

Interrater Reliability in Job Analysis: Differences in Strategy and Perspective

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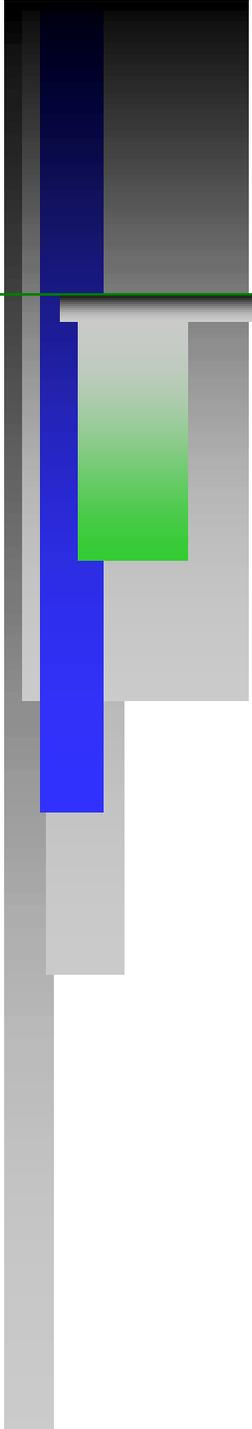
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Variance in Job Analysis Ratings: The Research

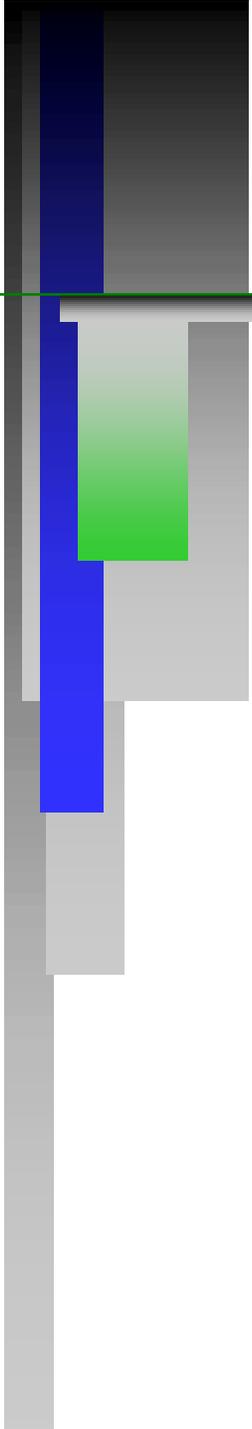
- Variance = error
- The job exists as described
- Cognitive lenses
 - Social influences
 - Pure cognitive processes
 - Information biases





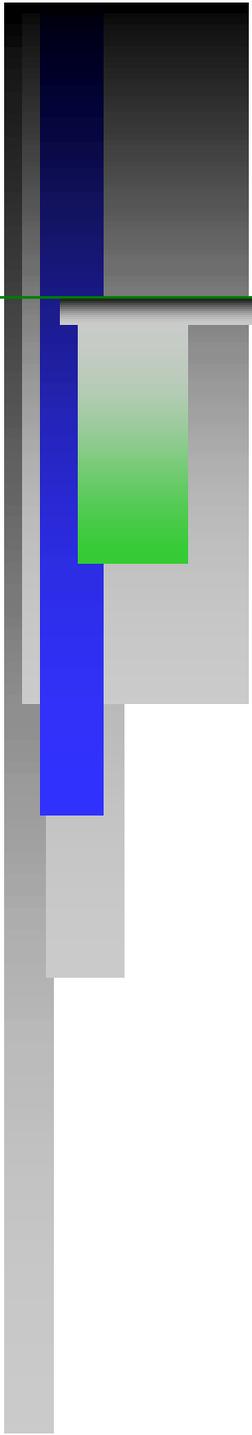
Variance in Job Analysis Ratings: A Practical Approach

- Did the raters do their job?
- Are the jobs actually different?
- Strategy or perceptual differences?



The Current Study

- Setting
 - Department of Human Services
 - Entry level social worker
- Instrument:
 - Task and skill inventory
 - Multiple respondents per job



Hypotheses

- H_{1A}

Job tenure will differ between groups of raters with different task profiles.

- H_{1B}

Professional tenure will differ between groups of raters with different task profiles.

- H_2

African-American and White raters will differ in their ratings of task items concerning adoption and foster care

Statistical Analysis

- Factor analysis (H_{1A} and H_{1B})

	<u>Group 1</u>	<u>Group 2</u>
Professional Tenure	7.9 years	12.7 years
Job Tenure	5.6 years	7.1 years

- T-tests, selected items (H_2)

Results

- H_{1A}
Job tenure
- H_{1B}
Professional tenure
- H_2
African-American and
White raters

No

Yes

No

Discussion

- Social work as a profession
 - Professional tenure matters
 - Job tenure doesn't
- Adoption and foster care items reflect general approach, not how activities are carried out

Interrater Reliability in Job Analysis:
Differences in Strategy and Perspective

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Running Head: JOB ANALYSIS

Abstract
(92 words)

In spite of the increasing use of the content validity model for employee selection, there has been little focused research on the psychometric properties of the job analysis ratings used to determine job content. Sources of systematic variance include differences in job performance strategies and differences in perspectives on the job. In the current study, task importance ratings for a single job (social worker) are examined to determine whether or not rater experience and race will have significant effects on job performance strategy and job perspectives, as measured by job analysis ratings.

