INSTITUTE FOR RESEARCH IN LEARNING DISABILITIES

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Emphasis on Adolescents and Young Adults

TEACHING JOB-RELATED SOCIAL SKILLS TO
LEARNING DISABLED ADOLESCENTS

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COOPERATING AGENCIES

Were it not for the cooperation of many agencies in the public and private sector, the research efforts of The University of Kansas Institute for Research in Learning Disabilities could not be conducted. The Institute has maintained an on-going dialogue with participating school districts and agencies to give focus to the research questions and issues that we address as an Institute. We see this dialogue as a means of reducing the gap between research and practice. This communication also allows us to design procedures that: (a) protect the LD adolescent or young adult, (b) disrupt the on-going program as little as possible, and (c) provide appropriate research data.

The majority of our research to this time has been conducted in public school settings in both Kansas and Missouri. School districts in Kansas which have or currently are participating in various studies include: Unified School District USD 384, Blue Valley; USD 500, Kansas City, Kansas; USD 469, Lansing; USD 497, Lawrence; USD 453, Leavenworth; USD 233, Olathe; USD 305, Salina; USD 450, Shawnee Heights; USD 512, Shawnee Mission; USD 464, Tonganoxie; USD 202, Turner; and USD 501, Topeka. Studies are also being conducted in several school districts in Missouri, including Center School District, Kansas City, Missouri; the New School for Human Education, Kansas City, Missouri; the Kansas City, Missouri School District; the Raytown, Missouri School District; and the School District of St. Joseph, St. Joseph, Missouri. Other participating districts include: Delta County, Colorado School District; Montrose County, Colorado School District; Elkhart Community Schools, Elkhart, Indiana; and Beaverton School District, Beaverton, Oregon. Many Child Service Demonstration Centers throughout the country have also contributed to our efforts.

Agencies currently participating in research in the juvenile justice system are the Overland Park, Kansas Youth Diversion Project, and the Douglas, Johnson, Leavenworth, and Sedgwick County, Kansas Juvenile Courts. Other agencies which have participated in out-of-school studies are: Penn House and Achievement Place of Lawrence, Kansas; Kansas State Industrial Reformatory, Hutchinson, Kansas; the U. S. Military; and Job Corps. Numerous employers in the public and private sector have also aided us with studies in employment.

While the agencies mentioned above allowed us to contact individuals and support our efforts, the cooperation of those individuals--LD adolescents and young adults; parents; professionals in education, the criminal justice system, the business community, and the military--have provided the valuable data for our research. This information will assist us in our research endeavors that have the potential of yielding greatest payoff for interventions with the LD adolescent and young adult.

Abstract

Previous research has indicated that LD adolescents perform poorly on a test of employment-related social skills (Mathews, Whang, & Fawcett, in press). The purpose of this study was to evaluate the effects of training procedures designed to teach various job-related social skills to learning disabled adolescents. Six job-related social skills were trained using written instructional materials and role-playing practice to criterion. The results showed that the learning disabled adolescents performed the skills in role-playing situations better after training than before training. Generalization measures taken at the adolescents' place of employment also suggest the generality of the training effects to actual work environments.

TEACHING JOB-RELATED SOCIAL SKILLS TO LEARNING

DISABLED ADOLESCENTS

Previous research conducted through the University of Kansas Institute for
Research in Learning Disabilities (IRLD) has indicated that the learning of
employment-related social skills has a special significance for learning disabled
(LD) adolescents. In a study comparing employment-related social skills of
learning disabled high school students to those of their peers, Mathews, Whang
and Fawcett (in press) found that all of the students performed poorly (on the
average they performed less than 35% of the social skills) on a validated occupa-
tional skills assessment instrument (Mathews, Whang, & Fawcett, 1980). In addition,
the learning disabled students performed significantly poorer than the other
students on four of the ten social skills: accepting criticism from an employer,
providing constructive criticism to a co-worker, explaining a problem to a
supervisor, and participating in a job interview. Other research through the
IRLD (White, Schumaker, Warner, Alley, & Deshler, 1980) has indicated that LD
young adults are employed in jobs having significantly lower status than their
non-LD peers. Further, the LD young adults reported that they were significantly
less satisfied with their employment situations than their peers.

