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DEVELOPMENT AND VALIDATION OF AN
OCCUPATIONAL SKILLS ASSESSMENT INSTRUMENT

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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

The development and validation of an occupational skills assessment instrument is described. The instrument was designed to describe accurately a participant's actual level of occupational skills in a variety of job-related situations. The results showed that: (a) the situations involved in the assessment were considered by participants and employment experts to be important and representative, (b) the satisfaction ratings of employment experts were correlated with the observed performance of participants, and (c) participant performance as observed with the behavioral assessment instrument was correlated with observations using another method of measuring job-related behavior. These findings suggest that the occupational skills assessment instrument is a reliable and valid method of determining a person's skill in job-related situations.

Development and Validation of an Occupational Skills Assessment Instrument

The field of behavioral assessment has shown remarkable growth in the recent past as evidenced by the appearance of new journals (e.g., Behavioral Assessment, textbooks [e.g., Cone & Hawkins, 1977], and special issues in established journals e.g., Journal of Applied Behavior Analysis, 1979, 12(3)]. Uses of behavioral assessment have included the measurement of overt motor behavior, physiological-emotional behavior, and cognitive-verbal behavior (Nelson & Hayes, in press). Examples include the assessment of social competence (Arkowitz, Lichtenstein, McGovern, & Hines, 1975), fear (Hersen, 1971; Borkovec, in press), assertiveness (Eisler, Miller, & Hersen, 1973), litter (Hayes, Johnson, & Cone, 1975) and social skills (Bornstein, Bellack, & Hersen, 1977).

In the area of occupational knowledge, behavioral assessments have been conducted for the specific employment situation of participating in a job interview (Hollandsworth, Dressel, & Stevens, 1977; Hollandsworth, Glazeski, & Dressel, 1978; Kelly, Laughlin, Clairborn, & Patterson, 1979; Furman, Geller, Simon, & Kelley, 1979; Schinke, Gilchrist, Smith, & Wong, in press). However, the skills involved in participating in a job interview are only one element in the set of skills thought to be functional in obtaining and retaining satisfactory employment (APL Project Staff, in press). Though comprehensive behavioral treatment programs (e.g., Jones & Azrin, 1973; Azrin, Flores, & Kaplan, 1975, Note 1) have been developed for job finding skills, no similarly comprehensive assessment instruments are available to measure the range of job-related skills involved in employment preparation.

This paper illustrates the use of behavioral assessment methods for the measurement of occupational skills. A five-stage behavioral-analytic model (Goldfried & D'Zurilla, 1969) for developing and validating a behavioral assessment instrument is described. The application of the model to the development of an occupational skill assessment instrument is detailed, and data are reported on such measures as reliability, validity, and the usefulness of the instrument.

Behavioral-Analytic Model of Assessment

The objective of an occupational skills assessment is to provide an accurate estimate of the person's capabilities in a range of possible employment-related situations. Goldfried and D'Zurilla (1969) identify five stages in the development of a behavioral assessment instrument. First, a situational analysis is conducted in which common employment situations are identified. Second, in the response enumeration phase, appropriate responses to the identified employment situations are specified. Third, in the response evaluation phase, employment experts judge the importance of each job-related

task. Fourth, the measurement format is developed using direct observations of responses to the job-related tasks in simulated employment situations. Fifth, the instrument is evaluated using such standard criteria as reliability and validity. A description of the development of the occupational skills assessment instrument for each of Goldfried and D'Zurilla's (1969) five stages follows.

Situational Analysis

Goldfried (1977) stated that the purpose of a situational analysis is to identify and describe the significant situations in which a given population must be competent. The process of identifying common employment situations that are presumed to be important was completed by reviewing the employment literature and by interviewing available experts in employment preparation. This inquiry was conducted to acquire a broad background in the nature of the employment process.

The literature review was structured to include basic texts, journals, and current articles in all relevant fields (Bailey & Bostow, 1979; Wilson, 1952). It focused on areas such as employment factors and existing occupationally-related training programs. In addition, the literature review was extended to the topics of adolescent development and learning disabilities, as the assessment instrument was designed for application with learning disabled adolescents as well as non-disabled adults. The majority of the employment literature addressed such characteristics, personality traits, and behaviors as the sex of employment applicants (Dipboye, Wibach, & Fromkin, 1975), the effects of maintaining eye contact in a job interview (Amalfitano & Kalt, 1977), the importance of job attitudes (Friedlander & Greenberg, 1971), and the employment histories of different racial groups (Beckett, 1976).

