Alternative Solutions to the Child Protective Services Staffing Crisis: Innovations from Industrial/ Organizational Psychology

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Several years ago we conducted an informal telephone survey of 53 child protective services (CPS) agencies, both state and county administered, to obtain a broad snapshot of what methods agencies across the country were using to select new CPS staff. Our goal was to learn what measures or indicators were included in these hiring decisions, with the hope of collaborating across agency lines to develop new approaches. Our results surprised us: Many jurisdictions invested minimally in the recruitment and selection of new CPS staff, yet they clearly expected new CPS workers to achieve high performance after some (varying) amounts of initial training. With rare exception (Bernotavicz & Locke, 2000), we have seen little evidence of significant change in the situation to present.

Given the complexity of the work and the high-stake decisions required of child protection workers on a daily basis, this lack of attention to recruitment, selection, and placement of new staff is puzzling. It seems at odds with what has become the norm for other jobs involving public welfare (e.g., police, firefighters). For example, a typical municipal police officer selection process might include a situational interview, physical agility test,

assessment of knowledge through a written test, and, for finalists, psychological screening. After provisional hire, the new recruit often must attend a rigorous training program, including frequent written and performance testing, to demonstrate required levels of knowledge and skill. All of this occurs before the officer assumes actual work assignments. We believe that the stakes involved in child protection warrant a similar level of rigor in the selection and training of new staff.

Research conducted across a variety of jobs clearly demonstrates that effective recruitment and selection is essential to achieve successful training outcomes, high levels of staff performance, and increased retention (Schmidt & Hunter, 1998). The industrial/organizational (I/O) psychologist's "toolbox" includes an array of strategies that can be used to help both public and private sector organizations achieve noteworthy improvements in functioning. A recent study of nearly 1,000 national firms demonstrated that the use of what the authors termed *high performance work practices*, including job analysis, selection testing, employee training, quality of work life programs, and performance appraisals, had an economically and statistically significant impact on employee turnover, productivity, and corporate financial performance (Huselid, 1995). Although we are skeptical of anyone who professes to have all the answers to any problem, we believe I/O psychology has much to offer those seeking lasting solutions to the CPS staffing crisis. As I/O psychologists, our objective is to develop strategies to optimize the fit between the needs of job applicants and the organization; that is, to identify candidates who most likely will be satisfactory job performers and who least likely will leave the organization. This article provides an overview of this approach, with examples from our work with the Nebraska

Health and Human Services System (NHHSS), starting from the essential first step of job analysis through the development and validation of competency assessments designed to predict job performance and retention.

The Partnership

None of the activities described herein could be accomplished without a shared vision and supportive agency management. The University of Nebraska-Lincoln Center on Children, Families and the Law (CCFL) has partnered closely with NHHSS since 1988 to provide training, research, and consultation through a variety of projects. We have been extremely fortunate to have had extensive management and staff involvement in developing and implementing efforts outlined here, and we wish to acknowledge this visionary support.

The CCFL has been involved in the design and delivery of training for child protection staff (referred to in Nebraska as *Protection and Safety Workers*) for the state of Nebraska since 1988. As part of this work, a comprehensive job analysis was conducted, the results of which have guided ongoing revisions and refinements of training curricula, the development of unit-based assessments of trainee competence, and a renewed focus on the importance of selection in retaining a competent, professional, and productive child welfare workforce.

Job Analysis

The foundation for Nebraska's selection and training system is a fundamental human resource practice known as job analysis. As the name implies, job analysis is a process of analyzing or dissecting a job and identifying the job's tasks and the associated knowledge, skills, and abilities required to successfully perform such tasks. Other products of job

analysis include information about the organization's philosophy and structure, employee authority and accountability, work products and services, tools and equipment, environmental stressors, safety requirements, performance indicators, and job context (Brannick & Levine, 2002). Given its myriad outcomes, job analysis is an essential prerequisite to the development of a host of other personnel systems, including recruitment, placement, training needs assessment, performance appraisal, job design and enrichment, job evaluation and compensation, job classification, and career development and planning (Gael, 1988). The job analysis conducted on child protection workers in Nebraska has been a foundation for developing several recruitment, selection, training, and performance appraisal tools.

