"Psychology Works" Fact Sheet: Pre-employment Personality Assessment in Personnel Selection

Research in industrial and organizational psychology indicates that personality traits are one class of variables that can predict job performance when the traits are job-relevant. Although other factors such as general mental ability, structured job interviews, and work samples can also predict performance, the current focus is on issues in using personality assessment in the personnel selection process. Challenges in optimizing the use of pre-employment personality testing involve 1) identifying job-relevant personality traits; b) choosing a personality assessment; c) combining individual trait scores to obtain an overall applicant score; d) and managing the potential for dishonest responding. The current fact sheet examines each of these issues.

Identifying job-relevant personality traits

The process of deciding on which personality traits to use for personnel selection decisions is called a *personality-oriented work analysis* (see O'Neill, Goffin, & Rothstein, 2013). One new method that has shown considerable promise involves obtaining job-expert ratings of each trait's relevance for the job. High-performing employees who have significant experience in the position are one source of potential job experts. Another source involves supervisors, as they are familiar with the job and they may provide greater objectivity. Critical, however, is that job experts have a strong understanding of personality, subtle differences between similar traits, and how traits relate to work behaviour.

The job experts rate each trait's relevance for work performance (e.g., "how relevant is trait *achievement* for performing effectively on the job?"). A list of traits are identified for inclusion in the rating form by searching for potentially relevant traits from existing personality assessments or from the International Personality Item Pool (.org) website, which is operated by personality researchers. Definitions of traits can be obtained from test vendors or through inspection of the survey items, and these definitions need to be included on the trait relevance rating form. Job experts must consider the trait definitions carefully rather than relying solely on the trait names. The nature of job performance for the specific job also needs to be defined so that all job experts have a similar understanding of what constitutes effective performance in the position.

Other methods for identifying traits can be useful. For example, published research in primary studies or meta-analyses (quantitative summaries of prior studies) can provide useful indications of which traits are likely to forecast job performance. In general, research suggests that Conscientiousness is helpful in nearly every job. The usefulness of other traits, such as Risk Taking, Desire for Novelty, and Assertiveness likely depend on the specific job requirements (see Tett, Jackson, Rothstein, & Reddon, 1999).

Pre-employment personality assessments

Once you identify the job-relevant personality traits, you will need a reliable and valid instrument to measure personality. In this fact sheet we focus on one common method of assessment: the questionnaire. Other methods could involve the interview or behavior in problem-focused situations, but these are not addressed here. Typically, personality is measured by asking the job applicant to complete a well-researched personality assessment. Ask the test provider to point you to reliability and validity evidence detailed in the test manual, research postings on websites, and the published literature. Reliability and validity involve consistency of measurement and how well the assessment measures the targeted traits, respectively. Most personality assessments comprise a list of statements (50-350) measuring a smaller number of distinct traits (e.g., Sociability, Diligence, Cooperativeness). The respondent indicates the extent to which each statement accurately describes his or her typical behaviors, thoughts, or feelings. Comprehensive personality assessments can normally be completed within one hour, although most are shorter. These assessments provide scores on a constellation of personality traits, but only the traits from the personality-oriented work analysis should be considered in personnel selection hiring decisions. You will need to consider the test-user qualifications required to use the particular assessment, bearing in mind that many vendors provide fee-for-training services to ensure assessments are interpreted appropriately. You should also use assessments developed specifically for pre-employment personality testing, which inquire about job-related behaviors rather than also inquiring about other areas of life. This keeps the focus on the work environment, maintains the applicant's privacy, and offers stronger prediction (Shaffer & Postlethwaite, 2012).

Obtaining an overall score on the personality assessment

Interpreting applicant scores on many job-relevant personality traits can be challenging. Keeping subjectivity and potential bias in check involves calculating an overall assessment score for each applicant. This can be accomplished in a number of ways. One avenue is to use the average of the job-relevant trait scores. A second avenue is to take a weighted average of all the trait scores, wherein the weights consist of the job-relevance ratings from the personality-oriented work analysis. For example, imagine that the average job-relevance weighting for Risk Taking was 1.5, Achievement was .5, and Aggressiveness was -2.0. An applicant's overall assessment score would be calculated by inserting his or her trait scores in the following weighted equation:

$$\text{Overall score} = 1.5*\text{Risk Taking} + .5*\text{Achievement} + -2.0*\text{Aggressiveness}$$