These findings yield important implications for educators of LD adolescents
and young adults. These individuals not only have handicaps in the academic
realm but their handicaps extend into the realm of obtaining jobs and maintaining
relationships on the job. Their deficits in this regard may be related to lower
job status and poorer job satisfaction than those reported by their peers. Clearly,
ways need to be devised to ensure that LD individuals have the social skills they
will find useful on their jobs to help them compete with individuals who do not
have the same cognitive deficits. Such inappropriate responses as failing to

follow an employer's instructions, arguing with a supervisor about a decision, or not reporting a problem that exists in the work situation can lead to negative forms of worker control (Kimbrell & Vineyard, 1975) and to lower job satisfaction. Presumably, the job-related social skills of accepting instructions and criticism from an employer, and explaining problems to an employer or co-worker, might help workers avoid the aversive consequences that can follow such problem situations. In addition, more positive interactions between workers and supervisors may reduce the aversive aspects of the supervisor's job and the frequency with which the supervisor uses negative forms of control. Similarly, the use of other more constructive job-related social skills, such as complimenting co-workers on their work and accepting compliments from a co-worker or supervisor, may increase the amount and types of positive reinforcement available in the work environment.

Social skills including assertiveness (McFall & Marston, 1970), positive heterosocial skills (Arkowitz, Lichtenstein, McGovern, & Hines, 1975), and job interview skills (Hollandsworth, Glazesk, & Dressel, 1978) have been trained for use in a variety of situations. In addition, social skill training has been conducted with such diverse client populations as chronic schizophrenics (Bellack, Hersen, & Turner, 1976), mentally retarded adults (Hall, Sheldon-Wildgen, & Sherman, 1980), predelinquents (Braukmann, Maloney, Fixsen, Phillips, & Wolf, 1974), psychiatric patients (Furman, Geller, Simon, & Kelly, 1979), and the economically disadvantaged (Barbee & Keil, 1973). However, little information is available on the effects of training social skills to learning disabled adolescents (Meyen & Deshler, 1978) or on the training of social skills that might be functional in everyday employment situations.

The present study was designed to analyze the effects of job-related social-skills training on learning disabled adolescents. Six job-related skills were targeted for training: accepting an instruction, providing a compliment,

accepting a compliment, accepting criticism, providing criticism, and reporting a problem. The goals of the research were to: (a) determine whether LD adolescents could be taught the social skills using written materials and role-playing situations and (b) to analyze the generality of training by assessing the satisfaction of employers and other employment experts with the trainees' behavior.

Method

Trainees and Setting

Two learning disabled senior high school students served as trainees. Both participants lived in a midwestern city of 60,000 that has one high school with approximately 1,800 students. Both students had been identified by high school personnel as learning disabled and were enrolled in at least one credit hour in the high school's Learning Center classroom. The students' classification of learning disabled was based primarily on the individual's WAIS intelligence test scores and performance on the Woodcock-Johnson Psycho-Educational Battery. A discrepancy between the Performance Scale IQ and the Verbal Scale IQ of at least 13 points was required to be placed in the Learning Center program.

Currently employed students were recruited by a notice posted on a bulletin board in the Learning Center classroom. Each participant was informed of the purpose of the research and consented to participate. Parental consent was also obtained, because both participants were under 18 years of age. Each student received a thirty-dollar incentive payment for participation.

The first trainee, Ron, was a 17-year-old high school junior employed as a cook at a local, fast-food restaurant. His full scale IQ was 85, with a Performance Score of 99 and a Verbal Score of 76. On an individually administered achievement test, he achieved grade level scores of 4.5 in reading, 5.3 in mathematics, and 3.7 in writing. Lisa, the second trainee, was a 17-year-old

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high school junior, who was employed as a switch-board operator at an answering service. Her full scale IQ was 89, with a Performance Scale of 96 and a Verbal Score of 85. Lisa scored at the 4.8 grade level in reading and 6.0 grade level in writing.

Training and assessment of the job-related social skills was conducted after school at places convenient for the participants. These settings included the public library, a community service center, and a university office. Assessments were also made in the students' place of work, i.e., a fast-food restaurant and an answering service.