In addition, job analysis plays a central role in satisfying legal requirements. Although no law explicitly requires employers to conduct a job analysis, as others have argued (e.g., Brannick & Levine, 2002; Sparks, 1988), several statutory laws require detailed information that cannot be gained without a systematic analysis of the job. For example, under Title VII of the Civil Rights Act of 1964, it is illegal for an employer to discriminate against a person based race, color, religion, sex, or national origin. Although the Act itself does not require a job analysis, in claims of discrimination, an employer must show a relationship between the selection procedure and the employee's job performance. A thorough job analysis will be necessary to establish this relationship.

More direct prescriptions to perform job analyses can be found in legal and professional guidelines, namely, the Uniform Guidelines on Employee Selection Procedures (EEOC, 1978) and the Principles for the Validation and Use of Personnel Selection Procedures (SIOP, 1987).

The Guidelines were established by the Equal Employment Opportunity Commission, the federal regulatory agency charged with enforcing employment laws. The Guidelines specify what is required of employers who use selection procedures that have been shown to disproportionately screen out members of a protected class, resulting in what is known as adverse impact. The Principles were created by the Society for Industrial and Organizational Psychologists, a division of the American Psychological Association. Whereas the Guidelines pertain narrowly to employment law, the Principles outline widely applicable standards adopted by professionals who specialize in developing and validating selection and other personnel procedures. The Principles describe what I/O psychologists believe is good practice in the arena of personnel selection.

Both the Guidelines and the Principles apply to a number of employment decisions, including hiring, retention, promotion, transfer, demotion, dismissal, referral, or any other actions that affect employment status. The selection procedures covered by these documents include paper and pencil tests, performance tests, work samples, personality inventories, interest inventories, integrity tests, biographical data, application blanks, interviews, reference checks, educational requirements, appraisals of job performance, and many more.

So what do these legal and professional resources say about the procedures used to make personnel decisions? Both references advise employers to demonstrate the validity of their selection procedures. The Guidelines specifically recommend that the courts make validation a legal requirement for employers who are faced with charges of discrimination; whereas, the Principles argue more generally that using valid selection procedures

constitutes sound scientific and business practice.

Validity refers to the appropriateness or meaningfulness of inferences made from test scores. (Keep in mind the broad use of the term *test*.) (AERA, APA, & NCME, 1999). Therefore, despite frequent misperceptions, a test is not, in itself, either valid or invalid; rather, it is the inferences made from test results that are either valid or invalid. The use of a particular test in one situation could be valid, whereas use of the same test in a different situation might not be valid.

Different types of evidence can be used to demonstrate that an employer has made appropriate inferences, and these are more thoroughly discussed in both the Guidelines and the Principles. One way to ensure the validity of a selection procedure is to develop the procedure on the basis of a thorough job analysis. This type of validity evidence is known as content validity. A selection tool with content validity samples knowledge and skills shown to be necessary for job performance; in other words, the content of the test matches the content of the job.

An alternative means of demonstrating validity is establishing an empirical relationship between the selection tool and subsequent job performance. This type of evidence is known as criterion-related validity. A selection tool with criterion-related validity is statistically related to some criterion, or job relevant behavior, such as performance or tenure. Although a job analysis is not necessary to establish an empirical relationship between a selection tool and job performance, it is strongly recommended that job analysis be used as the basis for both choosing or developing a selection tool and for developing measures of job performance. To demonstrate validity, employers must show that the selection procedures are related to the job or can

reasonably estimate future job performance.

Using a thorough job analysis to establish validity of employment procedures reduces reliance on speculation, false assumptions, anecdotal evidence, and subjective decision making. It provides the foundation for scientifically and legally defensible personnel practices. More simply and most important, it can help employers find employees who will perform well and stay with the organization. The bottom line from the legal system and from professionals is that employers need to be conducting thorough and reliable job analyses if they want to be successful in business and in court. Despite these recommendations, however, some practitioners still have little or no understanding of why and how job analyses and validation should be conducted.

So how should an employer conduct a job analysis? The choice of job analysis techniques depends on the purpose of the job analysis; different techniques result in different products, and different products serve different purposes. Therefore, the first step is to decide on the purpose of the job analysis. If the purpose is to create tools such as work samples or performance appraisals, the most desirable techniques are those that focus on the tasks performed in the job. If the purpose is to design selection tools or training curricula, other techniques that focus on the knowledge, skills, and abilities required of workers are especially useful. When multiple purposes have been identified, hybrid or combination methods that assess both the tasks and the worker requirements likely are most beneficial.

