

Approaches to Validating Assessment Centers

by *Kenneth M. Nowack*

Over a period of years, an impressive literature has been published indicating that assessment center methodology, when properly developed and utilized, is an excellent predictor of supervisory and managerial potential. Assessment centers have been proven to be more job relevant, reliable, and valid than traditional methods for employee selection and development (Cohen, Moses & Byham, 1974; Howard, 1974; Souder & Leksich, 1973). A number of validation strategies exist for organizations wishing to evaluate the effectiveness of their assessment centers. These strategies are appropriate whether organizations use the assessment center approach for personnel decisions or for management development efforts.

Given the increasing regulation and activity of the federal courts with regards to employee selection procedures, validation of assessment centers takes on additional significance. This article briefly describes the diverse approaches to assessment center validation that comply with both the federal regulatory guidelines and standards of the American Psychological Association for validation studies in organizations (APA, 1975; Department of Labor, 1978).

Establishing the validity of any assessment and selection approach to personnel decisions involves drawing different connections among three specific kinds of information:

- job behaviors (i.e., what employees do on the job)
- assessment evaluations (i.e., what employees do and how they are evaluated on a set of job-relevant exercises, simulations, tests, etc.)
- job performance (i.e., outcome measures of work activity)

There are at least two major reasons for establishing the validity of assessment and selection procedures in organizations today. The first is that failure to establish and demonstrate the validity of selection procedures can create legal problems for organizations. These potential legal problems are related to the equal opportunity legislation (EEOC) of the early 1960's. The current guidelines, known as the Uniform Guidelines on Employee Selection Procedures, apply to all selection decisions (Department of Labor, 1978). These selection techniques are defined as:

Any measure, combination of measures, or procedure used as a basis for any employment decision. Selection procedures include the full range of assessment techniques from traditional paper-and-pencil tests, perform-

ance tests, training programs, or probationary periods and physical, educational and work related requirements through informal or casual interviews and unscored application forms.

These guidelines apply to all employment decisions in general, and these are defined more specifically by the Uniform Guidelines as follows:

Employment decisions include but are not limited to hiring, promotion, demotion, membership, referral, retention, and licensing and certification. Other selection decisions, such as selection for training or transfer, may also be considered employment decisions, if they lead to any of the decisions above.

The Uniform Guidelines go on to specify that if a selection system (including assessment centers) has "adverse impact," it is a requirement that a validation study must be conducted. The guidelines provide a "rule of thumb" for determining when adverse impact might exist:

A selection rate for any race, sex or ethnic group which is less than 4/5 (or 80 percent) of the rate for the group with the highest rate will generally be regarded by the federal enforcement agencies as evidence of adverse impact.

Employee selection procedures (including assessment centers) have been challenged successfully in federal courts in more than 50 per-

cent of the cases (Psychological Corporation, 1976).

In summary, validation of assessment and selection systems are required to comply with legal requirements set by the federal and state regulations. Failure of an organization to demonstrate the validity of its selection efforts may result on court-mandated remedies that are both administratively complex and quite costly.

The second major reason for validating an assessment center is to determine the effectiveness of this technique for either employee selection or development efforts. Validation will ensure that there is a great deal of job-relevancy between the target job and assessment exercises, simulations, and roleplays. Such determination of job-relevancy is often missing in traditional management development efforts.

Basic Approaches to Validation

Validation has become increasingly more technical and complex. What follows is an introduction to some common approaches to investigating the job relatedness of assessment procedures that might be utilized in practice. Those interested in more detail on each of these approaches should consult the Uniform Guidelines (Department of Labor, 1978).

Some basic approaches exist for validation efforts. While they differ in both method and emphasis, they do have similarities that will be pointed out. Each have unique advantages and disadvantages depending upon the evaluation questions at hand. These approaches include:

- Content Validation
- Criterion-Related Validation
 - concurrent approaches
 - predictive approaches

Content Validation Approaches

Content-related validation approaches emphasize the demonstration of a direct relationship between

what is being measured in the assessment center and the performance requirements of the target job(s). Technically it involves demonstrating that the simulations, exercises, and tests used in the assessment center are related to the job(s) in question. The key is how much congruence exists between the behaviors measured by the assessment center exercises and the behaviors required for successful performance on the job.

The content validation approach is based upon systematic job analyses conducted prior to the development of the assessment center. Content validity is established by documenting the relationship between job analysis findings and the assessment center exercises. The greater the congruence between the two, the greater the likelihood that the assessment center is an accurate measure of job relevant behavior.

Two disadvantages of the content validation approach should be mentioned. First, this approach requires an exhaustive and systematic job analysis that takes both time and human resources. Second, there is no widely agreed upon standard or methodology for conducting a systematic job analysis (or, for that matter, a content validation study). This particular methodology appears to be evolving, and future studies will benefit all organizations attempting this approach (Lawshe, 1975; Thompson & Thompson, 1982).

Criterion-Related Approaches

Criterion-related validity is a statistical process of establishing the probable relationship between performance in an assessment center and subsequent performance on the target job. Two types of criterion-related validity approaches exist with distinct methodologies, advantages, and disadvantages. These include concurrent validity and predictive validity. Both will be briefly summarized below.