The literature review and interviews with employment experts and individuals seeking employment also yielded descriptions and references to a number of employment situations. The most commonly identified situations included job interviews (e.g., Drake, Kaplan, & Stone, 1972; Alderfers & McCord, 1970; Asher, 1971; Barbee & Keil, 1973; Carlson & Mayfield, 1967) and social interaction situations associated with employment (e.g., Ball & McLoughlin, 1977; Schinke & Rose, 1976; Azrin et. al., 1975; Jones & Azrin, 1973). These situations involved the application of writing, computational, and social skills to common employment situations, such as obtaining a job interview, participating in a job interview, interacting with employers, and interacting with co-workers once employment was obtained. Table 1 displays a list of thirteen commonly identified job-related situations that were produced by this situational analysis process.

Table 1 about here

While this list is not exhaustive of the possible situations, it did appear to be representative of the situations identified in the literature.

Response Enumeration

The purpose of the response enumeration phase is to determine the appropriate responses that an individual should perform when participating in each of the problematic situations specified in the situational analysis (Goldfried & D'Zurilla, 1969). This process, often referred to as task analysis (Gagne, 1962), involved an extension of the literature review and interview process to identify the behaviors involved in the competent performance of each of the thirteen job-related tasks. A task analysis was conducted for each category, yielding a sequence of responses thought to be appropriate for each task.¹

Table 2 displays the individual responses specified for one such task, explaining a problem to a supervisor. The thirteen task analyses contained a mean of 10 discrete behaviors to be performed by the participants.

Table 2 about here

The number of steps ranged from two (for accepting a compliment from a supervisor) to twenty-nine (for participating in a job interview).

Response Evaluation

The response evaluation phase is designed to provide an opportunity for significant others to judge the importance of the job-related tasks selected for the behavioral assessment instrument (Goldfried & D'Zurilla, 1969). To evaluate the importance of the tasks specified in the occupational skills assessment instrument, eight experts in the area of employment were selected to serve as judges. These judges were selected for their knowledge of the job-finding and employment process. They included the director of the County Employment Service, a vocational counselor, the Placement Director of the University's Business School, the National Coordinator of a job-finding program, university placement officers, public employers, the personnel manager of a local industry, and the owner of a small private business.

These employment experts were asked to rate the importance of each task identified in the occupational skills assessment instrument. For example, each judge answered the question:

"How important is it for a person to be able to perform well in a job interview?"

0	1	2	3	4
not important				very important

Ratings were completed on a 5-point scale where 0 was "not important" and 4 was "very important". To determine the judges' overall importance ratings of the various tasks, the rating data were converted into a percentage score.² The equation used to derive a percentage was:

$$\frac{n4 + n3 + n2 + n1 + n0}{n4} = \underline{\quad}\%$$

For example, the eight judges' importance ratings for the job interview task were 3, 4, 4, 4, 4, 4, 4, and 4. The computations were as follows:

$$\frac{7(4) + 1(3) + 0(2) + 0(1) + 0(3)}{8(4)} = 97\% \text{ important.}$$

Table 3 displays the results of the expert judges' ratings of importance for each of the tasks. The results showed that the experts' overall mean importance rating for the 12 skills was 81% (ranging

Table 3 about here

from 59% for providing constructive criticism to 97% for participating in job interviews). (Due to an oversight, one of the skills, completing a federal income tax form, was not included in the list of tasks to be rated by the expert judges). These findings suggest that the job-related tasks selected for assessment are reflective of the occupational skills believed to be functional in obtaining employment. However, these ratings of the importance of the job skills provide only an indirect indication of the overall comprehensiveness of the instrument.

To more directly assess the comprehensiveness of the instrument, the judges were asked: "Overall, how representative is this list (Table 1) of the occupational skills needed by youths upon entering the employment market?" The results showed that the judges' mean rating of representativeness was 88%. These findings suggest that experts in the area of employment found the job-related tasks identified in the occupational skills assessment instrument to be both important and representative.

