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BEHAVIORAL ASSESSMENT OF JOB-RELATED SKILLS:
IMPLICATIONS FOR LEARNING DISABLED
YOUNG ADULTS

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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 are participating in various studies include: United School District (USD) 384, Blue Valley; USD 500, Kansas City; 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 Center School District and the New School for Human Education, Kansas City, Missouri; the School District of St. Joseph, St. Joseph, Missouri; 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, and Leavenworth County, Kansas Juvenile Courts. Other agencies have participated in out-of-school studies-- Achievement Place and Penn House of Lawrence, Kansas, Kansas State Industrial Reformatory, Hutchinson, Kansas; the U.S. Military; and the 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 supported 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

One important aspect of finding and retaining employment is the person's level of occupational skills. However, little information is currently available on the comparative levels of job-related skills present in unemployed and successfully employed adults. This study, using direct observation and measurement techniques, analyzed the occupational skills of these two groups. The results showed that the employed adults performed significantly better on each of the thirteen job-related skills involved in the occupational skills assessment. These differences were found consistent across job-finding and job-retention skills. These findings suggest that an important role for employment counselors might be to teach the skills involved in finding and retaining employment to unemployed persons.

BEHAVIORAL ASSESSMENT OF JOB-RELATED SKILLS

A person's success in finding a job would appear to be based on such factors as the availability of a position (Levitan & Johnston, 1975) and the person's qualifications for it (Bayne, 1976), employment interests (Friedlander & Greenburg, 1971), and skills in job-finding (Sheppard & Belitsky, 1966). A learning theory approach to employment counseling (Fuhriman & Pappas, 1971; Randolph & Grantham, 1973) might include methods for assessing and training job-finding skills.

A behavioral assessment of occupational skills would emphasize the actual performance and measurement of the participant's current level of proficiency in common employment situations (Cone & Hawkins, 1977). These situations might include obtaining a job lead (Jones & Azrin, 1973; Salomone & Rubin, 1979), completing an application for employment (Carlson & Mayfield, 1967), writing a resumé (Wilkinson & Rosenberg, 1979), and participating in a job interview (Keil & Barbee, 1973; Kelly, Laughlin, Clairborn & Patterson, 1979; Pate & Harwood, 1974). Such techniques for measuring relevant job-finding behaviors might improve the efficiency of employment counseling by providing information about an individual's strengths and weaknesses in each of these common job-finding situations.

Mathews, Whang, and Fawcett (1980) used a behavioral-analytic strategy (Goldfried & D'Zurilla, 1969) to develop an occupational skills assessment instrument designed to measure job-related skills. The instrument was designed to provide an opportunity for participants to practice a number of job-related skills in analogue situations. In this way, the performance of participants could be directly observed for each of the stages of the employment process. The results of this study, examining the reliability

and validity of the occupational skills assessment instrument, showed that the situations involved in the assessment were considered by participants and employment experts to be important and representative. In addition, satisfaction ratings provided by employment experts who viewed videotaped samples of participants' performance of the occupational skills were highly correlated with the observed performance of the participants. Further, the participants' performance, as observed with the behavioral assessment instrument, was highly correlated with observations using another instrument for measuring one job-related behavior. However, the study contained no information about the comparative level of employment skills of employed and unemployed adults.

The present study is designed to examine the size of differences in occupational skills of employed and unemployed adults as measured by the occupational skills assessment instrument. Such information should provide normative data on which employment counselors might base decisions about which job-finding competencies might be addressed in employment preparation programs.

Method

Participants

Two groups of participants were involved in the study: unemployed and employed adults. All participants lived in a midwestern city of 60,000 which has an annual unemployment rate of approximately 3%. Each participant was informed of the purposes of the research and consented to participate. For their participation, each person received a five dollar incentive payment.

The 25 unemployed adults were contacted by placing advertisements at the county employment service, a local CETA (Comprehensive Employment

Training Act) office, and a community service agency located in a low-income area of the city. These advertisements requested assistance from unemployed persons who were over 21 years of age and not currently enrolled in school. These participants ranged in age from 21 to 63 years ($\bar{x} = 45$); in education from 4 years to post-graduate ($\bar{x} = 13$); in work experience from none to 50 full time jobs ($\bar{x} = 9$); and in time unemployed within the previous year from two to twelve months ($\bar{x} = 7$). Of the 25 unemployed adults, 14 were male and 11 were female; 13 were white and 12 were black, native American or hispanic. All volunteers were admitted to this group until 25 unemployed persons had agreed to participate.