Interrater Reliability in Job Analysis: Differences in Strategy and Perspective

The results of job analysis are of crucial importance to the entire spectrum of human resource management applications, including selection, training, wage and salary administration and job design. In order for organizational goals to be accomplished in an efficient manner, individual must be selected and trained in reference to the requirements of the organization's job requirements, described in terms of both job tasks and skills. Employee motivation is driven by both compensation plan design and job design, both of which depend, in turn, on task and skill information obtained through the job analysis process. Moreover, organization effectiveness also requires compliance with external constraints, such as those imposed by the legal system and the economic environment. Compliance with EEO standards for personnel decision-making (as described in the Uniform Guidelines on Employee Selection Procedures, 1978 and the Americans with Disabilities Act, 1991) requires that the organization base those personnel decisions on job-relevant data.

Job analysis data is especially critical to the development of content-valid selection instruments and procedures. These must assess applicants' possession of job skills or competencies and must be constructed with "psychological fidelity" to the task environment. (Prien, Goldstein & Macey, 1987; Goldstein, Zedeck & Schneider, 1993)

Despite the importance of job analysis in HR management overall, as well as in establishing content validity, relatively little attention has been paid to job analysis processes and outcomes, including the psychometric properties of structured job analysis ratings (Harvey, 1991). In particular, there is little research on the sources of variance in these ratings. The majority of the existing research is not based on any theoretical structure outlining the sources of variance, although recent theoretical work by Morgenson and Campion (1997) has provided a structure and rationale for research on variance in job analysis ratings.

The Role of Variance in Job Analysis Ratings

The topic of variance in job analysis ratings can be viewed from multiple perspectives. According to some researchers in this area, the topic is without meaning, as it is not possible to distinguish variance due to rater characteristics and variance due to actual differences in jobs (Sanchez and Fraser, 1992). While it is, possible to argue

that job content has no meaning other than in the eyes of the beholder, others assume that it is, in fact, possible to externally validate a job analysis (Fleishman and Mumford, 1991; Harvey, 1991).

A more recent approach (Morgenson & Campion, 1997) does not assume that all variance is “real”, nor that all variance is “error”, but that various filters and cognitive processes operate in predictable manners to affect individual raters and their ratings. Morgenson and Campion point to social, pure cognitive, and information biases as causes for variability in job analysis ratings. For example, social factors may come into the equation if raters are under pressure to rate a job in a certain way, as is often the case when results are to be used for pay decisions. Raters may (and often do) attempt to portray themselves in a favorable light. A purely cognitive process included rater information overload, a phenomenon familiar to raters presented with a 700-item questionnaire. Finally, simple lack of information or carelessness may influence ratings.

A Practical Approach to Variance

When examining variance in job analysis ratings, we suggest that three sources of possible variance be examined, stemming from the three perspectives on job analysis discussed above. These are:

- (1) Pure error variance, stemming from rater carelessness or lack of ability to comprehend the questionnaire
- (2) Actual difference between jobs
- (3) Rating variance associated with the rater’s strategy or perspective

In the current study, we will briefly discuss the first two sources of variance, then focus the remainder of our attention on variance due to differences among raters.

Error Variance

The first source of variance is the first that must be ruled out. It is essential to rule out mechanical or administrative problems with questionnaire administration before looking for other sources of rating variability. It is possible that job incumbents may not be able to read and understand the questionnaire to the extent required for meaningful response (as discussed by Harvey, et al., 1988) or may not be motivated to provide meaningful responses (as in the case reported by Hughes and Prien, 1989). Techniques for detecting random or careless responses are discussed by Green and Stutzman (1986); Hughes and Prien (1989); and Wilson, Harvey, and Macy (1990).

Variance Due to Differences in Actual Job Content

In the second case, variance between raters is neither error variance nor variance due to confounding variables, but reflects actual differences between the jobs in question. Determining whether or not this is the case does call for the exercise of judgement, but is not an impossible task. As both Harvey (1991) and Prien, Goldstein, and Macey (1987) point out, in many organizations, multiple incumbents in one job title may be performing very different jobs. In some instances, this may be obvious. For example, two receptionists may complete the same job analysis questionnaire, but the incumbent in the CEO's office will select very different tasks and skills than the incumbent in the plant. However, in other cases, the differences may be more difficult to determine. Two managers may be performing the same duties in different settings. Here, the analyst's judgement is necessary to determine if the differences in work setting are sufficient to make the jobs truly different from one another. At the other end of the spectrum, two positions may vary so slightly that it is not possible to distinguish the positions as being separate jobs. For example, the differences between ratings provided by managerial incumbents (Schmitt & Cohen, 1989) are most likely due to actual differences in job content.

