

*TEACHING THE HANDICAPPED TO EAT IN PUBLIC  
PLACES: ACQUISITION, GENERALIZATION AND  
MAINTENANCE OF RESTAURANT SKILLS*

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This study examined classroom-based instruction in restauranting skills for handicapped persons. Three male students were taught each of four skill components in sequential order: locating, ordering, paying, and eating and exiting. Training was implemented in a multiple baseline design across subjects and consisted of modeling and role playing in conjunction with photo slide sequences and a simulated ordering counter. The use of a menu containing general item classes and a finger matching procedure for identifying errors in the delivery of change greatly reduced the reading and math skills necessary to enter and complete the program. Periodic probes were conducted in a McDonald's restaurant prior to, during, and up to one-year following the termination of training. In addition, two probes (overt and covert observation) were conducted in a Burger King restaurant to assess further generalization to a location different from the one depicted throughout training. Results showed that students' performance on restaurant probes improved as a result of training, generalized to novel settings, maintained over an extended period of time, and was comparable to that of a normative sample of nonretarded persons.

**DESCRIPTORS:** Community survival skills, generalization, mealtime behavior, restaurant skills, retardation, simulator training, task analysis

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A number of recent studies have focused on the preparation of handicapped persons for community placement by improving their ability to handle the requirements of daily living. Programs have been developed for teaching basic "community survival skills" such as cooking (Bellamy & Clark, 1977), money handling (Cuvo, Veitch, Trace, & Konke, 1978; Lowe & Cuvo, 1976), telephone usage (Leff, 1975), community mobility (Neef, Iwata, & Page,

1978; Page, Iwata, & Neef, 1976), time management (Sowers, Rusch, Connis, & Cummings, 1980); and normative clothing selection (Nutter & Reid, 1978). In addition, procedures have been designed to maintain previously learned skills such as housekeeping and leisure time activities outside of the institution (Bauman & Iwata, 1977; Johnson & Bailey, 1977).

These efforts represent important steps toward promoting independence for the handicapped; however, additional research is needed that emphasizes the teaching of functional units of behavior. For example, although monetary change computation and telephone dialing can readily be taught, it is not clear that clients will continue to engage in behaviors that serve no naturally reinforcing function. Thus, following

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We thank Gerald Shook and Margaret Dorsey for their support and assistance, and the management and staff of McDonald's restaurant for their patient and friendly interactions with all students and staff participants. Reprints may be obtained from Brian A. Iwata, Division of Behavioral Psychology, The John F. Kennedy Institute, 707 North Broadway, Baltimore, Maryland 21205.

the acquisition of basic skills, it would seem important to develop more complex repertoires which are likely to be maintained in the community.

The present study evaluated a program to teach restaurant skills. Such skills include independent eating, social etiquette, verbal interaction while placing orders and conducting monetary transactions, travel skills, and at least some basic academic knowledge (e.g., reading and/or math). Marholin, O'Toole, Touchette, Berger, and Doyle (1979) reported positive results with a program designed to teach travel, shopping and restaurant skills to retarded adults, and the present study attempted to extend that research in several respects. First, instead of conducting training sessions in the natural environment (e.g., in the restaurant), the present study used classroom-based instruction similar to that of Neef et al. (1978) and Page et al. (1976), whose data suggested that classroom training might be as effective as in vivo training, yet more economical. Second, in the present study, training contingencies were not in effect during generalization testing, and the resulting generalization and follow-up data were more extensive than those of Marholin et al. Third, several features of the present program potentially reduced the academic skill requirements necessary for successful completion. Finally, students' posttraining performance was compared to that of a normative sample under naturalistic conditions.

## METHOD

### *Subjects*

Three male students enrolled in an educational program for the multiply handicapped participated in this program as one component of a community survival skills curriculum. Students' ages ranged from 17-22 years and their handicaps included mental retardation and at least one of the following: emotional impairment, epilepsy, and deafness. Most recent IQ scores ranged from 46-75, and their grade level performances in math and reading, respectively,

were: Student 1—K.8, 2.0; Student 2—1.9, 1.8; Student 3—2.6, 2.6. Students were selected on the basis of their willingness to participate after parental permission had been obtained. Students had previously been trained in pedestrian skills and public transportation usage (Neef et al., 1978; Page et al., 1976). All had previously eaten in restaurants in the presence of others, but none could successfully order or pay for a meal without assistance.