After a purpose has been clearly identified, a specific method should be chosen. There are at least 20 published, commercially available instruments that vary in their focus and outcomes (Peterson & Jeanneret, 1997). They generally comprise a questionnaire or inventory designed to assess jobs according to certain classification schemes with predefined categories. The categories may focus on the job, the worker, or, in rare cases, both the job and the worker. Examples of the dozens of predefined categories include decision making, autonomy, communication, environmental conditions, reaction time, mental processes, and hearing. Although these published methods are convenient and readily available, they may not provide the results employers need to adequately accomplish their goals.

Alternative methods involve starting with the job first, rather than a predetermined list of categories, and then deriving a structure based on the job content. These methods also result in a survey or inventory, which generally comprise hundreds of job tasks. The tasks are grouped into logical dimensions, and the survey is administered to job experts to determine which tasks are most essential to the job. Hybrid methods of this sort go behind the task inventory and also assess the knowledge, skills, and abilities needed to perform the important tasks identified by the task inventory. Methods that start with the job first can be adapted more easily to meet an organization's specific needs, but they also can be more time intensive and can require more on-site job analysis expertise than commercially available questionnaires or inventories. For a comparison of techniques, see Levine, Ash, Hall, & Sistrunk (1983) and Gatewood & Feild (1991).

Every method of job analysis will require the availability and input of well-informed job and personnel experts trained in job analysis. In general, job analysis can be time consuming; however, it should be viewed as a sound human resource investment that will yield significant returns.

The analysis conducted for the job of CPS workers in Nebraska followed a hybrid method that allowed us to identify 1) the critical job tasks and 2) the associated knowledge, skills, and abilities required to accomplish these tasks. We also used a secondary approach known as the critical incident technique (Flanagan, 1954), which is a more narrowly focused job analysis method that identifies specific examples, or incidents, of work behavior. Together, these job analysis efforts required extensive involvement of the agency field staff and supervisors, who contributed a significant amount of time and expertise to the project. The tasks; knowledge, skills, abilities; and critical incidents were invaluable to developing a variety of tools to recruit, select, and train CPS workers. Our ultimate goal is to help agencies improve employee performance and retention.

The True Costs of CPS Staff Turnover

Much has been written about the difficulties agencies face in recruiting and retaining CPS staff. Rates of attrition for CPS workers appear to vary widely across and within agencies nationwide, but recent data obtained from one midwestern state suggest an average of about 20% turnover in CPS positions annually. Although this problem is universally acknowledged, its origins and impact are more difficult to pin down. What is the true cost of CPS staff turnover?

The cost of CPS turnover can be considered in a variety of terms:

• the financial impact associated with staff replacement,
• the added workload for remaining staff members,
• the emotional and physical toll on staff and supervisors, and
• the incalculable impact on client families and children.

Any agency invests valuable resources in the recruitment, selection, and training of new staff, but if the individual terminates

employment within the first 2 to 3 years, does the agency recoup its investment? Evaluating the financial and client impact of staff turnover can be an enlightening exercise, particularly when key players are unconvinced of the urgency of the situation. For example, between the cost of hiring and retraining new child support workers and lost collection revenues, the cost of staff turnover to the state of Georgia was more than $70 million annually (Brooks, 1999).

An analysis of turnover costs logically leads to discussion of specific strategies to manage the controllable aspects of these costs, such as job redesign, improved recruitment and selection processes, or changes in compensation practices. However, it also helps to have an understanding of the reasons some staff leave and others stay. For example, if the majority of staff who leave cite pay issues or a poor work environment, these areas would be potential avenues for future intervention. Thus, performing initial, agency-specific research to establish the true nature and impact of the turnover situation is an important first step before considering potential strategies for improving staff retention.

In Nebraska, we focused on the financial impact of turnover. Drawing on methods popularized by Cascio (1991), we used the agency's human resources database, along with interviews with personnel directly involved in the administrative processes, to calculate the specific cost elements related to CPS turnover for 1 year's time. With this data, we were able to determine the actual annual costs that could be attributed directly to CPS staff turnover (Graef & Hill, 2000).