If it has been determined that multiple jobs exist within a data set, the next step is to determine which raters are describing the same jobs and which are describing different jobs. General knowledge of the organization and of the occupational area is helpful here; the rater may simply pick out raters known to be performing the same job. On a larger scale or as a next step, it is possible to use statistical techniques such as cluster analysis (Garwood, Anderson, & Greengart, 1991) or inverse factor analysis (Pearlman, 1980) to determine how many different jobs exist and which raters are describing significantly different jobs.

Variance Due to Differences in Job Performance Strategies

However, in many cases, it is possible to determine, through reference to external standards, that rater are performing the same job. Then, the task is to determine the reason or reasons why raters provide different information.

One possible explanation for variance in job analysis ratings is the strategy that the individual rater uses to perform the job. In many cases, it is possible to determine potential differences in strategy by assessing easily discernable characteristics directly associated with the job, such as amount of education, level of job performance, or level of experience or job tenure. These characteristics measure either the knowledge the incumbent (or other rater)

brings to the job or the way in which the incumbent (or other rater) performs the job. The job tasks do not differ, but the incumbents take different approaches or strategies to task performance.

Education has also been hypothesized to affect job analysis ratings. Here, individuals with higher levels of education may be aware of multiple or different strategies for task performance that individuals with less education are not aware of. Results of empirical tests, however, have not as yet lent any support to this hypothesized relationship. Neither Mullins and Kimbrough (1988) nor Kunzo and York (1994) found differences based on amount of training.

An additional source of rater strategy variance in task ratings may be the raters' job performance. The rationale for this statement is that the higher performance of job incumbents may be attributable to their performing different tasks or different combinations of tasks. For a job in which incumbents have choice about how their time is spent, this may well be true. Hauenstein and Foti (1989) found rating differences between high and low performing police officers. Wright, Anderson, Tolzman and Helton (1990) found that factory service technicians' performance could be explained by the interaction between time spent on tasks and task importance. Borman, Dorsey and Ackerman (1992), in their study of stockbrokers, found that performance affected the relative amounts of time spent on various job duties. In contrast, Wexley and Silverman (1978) did not find any differences in responses from more and less effective store managers. Conley and Sackett (1987) found that both high and low performing police juvenile officers generated the same inventory of tasks and rated those tasks similarly.

Finally, tenure may affect the tasks that incumbents report. Longer tenure incumbents have had an opportunity to gain more knowledge about the job, including infrequently performed tasks that may, nevertheless, be important to the job (i.e., a report produced annually). In addition, less experienced incumbents may well be assigned simpler, more routine tasks than the more experienced incumbents. Research results generally support this hypothesis. Landy and Vasey (1991) found differences by experience for police officers. However, in a study of campus police officers, Mullins and Kimbrough (1988) did not find any significant effect from seniority. Borman, et al. (1992) found different time allocations for more versus less experienced stockbrokers. Kunzo and York (1994) found tenure-based differences for task ratings made by mechanics in a public utility.

Other variables may also affect job analysis ratings from the perspective of job strategy or knowledge. Contextual factors, such as work setting, might also affect job performance strategies (e.g., location, as reported by Kunzo and York (1994)).

Variance Due to Differences in Job Perspective

It is also possible that differences between ratings are not due to actual differences between jobs or to the strategy used to perform the job. The source of job analysis ratings (i.e., supervisor, incumbent or other expert) or individual difference characteristics, such as race or gender, may affect individuals' beliefs or perceptions about the job, and, thus, their ratings.

The basic assumption that attitudes or beliefs can influence ratings is supported by research findings. Arvey, Davis, McGowen, and Dipboye (1982) found that job analysts made similar judgements, regardless of whether or not the job was described as "interesting". For another form of job descriptive activity, the Job Diagnostic Survey, Spector and Jex (1991) found that incumbents' ratings of job characteristics (i.e., autonomy, task identity, skill variety, task significance, and task feedback) were correlated with measures of job satisfaction, frustration and anxiety.

The source of information about the job is often a source of differing perspectives. Structured job analysis questionnaires are typically completed by incumbents, supervisors or other subject matter experts (i.e., industrial engineering staff or trainers), although conventional wisdom suggests that job incumbents can provide the most accurate ratings (as mentioned by Green and Stutzman, 1986). Goldstein, et al. (1993) suggest that "job incumbents appear to be more adept at focusing on what they do and are more effective in describing the exact tasks they perform on the job." (p. 26). In empirical studies, however, the bulk of the evidence indicates that incumbents and supervisors do provide comparable information. As might be expected, ratings between supervisors and incumbents were similar in standardized job categories, such as Air Force occupations (Hazel, Madden and Christal, 1964) and juvenile police officers (Conley & Sackett, 1987). In less standardized jobs or occupations, as Holke and Hanges (1994) suggest, differences may be more likely to appear. However, neither Smith and Hakel (1979) in their study of various state government jobs, nor Holke and Hanges (1994) in their study of university clerical workers found any significant differences. Less objective ratings (i.e., skills or job characteristics) may be more susceptible to variance; Spector and Jex (1991) found significant differences between job incumbents and external raters on job characteristics.