### *Setting and Apparatus*

*Classroom.* Training and review sessions were conducted in a classroom setting. Three plastic signs approximately  $.5 \times .5$  m depicting various McDonald's sandwiches and their names were posted on the classroom wall, and a table served as a "counter" for role-playing purposes. Photographic slides used in training were selected on a per session basis from a pool of 60 slides to present both instances and non-instances of discriminative stimuli and correct responses for a particular skill being taught.

*Restaurant.* Generalization probes were conducted before, during, and after training at a McDonald's restaurant. Additional posttraining probe data were collected at a Burger King restaurant. Students traveled to both locations either on foot or by bus, in order to practice previously trained skills. Occasionally they were transported by car.

*Prosthetic ordering form.* A  $21.5 \times 28.0$  cm plastic laminated sheet of cardboard with pre-printed questions, generic item names (e.g., large hamburger) and spaces for written cashier responses was used during training and probes by Student 3 who was deaf. Questions (e.g., "How much is . . . ?") or desired items could be indicated by a check mark made with a wax pencil, and then wiped clean with a napkin. Inquiries into change accuracy and "Thank You" were also performed in this manner.

### *Training Sequence and Response Definitions*

A component analysis of restaurant skills was performed after experimenters ate at various

Table 1  
Appropriate and Inappropriate Response Definitions Used During Restaurant Probes

<i>Skill</i>	<i>Appropriate Response</i>	<i>Inappropriate Response</i>
1.1	Does not initiate social interaction. Does not self-stimulate.	Talks/makes manual sign to customer or trainer. Engages in motor/vocal self-stimulation so that customers differentially attend to him.
1.2	Enters double door within 2 min of start.	Uses wrong door. Does not enter within 2 min.
1.3	Goes directly to counter. Does not leave line except to get into shorter line.	Not in line or at counter within 30 sec. Gets out of line.
2.1	Makes ordering response within 10 sec of cue. If written, finishes within 2 min.	Does not respond within 10 sec. Responds before cue. Makes inappropriate (i.e., nonordering-related) verbalization. Not finished writing within 2 min.
2.2	Says "How much for . . . ?" when giving order.	Does not inquire "How much for . . . ?"
2.3	Orders food that he can afford, appropriate item combination (i.e., minimum order—sandwich & drink; maximum—sandwich, drink, side order, & any other item).	Orders more food than he can pay for. Uses inappropriate item combination.
2.4	Says "Eat here" when asked.	Does not say order is to dine in. Says "To go."
3.1	Begins to get money within 10 sec of cue. Does not let go of money on counter before cashier cue.	Does not get money within 10 sec. Releases money before cue.
3.2	Hands cashier appropriate combination of bills.	Does not give enough money. Gives too much money so that same bill is returned by cashier.
3.3	Displays fingers on at least one hand.	Does not display fingers.
3.4	Inquires "Mistake?" If short billed.	Does not inquire if short billed. Inquires "Mistake?" when change is accurate.
3.5	Puts money in pocket.	Does not take change. Puts money on tray instead of pocket.
3.6	Requests salt, pepper, or catsup.	Does not request any condiments.
3.7	Takes a napkin from dispenser.	Does not take napkin from dispenser.
3.8	Says "Thank you."	Does not say "Thank you."
4.1	Sits at unoccupied, trashfree table within 1 min of availability.	Sits with other customer. Sits at a table with trash present. Does not sit down within 1 min.
4.2	Eats food placed only on paper.	Eats food off tray, table, etc.
4.3	Puts napkin in lap <i>and</i> wipes mouth or hands.	Does not put napkin in lap. Does not wipe hands or mouth on it.
4.4	Does not spill food or drink.	Drops food off tray or spills drink.
4.5	If spills occur, picks up every one, does not eat any spilled item.	Does not pick up or blot. Eats spilled food.
4.6	Puts trash in container, tray on top, within 2 min of finishing eating.	Does not put trash in container within 2 min. Uses inappropriate container. Throws tray in container.
4.7	Exits within 1 min of trash or 3 min of finishing eating.	Does not exit within time limits.