Ten low-income community residents, including employed and unemployed persons, were also asked to rate the importance of each task contained in the occupation skills assessment instrument. These ratings were obtained to provide an indication of the importance of the selected tasks as viewed by the persons whose competencies might be assessed using the instrument (Wolf, 1978). These individuals ranged in age from 17 to 60 years, in education from six years to

having some college, and in work experience from zero to 30 full-time jobs. The results, also displayed in Table 3, showed that the community residents' overall mean importance score for the 12 tasks was 84%. The importance ratings ranged from 72% for accepting criticism from a supervisor to 93% for both interviews and telephoning a potential employer to obtain a job interview appointment. The skill of accepting a compliment from a co-worker, was unintentionally omitted from the form used by participants. These findings suggest that a sample of the people for whom the behavioral assessment instrument was designed believed that the selected tasks were important. Taken together, these judges' ratings of importance and representativeness suggest that the thirteen tasks included in the occupational skills assessment represent important job-related skills.

Development and Use of the Assessment Instrument

The situational analysis, response enumeration, and response evaluation phases result in content for the items which are to be used in the assessment instrument (Goldfried & D'Zurilla, 1969). The development and use of the actual assessment instrument is a logical next step.

To assess the employment-related skills of large numbers of individuals, including those who have no previous work experience, requires an assessment system that is efficient as well as valid. Analogue employment situations, such as role-playing tests (McFall, 1977; McFall & Marston, 1970), provide an opportunity to observe efficiently and directly the actual performance of participants. By designing the instrument so that individuals are instructed to perform "as if" they were in the actual job-related situation, each of the stages of the employment process can be observed.

A total of thirteen occupationally-related situations are contained in the occupational skills assessment instrument. A role-playing evaluation script (Mathews & Fawcett, 1979) was developed for each of the ten socialinteraction situations; written materials or forms were provided for the three non-social interactions situations. Each script specified the verbal statements and physical activities that the confederate was to say or do. For example, for the task of participating in a job interview, one of the researchers followed the script to play the role of the interviewer while the participant acted as if she/he were actually applying for the job. In these role-playing situations, the participants were not informed of the responses that were considered to be appropriate by the researchers.

The occupational skills assessment also included three non-social interaction situations. These involved completing a federal income tax form, writing a letter in response to a help-wanted advertisement, and writing a letter to follow-up a job interview. Participants received a written description of the task to be performed (e.g., sample W-2 forms, a 1040A tax return, and instructions to complete the form as if they had worked for the two businesses who provided the W-2 forms). Each participant produced written products which could later be scored for the percentage of occurrence of the specified activities.

Participants. The instrument was used to collect performance data with the ten community residents who had rated the importance of the job-related tasks (see response evaluation section). These individuals were not informed of the steps involved in performing any of the tasks nor had they received formal training in employment-related skills.

To obtain a sample of criterion level performance for each of the targeted occupational skills, three additional participants were selected. These persons ranged in age from 22 to 41 years, in education from some college to post-doctoral, and in work experience from two to twelve years. These participants were coached by the experimenters before each session on how to perform the targeted activities for each job skill category.

Observation. Each of the ten community residents performed the thirteen occupational tasks. The role-playing sessions were conducted in a large office containing a desk, chairs, and telephone. Each session was videotaped to provide a permanent record of the participant's performance. A mean of 40 minutes was required for each participant to complete the thirteen occupational skills. Performance of the three coached individuals, who were known to the experimenters, were also videotaped in a similar office setting.

Performance Data. Table 4 shows the mean percentage and range of specified behaviors performed by the ten community participants for each of the occupational skills. These percentages were obtained by

Table 4 about here

dividing the number of completed responses by the total number of appropriate responses multiplied by 100. The overall mean percentage of occupational skills performed was 48% (ranging from 0-100%). For the three coached individuals, all performance was at a mastery (100%) level.

Evaluation of the Assessment Instrument

The value of the occupational skills assessment instrument in estimating a person's capabilities in job-finding and occupational situations will depend upon the quality of the instrument and the care with which it is used. Data for the instrument along two evaluation dimensions - reliability and validity - are of particular interest.

Reliability. Reliability refers to the consistency with which data were collected by observers (Baer, Wolf & Risley, 1968; Bijou, Peterson & Ault, 1968). In general, the reliability of the assessment instrument is indicated by the level of interobserver agreement obtained under conditions in which there were no errors of measurement (Livingston, 1977). The measure of interobserver agreement

provides an indication of the clarity and completeness of the response definitions for the selected occupational skills (Hawkins & Dotson, 1975; Kazdin & Straw, 1976).