As mentioned above, other parties may also supply job analysis information. In an examination of SME viewpoint, Truxillo, Pettaway and Sulzer (1994) found that different descriptions of the police officer job were obtained from job incumbents and from the officers' "customers", the district attorneys.

Demographic variables may be a proxy measure of individual differences in job beliefs or attitudes. The two most prominent demographic variables are race and gender. These are also the most often examined, since the results of job analysis are commonly used to make personnel decisions affecting members of these protected classes.

For gender, the evidence is mixed. Landy and Vasey (1991) found only possible gender affects. However, they also found significant effects from experience; since the majority of experienced police officers incumbents were male, gender and experience effects were confounded. Schmitt and Cohen (1989) found gender differences, as did Ferris, Fedor, Rowland, and Proac (1985). However, Arvey, Passino, and Lounsbury (1977), in a laboratory study, found only minor differences between ratings made by men and women.

For race, the evidence is that there are differences in job analysis ratings between black and white raters. Schmitt and Cohen (1989) found race-based differences for civil service managers and Aamodt, Kimbrough, Keller and Crawford (1982) also reported differences by racial groups.

The Current Study

The purpose of the current study is to examine variance in task importance ratings for the job of entry-level social worker. Two sources of variance, rater experience and rater race, will be examined, to determine if perceptual variance is present.

It was immediately possible to rule out carelessness or lack of literacy as a source of error. Preliminary inspection of the data showed that incumbents did not complete the questionnaires at random or carelessly. Literacy or reading level was not an issue since the job requires a college degree

Actual variance was also not an issue, since it was known that there was only one job. Incumbents in this job were expected to perform all job duties and did not specialize in any particular area. Thus, variability in ratings would fall into the last category, and could be attributed to differences in job performance strategy, differences in job perceptions, or both.

As discussed above, differences in job performance strategies, expressed in terms of the actual tasks performed, may result from differences in experience, education or job performance. To test this model, any of these three variables could be used. Differences in any of these three variables should result in different job task profiles.

For the current study, professional tenure, job tenure and level of education are available. However, there was very little variance in level of education, so professional and job tenure were chosen to measure differences in job performance strategies. The hypotheses to be tested are as follows:

H_{1A} Professional tenure will be different between groups of raters with different task profiles.

H_{1B} Job tenure will be different between groups of raters with different task profiles.

It will be somewhat more difficult to assess differences resulting from different perceptions of the job. It would be possible to find theoretical support for a hypothesized difference between male and female raters; however, in the current sample, there are an insufficient number of questionnaires completed by male incumbents. The other demographic variable available is race. Evidence exists to support a hypothesis that African-Americans and Whites hold different attitudes about adoption. For example, within the general population, racial differences have been found on attitudes toward open adoption and informal adoption, with African-Americans being statistically more likely to favor open adoption (Rompf, 1993) and to prefer informal or kinship placements (Hegar and Scannapieco, 1995). Attitudes towards interracial adoption also vary by race (McRoy, 1989; Griffith and Duby, 1991; Hayes, 1993). In fact, beginning in 1972, the National Association of Black Social Workers has taken an official stand against interracial adoptions (McRoy, 1989). Thus, the following hypothesis will be tested:

H₂ African-American and White raters will differ in their ratings of task items concerning adoption and foster care.

METHOD

Job analysis ratings were gathered as part of a project to establish a selection program for professional jobs in the Department of Human Services in a Southern state. Raters were selected from incumbents in each physical location in the state. As recommended by Landy and Vasey (1991), the overall sample was balanced by gender (to the extent possible) and ethnic group. However, the vast majority of incumbents in this profession are women, and, in the sample, 87.3% of the raters were female. 43.6% of the raters were African-American and 54.5% were White.

The majority of incumbent raters (89.1%) held a bachelor's degree; the remainder held master's degrees. Average professional tenure was 10.09 years (s.d. = 6.64) and average job tenure was 6.24 years (s.d. = 4.80).

The instrument used was developed specifically for the state by a consulting firm. Task items were written to reflect the range of duties required of the entire range of agency professional employees, including entry level through management jobs. Items were then grouped into categories by the consultants. This follows the recommendations of Cranny and Doherty (1988) and of Goldstein, et al., (1993), that categories be grouped thematically rather than statistically and presented to raters in categories (note also that interrater reliabilities may be higher when items are presented in a structured format, as reported by Coover, 1993). Raters were asked to rate each item on five point scales of task importance.

The first step was to examine task profiles to determine if differences existed based on time in the profession or time in the present job. To determine if differences existed between task profiles by professional or job tenure, inverse factor analysis was used to classify raters into homogenous groups by tasks. Then, differences in job tenure between the resulting groups were tested with analysis of variance.

To determine if differences existed by race, those task items dealing with adoption were isolated. T-tests were then used to determine whether significant differences existed between African-American and White raters.

RESULTS

The factor analyses of the task items resulted in a two-factor solution. The allocation of raters by task factors is shown in Table 1. Professional and job tenure levels for each group are shown in Table 2.