quick food restaurants, self-recorded their activities, and generated skill lists. Four major components were identified: Locating, Ordering, Paying and Eating and Exiting. Several procedures were developed to facilitate the acquisition of more complex responses. For example, in Locating, students were taught to identify appropriate doors and waiting lines used by other customers, to delete unavailable or unaffordable items, and inquire about substitute items. In

Paying, students were taught to round up meal costs to the nearest dollar, to display this number using the fingers of one hand, and to match fingers on the "cost hand" with fingers displayed on the "amount paid" hand (the number of unmatched fingers equaled the balance of dollars due back). In Eating and Exiting, students were taught to lay food only on their own paper, and not on a bare table or tray (this rule eliminated the necessity of teaching the potentially subtle

discrimination between "sanitary" and "dirty"). Table 1 provides operational definitions for appropriate and inappropriate responses.

*General training procedure.* Training consisted of teaching each of the four components in sequential order. Simulation training was accomplished by having the student respond to a question about a specific slide that was projected onto the wall, by role playing a particular restaurant interaction with the trainer serving as a "cashier," or by a combination of these techniques.

Correct responses were followed by social reinforcement in the form of descriptive praise (e.g., "Good job! You remembered to ask for your change"). Incorrect responses were followed by feedback describing the inappropriate nature of the response, and a remedial trial. An incorrect response on a remedial trial resulted in the trainer modeling the appropriate behavior, followed by the presentation of a second remedial trial. Subsequent incorrect responses resulted in further trainer modeling and remedial trials. This sequence was continued until a correct response occurred. Correct responses on remedial trials were reinforced and the next training trial was begun.

Table 2 describes the training procedures used for each response within a given component. During training on the slide stimuli, the student and trainer were seated at a table so that each could see the projected image. A trial was initiated when the trainer asked the student a question about the appropriateness of a model's behavior as depicted in the slide or about the presence or absence of certain discriminative stimuli. For example, for a given slide drawn from the pool, the student might be asked to state whether a building was a McDonald's restaurant, or whether or not a customer was attempting to enter through an inappropriate (e.g., exit) door. In order for a response to be scored correct, the student had to label the stimulus as either correct or incorrect, and identify the features that determined correctness.

During role playing the trainer simulated the behavior of a cashier while the student stood on the opposite side of the table and engaged in the customer behavior that was being trained. A trial was initiated when the trainer emitted the cashier response that would serve as a cue for a particular customer response. In order for a response to be scored correct, the student had to engage in the target behavior, as well as all other behaviors previously trained within that component. For example, students learning to count their returned bills could only be scored correct if they first gave the trainer the appropriate number of bills when paying for their "meal."

Each training session consisted of 10 trials, not counting remedial trials. Only one component skill was taught during any given session. Criterion for mastery of a skill was 100% correct responses across two consecutive training sessions. When a student reached criterion on a particular skill, training of the next skill was begun on the following session. When the student reached criterion on the final skill of a component, one review session and one restaurant probe were conducted.

*Review sessions.* Review sessions consisted of 10 trials that provided practice over all previously trained skills. Conditions in effect during review sessions were identical to those for training sessions including stimuli, feedback, and remedial procedures. The only difference between training and review sessions was the practice of previously learned skills during the latter.

