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PURPOSE

To define the concept of validity and validation and describe recognized methods by which to conduct validation studies.

AUTHORITY

Constitution of the State of California, Article VII, Section 1 (b)
In the civil service permanent appointment and promotion shall be made under a general system based on merit ascertained by competitive examination.

Government Code Sections

18500(c)

18710

18930

18701

18900(a)

19702.1

Age Discrimination in Employment Act***Americans with Disabilities Act******California Fair Employment and Housing Act******Civil Rights Act of 1967, Title VII******Civil Rights Act of 1991******Principles for the Validation and Use of Personnel Selection Procedures******Standards for Educational and Psychological Testing******Uniform Guidelines on Employee Selection Procedures***
*(29 CFR 1607)***DEFINITION OF VALIDITY**

The degree to which a test or selection procedure accurately measures a body of knowledge, skills, abilities (KSAs), and/or other characteristics identified as being required for successful job performance.

DEFINITION OF VALIDATION

The investigative process of determining and documenting (1) what a test or selection procedure measures and (2) the relationship between scores from the test or selection procedure and some criterion measure, such as job performance.

POLICY SUMMARY

Validation studies conducted to establish and document the validity of the State's civil service examination processes shall comply with recognized legal and professional standards as described herein.

INTRODUCTION

Validation studies conducted within the area of employment testing are conducted to establish and document the link between test performance and probable or anticipated job performance. The established link between test performance and predicted job performance is validity. In the broadest sense, validity refers to the measurement accuracy of the test instrument (or selection procedure). Such measurement accuracy is evaluated by two distinct criteria:

1. Does the test or selection procedure measure what it claims to measure?
2. Is performance on the test related to performance on the job? (Or in other words, is the test measuring qualifications (i.e., KSAs) required for successful job performance?)

Demonstrating evidence of the validity of a selection procedure is not a simple process. Validity is typically documented by multiple data, and multiple methods of data collection and analysis may be used to demonstrate the evidence of validity. This manual section is intended to provide an introduction to validity and the conducting of validation studies.

LEGAL AND PROFESSIONAL STANDARDS FOR VALIDATION

A number of legal and professional standards apply to the validation of a selection procedure or multiple selection procedures that comprise an examination process. The sources of guidance addressing the concept of validation and the requirements for validation as related to employment testing include the following:

- *The Uniform Guidelines on Employee Selection Procedures* (1978)
- *The Principles for the Validation and Use of Personnel Selection Procedures* (1987)

**LEGAL AND
PROFESSIONAL
STANDARDS FOR
VALIDATION
continued...**

- The *Standards for Educational and Psychological Testing* (1999)

The three most commonly recognized aspects of validation are:

- Content validation
- Criterion-related validation
- Construct validation

**CONTENT
VALIDATION
STRATEGY**

The validity of a particular selection procedure is established by demonstrating the extent to which the selection procedure is (1) representative of the work behavior(s) of the jobs and (2) related to requirements and qualifications important for job success. Unlike construct or criterion-related validity, content validity is a rational judgment based on subject matter expert input and job analytic data, not an empirically based validation strategy.

The basic component of content validity is job analytic data derived from a job analysis study of the job classification for which the selection procedure is used. The determination to use a specific selection procedure (or combination of selection procedures) and subsequent examination development is based on the results of a job analysis study. For a more thorough discussion of documenting a job analysis study, refer to *Section 2200* in this manual.

**CRITERION-
RELATED
VALIDATION
STRATEGY**

The validity of a particular selection procedure is established by demonstrating the degree to which scores on the selection procedure correlate with job performance. Evidence of criterion-related validity consists of empirical data that demonstrate that the selection procedure is predictive of job performance. Due to the empirical nature of criterion-related validity, a number of issues may impact the decision to use a criterion-related validation strategy, such as, but not limited to, the sample size of candidates (i.e., test takers), the availability of test data, the amount of time in which to conduct the validation study, and the availability and expertise of staff to conduct the study.

CRITERION-RELATED VALIDATION STRATEGY
continued...

For additional information regarding the elements of a criterion-related validation study and the documentation requirements for a criterion-related validation study, please refer to the *Uniform Guidelines on Employee Selection Procedures*, the *Principles for the Validation and Use of Personnel Selection Procedures*, and the *Standards for Educational and Psychological Testing*; summaries of which can be found in *Appendices D, E, and F*, respectively.

CONSTRUCT VALIDATION STRATEGY

The validity of a particular selection procedure is established by demonstrating through empirical (i.e., statistical) data the extent to which the selection procedure measures a specific theoretical construct, characteristic, or trait identified as important for job success. While a recognized validation approach, the concept of construct validity has not been fully defined in legal and professional standards.

For additional information regarding the elements of a construct validation study and the documentation requirements for a construct validation study, please refer to the *Uniform Guidelines on Employee Selection Procedures*, the *Principles for the Validation and Use of Personnel Selection Procedures*, and the *Standards for Educational and Psychological Testing*; summaries of which can be found in *Appendices D, E, and F*, respectively.