Place Tables 1 and 2 about here

Note that professional tenure, though not job tenure, differed significantly between factors. A follow-up discriminant analysis was conducted, using task factor assignment as the grouping variable. Task items were entered stepwise, and 39 task items contributed significantly to the discriminant function. The resulting discriminant function correctly classified 100% of the raters. The 39 task items entering the discriminant function, together with mean values for the short-term and long-term groups are shown in Table 3.

Note that the majority of the items where the difference between mean values is meaningful (i.e., more than 1.0 on the 5-point scale) fall into the category "Treatment Activities," suggesting that this activity was reserved for the more experienced social workers.

Place Table 3 about here

Results of the t-tests of the 13 task items dealing with adoption and foster care are listed in Table 4. Note that none of the differences between African-American and White raters were statistically significant.

Place Table 4 about here

DISCUSSION

The findings suggest that the level of professional tenure, though not job tenure, may be associated with differences in the overall profiles of tasks reported by job incumbents as important for the job. However, these results must be interpreted in the context of the particular job being examined. Within the particular organization, the Social Service Worker II job provides incumbents with relatively little latitude in what tasks they perform. However, there is some suggestion (based on the results of the discriminant analysis) that longer tenured workers either actually perform a slightly different job or perceive themselves as performing a different job. It also appears that the task items appearing in the discriminant function all appear to involve some degree of latitude or discretion. While these are not the only task items in the questionnaire that involve latitude, it is worth noting that the majority of the items differentiating shorter from longer professional tenure employees do involve discretion. Therapy or treatment duties, the category where there appeared to be the most difference by tenure, would certainly involve discretion or latitude. There was also some indication that less frequently performed tasks were more likely to be selected by the longer tenure workers. In one category, "Maintain Emergency Welfare Plan," the two items chosen from this category by the longer tenure versus the shorter tenure workers involve actual emergencies, as opposed to items where there was no tenure difference. In this case, longer tenure makes it more likely that the individual will have encountered unusual events.

The question, then, is why job tenure does not have the same effects as professional tenure. The job in question, social worker, is a professional job. As such, the individual's primary loyalty is to the profession, rather than to the employing organization. Variance in an individual's job experience across organizations will be relatively minor and inconsequential and the time in the profession, no matter what the organization, will be controlling.

In this particular job, it appears that there is no meaningful effect of race on ratings of adoption and foster care items. However, these items simply described an activity, and did not go into detail about how the activity was to be performed. Skill items were also written in a general manner, specifying "knowledge of", rather than what the knowledge consisted of. If a different job analysis methodology had been employed, differences based on race might well have emerged. For example, the choice of critical incidents provided by African-American and White raters might well have been different, as might have narrative job descriptions provided by the same two groups.

The results of the current study tend to confirm the overall model suggested by Morgenson and Campion (1997) to explain differences in job analysis ratings. Even in a standardized job, the incumbent's job performance strategy may vary by level of professional experience. Future research on differences resulting from different job performance strategies should examine jobs where incumbents have more latitude in task performance and where organization, rather than professional tenure, is relevant. In addition, job performance would be a preferable criterion (Borman, et al., 1992), with variables such as experience and education used as antecedents of differing performance levels, rather than variables of interest in and of themselves. The possibility of differences in ratings based on job perspective was not confirmed in the present study, although this may be due the very general level of the ratings. Additional research in this area should focus on different occupational areas and organizational settings, with hypotheses specifically designed for the particular setting or job. For example, gender may affect the description of managerial jobs, given the real possibility of gender differences in management styles.

Prior research on job analysis ratings has been limited primarily to examination of the differences between raters, without theoretically based expectations of differences. Although the current study could only confirm tenure related differences in job analysis ratings, it is the beginning of more directed research in job analysis rating differences.