To assess the level of interobserver agreement, two of the experimenters, using checklists, independently scored the occurrence or non-occurrence of each target behavior from the videotapes. Interobserver agreement was measured by an item-by-item comparison of the scoring of the target behaviors for each job-related situation. Total reliability was calculated by dividing the number of agreements by the number of agreements plus disagreements multiplied by 100. Total reliability averaged 94% (ranging from 90% to 100%) for sessions involving community participants and was 100% for sessions involving the three coached participants.

Validity. An estimate of the validity of a behavioral assessment instrument is based upon a judgment about how well it will do the job it is asked to do (Cureton, 1951; Livingston, 1977). Judgments about the validity of the occupational skills assessment instrument are dependent upon evaluations of the process used to develop the instrument, qualitative judgments about the importance of what is assessed, and measures of relevant types of validity. Because the primary goal of the occupational skills assessment instrument is to describe accurately a person's present level of occupational skills, the validity of the content of the instrument is of particular interest.

Content Validity. Content validity is established by determining whether the conditions under which the participant's behavior is observed represent the circumstances that are of interest (Anastasi, 1976; Livingston, 1977). The validation of content is a process that is designed to judge the adequacy with which the instrument measures the construct as well as the relevance and the comprehensiveness of the instrument's elements for answering the questions of interest (Haynes, 1978). As such, the previous description of the phases in which the instrument was developed is of relevance in judging the instrument's validity. In addition, the ratings of the importance of the behaviors described in the response evaluation section provide additional information on the adequacy of the instrument. Social validity, discussed in the next section, is a third type of information on which a judgment about content validity may be made.

Social Validity. While social validity is not a traditionally used psychometric category, it may be viewed as a special type of content validity used to examine the quality of the assessment instrument. Social validity refers to an inference about the social significance of goals, social appropriateness of the procedures, and social importance of the effects based upon the judgments of relevant observers (Wolf, 1978). The social significance of the behavioral goals selected for assessment is of particular relevance to this study. A central question is whether employment experts consider the participants' performance of the job-related tasks to be appropriate. The occurrence or non-occurrence of "appropriate" behaviors are important only insofar as relevant experts judge them to be of importance (Fawcett & Miller, 1975; Kazdin, 1977).

To assess the social significance of the selected target behaviors, representative videotaped performances were selected for each task. For all social interaction tasks, such as participating in a job interview, three complete sessions were selected and recorded on a duplicate videotape. For two of the three tasks involving non-social interaction situations, writing a letter to apply for a job and writing a letter to follow-up a job interview, three samples were similarly selected. (Because the U.S. Internal Revenue Service provides explicit requirements for completing an income tax form, representative samples of this task were not given to the experts.) The three representative sessions included high, low, and moderate levels of performance of the specified responses. To insure that a mastery level performance was available, a criterion level session performed by the coached participants was presented for each of the job skills. The duplicate videotaped segments and sample letters were presented to the same eight judges who had rated the importance of the job-related tasks.

For each task, the 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 performance of participants, the rating data were converted to a percentage score according to the formula provided in the response evaluation section.

These satisfaction ratings may be compared with the percentage of observed behavior for each of the four sessions for each job-related task. Table 5 displays the level of observed performance and the judges' mean rating for the four sessions for each task. For example, for the first task, getting a job lead from a friend, the first participant performed 44% of the target behaviors; and a mean rating of 47% satisfied was obtained from the expert judges. For the 47 sessions listed in Table 5, in which direct observations of performance and expert judges' satisfaction ratings are available, a Pearson Product Moment Correlation was computed. The results showed a correlation of .78, $p < .01$, between direct observations of performance and ratings of satisfaction with the quality of performance. These findings suggest that the occupational skills assessment instrument provides a socially valid index of performance.

Table 5 about here

Convergent Validity. Anastasi (1976) states that one method of gathering supplementary data on the validity of an assessment instrument is through correlations with other tests. Convergent validity can be assessed by determining the degree to which levels of the behaviors measured by one instrument correlate with levels of the behavior as regarded by a different instrument. While a comparison instrument for observing occupational skills was not available for all tasks, a comparison was available for the task of participating in a job interview (Hollandsworth, et al., 1977; Hollandsworth, et

al., 1978). In a description of this job-interview skill training model, Sandifer and Hollandsworth (Note 2) describe the use of a five-point scale by observers to rate each participant's performance along the dimensions of composure, body expression, eye contact, voice quality, self-confidence, and the content of the answers to interviewer questions.

