

THE VALUE OF PERSONNEL ASSESSMENT

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Hiring, retaining, promoting, and developing the best people creates a foundation on which all successful companies rely. To effectively place the right people in the right jobs, organizations need comprehensive, accurate, reliable methods to understand and evaluate job applicants. Personnel research coincides with conventional wisdom in demonstrating that job effectiveness depends on several factors, including knowledge, skills and abilities, effort, organizational fit, and personality. These dimensions must be measured as thoroughly and precisely as possible *before* hiring decisions are made to maximize organizational productivity. Indeed, in a recent survey, over half of 180 organizations reported that they used psychological assessments for executive selection or development (Institute for Corporate Productivity, 2007).

Structured interviews, cognitive or mental ability tests, objective personality tests, and work simulation exercises all demonstrate moderately strong validity for predicting job success. Our *Personnel Assessments* use a complex battery of objective tools to provide a thorough and dependable method for obtaining accurate information about the work-related characteristics of current and prospective employees. This paper will discuss the reliability, validity, and usefulness of several personnel selection methods that form the basis of *Personnel Assessments*.

Structured Interviews:

The most frequently used personnel selection tool is the unstructured job interview. Studied for over 80 years, unstructured job interviews have historically shown relatively low reliability and modest validity in predicting effectiveness on the job (e.g., Huffcutt & Arthur, 1994). In an unstructured interview, hiring managers or human resources professionals use a casual, get-acquainted approach when interacting with candidates. Lacking a pre-determined set of questions, or an internally consistent method for evaluating the responses of candidates, such interview data are often unreliable. For example, research studies indicate that interviewers agree with each other only 10% of the time (Conway, Jako & Goodman, 1995). Even candidates interviewed by the same person at different times can be judged very differently (Taylor & Sniezek, 1984), further compromising the predictive efficiency of information obtained in an interview setting. Overall, unstructured interviews result in validity coefficients¹ of approximately 0.20, accounting for less than 5% of the information available about candidates' job performance.

¹ Validity coefficients are generally used to describe the degree of relatedness between a predictor variable (e.g., test score) and the outcome to be predicted (e.g., job performance). The number ranges from 0.00 (prediction is random) to 1.00 (prediction is perfect). When the validity coefficient is squared (multiplied by itself), it yields the estimated percent of the outcome that can be accounted for by the predictor variable alone.

More recent studies, however, based on the use of structured, behavior-based interviews, have shown substantially better validity coefficients in the 0.40-0.51 range (Schmidt & Hunter, 1998; Gatewood, Field & Barrick, 2011). Structured interviews are based on systematically rigorous and disciplined methods of asking specific job-related questions to identify attitudes, industry knowledge, and job-relevant experiences. For example, interviews that measure “organizational fit” have relatively high validity for predicting performance (0.49) (Huffcutt Conway, Roth & Stone, 2001). *Our Personnel Assessments* use a semi-structured interview format, which requires the examiner to obtain specific standard information, but also provides for flexibility to follow-up on areas of particular interest or concern.

However, both structured and unstructured interviews are potentially compromised by the subjective biases of the interviewer as well as the positive impression management strategies often used by job applicants. Research (Burnett & Motowidlo, 1998; DeGroot & Motowidlo, 1999; Ellis, West, Ryan, & DeShon 2002; Higgins, Judge & Ferris, 2003) has shown that interviewers can be significantly affected by irrelevant characteristics, such as physical attractiveness and nonverbal cues (e.g., smiling or eye contact), and by ingratiation and self-promoting behaviors. Interviewers are also likely to be inordinately influenced by their first impressions of a candidate, at times leading to unwarranted "halo effects" in which subsequent information about an interviewee is viewed through the positive lens created by the initial impression (Gatewood, Field & Barrick, 2011; Kahneman, 2011).

Cognitive Testing:

Cognitive ability and aptitude tests have been used as employment selection tools for nearly 100 years. Beginning with the Army Alpha Test, created in 1917 by Robert Yerkes and others, testing general cognitive ability has repeatedly been shown to predict job performance and job success. In numerous studies, validity coefficients in the 0.50-0.55 range have been found (Schmidt & Hunter 1998; McHenry, Hough, Toquam, Hanson, & Ashworth 1990). Adding a work sample to cognitive ability testing increases validity coefficients to 0.65, according to researchers (Schmidt & Hunter, 1998). Based on these large meta-analytic studies, mental ability tests are useful and valid predictors for virtually all forms of job performance.

Recent research (Dilchert, Ones, Davis, & Rostow, 2007; Griffin, O’Leary-Kelly, & Collins, 1998) also indicates that, in addition to overall job performance, cognitive ability predicts counterproductive work behaviors (CWBs). CWBs include many types of misbehavior such as misuse of resources, dishonesty, absenteeism, and verbal or physical aggressiveness.

Personality Tests:

Personality traits are characteristic ways that individuals interpret and react to situations and relate to others. Personality traits tend to be stable over time and across a variety of situations. Research has shown that some personality traits are valid predictors of job

performance across many different job classifications. For example, individuals who are very conscientious and emotionally stable tend to outperform those who are less conscientious or stable (Barrick, Mount, & Judge, 2001), are less likely to engage in CWBs, and show superior organizational citizenship. Other traits, such as the degree to which employees are agreeable, altruistic, or prosocial, can significantly affect certain job functions, such as customer service (Ones & Viswesvaren, 2001). Still other traits, such as extraversion (ability to comfortably interact with others in varied situations), may be very helpful in certain occupations (e.g., sales), but less helpful in others (e.g., accounting) (Anderson, 2012). Furthermore, certain negative personality traits (such as Machiavellianism, narcissism, and psychopathy) may increase a job applicant's superficial attractiveness, but are actually associated with inferior job performance and counterproductive work behaviors (Collins and Griffin, 1998; Hakstian, Farrell, & Tweed, 2002; O'Boyle, Forsyth, Banks, & McDaniel, 2012).