REFERENCES

- Aamodt, M. G., Kimbrough, W. W., Keller, R. J., & Crawford, K. J. (1982). Relationships between sex, race, and job performance level and the generation of critical incidents. Journal of Educational and Psychological Research, 2, 227-234.
- Arvey, R. D., Davis, G. A., McGowen, S. L., & Dipboye, R. L. (1982). Potential sources of bias in job analytic processes. Academy of Management Journal, 25(3), 618-629.
- Arvey, R. D., Passino, E. M., & Lounsbury, J. W. (1977). Job analysis results as influenced by sex of incumbent and sex of analyst. Journal of Applied Psychology, 62, 411-416.
- Borman, W. C., Dorsey, D., & Ackerman, L. (1992). Time-spent responses as time allocation strategies: Relations with sales performance in a stockbroker sample. Personnel Psychology, 45(4), 763-777.
- Conley, P. R., & Sackett, P. R. (1987). Effects of using high- versus low-performing job incumbents as sources of job-analysis information. Journal of Applied Psychology, 72(3), 434-437.
- Coovert, M. D. (1993). Effects of schematic organization on job task ratings. Psychological Reports, 73, 445-446.
- Cranny, C. J., & Doherty, M. E. (1988). Importance ratings in job analysis: Note on the misinterpretation of factor analyses. Journal of Applied Psychology, 73(2), 320-322.
- Ferris, G. R., Fedor, D. B., Rowland, R. M., & Proac, J. F. (1985). Social influence and sex effects on task performance and task perceptions. Organization Behavior and Human Performance, 36, 66-78.
- Fleishman, E. A., & Mumford, M. D. (1991). Evaluating constructs of job behavior: A construct validation of the Ability Requirement Scales. Personnel Psychology, 44, 523-575.
- Garwood, M. K., Anderson, L. E., & Greengart, B. J. (1991). Determining job groups: application of hierarchical agglomerative cluster analysis in different job analysis situations. Personnel Psychology, 44, 743-762.
- Goldstein, I. L., Zedeck, S., & Schneider, B. (1993). An exploration of the job analysis--content validity process. In Neal Schmitt, Walter C. Borman, & Associates (eds.), Personnel selection in organizations, pp. 3-34. San Francisco: Jossey-Bass Publishers.
- Green, S. B., & Stutzman, T. (1986). An evaluation of methods to select respondents to structured job-analysis questionnaires. Personnel Psychology, 39, 543-564.
- Griffith, E. E. H., & Duby, J. L. (1991). Recent developments in the transracial adoption debate. Bulletin of the American Academy of Psychiatry and the Law, 19(4), 339-350.
- Harvey, R. J. (1991). Job analysis. In M. D. Dunnette and L. M. Hough (eds.), Handbook of Industrial and Organizational Psychology, pp. 71-164. Palo Alto, CA: Consulting Psychologists Press.
- Harvey, R. J., & Lozada-Larsen, S. R. (1988). Influence on amount of job descriptive information on job analysis rating accuracy. Journal of Applied Psychology, 73, 457-461.
- Hauenstein, N. M. A., & Foti, R. J. (1989). From laboratory to practice. Neglected issues in implementing frame-of-reference rater training. Personnel Psychology, 42, 359-378.
- Hayes, P. (May-June, 1993). Transracial adoption: Politics and ideology. Child Welfare, 72(3), 301-310.

-
- Hazel, J. T., Madden, J. M., & Christal, R. E. (1964). Agreement between worker-supervisor descriptions of the worker's job. Journal of Industrial Psychology, 2, 71-79.
- Hegar, R., & Scannapieco, M. (January-February, 1995). From family duty to family policy: The evolution of kinship care. Child Welfare, 74((1), 200-216.
- Holke, J. A., & Hanges, P. J. (1994). Comparison of supervisor and job incumbent job analysis ratings. Paper presented at the annual meeting of the Society for Industrial-Organizational Psychology, Nashville, TN, April 7-10, 1994.
- Hughes, G. L., & Prien, E. P. (1989). Evaluation of task and job skill linkage judgments used to develop test specifications. Personnel Psychology, 42, 283-292.
- Kunzo, J. P., & York, C. M. (1994). Field data on the assessment of incumbent expertise in job analysis. Paper presented at the annual meeting of the Society for Industrial-Organizational Psychology, Nashville, TN, April 7-10, 1994.
- Landy, F. J., & Vasey, J. (1991). Job analysis: The composition of SME samples. Personnel Psychology, 44, 27-50.
- McRoy, R. G. (1989). An organizational dilemma: The case of transracial adoptions. The Journal of Applied Behavioral Science, 25(2), 145-160.
- Morgenson, F. P. & Campion, M. A. (1997). Social and cognitive sources of potential inaccuracy in job analysis. Journal of Applied Psychology, 82 (5), 627-655.
- Mullins, W. C., & Kimbrough, W. W. (1988). Group composition as a determinant of job analysis outcomes. Journal of Applied Psychology, 73(4), 657-664.
- Pearlman, K. (1980). Job families: A review and discussion of their implications for personnel selection. Psychological Bulletin, 87(1), 1-28.
- Prien, E. P., Goldstein, I. L., & Macey, W. M. (August 1987). Multi-domain job analysis: Procedures and applications. Training and Development, pp. 68-72.
- Rompf, E. L. (May-June, 1993). Open adoption: What does the "average" person think? Child Welfare, 72(3), 219-230.
- Sanchez, J. I., & Fraser, S. L. (1992). On the choice of scales for task analysis. Journal of Applied Psychology, 77(4), 545-553.
- Schmitt, N., & Cohen, S. A. (1989). Internal analyses of task ratings by job incumbents. Journal of Applied Psychology, 74(1), 96-104.
- Smith, J. E., & Hakel, M. D. (1979). Convergence among data sources, response bias, and reliability and validity of a structured job analysis questionnaire. Personnel Psychology, 32, 677-692.
- Spector, P. E., & Jex, S. M. (1991). Relations of job characteristics from multiple data sources with employee affect, absence, turnover intentions, and health. Journal of Applied Psychology, 76(1), 46-53.

Truxillo, D. M., Pettaway, M. L., & Sulzer, J. L. (1994). SME viewpoint: Effects on job analysis results. Paper presented at the annual meeting of the Society for Industrial-Organizational Psychology, Nashville, TN, April 7-10, 1994.

Uniform Guidelines on Employee Selection Procedures. (1978). Federal Register, 43, 38290-38315.