Two independent observers, using response definitions provided in Sandifer and Hollandsworth viewed ten videotaped job interview situations, one for each of the participants. The performance of each participant was scored using a five-point rating scale for each dimension. Interobserver agreement was measured by an item-by-item comparison of the scoring of dimensions by the observers. A disagreement was scored if the observers' ratings varied by two points or more. Total reliability was calculated by dividing the number of agreements by the number of agreements plus disagreements multiplied by 100. Total reliability averaged 77% (ranging from 17% to 100%). In contrast, total reliability for the task of participating in a job interview using the occupational skills assessment instrument averaged 90% (ranging from 79% to 100%).

Using the Sandifer and Hollandsworth instrument, a mean percentage of job interview performance of 69% (ranging from 46% to 88%) was obtained. Alternatively, a mean percentage of occurrence of appropriate job interview behaviors of 63% (ranging from 36% to 86%) was obtained using the occupational skills assessment instrument. To determine the comparability of these two measurement systems, a Pearson Product Moment Correlation was computed. The results showed a correlation of .89, $p < .01$. These findings suggest that the occupational skills assessment instrument has convergent validity for at least one category of job-related behavior.

Discussion

The development and validation of an occupational skills assessment instrument based on Goldfried and D'Zurilla's (1969) behavioral-analytic model were described. The results indicate that the tasks involved in the assessment were considered by participants and employment experts to be important and representative. Other results showed that satisfaction ratings made by expert judges who viewed videotaped performance of participants were correlated highly with observed rates of participant performance. The results also showed that the observed rates of participant performance were correlated with another method of scoring job interview behavior. These findings suggest that the occupational skills assessment instrument is a valid method of determining a person's skill in job-related situations.

Because the occupational skills assessment instrument relies on analogue situations to observe a participant's performance of job-related skills, information on the participant's performance in actual job situations was not obtained. Similarly, data on such outcomes as success in obtaining and retaining jobs were not available. Investigations of the generalizability of findings to actual employment situations and the accuracy of the occupational skills assessment instrument in predicting employment outcomes are critical

areas for future research. Until such outcome validity is obtained, the ultimate utility of the instrument is unknown.

This study is illustrative of a behavioral strategy for assessing a person's competence in job-related skills. Its emphasis is on the actual performance and measurement of the participant's current level of proficiency in commonly identified employment-related behaviors. Other strategies including traditional educational tests of employment preferences (Holland, 1965; Blank, 1978), more specific assessments of knowledge about job skills (American College Testing Program, 1976), and personal or clinical evaluations of a person's employment ability are among the options available to help make judgments about competence in job-related skills. The ultimate use of behavioral assessment instruments may be determined by such aspects of relative advantage as its cost, ease of use, flexibility, effectiveness, and compatibility with the existing mode of determining competence (Rogers & Shoemaker, 1971; Fawcett, Mathews, & Fletcher, in press). Thus, a determination of the ultimate utility of behavioral assessment awaits the results of further attempts to develop and diffuse such instruments. In the absence of such indices of consumer satisfaction, behavioral assessment remains a promising option for a public interested in making judgments about a variety of socially important variables.

For the field of behavioral assessment to grow so that a variety of assessment options are available to the public, the generation and publication of a variety of exemplars of behavioral assessments are required. This study provides one such example of the application of Goldfried and D'Zurilla's (1969) model for developing and validating behavioral assessment instruments. This and future research may further contribute to the development of an implicit technology for measuring socially important variables.

Reference Notes

- Note 1. Azrin, N.H., Philip, R.A., Borck, L., & Besalel-Azrin, V. Job club procedures and their applicability to the WIN Program. Accompaniment to final report (51-17-76-04) to the U.S. Department of Labor, 1978.
- Note 2. Sandifer, B.A., & Hollandsworth, J.G. Job-interview skills training: A workshop model. University of Southern Mississippi, Hattiesburg, 1978.

Footnotes

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¹The Occupational Skills Assessment Instrument, rating forms, and instructions for their use are available from the authors, Center for Public Affairs, University of Kansas, Lawrence, Kansas, 66045.

²This 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 Clients' Annual Local Evaluation).

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Table 1

Identified Occupational Skill Situations

1. Getting a job lead from a friend.
2. Writing a letter to request an interview in response to a help wanted advertisement.
3. Telephoning a potential employer to get a job interview (when there is a job opening).
4. Telephoning a potential employer to get a job interview (when there is not a job opening).
5. Participating in a job interview.
6. Writing a letter to follow-up a job interview.
7. Accepting a suggestion from an employer.
8. Accepting a criticism from an employer.
9. Providing constructive criticism to a co-worker.
10. Explaining a problem to a supervisor.
11. Complimenting a co-worker on job done well.
12. Accepting a compliment from a co-worker.
13. Completing a federal income tax form.