Measurement systems

Each student's performance of the job-related social skills was measured before and after training. The skills observed were: (a) accepting a compliment, (b) complimenting a co-worker, (c) accepting an instruction from a supervisor, (d) accepting criticism from a supervisor, (e) providing constructive criticism to a co-worker, and (f) explaining a problem to a supervisor. These tasks and the discrete behaviors involved in performing each task had been identified as important by employment experts in previous research (Mathews, Whang & Fawcett, 1980).

Table 1 displays the discrete behaviors involved in the performance of each job-related social skill. The six categories of social skills contained a mean of five discrete behaviors, with a range from two (for accepting a compliment) to eight (for explaining a problem to a supervisor). A detailed response definition was prepared for each behavior (See Footnote 1).

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Insert Table 1 about here

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The social skills were observed during role-playing evaluation sessions (Fawcett & Fletcher, 1977; Mathews et al., 1980). One of the authors, following

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a written script, described the situation to the trainee and then played the part of the participant's supervisor or co-worker. Each evaluation session involved a different situation calling for the performance of one of the social skills.

Each situation was recorded on audio tape. In addition, two pretraining situations and two posttraining situations for each skill were recorded on videotape. An observer used behavioral checklists to score the occurrence or nonoccurrence of each of the discrete social skills for each task from the audio tapes. A second, independent observer scored the participant's performance from a random sample of the same tapes. Interobserver agreement was measured by an item-by-item comparison of the target behaviors for each social skill situation. An agreement was scored when both observers scored an item as having occured or not having occurred. A disagreement was scored when one observer scored an item as having occurred and the other observer scored that same item as not having occurred. Total reliability was calculated by dividing the number of agreements by the number of agreements plus disagreements multiplied by 100. Total reliability averaged 92% (ranging from 88% to 100%).

In an attempt to measure the generality of the effects of the procedures, participants were also observed before and after training at their places of employment. During these situations, one of the researchers observed the performance of each participant in his or her interactions with co-workers and supervisors. When an opportunity for the display of one of the social skills occurred (e.g., the supervisor complimented the participant) the observer used a checklist to score the participant's performance. For Ron, the observer sat in a corner of the fast-food restaurant near the cooking grills. For Lisa, the observer sat in a corner of the answering service office while Lisa and her supervisor worked. Equipped with a behavioral checklist for each of the six skills, the observer scored the participant's performance on the categories of

job-related social skills. The opportunity for scoring the performance of a skill, such as accepting a compliment from a co-worker, depended on the naturally-occurring interactions between the supervisor, co-workers, and each trainee. A total of eight hours of observation were taken in the workplaces (four observations lasting approximately two hours each). During these actual on-the job observations, the observer attempted to be as unobtrusive as possible by taking a seat in a far corner of the participants' work area and not speaking with anyone during the observation. Before these observations, all co-workers and supervisors were informed of the nature of the observations and consented to be observed. The percentage of occurrence for any category was calculated by dividing the total number of appropriate responses emitted by the total number of possible appropriate responses and then multiplying by 100. For example, for Accepting an Instruction, eight opportunities were observed after training for each of four responses, resulting in a total of 32 possible responses for this category. Since only 4 of 32 possible responses were scored as occurring appropriately, the percentage of occurrence for this category was 12.5%.

Training in Job-Related Social Skills

All instructional materials were designed in a standardized format consisting of written specifications for the task, examples of appropriate performance of the task, rationales for each task, and a study guide (Fawcett & Fletcher, 1977; Fawcett, Fletcher & Mathews, 1980; Fawcett, Mathews, Fletcher, Morrow & Stokes, 1976). The training followed a standardized format (Mathews & Fawcett, 1977) that consisted of reading the prepared materials, practice, and corrective feedback (see Footnote 2). First, each trainee read the written specifications, examples, and rationales contained in the instructions. Second, the trainee answered study guide questions, re-reading the instructions when unable to

correctly answer a study guide question. Third, Ron or Lisa practiced the behaviors with one of the experimenters, receiving feedback on performance and an opportunity to re-practice to mastery as necessary. Mastery was defined as performing 100% of the behavioral steps for a skill correctly for two consecutive trials. This procedure was followed for each job-related social skill. An average of 35 minutes was required for each trainee to reach mastery on a single social skill.