Wexley, K. N., & Silverman, S. B. (1978). An examination of the difference between managerial effectiveness and response patterns on a structured job analysis questionnaire. Journal of Applied Psychology, 63(5), 646-649.

Wilson, M. A., Harvey, R. J., & Macy, B. A. (1990). Repeating items to estimate the test-retest reliability of task inventory ratings. Journal of Applied Psychology, 75(2), 158-163.

Wright, P. M., Anderson, C., Tolzman, K., & Helton, T. (1990). An examination of the relationship between employment performance and job analysis ratings. Paper presented to the 1990 Academy of Management Meeting, San Francisco, CA, August 12-15, 1990.

Table 1
Inverse Factor Analysis of Task Items

Rater	Factor
R9	2
R10	2
R11	2
R12	1
R13	2
R14	2
R15	2
R16	1
R17	1
R72	1
R73	2
R74	2
R75	2
R76	1
R77	2
R78	1
R79	1
R80	1
R81	1
R82	1
R139	1
R140	1
R141	1
R142	2
R143	2
R144	1
R145	2
R146	1

Table 1
Inverse Factor Analysis of Task Items

Rater	Factor
R147	2
R148	1
R149	1
R150	1
R152	1
R153	2
R154	2
R195	1
R196	1
R197	1
R198	1
R199	2
R200	2
R201	1
R202	2
R203	2
R204	1
R205	1
R206	2
R207	2
R208	1
R209	2
R210	1
R211	1
R212	2
R213	1
R214	2

Table 2
Professional and Job Tenure Levels by Task Groups

		T1	T2
Professional Tenure	Mean	7.93	12.68
	s.d.	6.01	6.54
$F(1,53) = 7.85, p = .007$			
Job Tenure	Mean	5.57	7.06
	s.d.	4.46	5.17
$F(1,51) = 1.27, p = .265$			

Table 3
Discriminant Analysis - Task Items and Mean Values by Tenure Group

Dimension / Item	Group 1 (Shorter Tenure)	Group 2 (Longer Tenure)
Professional Assessment of Client or Care Provider: Individual Case / Family Emergency Intervention		
5. Develop an individualized service plan (ISP) and goals in collaboration with a resource person or family member to reduce risk in an abuse / neglect or exploitation case.	3.90	2.92
6. Follow-up on prospective client information and request additional status information from other sources, such as INS or other agencies or organizations to determine client eligibility.	2.03	2.64
7. Conduct a work and training assessment of currently homeless prospective clients to determine their eligibility for benefits and to establish their accountability for receiving benefits.	.50	.64
9. Determine need for expedited support or benefits to handle an existing or pending crisis offered by a prospective client.	1.67	1.76
15. Determine the need for intervention to mitigate client risk (a quick fix or band-aid solution) while a more permanent solution or arrangement is arranged.	3.53	3.68
20. Recertify the status of client case annually or when action is triggered by an ALERT with reference to the (child's name / client's name) anticipated changes in status.	1.63	1.36
24. Coordinate with prospective client to determine if a family option case should be opened and, if approved and appropriate, open a case file.	2.03	.60
Treatment Activities		
37. Conduct parenting skills assessment to determine strengths and weaknesses focusing on disciplining techniques, child supervision practices, drug and alcohol use, nutritional needs, school and education practice and emphasis.	3.23	.44
41. Monitor the visitations of the family with the child in foster care placement, including the supervision of the visitation if requested by the judge.	3.33	.16
42. Evaluate child, parents, and family relationship (home evaluation) at request of court when relatives take initiative to petition to terminate parental rights.	2.43	.00
50. Initiate, schedule and coordinate a meeting of biological parents and foster parents to facilitate reunification of child with biological parents.	2.60	.08
Maintain Emergency Welfare Plan		
55. Coordinate with county DHR offices in the event of a disaster to determine needs and resources for emergency welfare.	.70	.24
59. Conduct site inspections at disaster areas to determine needs to which DHR can respond.	.33	.00
Monitoring Client Status and Behavior:		
65. Follow up and confirm client activity and participation in work and training programs to determine continuing eligibility in financial benefit programs.	.37	.24