The findings were compelling and led to much discussion regarding the reasons for this turnover and the need for more research. We, therefore, initiated an investigation into the personal characteristics, motivations, and performance levels that related to staff

retention. We conducted interviews with staff who had longer than average tenure with the agency to assess the factors involved in their retention. Exit survey data were analyzed to determine reasons staff were departing.

In all, our research suggested that, although some staff exited for unavoidable reasons (e.g., spouse relocation), many CPS staff departed because of a poor fit between their individual needs and the demands of the job. It was noted that many new hires were unclear about the true nature of the job and expressed surprise and dismay during pre-service training when they realized what they would and would not be doing as CPS workers. After considering a variety of robust interventions to address these turnover issues (e.g., McEvoy & Cascio, 1985; Hom & Griffeth, 1995), agency management identified several innovative approaches they wished us to pursue for improving person-job fit, focusing on the recruitment and selection of new Protection and Safety Workers.

Recruitment

In an effort to manage some of the preventable instances and subsequent costs of turnover, an organization can develop a realistic job preview (RJP)(Wanous, 1992). The goal of an RJP is to reduce unnecessary costs incurred from hiring misinformed applicants who quit when the reality of the job hits. In an RJP, applicants are presented the realistic demands of the job, most commonly via a booklet or a videotape, and can self-select out of the hiring process at an early stage, thereby limiting both applicant and agency investment. Implementing an RJP will not eliminate all forms of staff turnover, but it will target job candidates who lack accurate, realistic information about the job and accept a position for which they are ill-suited.

Research on RJPs suggests many potential

theoretical explanations for their efficacy (Breaugh & Starke, 2000; Hom & Griffeth, 1995). Attention to practical details of the design and execution of the RJP appears to be essential to its success, as is following a content validation method to ensure that the RJP accurately and completely reflects job content (Hom & Griffeth, 1995). If it is not thoughtfully designed or properly administered, the RJP will have fewer opportunities to affect turnover. For example, the RJP will be most effective when it is used as early in the selection process as possible, so that the candidate can self-select out of consideration for a job; it becomes less effective when it is presented to the applicant after hire.

In partnership with the agency, we developed a 25-minute RJP videotape that presents the realistic demands and benefits of Protection and Safety work in Nebraska. Through extensive research with CPS workers and supervisors, we identified a balanced sample of positive, negative, and neutral incidents that frequently occur on the job. These incidents are illustrated in the video through unscripted, but guided, interviews with actual staff and by actors portraying typical CPS activities. We found that watching the video results in significant increases in job knowledge. Moreover, interested people become more interested in the job and uninterested people become less interested in the job. All applicants for CPS positions in Nebraska now are required to view this video early in the selection process before the employment interview. The tape has been distributed across the state to workforce development offices, local job fairs, all schools of social work, and public libraries, and agency staff use the tape when giving community relations talks. Interestingly, the cost of producing this video was less than the

cost of one CPS vacancy, and so it was viewed as an excellent investment. After viewing the video, applicants completed anonymous response cards, which suggested that exposure to this RJP had encouraged several job candidates to seek employment in other fields.

Selection

While getting the right people to apply for positions is essential, using effective methods to guide hiring decisions is even more critical, particularly for jobs involving high-stake decisions affecting human safety. The implications of CPS hiring "mistakes" go well beyond mere organizational inconveniences to include potential consequences for child permanency, client family functioning, child safety, and even child death. Thus, it is prudent for child protection agencies to devise a selection system to carefully evaluate potential CPS candidates to ensure that those hired have the highest potential to succeed in this stressful, challenging work.

In Nebraska, job analysis revealed more than 50 knowledge, skills, and abilities (KSAs) that subject matter experts thought applicants should have before being hired. The KSAs reflect the need for various types of knowledge; communication, decision making, organization, and interpersonal skills; cognitive ability; and certain personality traits. A test plan was developed to outline the general and specific tests that could be used to accurately and feasibly assess each KSA dimension. For example, some of these KSAs are knowledge based and thus can be assessed via paper and pencil or computer-based testing, whereas others are skill based (e.g., oral communication skills, time management skills) and are more appropriately targeted by alternative methods. The resulting potential selection test battery includes measures of applicant experience, communication skills,

personality, general cognitive abilities, situational judgment, critical thinking skills, and fundamental job knowledge. Two of these tools (i.e., an applicant self-assessment questionnaire and a structured hiring interview) currently are being implemented statewide; the remaining tools are in the process of development or validation. The following describes each of these tools and our method for establishing their validity.