*Restaurant probes.* Students' behaviors were observed in a local McDonald's restaurant before, during, and after training. Performance was assessed using the response definitions listed in Table 1. A probe consisted of giving the student a randomly determined number of bills equaling two to five dollars, and instructing him to go eat lunch. Probes were initiated between 50 and 275 m from the restaurant. Except for initial instructions, no trainer-student interaction occurred until the student exited the

Table 2  
Description of Procedures Used in Training Each Skill

<i>Skill</i>	<i>Procedure</i>	<i>Description of Student Behavior</i>
1.1	Combination (slides & role play)	Identifies appropriateness of slide model's behavior; emits appropriate social behavior for setting depicted in slide.
1.2	Slides	Identifies appropriate entry door, and model's use of doors.
1.3	Slides	Identifies appropriate place to order, where to stand in line, and appropriateness of model's behavior.
2.1	Role play	Places order within 10 sec of "cashier" cue.
2.2	Role play	Asks "How much?" for items.
2.3	Combination	Identifies food items by generic name. Identifies appropriate item combinations. Deletes items that were "not available today." Asks about other available items.
2.4	Role play	Compares cashier report of total cost with number of dollars in possession. Deletes items if unaffordable. Says "Eat here" if sufficient funds.
3.1	Role play	Pays with an appropriate combination of bills.
3.3	Role play	Displays number of fingers on left hand that equals the total rounded up to the nearest dollar. Displays fingers on right hand that equals amount paid. Puts hands together and identifies number of dollars "left over" that he should receive in change.
3.4	Role play	Inquires if number of bills returned are inaccurate.
3.5	Role play	Puts money away before sitting at table.
3.6	Role play	Requests salt, pepper, or catsup.
3.7	Combination	Identifies napkin dispenser in slide. Takes napkin from training dispenser.
3.8	Role play	Says "Thank you."
4.1	Slides	Identifies unoccupied seats. Describes procedure for removing trash from table.
4.2	Slides	Identifies appropriate place to put food down. Identifies that off-paper food cannot be eaten and must be thrown away.
4.3	Combination	Identifies and demonstrates appropriate napkin usage.
4.4	Slides	Identifies spills and specifies that they should be avoided.
4.5	Slides	Describes clean-up procedure to be used in case of a spill.
4.6	Slides	Identifies appropriate trash containers. Identifies place to put trays.
4.7	Slides	Identifies appropriate exit doors.

building, or the time limit for exiting (one-half hour) had expired. Persons serving as observers were prepared to intervene during unforeseen emergencies, but such action was never required. Feedback was not provided to students regarding their performance either during or following probes. If a student's performance did not show generalization of the most recently trained component, additional training and probes were conducted prior to beginning training on the next component.

Upon completion of training on the final component and the restaurant probe for that component, a series of follow-up probes were conducted. These were intended to assess maintenance of learned skills as well as further generalization to a novel restaurant. The initial follow-up probe for Student 3 was identical to probes conducted before and during training.

Two novel probes were then conducted for each student in a Burger King restaurant, also using the response definitions listed in Table 1. The first novel probe was conducted in the usual manner, whereas the second involved observation of students' performance under covert conditions. Prior to the second probe, students were informed that a trainer would not accompany them to the restaurant. A trained observer (the wife of a graduate student) unknown to the students was already situated inside the restaurant when a student arrived. A final covert probe was conducted in still a different McDonald's restaurant one year following the termination of training to assess long-term maintenance.

#### *Reliability*

Independent observations were made during training sessions and restaurant probe sessions

by one of the experimenter/trainers or a graduate student naive to the experimental conditions in effect. Observers' records were compared on a per response basis, and interobserver reliability scores were computed by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100. This formula was used to compute agreement percentages for occurrences of correct responses, nonoccurrences of correct responses, and occurrences plus nonoccurrences. Reliability checks on 53.6% of all restaurant probes yielded mean scores of 92.9%, 91.5%, and 93.3% for occurrences, nonoccurrences, and occurrences plus nonoccurrences, respectively. Checks made on 52.0% of all training sessions yielded means of 96.4%, 92.5%, and 97.0%.

### Experimental Design

This study used a multiple baseline design across both subjects and skill components (Baer, Wolf, & Risley, 1968). Baseline data consisted of a minimum of three restaurant probes. Training was begun with the first student on Locating, continuing sequentially through the remaining components. Baseline probes continued for the students not yet receiving training. After Student 1 reached criterion on the first component, the second student began receiving training on that component, and so on. Thus, all students progressed at their own rate once training had been initiated.