The overall personality assessment scores can then be used to assess applicants' suitability for the job in combination with other pre-employment assessment activities (e.g., structured job interview). Note that the summed score is not a measure of a particular personality trait or other characteristic, but rather it is a score on which applicants can be rank ordered for hiring decision-making purposes (O'Neill et al., 2013). This is known as the actuarial approach, which is superior to human intuition and judgment based on a review of the candidate's profile (see Lilienfeld, 2012). A third avenue is to derive the weights through

data collection and empirical estimation. With large sample sizes and cross-validation this can be a useful alternative.

Managing the potential for dishonest responding

There is a possibility that job applicants will respond dishonestly in order to achieve a favorable outcome, such as being selected for the job. In the research literature, this is often referred to as "faking." Faking is an important concern, as it reduces the ability of the test to accurately forecast job performance and it can contribute to hiring suboptimal applicants. This is because some people fake more than do others, so it is more complicated than simply adding a constant to each person's score (which would not interfere with the assessment's predictive capacity). Although there is no perfect solution to the faking problem, there are currently two promising strategies to consider (see Rothstein & Goffin, 2006).

   a. **Use a forced-choice assessment.** Personality statements are presented in multiples, such as groups of four, and applicants are asked to choose one item that is "*most like me"* and one item that is "*least like me".* The statements in each grouping are usually equalized for their desirability; therefore, it is more challenging to choose statements based purely on presenting a favorable image.
   b. **Use a faking warning.** Warning the job applicant that the personality assessment may detect individuals who provide dishonest responses, and possibly that there will be consequences for dishonesty (e.g., removal from further consideration), shows promise for reducing faking. Other approaches raised more recently in the literature involve warning the applicant that his or her responses will be compared with other application information for verification (e.g., reference checks, interview, biographical application blanks), that it is not in the applicant's best interest to respond dishonestly, or that it is important to be truthful for ethical reasons. Keep in mind that any warning given to applicants must be genuine.

Where do I go for more information?

CPA Industrial and Organizational Psychology Section (CSIOP)

Within the larger field of psychology, Industrial-Organizational (or I-O) Psychology is a specialty area based on the scientific study of behaviour in organizations. I-O psychologists work to improve organizational functioning and employee well-being through management and communication systems, hiring practices, performance appraisal, leadership development, and training programs.

I-O psychologists also provide professional consultation to organizations in order to help enhance work productivity and employee satisfaction. More information can be found on the section website at: https://cpa.ca/aboutcpa/cpasections/industrialorganizationalpsychology/

Bridge Magazine Articles

- Daniel, L. (2005). Staffing management: Use personality tests legally and effectively. *Staffing Magazine, 1*.
- Krell, E. (2005). Personality counts. *HR Magazine, 50*.

Technical Guides

- Society for Industrial and Organizational Psychology (2003). *Principles for the validation and use of personnel selection procedures* (4th ed.). SIOP Inc.
- Principles for the Validation and Use of Personnel Selection Procedures (2018). Industrial and Organizational Psychology, 11(S1), 1-97. Doi:10.1017/iop2018.195.

Books

- Christiansen, N., & Tett, R. P. (2013). *Handbook of personality at work*. New York: Routledge.
- For a guide to personality-oriented work analysis:
    O'Neill, T. A., Goffin, R. D., & Rothstein, M. G. (2013). Personality and the need for personality-oriented work analysis (pp. 226-253).

Research Articles

- Lilienfeld, S. O. (2012). Public skepticism of psychology: why many people perceive the study of human behavior as unscientific. *American Psychologist*, *67*, 111.
- Rothstein, M. G., & Goffin, R. D. (2006). The use of personality measures in personnel selection: What does current research support? *Human Resource Management Review*, *16*, 155-180.
- Shaffer, J. A., & Postlethwaite, B. E. (2012). A matter of context: A meta-analytic investigation of the relative validity of contextualized and noncontextualized personality measures. *Personnel Psychology*, *65*, 445-493.
- Tett, R. P., Jackson, D. N., Rothstein, M., & Reddon, J. R. (1999). Meta-analysis of bidirectional relations in personality-job performance research. *Human Performance*, *12*, 1-29.

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