Evaluating Applicant Training and Experience

Applicants come to organizations with a variety of educational, work, and life experiences that may or may not be pertinent to their ability to perform the job. The challenge lies in determining which of these experiences have job relevance and are indicators of the candidates' potential. A recent review of the literature illustrates the complexity inherent in measuring candidates' work experience and provides suggestions for effectively operationalizing job experience (Quinones, Ford, & Teachout, 1995). For example, task-specific measures of work experience appear to be more useful than measures of time in past positions. Although a variety of methods for developing and validating assessments of candidate training and experience exist (Ash & Levine, 1985; Levine, Maye, Ulm, & Gordon, 1997), the involvement of subject matter experts and use of a job analysis are necessary.

In Nebraska, we worked in conjunction with agency human resource managers to develop a self-assessment questionnaire for Protection and Safety job applicants called the "Supplemental Application Form." This form is currently used for application screening after the initial screening for minimum qualifications required by the state. The focus is on documenting task-specific training and experience in applicants' backgrounds in

relation to important job-related tasks, rather than simply documenting candidates' specific degrees or job titles. For example, candidates provide written descriptions of situations in which they have "explained procedures, policies, decisions, or concepts to individuals or families" in their educational, work, or life experience. Applicants who meet established scoring guidelines on this assessment may be invited to participate in an interview. Interestingly, some applicants self-select out of the hiring process at this point due to the perceived burden of completing this rather short form.

Structured Hiring Interview

One of the most universally used techniques in personnel selection is the interview. Unfortunately, it often is misused in an unstructured, free-flowing format, which severely limits its validity and utility (McDaniel, Whetzel, Schmidt, & Maurer, 1994). A properly developed and implemented standardized, structured hiring interview can contribute reliable, valid information to the selection process, as well as enhance the likelihood of favorable verdicts for employers who are faced with an employment discrimination challenge (Williamson, Campion, Malos, Roehling, & Campion, 1997).

Two predominant types of structured interviews are the behavior description (Janz, Hellervik, & Gilmore, 1986) and the situational interview (Maurer, Sue-Chan, & Latham, 1999). Behavior description interviews focus on candidates' past behavior in situations similar to those encountered on the job, based on the theory that it is the best predictor of future behavior of a similar type. Situational interviews elicit from candidates how they think they would behave in a specific hypothetical situation. The theory is that the best predictor of future behavior is candidates' behavioral

intentions. Pulakos and Schmitt (1995) compared the validity evidence from both these types of interviews and found some evidence of higher validity for experience-based (behavior description) interviews over situational types under tightly controlled conditions. However, given proper development and administration, including interviewer training, both types of structured interviews have proven to be effective selection tools.

In our case, we collaborated with the agency to develop a standardized, structured hiring interview for use with applicants for the Protection and Safety position in Nebraska. This interview protocol employs a combination of the behavior description and situational question formats to capitalize on the relative merits of each (Eder & Harris, 1999). Questions were developed by a team of subject matter experts. Applicant responses are recorded and scored using behavioral rating forms that provide detailed indicators of acceptable, marginal, unacceptable, and "red flag" responses. Trained interviewing teams comprising Protection and Safety supervisors and human resource managers conduct these interviews.

Results of statewide use of this interview protocol have been encouraging. In particular, candidates report that the questions appear job relevant and challenging. After their initial adaptation to this new style of job interviewing, interviewers have noted that they appreciate the consistency in the rating and scoring process, as well as the clear link to the job.

Interviewer/Evaluator Training

Because human judgment is an integral component of personnel decision making, it is critical that all individuals involved in activities such as conducting hiring interviews or completing performance evaluations are trained. The goal of such training is to

establish a common frame of reference so that all interviewers/raters/evaluators approach the task from a similar perspective and use the evaluation criteria in a similar manner. Consistency of ratings across interviewers is necessary to establish a high level of reliability and ensure standardization of the interview process. With this in mind, we developed and implemented training for all supervisors in the agency. These training programs use a variety of interactive, experiential activities, such as discussion, viewing and rating videotapes of simulated applicants, and evaluating worker performance scenarios.