Table 3
Discriminant Analysis - Task Items and Mean Values by Tenure Group

Dimension / Item	Group 1 (Shorter Tenure)	Group 2 (Longer Tenure)
<u>Court Sessions and Hearings:</u>		
69. Prepare legal and non-legal documents and forms for issuance to public parties in cases, attorneys, and law enforcement agencies.	3.00	2.68
78. Prepare a file and affidavit and petition to remove child or adult at risk from the home or when the family has violated the terms of the ISP.	3.47	2.32
<u>Financial Benefits: Processing Applicants</u>		
104. Receive forms providing information about the characteristics of a foster care placement to determine appropriate funding source from state or federal government programs.	.70	.28
<u>Contracting for Specialized Services</u>		
129. Review draft requests for proposals for products or services to be distributed to potential vendors with DHR management and legal counsel to obtain their sign-off.	.00	.04
<u>Internal Consulting</u>		
135. Consult with county directors as required to provide suggestions on the best strategies for attacking a problem or crisis within the county	.17	.28
<u>Administrative / Support Activities:</u>		
169. Complete computer file of prospective client applications for various programs by entering data to computer screen prompts and noting discrepancies or missing data to guide reconciliation or probing.	.23	.12
173. Update computer information systems as new information is received.	1.47	.20
181. Verify accuracy and completeness of forms or records by comparing against original documents, items, master forms, or other standards.	4.67	1.64
<u>Communications:</u>		
192. Conduct group meetings to disseminate information regarding policy or procedures changes, available services, community resources, revised policy interpretations, and / or new DHR directives.	.37	.48
195. Attend monthly administrative staff meetings combining several branches, chaired by county director, to discuss general issues and be informed regarding matters concerning office space, equipment, and supplies.	.53	.24
196. Participate in meeting with representatives of county level DHR programs to discuss the interactions between programs, needs and problems, and exchange information.	1.17	.76
201. Compile all complaint reports related to federal programs and forward summary to appropriate agency.	.07	.00
<u>Human Resource Development</u>		
209. Conduct orientation and training of paraprofessionals on procedures and techniques required / used on providing a caregiver sense to DHR program activities	.17	.16
<u>Employee Oriented Supervision</u>		
232. Assign incoming calls or new cases to DHR professional staff on the basis of current workload, worker specialty area, and / or other DHR case distribution methods.	.00	.40
<u>Supervision of Work Operations and Products for Management Control</u>		

Table 3
Discriminant Analysis - Task Items and Mean Values by Tenure Group

Dimension / Item	Group 1 (Shorter Tenure)	Group 2 (Longer Tenure)
258. Prepare monthly statistical reports of activity, including all actions, case activities and inquiries.	.67	1.20
<u>Resource Development</u>		
288. Assist in the creation of new community resources to be used in better serving clients and meeting the mission goals of the department.	.63	.72
<u>Monitor Quality of Professional Activities</u>		
295. Receive daily and monthly reports of performance effectiveness and error rate in various program areas and compare to performance effectiveness of other counties in order to prioritize need for corrective action.	.13	.00
<u>Financial Management</u>		
317. Review accounting statements, expense reports, and standard forms for accuracy, completeness and conformity to procedures.	.03	.00
<u>Public Relations</u>		
333. Participate in inter-agency staff meetings with representatives from other local organizations to discuss interests, services and needs.	1.67	1.20
343. Monitor, review and evaluate emerging problems or issues with a cultural, social, or political emphasis in relation to state programs or policies.	.30	.00
<u>Long Term or Strategic Planning</u>		
360. Assist the county department in developing long range goals and objectives, and plans for improving or maintaining current levels of service delivery.	.30	.16
362. Develop new procedures needed to address recurring or new problems identified by professional personnel.	.27	.00

Table 4
Adoption and Foster Care Related Task Items and Racial Differences

Item	White		African-American		T value
	Mean	SD	Mean	SD	
2. Investigate prospective living facilities for client populations (i.e., children, senior adults, etc.) to determine suitability for client placement.	2.63	1.65	2.88	1.90	.501
4. Prepare report of investigation and assessment of alternative or optional living arrangement for an abused or neglected.	3.33	1.88	3.83	1.76	.998
25. Select a foster care placement considering the relevant characteristics and needs of the client, and strengths of the family or facility.	3.00	2.02	2.58	2.17	-.730
26. Conduct a family situation assessment of a prospective client to determine status, resources, and degree of potential commitment for permanent or foster care placement of children or adult.	2.27	2.13	2.42	2.10	.258
27. Request application from suitable institutional foster home facility and provide requested information about the client to be placed, such as psychological and medical evaluations, social history summary, and ISP, if available.	2.40	2.01	2.42	1.91	.031
32. Prepare a report of family assessment, including medical history, education history, and prior participation in programs to submit to Probate Court prior for a placement.	1.67	1.90	1.54	2.11	-.229
39. Conduct foster family training to develop skills specific to the foster client special needs and characteristics which require particular attention in care and treatment.	.83	1.74	.83	1.90	.000
41. Monitor the visitations of the family with the child in foster care placement, including the supervision of the visitation if requested by the judge.	1.93	2.10	1.92	2.19	-.028
42. Evaluate child, parents, and family relationship (home evaluation) at request of court when relatives take initiative to petition to terminate parental rights.	1.40	1.83	1.29	1.92	-.211

Table 4
Adoption and Foster Care Related Task Items and Racial Differences

46.	Provide search and reunion services for adult adoptees requesting background information.	.20	.81	.17	.82	-.150
50.	Initiate, schedule and coordinate a meeting of biological parents and foster parents to facilitate reunification of child with biological parents.	1.60	2.18	1.33	2.14	-.451
70.	Testify as an expert in court proceedings on cases of child or adult protection and planning, child abuse or family reunification.	3.47	1.81	3.33	1.99	-.257
104.	Receive forms providing information about the characteristics of a foster care placement to determine appropriate funding source from state or federal government programs.	.63	1.30	.38	1.28	-.731