Ratings by Employment Experts

To determine the importance of any changes in the performance of the social skills, five employment experts were asked to view videotaped role-playing sessions. These experts included a personnel manager from a large company, a general manager and an assistant manager from a fast-food restaurant, and a supervisor and an assistant supervisor from a small private business. These judges each viewed the performance of one trainee in one baseline and one posttraining situation for each of the social skills. The order of viewing of the videotaped segments was randomized. The experts were not informed about whether the sessions occurred before or after training, nor were they informed about the specific behavioral guidelines used to score performance.

For each skill situation, the expert judges viewed the videotape of a participant's performance and then answered the question: "How satisfied are you with the person's performance (on this task)?" Ratings were completed on a 5-point scale (0, 1, 2, 3, 4), where 0 was "not satisfied" and 4 was "very satisfied." To determine the judges' overall satisfaction with the participant's performance, the rating data were converted to a percentage score. The formula used to convert these data to a percent was as follows:

$$\frac{n4 + n3 + n2 + n1 + n0}{N4} = \text{satisfaction}$$

where n = The number of judges awarding a particular rating

N = The total number of judges

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(See Footnote 3).

Experimental Design

    The effects of the training procedures on performance of the job-related
social skills was analyzed using a multiple-baseline design across skill categories.
The effects of training were replicated with the same skills for two trainees.
The experimental design consisted of the following conditions:

    Baseline. The performance of each trainee was observed for each of
the six social skills. No specific instructions or feedback were
provided in how to respond in the job-related situations.

    Social Skills Training. After the third observation session, training
was administered for the first skill. After the sixth observation
session, training was administered for the second skill. After the
ninth observation session, training was administered for the third
skill. Training was staggered similarly for the fourth, fifth, and
sixth skills. Upon completion of training, trainee performance was
again observed for each skill. This entire process was repeated for
the second trainee.

    Four-week Follow-up. Four weeks following training, the trainees
participated in a follow-up session in which their performance of
the six identified social skills was again observed.

<div align="center">Results</div>

    Figure 1 shows the effects of training on the percentage of occurrence
of the target behaviors in the six social skills for Ron. Training resulted in
an overall increase in performance of the social skills from a baseline mean
of 35% to a posttraining mean of 96%. In a four-week follow-up session, Ron
was observed to perform an average of 76% of the six social skills.

Insert Figure 1 about here

Figure 2 shows the effects of training on the percentage of occurrence of the six social skills for Lisa. Training resulted in a similar increase from an overall baseline mean of 40% to a posttraining mean of 89%. In a four-week follow-up session, Lisa was observed to perform an average of 76% of the six social skills. The percentage of occurrence of each of the six social skills was markedly higher after training for both trainees. These effects were maintained in a four-week follow-up observation.

Generalization data collected for Ron at his place of employment (i.e., fast-food restaurant), showed increases in the category of "accepting a compliment" from a baseline mean of 25% to a posttraining mean of 66%. His performance of the skills involved in "accepting an instruction" increased on-the-job from a baseline mean of 16% to a posttraining mean of 77%. His performance of the skills involved in "accepting criticism" increased from 0% during baseline observations to 33% following training. Lisa's performance of job-related social skills was also observed during generalization observations at her place of employment (i.e., the answering service). Lisa was observed to perform 33% of the behaviors involved in "accepting an instruction" during baseline and 100% after training. For the situation of "accepting a compliment," she increased from 0% during baseline to 50% following training. Since the occurrence and scoring for each skill depended on the naturally occurring interactions between the supervisors, co-workers, and each trainee, observations of other social skills were not possible in these employment situations because opportunities for them did not occur.

The ratings by the employment experts showed the average percent of satisfaction with social skills was 59% for the pretraining observations and 80% for the posttraining observations. Of the six pre-post rating changes (1 rating for each of the 6 skills), four showed an increase over the rating of the pretraining performance.

Discussion

The effects of the social skills training procedures with learning disabled adolescents were evaluated. The results indicated that these procedures were responsible for the observed increases in the target behaviors for both trainees. Follow-up observations indicated that the appropriate skills had maintained over time. Expert judges' ratings of satisfaction with trainee performance were similar to the observed scores on the social skills. This suggests that the specified target behaviors are a socially valid index of appropriate on-the-job social skills. These combined findings suggest that the procedures are effective with learning disabled adolescents and these effects may generalize to the work setting, across time, and to other evaluative measures of social skills performance (e.g., the judges' rating scales).