### Normative Sample

One observation was conducted for each of 10 randomly selected individuals who ordered and ate a meal at McDonald's restaurant. Selection of these individuals was based on two criteria: (a) that the person entered the restaurant alone and completed the ordering/eating process independently, and (b) that the observer maintained close enough proximity to be able to record responses. Customer behaviors were scored using the definitions listed in Table 1. The purpose of gathering these data was to provide a rough "community standard" to which

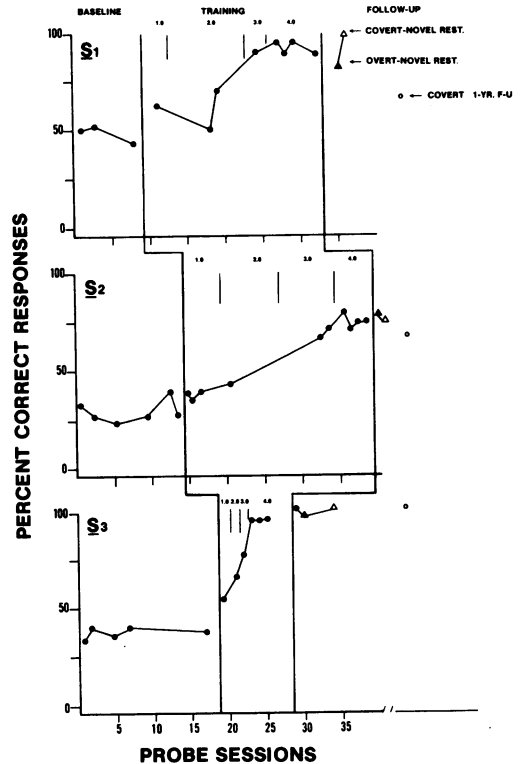


Fig. 1. Percent correct responses during restaurant probes for Students 1, 2, and 3 across experimental conditions. During follow-up, closed triangles represent probes conducted at a Burger King restaurant using typical observation procedures, open triangles represent Burger King probes during which students did not know that their performance was being observed, and open circles represent covert probes conducted in a different McDonald's one year following the termination of training.

students' pre- and postraining performance could be compared (Kazdin, 1977; Wolf, 1978).

## RESULTS

Figure 1 shows the performance of each student in McDonald's (circles) and Burger King (triangles) restaurants. Because the total number of possible responses varied from 20 to 22 depending on cashier and student behaviors during probes, the ordinate values in Figure 1 denote the percentage of correct responses.

Mean performance during baseline for Students 1, 2, and 3 was 48%, 30%, and 39%,

respectively. As students were sequentially exposed to training, their probe performance improved. Their scores on the final training probe were 86%, 80%, and 95%. Follow-up data collected in Burger King indicated that skills the students learned to exhibit in McDonald's were generalizable to similar quick food restaurants. Students' performance was similar under overt and covert observation, and the average scores during the two probes were 90%, 78%, and 98% for Students 1, 2, and 3, respectively. Results of the one-year follow-up probe show that restaurant skills maintained at posttreatment levels for Student 3 (95%), but decreased somewhat for Students 1 (70%) and 2 (65%).

In spite of the lower performances observed for Students 1 and 2 one year following the termination of training, results for all three subjects compared favorably with scores obtained by the 10 normative individuals. Performance by the nonretarded individuals ranged

from 62% to 80% correct responses (mean = 70%), indicating that not all of the components taught to the retarded students were exhibited by persons in the normative sample. Table 3 provides an analysis of mean performances in each response category. In addition to comparing students' performance on a given component during baseline, posttraining, and follow-up, the data show that students' performance at follow-up equaled or exceeded that of the normative sample in all but four categories (1.3, 3.6, 3.7, 4.2).