Investigation of Additional Selection Tools

In addition to implementing a supplemental application and a structured interview, we also are in the process of developing and validating several other highly innovative tools for CPS selection. Recall that our selection test plan includes measures of personality, situational judgment, cognitive ability, critical thinking skills, and fundamental job knowledge.

Personality

Personality constructs have been the target of renewed attention during the past 12 years. Several recent reviews have documented that personality measures can be a valid predictor of outcomes such as job performance and retention (Barrick & Mount, 1991; Tett, Jackson, & Rothstein, 1991). Based on this, we assessed the usefulness of personality measures for CPS selection using a standardized, commercially available measure to assess core dimensions of normal personality (e.g., adjustment, sociability) that may predict future work behavior.

Another personality construct we investigated is conscientiousness.

Conscientiousness is one of the five well-known personality dimensions included in the Five Factor Model (McCrae & Costa, 1994). It has been shown to be a successful predictor of both job performance and turnover (Barrick & Mount, 1993; Barrick & Mount, 1996). Unlike other personality measures, which are not intended to be used for employment decisions, the experimental measure we used has been designed specifically for applicant screening. It assesses past behavior, known as biographical data or biodata. The scale measures everyday past behaviors that are presumed to reflect conscientiousness, such as how often a person is late for appointments or makes "to do" lists. Research on this measure is limited, but there is evidence of its ability to predict job performance.

Situational Judgment

One increasingly popular selection tool is a situational judgment test, which is a low-fidelity simulation designed to assess judgment and decision-making skills. It is regarded as low fidelity because the degree of realism is relatively low, compared to other, high-fidelity simulations that more closely mirror the job, such as work samples (Motowidlo, Hanson, & Crafts, 1997). Situational judgment tests present hypothetical problems in a work-related context. The scenarios can be presented in writing or in a video- or computer-based format. Respondents are required to choose or to evaluate various solutions or courses of action.

Situational judgment tests have been used since the 1920s (McDaniel, Morgeson, Finnegan, Campion, & Braverman, 2001). Interest in these measures was revived in the 1990s when Motowidlo, Hanson & Crafts (1997) developed a situational test to select entry-level managers in the telecommunications industry. A recent meta-

analysis revealed that situational judgment tests are significantly related to job performance and that those that are developed on the basis of job analyses are substantially more predictive of performance than those developed without the results of a job analysis (McDaniel, Morgeson, Finnegan, Campion, & Braverman, 2001). Although situational judgment scores have been shown to be highly related to general cognitive ability, evidence suggests that they can measure something above and beyond what is captured with cognitive ability tests (Clevenger, Pereira, Wiechmann, Schmitt, & Harvey, 2001; McDaniel, Morgeson, Finnegan, Campion, & Braverman, 2001). These results are encouraging, considering the relatively moderate expense required to develop and administer these tests.

The situational judgment test we developed for CPS selection is a written test that presents realistic situations taken from child protection work and relevant everyday events. The instrument currently contains 25 situations, each with an average of 7 solutions. Applicants are asked to rate each response in terms of effectiveness, on a scale from one to four, with one representing "extremely effective" and four representing "potentially harmful." We began by identifying pre-hire KSAs that we thought would be most amenable to situational testing. Various cognitive/decision-making, organizational, and interpersonal skills were selected. Subject matter experts were used to generate situations and responses and to rate the effectiveness of each response. It was especially challenging to generate situations and responses that fit the context of CPS work but did not require some job-specific knowledge, which applicants could not be expected to have. The compromise was to include some additional types of situations that

simulate everyday events. The following is an example of one of the situations used in this measure:

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You work at a large agency. You personally have observed a coworker repeatedly rifling through papers and files in other workers' offices after those workers have gone home for the day. These papers and files have no relevance to this worker's job responsibilities. You have knowledge that this person has used this information for personal gain. Please rate how effective each of the following responses would be in stopping this worker's behavior.