Table 2

Sample Task Analysis: Explaining a Problem to a Supervisor

1. State that you are having a problem.
2. Ask if the supervisor has time to talk.
3. Describe the problem.
4. Provide an example of the problem.
5. State any possible solutions that you might try.
6. Ask if the supervisory knows of a solution to the problem.
7. Repeat the solution proposed by the supervisor.
8. Ask if you should do anything else.
9. Thank the supervisor for the suggestion.

Table 3

Response Evaluation: Ratings of Importance by Participants and Expert Judges

TASKS	\bar{X} IMPORTANCE RATING BY JUDGES	\bar{X} IMPORTANCE RATING BY PARTICIPANTS
1. Getting a job lead from a friend	69%	84%
2. Writing a letter to request an interview, in response to a help wanted advertisement	94%	75%
3. Telephoning to request an interview (when there is a job opening)	91%	93%
4. Telephoning to request an interview (when there isn't a job opening)	91%	93%
5. Participating in a job interview	97%	93%
6. Writing a letter to follow-up a job interview	78%	75%
7. Accepting a suggestion from an employer	91%	86%
8. Accepting criticism from an employer	94%	72%
9. Providing constructive criticism to co-workers	59%	78%
10. Explaining a problem to a supervisor	84%	88%
11. Complimenting a co-worker on a job well done	66%	83%
12. Accepting a compliment from a co-worker	63%	--
13. Completing a federal income tax form	--	80%

Table 4
Participants' Observed Performance

TASKS	NUMBER OF BEHAVIORS IN THE TASK	MEAN PERCENTAGE OF OBSERVED PERFORMANCE	RANGE OF PERFORMANCE
1. Getting a job lead from a friend	9	42%	22-66%
2. Writing a letter to request an interview, in response to a help wanted advertisement	10	44%	40-60%
3. Telephoning to request an interview (when there is a job opening)	11	40%	18-73%
4. Telephoning to request an interview (when there isn't a job opening)	12	33%	17-50%
5. Participating in a job interview	29	63%	36-86%
6. Writing a letter to follow-up a job interview	7	39%	14-71%
7. Accepting a suggestion from an employer	4	23%	0-50%
8. Accepting criticism from an employer	7	34%	14-57%
9. Providing constructive criticism to co-workers	8	47%	25-63%
10. Explaining a problem to a supervisor	9	48%	33-66%
11. Complimenting a co-worker on a job done well	3	66%	33-100%
12. Accepting a compliment from a co-worker	2	50%	0-100%
13. Completing a federal income tax form	18	53%	7-100%

Table 5

Social Validity: Participants' Observed Performance and Judges' Ratings

TASKS	OBSERVED PERFORMANCE	EXPERT JUDGES' SATISFACTION
1. Getting a job lead from a friend	44%	47%
	66%	66%
	22%	41%
	100%	89%
2. Writing a letter to request interview in response to help wanted advertisement	50%	16%
	60%	19%
	40%	41%
	100%	96%
3. Telephoning to request interview (when there is a job opening)	36%	66%
	18%	34%
	73%	69%
	100%	100%
4. Telephone to request interview (when there isn't a job opening)	33%	41%
	17%	28%
	50%	75%
	100%	79%
5. Participating in job interview	36%	22%
	86%	75%
	72%	59%
	100%	86%
6. Writing letter to follow-up job interview	29%	36%
	57%	31%
	71%	50%
	100%	72%
7. Accepting suggestion from employer	50%	63%
	25%	59%
	0%	34%
	100%	75%
8. Accepting criticism from employer	29%	41%
	57%	69%
	14%	38%
	100%	89%

Table 5

Social Validity: Participants' Observed Performance and Judges' Ratings

TASKS	OBSERVED PERFORMANCE	EXPERT JUDGES' SATISFACTION
9. Providing constructive criticism to co-worker	25%	34%
	50%	50%
	63%	56%
	100%	79%
10. Explaining problem to supervisor	33%	38%
	66%	25%
	55%	78%
	100%	96%
11. Complimenting co-worker on job done well	66%	72%
	100%	94%
	33%	50%
	100%	86%
12. Accepting compliment from co-worker	50%	44%
	100%	72%
	100%	86%
13. Completing a federal income tax form (not rated)		