ELEMENTS OF A CONTENT VALIDITY STUDY

A selection procedure (either newly developed or previously developed) used for a specific job classification may be deemed content valid if it was developed based upon job analytic data and incorporates the following elements:

- the selection procedure usage is consistent with the job analytic data
- the selection procedure is representative of the work behavior(s) of the job as demonstrated in the job analytic data
- the KSAs being measured are operationally defined
- the KSAs being measured are necessary prerequisites to successful job performance

**ELEMENTS OF A
CONTENT VALIDITY
STUDY continued...**

- inferences made from scores on the selection procedure are supported based on the job analytic data

The primary means of demonstrating that the above elements are incorporated in the development of the selection procedure is to conduct a job analysis study and then use the job analytic data to design, develop, and utilize the selection procedure.

**DOCUMENTATION
OF A CONTENT
VALIDATION STUDY**

In accordance with the *Uniform Guidelines on Employee Selection Procedures*, reports documenting the content validity of a selection procedure(s) shall include the following:

User(s), location(s), and date(s) of study

Identify the user(s) of the job classification being studied and indicate the location(s) and date(s) of the job analysis study and subsequent selection procedure development activities.

Problem and setting

Identify the primary purpose of the job analysis study and the circumstances under which the study was conducted. Also provide a description of any existing selection procedures and pass points that have been used previously for the job classification.

Job Analysis

Document the job analysis study and provide a record of the job analysis having been used as the basis for the development of the selection procedure(s).

The job analysis documentation shall include the following elements:

- A description of the job analysis methodology utilized
- The identification of the work behaviors and work products of the job (i.e., tasks)

**DOCUMENTATION
OF A CONTENT
VALIDATION STUDY
continued...**

- Measures of criticality and frequency of performance of the job tasks, including the method of determining these measures and the results
- The identification of the KSAs required for performance of the work behaviors
- Measures of criticality and expected at entry of the KSAs, including the method of determining these measures and the results
- The relationship between each KSA and each work behavior, as well as the method used to determine this relationship (i.e., task/KSA linkage)
- The work situation, including the setting in which the work behavior(s) are performed, and where appropriate, the manner in which the KSAs are used, as well as the complexity and difficulty of the KSAs as used in the work behavior(s)

It should be noted that a previously conducted job analysis study may be referenced in the validation report provided that the job analysis documentation complies with the above-noted documentation requirements and the job analytic data is current given job requirements.

Selection Procedure and its Content

Describe the selection procedure(s) supported by the content validation study in terms of the title and date of the selection procedure, the instrument type (e.g., written examination, interview, work sample exercise, etc.), and the design of the selection procedure (e.g., a written examination comprised of xx segments/subtests, an interview comprised of xx questions, a performance test comprised of xx stations/activities, etc.) Also identify the work behaviors and KSAs measured by the selection procedure(s).

Relationship between the selection procedure and the job

Provide evidence that demonstrates that the selection procedure(s) is a representative sample of the work behavior(s) of the job and the KSAs required to perform the work behavior(s)

**DOCUMENTATION
OF A CONTENT
VALIDATION STUDY
continued...**

(e.g., link the content of the selection procedure(s) to the important, required upon entry KSAs resulting from the job analysis study and identified for assessment with the selection procedure). Also, identify any time limit(s) established for the administration of the selection procedure(s).

Alternative procedures investigated

Identify any alternative selection procedures that may have been investigated and describe the conclusions reached regarding the use of these alternatives (e.g., explain why it was determined not to use these alternative selection procedures).

Uses and applications

Identify the purpose for which the selection procedure(s) will be used. If a pass point is (or will be) established for the selection procedure, describe the methodology utilized to determine the pass point.

Contact Person

Provide the name, mailing address, and telephone number of the person who may be contacted for further information regarding the content validation study.

Accuracy and Completeness

Describe the steps taken to ensure the accuracy and completeness of the content validation study.

For a more thorough discussion of the above-noted documentation elements, refer to Section 15(C) of the *Uniform Guidelines on Employee Selection Procedures*.

In addition to the required documentation elements described above, agencies and departments may choose to include additional information and/or data in reports documenting the content validity of selection procedures. In determining the content and format of their validation reports, agencies and departments shall include the required documentation elements

**DOCUMENTATION
OF A CONTENT
VALIDATION STUDY
continued...**

outlined above, as well as any additional information deemed pertinent.

Appendix G provides a sample content validation report which includes the required documentation elements outlined above, as well as additional information documenting the completion of a job analysis study and examination process development and administration activities.

**ADDITIONAL
CONSIDERATIONS**

To ensure the security and integrity of the examination process, agencies and departments may wish to consider the following in establishing departmental practices related to the conducting of validation studies and the subsequent storage of validation study reports:

- Consider validation study reports to be confidential documents if they outline the specific content and design of examination processes and the individual selection procedures that comprise them
- Limit access to validation studies to departmental examination staff
- Separately document validation studies and corresponding job analyses

While examination security should be of paramount importance, it should be noted that job analyses and job analytic data are not themselves confidential; the aspect of confidentiality is introduced only once details of the design and content of the specific selection procedure(s) emerge and are documented.