procedures to maximize generalization in subsequent trainee performance. Clearly, this is a question of some importance not only for those interested in training hospital staff, teachers, or parents to use behavioral techniques, but for the broader field of education as well. All educational programs are based on the premise that as a result of being "educated" or trained, a person will generalize what he has learned to other situations.

The present experimental design also did not permit an analysis of the relative effectiveness of the individual components of the training package: the videotape, rehearsal, and corrective feedback and praise. In the interest of developing a more economical training program, it would be important to know whether changes in trainee behavior comparable to, or greater than those produced by the present set of training procedures could be produced by any of its components singly; for example, by the training tape alone. A training tape that effective could

make the delivery of behavior-modification technology more economic and efficient.

Perhaps the most expensive of the present training procedures, in terms of professional time required, was the corrective feedback. Whenever feedback is a part of training it usually means that a psychologist or someone with specialized training is continuously present, as was the case in the present study and in others (e.g., Bricker *et al.*, 1972; Brown *et al.*, 1969; Cooper *et al.*, 1970; Gelfand *et al.*, *in press*; Panyan *et al.*, 1970). The development of more economical feedback procedures that do not require a professional person's presence needs more attention. An example of the kind of attention needed is a study by Thomas (*unpublished*). He demonstrated that when teachers recorded their own praise, token deliveries, and instructional probes from videotapes of their classroom activity, the frequency of those behaviors increased in subsequent class sessions. The experimenter (Thomas) had no direct contact with the teachers. Such a self-monitoring feedback procedure, combined with an effective training tape could be a powerful, economical, and portable training package.

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Received 15 March 1974.

(Final acceptance 31 December 1974.)