• Report to your supervisor that this person is breaching confidentiality.
• Don't say anything about what you have observed; you shouldn't interfere with the situation.
• Ask the agency to increase office security after regular business hours.
• Wait and confront the worker the next time you observe him rifling through other workers' files.
• Tell others that you're concerned about breaches in the office and that they should take action to secure their files.
• Set up a time to speak with this worker; give him the opportunity to explain what was happening.

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Cognitive Ability

A fourth construct we are investigating for selection purposes is cognitive ability. Although cognitive ability testing dates back thousands of years, theories about intelligence and cognitive ability are numerous and widely debated even today. In general, intelligence tests are designed to capture relatively stable, performance-related capacities (Childs,

Baughman, & Keil, 1997). Several studies have shown that cognitive ability tests are predictive of future job performance, and some evidence suggests that they are even better predictors for complex jobs (Hunter & Hunter, 1984). One caveat, however, is that they have the potential to result in adverse impact (Hunter & Hunter, 1984; Schmitt, Clause, & Pulakos, 1996).

The long history of intelligence testing has resulted in a large number of well-designed, commercially available tests. In consultation with the agency, we selected a written, standardized measure of verbal aptitude that can be administered to a group and be quickly and objectively scored. The instrument assesses several dimensions of verbal aptitude, including comprehension, which is defined briefly as the ability to evaluate social situations and recognize socially desirable behaviors. Research has shown this instrument to have acceptable levels of reliability.

Critical Thinking

A related set of cognitive skills that we are evaluating for CPS selection is critical thinking skills. The job analysis revealed the need for skills such as thinking rationally and objectively, making difficult decisions based on accurate information, and sorting relevant from irrelevant information. In an attempt to capture these types of skills, we chose a written, standardized measure of critical thinking. The test assesses various aspects of critical thinking, such as inference and deduction. The inference dimension measures applicants' ability to recognize whether inferences from given data are true or false, and the deduction dimension measures the ability to determine whether certain conclusions necessarily follow from information given. The instrument has shown to have good reliability and, although its predictive ability has been examined in one occupational

setting only, we are hopeful that it will serve as a valid predictor of success for CPS workers.

Knowledge and Organizational Skills

Other measures in early development stages include a written measure of general knowledge relevant to child protection work, such as knowledge of child maltreatment, human behavior and family dynamics, and juvenile delinquency. We also are considering developing an "in-basket" exercise to assess time management and organizational skills, based on successful experiences in developing an in-basket competency assessment for the CPS Intake training unit in Nebraska (Graef, Rohde, & Potter, in press).

Test Validation Study

To evaluate the usefulness of these instruments, a validation study was initiated. The goal of the validation study was to assess the effectiveness of each tool for predicting CPS worker performance and turnover, as measured by the length of tenure with the agency. This study used a predictive criterion-related validity design, which allowed us to measure the statistical relationship between test performance at the time of hire and later measures of job performance and tenure.

All new CPS hires during a 2-year period were asked to participate and complete the battery of tests. These new hires then completed an intensive pre-service training program of up to 15 weeks. After completing training, trainees began a new 6-month probationary period, during which their supervisor provided performance ratings using the agency's performance planning and evaluation tool known as the "Competency Development Tool" (CDT).

The CDT uses supervisory ratings of 43 representative tasks, based on the results of the job analysis. The tasks are grouped into 17 dimensions, such as arranging services, composing reports, and testifying. The CDT also includes a section for supervisory self-assessment of participation in new employee development, action planning for performance below minimum standards, behaviorally based rating anchors, and ratings of prosocial organizational behaviors. The evaluations are conducted at 3 and 6 months after completion of pre-service training, during each new worker's probationary period. Extensive training on the use of the tool is provided to all supervisors and administrators.

The goals of a 3-year effort to plan and conduct a validation study are close to being realized. All data for the validation study have been collected, and we currently are conducting preliminary analyses. Assessments shown to be statistically valid predictors of performance and tenure will be recommended for inclusion in the CPS selection process in Nebraska. Decisions by the agency to incorporate these new measures likely will attempt to balance the costs of the various components of the selection system with the usefulness of information each produces.

Summary

Procedures used for the recruitment, selection, placement, and training of new CPS staff can be a critical determinant of staff performance and retention. By using high-quality, scientifically sound, and legally defensible methods of personnel selection, agencies can take a positive step toward creating a high performing, committed workforce.

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