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A Guide to Validating Employer Hiring and Development Practices

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It is important for employers to collect evidence that their employee hiring and development practices are valid, effective, and free of bias. When organizations use hiring practices that are valid, they ensure that the candidates who are hired are likely to perform better than the candidates who were not offered the job. Selecting candidates on the basis of scientific and valid hiring practices also helps organizations to preempt legal ramifications. Merit (i.e., ability to perform the job) is a factor that employers often take into consideration to make personnel decisions such as hiring, promotions, or termination. In order to assess merit, industrial and organizational psychologists and workforce researchers use psychometric methods (e.g., aptitude tests) to measure whether an individual has the ability necessary to do the job, is likely to perform well on the job, and has the potential for advancement within a designated career pathway. Psychometric methods aim to objectively measure underlying constructs such as personality traits, knowledge, skills, and abilities. These methods are standardized and are known to provide reliable results that are relevant to job performance and organizational outcomes such as turnover and retention. However, it must be noted that these methods are not perfect measures of underlying constructs as they are subject to measurement error. Nonetheless, psychometric methods constitute the most viable option when it comes to identifying individuals who are best suited for a job role.

Conducting a criterion validation study is one way to collect evidence on the effectiveness of using psychometric tests for personnel selection and personnel development by demonstrating a statistical relationship between the predictor (i.e., the test) and the criterion (i.e., the outcome).

What is a Criterion Validation Study?

Criterion validation studies enable organizations to collect evidence that helps them justify the use of a selection method. Conducting a criterion validation study requires the researcher/organization to determine a criterion, which is often a measure of job performance. A measure of job performance could also be operationalized as performance in a training session, product quality, or product quantity, for example. It is important to choose a criterion or measure of job performance that is relevant to the job under consideration. For instance, in a customer service position, the

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quality of interaction with customers will be a better measure of performance than the number of customers (quantity) the employee served.

A researcher or organization also needs to determine the predictors that can best predict the criterion. A large body of literature identifies individual difference variables such as cognitive mental ability and personality traits (e.g., conscientiousness) as ideal predictors of future performance. The aim of a criterion validation study is to establish a relationship between the predictors and criterion. Establishing this relationship enables the researcher or organization to be confident that the selection method used (such as administering a cognitive ability test) is an effective tool in predicting future performance.

Types of Criterion Validation Studies

Criterion validation studies can adopt either a predictive or a concurrent validation study design. These designs vary in terms of time lapse and the employment status of the individuals involved in the study. However, both predictive and concurrent validation studies aim at finding a correlation between the predictor and criterion.[1] In order to draw meaningful inferences from criterion validation studies, these studies must be carried out on a sufficiently large sample. As a rule of thumb, samples must consist of at least 30 employees. Experts in the field also recommend that an ideal sample size for conducting validation studies should be equivalent to 10% of the parent population. In other words, if an organizational unit consists of 500 employees, the ideal sample size to conduct criterion validation studies would be 50 employees.

Predictive Validation Study

An organization that wishes to implement a new selection method (e.g., using ability tests as part of a multiple hurdle screening process) may adopt a predictive design to garner evidence for the new selection tool. If adopting a predictive design, the selection test must be administered to all applicants who intend to apply for the job under consideration. Selection decisions must be made based on previous hiring practices (e.g., reviewing resumes, interviews) and not on the applicant's performance on the new selection test. At a later date (e.g., in six months), the researcher/organization collects the criterion data (job performance levels) for those who have been hired to perform the job. The performance of these hired individuals on the new selection test (predictor) is then correlated with their job performance data (criterion). A significant positive correlation in the expected direction provides evidence that using the new selection test can be effective in enhancing outcomes such as job performance.

Concurrent Validation Study

An organization that carries out a concurrent validation study administers the new selection tool to current employees. In a concurrent design, there is no time lapse between collection of predictor data and criterion data. They are often collected at the same time. Instead of administering the new

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[1] A correlation refers to the relationship or interdependence between two variables. A positive correlation between two variables suggests that as one variable increases the other variable also increases in magnitude. Alternatively, a negative correlation between variables would suggest that as one variable increases the other decreases in magnitude.

selection tool (e.g., cognitive ability test) to applicants applying for the job, the sample in a concurrent validation study usually is comprised of employees. A correlation between employees' performance on the cognitive ability test and employees' job performance provides evidence for the effectiveness of the cognitive ability test.

How to Determine the Criterion for a Validation Study?

In order to determine the criterion or criteria, the organization needs to identify the goal of the validation study. An organization could be interested in identifying the predictors that contribute to various organizational outcomes such as productivity, turnover, or absenteeism. An organizational needs analysis could help organizations identify the key outcomes that require attention in the future.

It is important to ensure that the criteria chosen are relevant to the work performed; the criteria must comprise behaviors, outcomes, or activities that are related to the job under consideration. For instance, if an organization chooses employee performance of software engineers as the criterion, then measures of performance (e.g., quarterly performance ratings) must reflect employees' performance on activities (e.g., programing or coding) that are integral to the job. Hence, while determining the criterion for a validation study, the researcher or organization must make sure that the goal of the validation study is clearly stated. Furthermore, the organization must ensure that this goal will help meet identified organizational needs and can be defended within a legal and social context.