To summarize, learning disabled adolescents, as well as many other disadvantaged and minority youth and adults, often obtain only marginal jobs with minimal monetary rewards. In the absence of seniority, strong union representation, or sensitive employers, such jobs may be characterized by undue worker harassment and other negative forms of worker control. A focus on constructive and positive forms of social interactions with co-workers and supervisors may represent an important step towards the goal of increasing the availability of positive reinforcement in the work setting. However, a number of additional questions, including whether workers could be interested in learning and using new job-related social skills, and whether bosses and co-workers would be receptive

to the workers' new repertoires, must be explored. Similarly, questions regarding the functionality of positive social interactions in producing a productive, satisfying, and equitable working situation, await further inquiry.

This study has extended the research in the field of social skills training by attempting to measure generalization of learned social skills to the natural environment (in this case, the work setting). This task proved to be a difficult one, as opportunities for use of the skills occurred infrequently, and they were difficult to observe when they did occur. Due to the nature of the employment settings, more than one observer was not allowed and thus, interobserver reliability could not be assessed. Further research needs to address the issue of obtaining reliable measures of the generalization of social skills to the natural setting.

The positive results of this study should be tempered by a few qualifications or concerns. First, the generalization results showed that the youths performed the skills in the work setting at levels lower than those exhibited in role-playing situations. One reason for these lower levels could have been due to the methodological problems described above. Other reasons may include: (a) the youths were not motivated to use the new skills, (b) the youths did not recognize the opportunities to use their social skills in the work situation, or (c) the training procedures did not program well enough for generalization. These are important areas to address for future research.

Another concern surrounds the judges' ratings. Although the ratings improved from before to after training, the judges were not completely satisfied with the youths' performances. If they had been, the average ratings would have been closer to 100%. It is unclear why they were not completely satisfied. Perhaps the youths neglected to use one or more of the trained steps involved in the skill or perhaps other unidentified steps were not taught and therefore not used by the youths. Future research might focus on this issue as well.

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Footnotes

1. Copies of these units are contained in the textbook, Learning Job-Finding Skills by R. M. Mathews, P. L. Whang, and S. B. Fawcett, which may be purchased from the Institute for Research in Learning Disabilities, University of Kansas, Lawrence, Kansas 66045, for the cost of reproduction.

2. Copies of the instructor's manual for the textbook, Learning Job-Finding Skills, may also be purchased from the Institute for Research in Learning Disabilities at the University of Kansas.

3. This method of computing a percentage score from rating data was developed by Don Bushell, Jr., in his work with S.C.A.L.E. (The School Client's Annual Local Evaluation).

Figure Legend

Figure 1. Percentage of occurrence of target behaviors for the six job related social skills for Ron. The triangles represent trainee performance during the generalization observation session at the actual work place. The filled circles indicate trainee performance during the evaluation sessions. The squares indicate trainee performance during a four-week follow-up observation.