Training sessions ranged in duration from 5 to 10 min. The mean number of training and review sessions per student was 77, bringing the mean total training time to approximately 9.6 hours. At an actual rate of \$3.50 per hour, mean trainer salary was estimated at \$33.60. Other costs incurred during training included film processing (\$16.00, or \$5.34 per student), meals consumed during probes ranging from

Table 3

Mean percent correct responses by category for experimental subjects (baseline, post-training, follow-up) and normative sample.

Category	Experimental Subjects			Normative Sample
	Baseline	Posttraining	Follow-up	
1.1 Social Behavior	7	100	100	80
1.2 Entry	100	100	100	100
1.3 Counter/Line	57	100	67	100
2.1 Ordering	86	100	100	100
2.2 Price Inquiry	0	86	67	0
2.3 Item Selection	86	100	100	90
2.4 "Eat Here"	57	100	100	90
3.1 Money Exchange	57	100	100	100
3.2 Bill Combination	29	100	100	100
3.3 Change Estimation	0	43	0	0
3.4 Error Inquiry	NR*	50	NR	NR
3.5 Money Put Away	50	100	100	100
3.6 Condiments	0	100	33	50
3.7 Napkin	0	86	33	50
3.8 "Thank you"	0	86	67	20
4.1 Seating	86	100	100	80
4.2 Food Placement	43	71	67	100
4.3 Napkin Use	0	57	33	0
4.4 Spillage	21	86	100	70
4.5 Spill Removal	18	100	NR	33
4.6 Trash Deposit	43	71	100	80
4.7 Exit	14	71	100	100

\*No opportunity to respond.

\$0.77 to \$2.00 (mean = \$18.75 per student across the entire study), and transportation to and from probe sites (mean = \$3.34 per student). Thus, the average program cost per student was approximately \$59.00.

## DISCUSSION

Results indicate that following approximately 10 hours of classroom instruction, students' restaurant skills generalized to several different natural environment settings, and that their posttraining performance was not dependent upon either the assistance or even the presence of known trainers/observers in the restaurant. Additional probe data collected one year following the termination of training suggested that restaurant skills maintained at high levels or were at least comparable to those exhibited by a nonretarded sample of persons.

Baseline performance reflected various skill deficits that precluded students' appropriate restaurant usage. Typically, students were able to obtain food during baseline probes; however, in every case almost total cashier assistance was required during ordering and paying. Unorthodox eating and social behaviors were also sufficiently obtrusive to attract customer attention and in some cases offers of assistance. For example, during a baseline probe one student purchased four orders of french fries only and then distributed them to other customers in the dining area.

Students' probe performances improved noticeably as a result of training; however, they continued to make some errors during follow-up. An examination of specific responses (see Table 3) indicated that the types of errors had changed between baseline and follow-up. Whereas before training students made critical mistakes in ordering and paying, their posttraining errors were very similar to those made by the normative group: neglecting to preface the order by asking "How much for . . . ?", to use the finger matching procedure, to say "Thank you," to ask for condiments, and to either take or use a

napkin. Several of these errors indicate that students no longer relied on the use of responses designed to simplify the restaurant process (e.g., finger matching), while others suggest that students began responding to individual tastes or behavior modeled by others in the restaurant, as opposed to a strict set of training responses (e.g., not asking for catsup, salt, or pepper). Thus, students would not be expected to perform at or even close to perfection once training had terminated.

In addition to the advantages realized through the use of classroom simulated training (see Neef et al. 1978; Page et al. 1976), the present program reduced the complexity of a number of "higher order" skills usually associated with restaurant skills. Students were taught general classes of food items (e.g., "large hamburger," as opposed to either "Big Mac" or "Whopper"), in order to minimize reading requirements and to facilitate generalization across food chains (cf. Stokes & Baer, 1977). When ordering a "large hamburger" in McDonald's, students typically were told that they wanted a "Big Mac," and their ordering behavior apparently came under the stimulus control of that restaurant until they received new instructions in a different restaurant. Students were also taught to inquire the total price of a combination of items before ordering to compensate for their inability to personally calculate the sum. Finally, the unobtrusive finger matching method of subtraction allowed students to detect gross errors in returned change (this response was tested during probes by instructing a cashier ahead of time to deliberately "short change" a student).