The 25 employed adults were identified through lists of members of the local chamber of commerce and university employees. To be included in this group, the person had to have been employed continuously for at least the previous 12 months. These participants ranged in age from 26 to 56 years ($\bar{x} = 45$); in education from 10 years to post-graduate ($\bar{x} = 15$); in work experience from 2 to 50 full time jobs ($\bar{x} = 7$); and in time employed at their current job from 7 to 94 months ($\bar{x} = 34$). These participants reported current average earnings of \$10,000-\$15,000 per year. Of these employed participants, 16 were male and 9 were female; 22 were white, and three were black or hispanic. Persons were selected for this group by the researchers until 25 employed persons had agreed to participate. Of the 25 participants in this group, six were known to the researchers prior to this study.

Setting

Assessments of occupational skills were made in an office containing a desk, chairs, paper, pencils, and a telephone. Each session was recorded

on audiotape, with the cassette recorder in view of the subject. For situations involving interactions with employment personnel (e.g., job interviewer), an experimenter was present to play the role of the person from the job setting.

Occupational Skills Assessment Instrument

An occupational skills assessment instrument (Mathews, Whang, & Fawcett, 1980) was used to measure the job-related skills of each participant.¹ The instrument was designed to provide an opportunity for participants to practice a number of job-related skills in analogue situations. In this way, the performance of participants could be directly observed for each stage of the employment process. The results of the Mathews et al. (1980) study, examining the reliability and validity of the occupational skills assessment instrument, showed that the situations involved in the assessment were considered by participants and employment experts to be important and representative. In addition, satisfaction ratings provided by employment experts who viewed videotaped samples of participants' performance of the occupational skills were highly correlated with the observed performance of the participants. Further, the participants' performance, as observed with the behavioral assessment instrument, was highly correlated with observations using another measure of job-related behavior.

The instrument used a series of role-playing tests to measure the participant's performance of thirteen different employment-related skills. The skills included in the assessment were: 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 obtain a job interview (when there is a job opening), 4) telephoning a potential employer

to obtain 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 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 a job done well, 12) accepting a compliment from a co-worker, and 13) completing a federal income tax form. These thirteen tasks represent a range of social interaction, writing and computational skills applied to important aspects of obtaining and retaining employment.

Observational Procedure

Each person participated in the thirteen job-related situations contained in the occupational skills assessment instrument. A role-playing evaluation script (Fawcett, Mathews, Fletcher, Morrow, and Stokes, 1976; Mathews and Fawcett, 1979) was used for each of the ten social-interaction situations; written materials or forms were used for the three non-social interaction situations. Each script specified the verbal statements and physical activities that the experimenter was to say or do. For example, for the task of accepting a suggestion from an employer, one of the researchers followed a script to play the role of a supervisor while the participant acted as if s/he were actually an employee. Each of the role playing situations was recorded on audiotape to allow for the scoring of each participant's performance of the job-related tasks.

All participants were instructed to perform each job-related task "as if" they were in the actual employment situation. An experimenter, following a script, described the situation to be acted out (e.g., "In this situation, I will play the part of...") and played the role of the person with whom the participant was to interact. Before or during these

role-playing situations, the participants were not informed of the responses that were considered to be appropriate by the researchers. After the completion of the assessment, the experimenter answered any questions that participants had about their performance or the assessment situations. Each of the role-playing situations was recorded on audiotape to allow for the scoring of each participant's performance of the job-related tasks.

For the three non-social interaction situations (writing a letter in response to a help-wanted advertisement, writing a letter to follow-up a job interview, and completing a federal income tax form), participants received a written description of the task to be performed (e.g., a sample help-wanted advertisement from the local newspaper) and the materials required to perform the task (e.g., paper, pencils). Each participant produced written products which could later be scored for the percentage of occurrence of specified responses.

A checklist was developed for each of the job-related skills in the occupational skills assessment instrument. This list was composed of the behaviors identified by employment experts and the employment training literature as being involved in the competent performance of each of the thirteen job-related tasks. The thirteen tasks contained a mean of nine discrete behaviors to be performed by the participant. The number of steps ranged from two (for accepting a compliment from a supervisor) to seventeen (for participating in a job interview and completing a federal income tax form).

An observer scored each participant's performance from the written products and audiotaped role-playing sessions. To assess the level of interobserver agreement, a second independent observer used a checklist to score the occurrence or non-occurrence of each target behavior from the same audiotapes and written products. Interobserver agreement was measured by an item-by-item comparison of the scoring of the target behaviors for each of the job-related situations. Total reliability was calculated by dividing the number of agreements by the number of agreements plus disagreements multiplied by 100. Total reliability averaged 93% (ranging from 81% to 99%) for all situations.