Data provided by objective personality tests can be quite accurate in describing many other specific work-related personality characteristics. Achievement drive, organizational efficiency, planning and prioritizing skills, attention to detail, and conscientious follow-through are among the analytical and problem solving dimensions objective personality tests are designed to assess (Day & Bedeian, 1991). Various components of interpersonal style, beyond introversion-extroversion, can be accurately portrayed by personality tests (Domino, 1971; DeFrancesco & Taylor 1993; Hogan, Hogan, & Roberts, 1996; Collins & Gleaves, 1998; Weekes, 1993). Social ascendancy, interpersonal comfort, assertiveness, sociability, friendliness, and accurate empathy are also social effectiveness dimensions that could affect job success; objective personality tests can accurately measure these traits (Downs & Jenkins 1993). Collaborative tendencies, conflict management comfort and effectiveness, and internal dimensions such as self-confidence, emotional maturity, poise under pressure, and emotional and behavioral restraint are also accurately described by personality instruments (Gough 1966, 1968, 1971, 1994, 2000; Gough & Bradley, 1993). Hiring managers will find it useful to know as much as possible about these and other work-related characteristics of applicants prior to final employment decisions.

Especially relevant for upper-level managers and executives, the construct of leadership is complex, multidimensional, challenging to describe, and even more challenging to accurately assess. While debate continues regarding what constitutes managerial effectiveness, understanding the leadership styles and proclivities of potential supervisors and managers remains important. Several studies describe the efficiency and accuracy of objective personality tests in describing leadership orientation. Leadership dominance, leadership presence, the capacity to motivate and inspire, and the ability to set and maintain a business vision are among the managerial dimensions objective personality tests can accurately describe (Gough 1969, 1984; Hogan and Kaiser 2005; Megargee & Carbonell, 1988).

The predictive validity of personality traits for organizational attitudes and behaviors is substantial, estimated in the 0.40 to 0.50 range (Ones, Viswesvaran, & Dilchert, 2005). In addition, predictive validity can be significantly increased by adding observational

data (e.g., interview, simulated tasks, coworker observations) to paper-and-pencil tests (Oh, Wang, & Mount, 2011). Furthermore, by taking into account how personal attributes (personality, ability, motivation) interact with specific job tasks and individual work environments, it is possible to estimate “job fit.” Overall, the best estimates suggest that 10% to 30% of work outcomes can be accounted for by personality traits alone (Furnham, 2001).

Work Simulation Exercises:

Work simulation exercises such as role plays or in-baskets have been used as part of the assessment center process for many years. Assessment centers typically produce moderate (0.31-0.34) validity coefficients (Gatewood, Field & Barrick, 2011). However, work simulation exercises can be valuable and useful because they have strong face validity and credible content validity. That is, work simulation exercises present candidates with real-world dilemmas that managers often face, allowing applicants a chance to demonstrate rather than merely describe what they would do in various leadership scenarios.

Conclusions:

Personnel Assessments offer several advantages in the hiring decision process. First, *Personnel Assessments* are reliable. Several research studies demonstrate the common sense notion that measuring a characteristic in several ways makes for a more reliable, dependable estimate of that characteristic than using a single information source (Nunnally, 1978; Paunonen, Nicol & Roberts, 2001). For example, intellectual efficiency can be assessed via mental abilities testing, personality scales, and structured interview questioning. When data from these sources are consistent, reliability is maximized, and the result is a confident assessment of that candidate’s intellectual capacity and efficiency. When this process is applied to work-related personality traits and behavioral characteristics, it can generate a significant amount of reliable information about the abilities, tendencies, and work styles of applicants (Borghans, Duckworth, Heckman & ter Weel 2008; Sackett, Borneman, & Connelly 2008; Tett, Jackson & Rothstein 1991; Hunter and Hunter, 1984; Hogan, Hogan & Roberts, 1996).

Second, *Personnel Assessments* are comprehensive. Such assessments, based on multiple well-validated work-related personality measures, structured behavioral interviewing, and complex work-simulation exercises, lead to detailed reports highlighting analytical and problem-solving style, temperament and stress management characteristics, multiple aspects of interpersonal functioning, as well as leadership and management traits and potential.

Finally, *Personnel Assessments* are descriptively accurate. The work-related personality characteristics and the accompanying job-specific behaviors that individuals show tend to be stable within a relatively narrow range. Objective, well-validated, reliable tests describe with reasonable precision the preferences, tendencies, work styles, and

personality variables individuals are likely to demonstrate on the job (Sackett, Borneman, & Connelly 2008; Kluger & DeNisi, 1996). Consistently, *Personnel Assessments* can put into words, sentences, and paragraphs the intuitions, hunches, and impressions that arise during interviews by hiring managers and human resources professionals. When those intuitions alone are not fully accurate, however, *Personnel Assessments* allow hiring managers to look beneath the surface to understand candidates in a different light, and to explore competing hypotheses about them.

In conclusion, *Personnel Assessments* use a combination of methods, including cognitive ability testing, objective, work-related personality tests, structured, behavior-based interviews, and work simulation exercises to maximize descriptive precision and reliability. They create detailed portraits of the work-related characteristics of individual candidates to predict a candidate's level of future job success, and to predict potential counterproductive work behavior. Although no selection method can be absolutely accurate, including a *Personnel Assessment* in the hiring process will improve the chances of making the right hiring decision.

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