Figure 1 contains a flow chart of the various steps researchers need to undertake to carry out a successful validation study. Key points to bear in mind while conducting a predictive validation study are included in Figure 2.
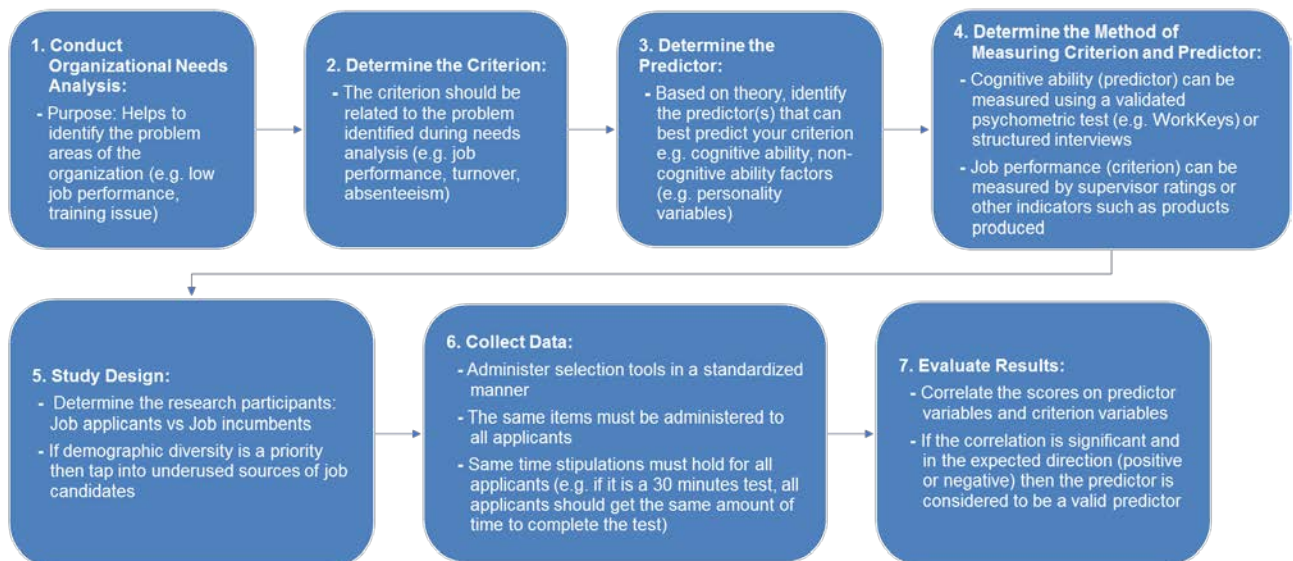

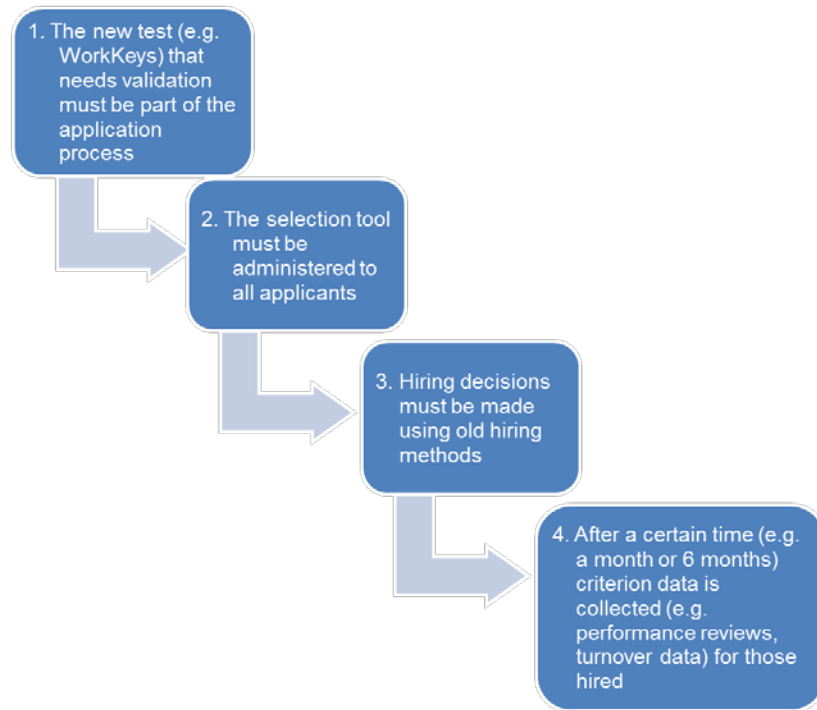**Figure 1.** Overview of Steps Involved in Validation Research

Figure 2. "Must-Haves" to Conduct a Predictive Validation Study

Note: The same procedure is followed for a concurrent validation study. It must be noted that the research participants in a concurrent study are usually employees. There is no time lapse between the collection of predictor and criterion data in this study.