Results

The performance of job-related skills by unemployed adults was compared to that of adults with good employment histories. These data were separately analyzed when grouped by social and nonsocial interaction skills and when grouped by skills involved in obtaining and retaining employment.

Table 1 shows the mean percentage and range of specified behaviors performed by both groups of participants. These percentages were obtained

Insert Table 1 about here

by dividing the number of correct responses by the total number of required responses on the checklist multiplied by 100. The overall mean percentage of occupational skills for unemployed adults was 51% (ranging from 29% to 78%). For employed adults the overall mean percentage was 77% (ranging from 38% to 90%). To determine the statistical significance of these differences, F-tests were conducted. A significance level of .001 was used. The differences between the mean scores on each of the thirteen skills were significant.

The job-related tasks were divided into two categories: social and non-social interaction skills. The overall mean percentage of social interaction skills performed by the unemployed adults was 42% (ranging from 23% to 60%) and was 69% (ranging from 50% to 81%), for the employed adults. The overall mean percentage of non-social interaction skills performed by the unemployed adults was 60% (ranging from 30% to 96%), and was 85% (ranging from 10% to 100%) for employed adults. F-tests were conducted and these differences were found to be significant (at $p < .001$).

In addition, the data were analyzed separately for tasks involved in finding a job and those involved in retaining a job. The overall mean percentage of job finding skills performed by unemployed adults was 45% (ranging from 26% to 63%), and 70% (ranging from 38% to 89%) for employed adults. The overall mean percentage of job retention skills performed by unemployed adults was 44% (ranging from 20% to 61%) and was 72% (ranging from 54% to 89%) for the employed adults. F-tests resulted in statistically significant differences (at $p < .001$).

Discussion

The findings of this research show clear differences in the performance of job-related skills by unemployed and employed adults. The results showed that the employed adults performed significantly better on each of the thirteen occupational skills observed. Though the generality of these findings is limited by the size of the sample, the absence of random assignment to groups, and possible selection biases (Campbell & Stanley, 1966), these findings are consistent with those of related work with normal and learning disabled adolescents (Note 1).

Previous research (Mathews, et al., 1980) indicates that employers and employment experts found such skills as participating in a job interview and accepting criticism from an employer to be particularly important for

job success. These skills were observed at well below mastery levels for nearly all participants in the unemployed group. These data would suggest the importance of teaching these employment-related competencies to unemployed adults who are found to be deficient in these skills.

One common role for employment counselors has been to teach job-finding skills to the unemployed (Brown & Kottler, 1979; Jackson, 1972; Kemp & Vash, 1971; Waterland, 1970). The occupational skills assessment instrument might serve as a prescriptive device for counselors to use to determine which job-related skills are deficient in a particular client. As such, the counselor might better be able to enhance the person's chances of both finding and retaining satisfactory employment.

Reference Note

1. Mathews, R.M., Whang, P.L., & Fawcett, S.B. Behavioral assessment of occupational skills in learning disabled adolescents. Unpublished manuscript, University of Kansas.

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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, KS 66045.

Table Legend

Table 1. The job-related task observed in the occupational skills assessment
 A statistically significant difference ($p < .001$) was noted for all items.

Job-related task	Unemployed Adults (N=25)			Employed Adults (N=25)	
	# of behaviors observed	Mean Percent Appropriate	Range	Mean Percent Appropriate	Range
<u>Job-finding skills</u>					
1. Getting a job lead from a friend	9	37%	22-67%	58%	33-78%
2. Telephoning a potential employer to get a job interview (when there is a job opening)	11	40%	9-73%	71%	36-100%
3. Telephoning a potential employer to get a job interview (when there is not a job opening)	12	31%	8-50%	51%	17-83%
4. Writing a letter to request an interview in response to a help wanted advertisement.	10	56%	30-100%	83%	30-100%
5. Participating in a job interview	17	49%	18-86%	76%	44-88%
6. Writing a letter to follow-up a job interview	7	57%	14-100%	84%	0-100%
<u>Job-Retention Skills</u>					
1. Accepting a suggestion from an employer	4	25%	0-50%	62%	25-100%
2. Accepting criticism from an employer	7	34%	0-71%	64%	29-86%
3. Providing constructive criticism to a co-worker	8	42%	13-75%	63%	38-88%
4. Explaining a problem to a supervisor	9	45%	22-67%	73%	44-100%
5. Complimenting a co-worker on a job done well	3	69%	0-100%	97%	67-100%
6. Accepting a compliment from a co-worker	2	46%	0-100%	75%	50-100%
7. Completing a federal income tax form	17	64%	6-100%	88%	0-100%

Table 1

Mean Percentage of Occupational Skills Observed