Figure 2. Percentage of occurrence of target behaviors for the six job related social skills for Lisa.
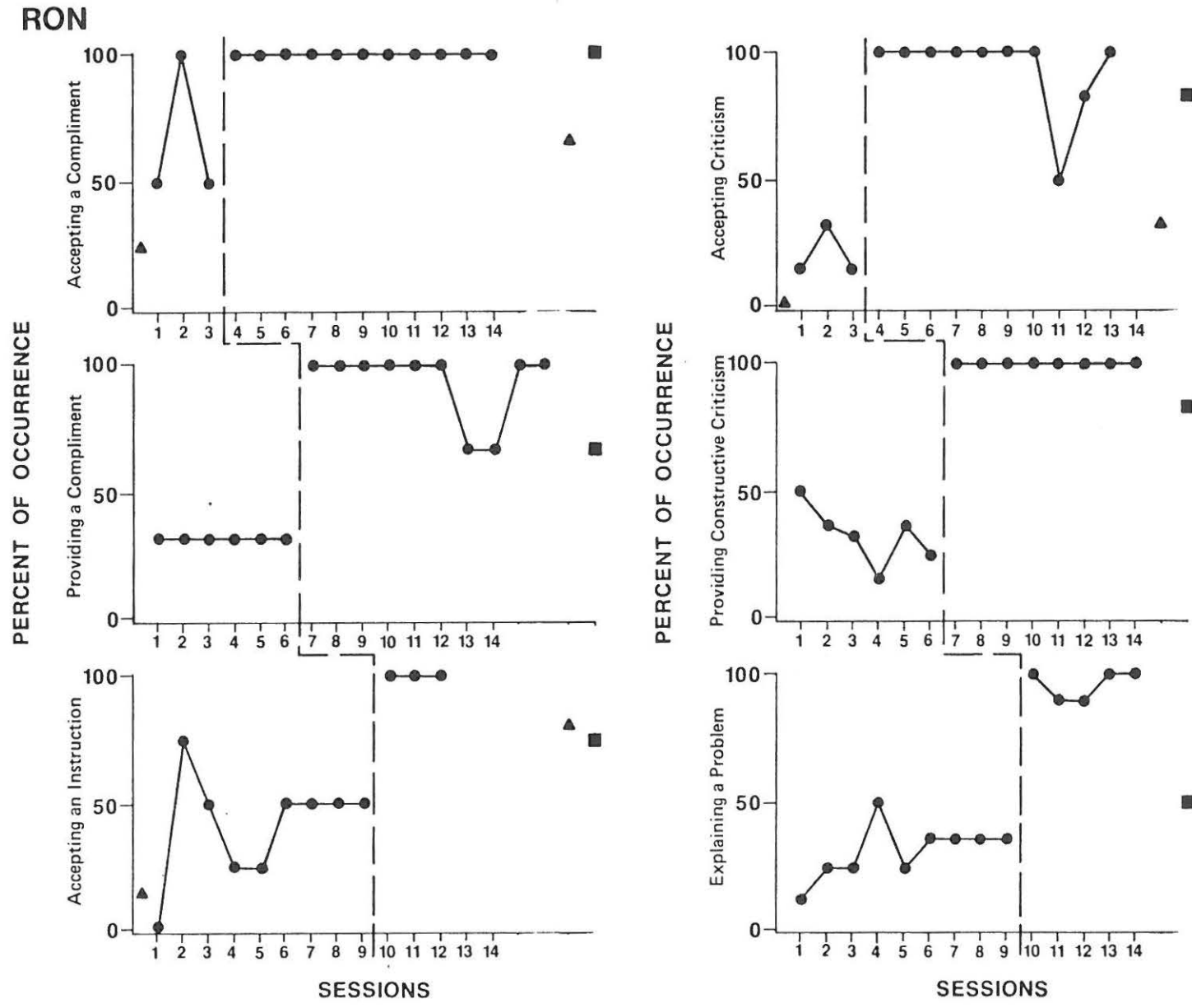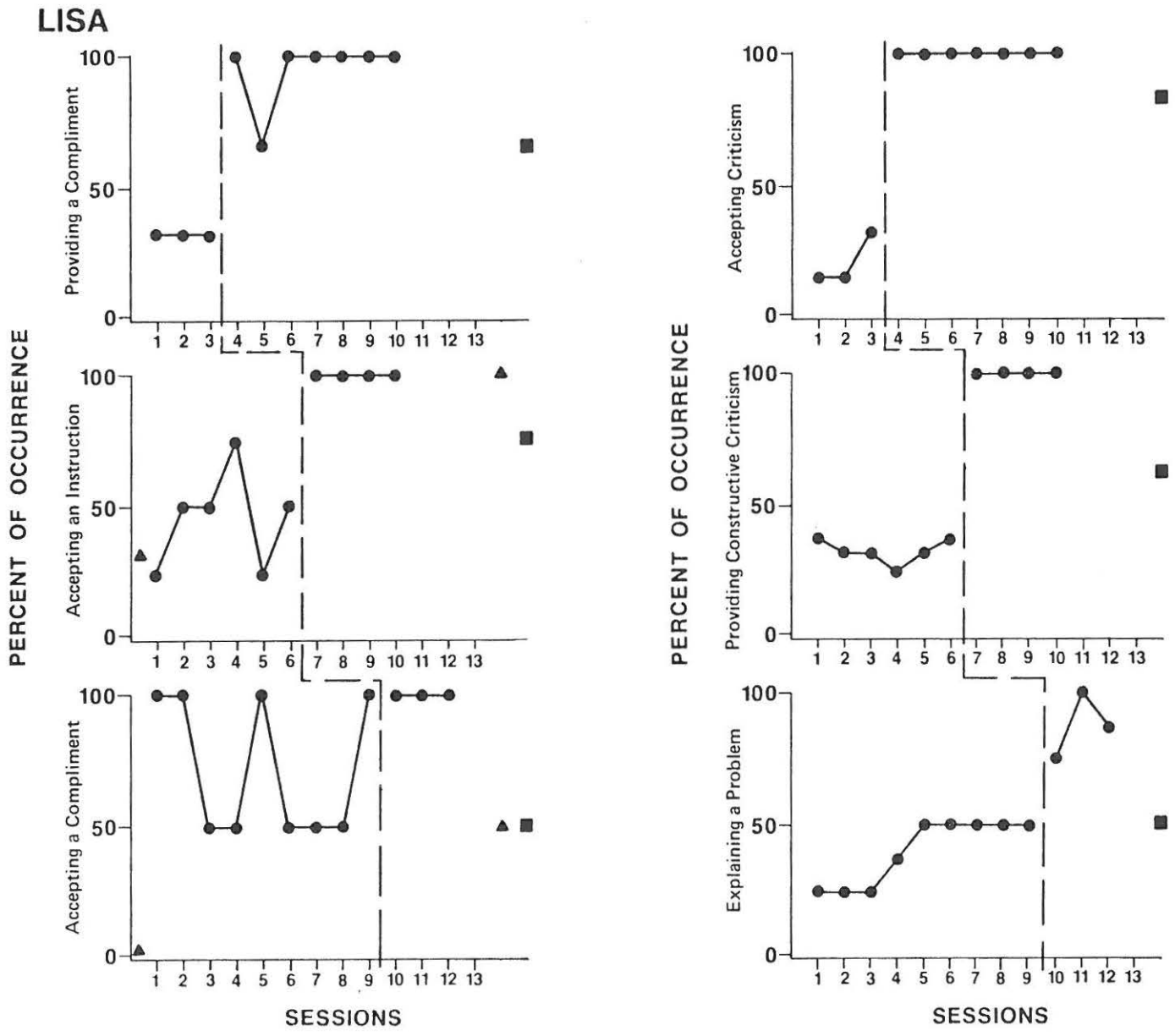
Figure 1