Although present results suggest that complex skills can be simplified and taught in simulated environments, the success of the program is most likely due, in part, to some historical variables. All students in this study had prior experience eating in public before training; this is reflected in their ability to perform some target behaviors correctly during baseline. Thus, simulator training alone may not be sufficient to produce generalized performance in clients with



no prior experience, and research on teaching community skills to the handicapped should make careful note of specific client strengths and deficits prior to program design. Modeling, prompting, and reinforcement in the natural environment, combined with in-class training, may be more powerful, although time-consuming, ways to teach restaurant skills, beginning with the most basic components. Finally, it must be noted that the procedures described here were evaluated with respect to a limited range of restaurants. No attempt was made either to teach or to assess performance in more formalized environments due to their general dissimilarity. We also felt that eating in family-type restaurants required excessive behavioral skills (e.g., complicated seating, large menus with widely varying prices, tipping), whose acquisition would involve extensive training and the prior strengthening of several academic skills. However, restaurant usage in general may be conceptualized as a naturally reinforced response. Thus, students' ability to meet with early successes in fast-food restaurants might increase the likelihood that they will seek further training or gradually acquire additional skills in more demanding situations.

#### REFERENCES

- Baer, D. M., Wolf, M. M., & Risley, T. R. Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis*, 1968, 1, 91-97.
- Bauman, K. E., & Iwata, B. A. Maintenance of independent housekeeping skills using scheduling plus self-recording procedures. *Behavior Therapy*, 1977, 8, 554-560.
- Bellamy, G. T., & Clark, G. Picture recipe cards as an approach to teaching severely and profoundly retarded adults to cook. *Education and Training of the Mentally Retarded*, 1977, 12, 69-73.
- Cuvo, A. J., Veitch, V. D., Trace, M. W., & Konke, J. L. Teaching change computation to the mentally retarded. *Behavior Modification*, 1978, 2, 531-548.
- Johnson, M. S., & Bailey, J. S. The modification of leisure behavior in a half-way house for retarded women. *Journal of Applied Behavior Analysis*, 1977, 10, 273-282.
- Kazdin, A. E. Assessing the clinical or applied importance of behavior change through social validation. *Behavior Modification*, 1977, 1, 427-452.
- Leff, R. B. *How to use the telephone*. Paoli, Pa.: The Instructo Corporation, 1975.
- Lowe, M. L., & Cuvo, A. J. Teaching coin summation to the mentally retarded. *Journal of Applied Behavior Analysis*, 1976, 9, 483-489.
- Marholin, II, D., O'Toole, K. M., Touchette, P. E., Berger, P. L., & Doyle, D. A. "I'll have a Big Mac, large fries, large Coke, and apple pie." . . . or teaching adaptive community skills. *Behavior Therapy*, 1979, 10, 236-248.
- Neef, N. A., Iwata, B. A., & Page, T. J. Public transportation training: In vivo versus classroom instruction. *Journal of Applied Behavior Analysis*, 1978, 11, 331-344.
- Nutter, D., & Reid, D. H. Teaching retarded women a clothing selection skill using community norms. *Journal of Applied Behavior Analysis*, 1978, 11, 475-487.
- Page, T. J., Iwata, B. A., & Neef, N. A. Teaching pedestrian skills to retarded persons: Generalization from the classroom to the natural environment. *Journal of Applied Behavior Analysis*, 1976, 9, 433-444.
- Sowers, J., Rusch, F. R., Connis, R. T., & Cummings, L. E. Teaching mentally retarded adults to time-manage in a vocational setting. *Journal of Applied Behavior Analysis*, 1980, 13, 119-128.
- Stokes, T. F., & Baer, D. M. An implicit technology of generalization. *Journal of Applied Behavior Analysis*, 1977, 10, 349-367.
- Wolf, M. M. Social validity: The case for subjective measurement or how applied behavior analysis is finding its heart. *Journal of Applied Behavior Analysis*, 1978, 11, 203-214.

Received June 12, 1979

Final acceptance September 16, 1980