Concurrent validation. The concurrent validation approach attempts to determine the statistical relationship between job performance of those incumbents currently

functioning on the target job(s) and subsequent assessment center ratings. In this model, the job performance measure is the predictor variable, and assessment center evaluations are the criterion.

In this approach, validity evidence is generated by comparing assessment center performance of people who are judged as doing well in their performance on the target job(s) with those who are evaluated as performing marginally or unsatisfactory. The key question in the establishment of concurrent validity is how well differences in job performance are reflected in assessment center evaluations. This approach is labeled as concurrent because it utilizes employees currently doing the target job(s) that the assessment center is attempting to measure.

This approach has several advantages and disadvantages that need to be pointed out. First, a concurrent validation study can be conducted relatively quickly once employee performance criteria are established (e.g., using performance appraisal, supervisory or peer ratings). This approach can be conducted immediately and is easy to analyze, interpret, and explain within the organization.

This approach is based upon the existence of reliable techniques to differentiate employee performance (such as a performance appraisal rating system). To the extent that the organization does not have reliable techniques, this method may not be applicable. Finally, incumbents may or may not be representative of the types of employees that you wish to select or develop in the future to ensure success on the target job(s). This may be very important if the assessment center is used primarily for selection as opposed to employee development.

Predictive validation. The predictive validation approach attempts to determine the statistical relationship between assessment center performance and subsequent success on the job. In this model, the assessment center performance is the predictor and subsequent performance on the target job(s) is the

criterion. The key question in this model is how well assessment center evaluations predict job performance on a variety of outcome measures in the future.

Typically, a number of these outcome measures are relevant for this type of validation approach. Some of these include supervisory and peer ratings, salary level, advancement, and tenure with the organization. The establishment of a statistical relationship between assessment center ratings and subsequent performance on the target job(s) constitutes the demonstration of predictive validity.

The advantage of this approach is that it can yield results that provide "hard" numerical data that are easy to interpret and difficult to challenge. The methodology for conducting a predictive validation study is well defined and can be easily applied across all organizations. Finally, this approach enables organizations to evaluate how well they are selecting and retaining employees.


One disadvantage of this approach is that predictive studies are generally time consuming and can become quite complex. A second disadvantage is that in order to conduct a predictive study, it is essential that a sizable number of employees are available for study. A small sample may lead to spurious findings and results.

A Step-by-Step Approach to Assessment Center Validation

The validation of assessment centers need not be intimidating to organizations. The following steps should be followed to ensure that validation efforts proceed in a systematic and legally defensible manner.

1. Determine the evaluation question(s) to be answered with respect to your selection procedures.

2. Determine the most appropriate validation approach to suit your particular needs and situation.
3. Review your selection and assessment center decisions to determine for evidence of adverse impact (viewing the overall impact of selection procedures before considering individual components is the philosophy of the "bottom line" which is endorsed by the Uniform Guidelines).
4. Review the assessment center job analyses and the congruence between the assessment center exercises and the target job(s) in question.
5. Design, plan, and conduct an appropriate validation study.
6. Analyze and interpret the validation study results.
7. Develop a technical validation report.
8. Analyze and revise existing assessment center and selection system procedures.

Such validation efforts will help your organization evaluate the effectiveness of your assessment center as well as comply with federal guidelines on employee selection. 

References

- American Psychological Association. (1975). *Principles for the validation and use of personnel selection procedures*. Dayton, OH: Author.
- Cohen, B. M., Moses, J. L., & Byham, W. C. (1974). *The validation of assessment centers: A literature review*. Monograph II. Pittsburg, PA: DDI, Inc.
- Department of Labor (1978, August 25). Uniform guidelines on employee selection procedures. *Federal Registrar*, 43(166), 38290-38300.

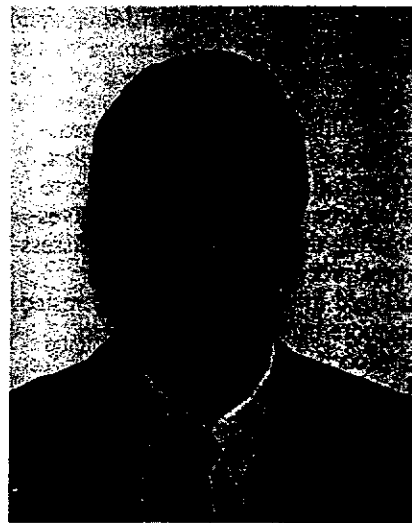
Howard, A. (1974). An assessment of assessment centers. *Academy of Management Journal*, 17, 115-134.

Lawshe, L.H. (1975). A quantitative approach to content validity. *Personnel Psychology*, 28, 563-575.

Psychological Corporation. (1976). *Summaries of court decisions on employee testing 1968-1977*. New York: Author.

Souder, W. E., & Leksich, E. R. (1973). Assessment centers are evolving toward a bright future. *Personnel Administrator*, 28, 80-88.

Thompson, D. E., & Thompson, T., A. (1982). Court standards for job analyses in test validation. *Personnel Psychology*, 35, 865-873.



Kenneth M. Nowack is the Director of Organizational Performance Dimensions, a behavioral sciences consulting company specializing in assessment, testing, career development, health promotion, and human resources research and evaluation. His current research interests include validation of computerized health risk appraisal and managerial work sample tests. Address: Organizational Performance Dimensions, 20950-38 Oxnard Street, Woodland Hills, CA 91367.