Figure 2

TABLE 1

Job-Related Social Skills

A. Accepting a Compliment

  1. Thank the person for the compliment.
  2. Comment about content of compliment.

B. Complimenting a Co-Worker

  1. Make or return initial greeting.
  2. Provide compliment.
  3. Provide positive response to lead into conversation.

C. Accepting an Instruction from Your Supervisor

  1. Acknowledge that you heard request to talk and state you can talk. (if a request is made)
  2. After it's given, acknowledge that you heard instruction.
  3. Repeat instruction.
  4. Say you will follow instruction, or explain why you can't.

D. Accepting Criticism from a Supervisor

  1. Restate person's criticism or ask for specification.
  2. Apologize for what you did wrong or state agreement with problem.
  3. Ask permission to tell your side.
  4. Explain your side with facts.
  5. Ask for or provide solutions to avoid the mistake in the future.
  6. Make a positive comment about the suggestions to be acted upon.
  7. Provide further comment.

E. How to Give Constructive Criticism

  1. Ask if you could talk with person.
  2. Describe your concern.
  3. Provide constructive criticism.
  4. Give reason for person's need to change.
  5. Ask person if he/she understood.
        a. (If the person did not understand)
           Explain criticism again with different words or examples.
        b. Ask person if they understood.
  6. Thank person for listening to you.

F. Explaining a Problem to Your Supervisor

  1. Ask if your supervisor has time to talk.
  2. State that you have a problem.
  3. Describe the problem.
  4. Describe any solutions you have considered.
  5. Ask if the supervisor has a solution or if he/she can do something.
  6. Restate the supervisor's solution.
  7. Ask if you should do anything else about the solution.
  8. Thank the supervisor for helping.