

2018



## Assessment Solutions



# TEST VALIDATION SERVICES

Ramsay Corporation custom develops tests and uses a content validation model to document the process.

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## Test Validation Service

Ramsay Corporation's custom test development and validation service is the primary component of our business. We have been developing tests for industrial and manufacturing jobs for the past 40 years. In this time we have created a database of approximately 20,000 questions that allow us to efficiently and effectively build tests for our clients.

We recommend custom test development and validation rather than our off-the-shelf products when an organization meets any of the following criteria:

- Is a highly visible national or international company
- Has more than 200 employees
- Has a labor agreement
- Has a Federal contract
- Has ever had an EEO charge
- Needs professional assistance for setting cutting scores on tests

Ramsay Corporation can tailor pre-existing tests or develop custom tests with the help of our extensive question database. Tests can be technical knowledge and skills tests or basic skills tests depending on the requirements of the job.

The client is presented with a test that matches their needs, a cutting score, and a content validation report which documents the process. More information is available in the specific procedures later in this document.

## ***Why Validate?***

There are many tests and many uses for tests. Validation of knowledge and skills tests is a process of documentation. It shows how the need for the test arose, how the job requires it, and it describes a methodology to measure the knowledge and skill in a scientific and objective way.

The *Uniform Guidelines on Employee Selection Procedures* (1978) require that any selection procedures that have an adverse impact on protected groups must be shown to be job related (or valid). Therefore, developers of tests usually try to meet those guidelines in the event that the tests do have adverse impact. Also, from the employer's perspective, it is very useful to have a job-related test.

When tests are job related, they have more credibility with the persons taking them, giving the test takers more confidence in their results and providing less likelihood of complaint or litigation.

A validated test is usually the product of research by a psychologist. The resulting validation report is the documented evidence by a professional researcher of the validity of the selection procedure. In the event of complaint or litigation, the report would usually be entered into evidence. In addition, the author would provide testimony that the report reflects generally-accepted professional practice and is in conformance with the requirements of the *Uniform Guidelines on Employee Selection Procedures*<sup>1</sup>.

### **Cutting Scores**

Ramsay Corporation usually establishes cutting scores by using a modified Angoff procedure as part of a test validation study. This requires a panel of job experts who go through a process of job analysis; generation of knowledge, skills and abilities; and Angoff procedure during which each test question is reviewed and rated by each job expert.

These cutting scores may be accomplished for custom-made tests, off-the-shelf tests, or in some circumstances, pre-existing client-made tests. When a cutting score has been established for a test, it may be used to establish job profile qualification.

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<sup>1</sup> Equal Employment Opportunity Commission, Civil Service Commission, Department of Labor, and Department of Justice. (1978, August). *Uniform guidelines on employee selection procedures*. Federal Register, 43, 38290-38315.

## ***Description of Technical Test Validation Procedure***

The process shown below is followed when developing and validating a job-knowledge test.

### **A. *JOB ANALYSIS***

The client provides a company job description. We observe the job and put the description into Ramsay Corporation's format of Job Summary, Work Performed, and Consequences of Errors. Job experts (supervisors or incumbents) edit the description to ensure that it is up-to-date and reflects the job activities. The top ten job tasks are listed and ranked in importance.

### **B. *COMPLETION OF MAINTENANCE ACTIVITY LIST***

The job experts rate the job with respect to importance of job activities and percent of time spent on job activities. Ramsay Corporation evaluates the interrater agreement.

### **C. *EDITING OF KNOWLEDGE AND SKILLS AREAS***

We provide a list of knowledge and skills areas for the job. The job experts edit the list to ensure that the important areas are represented. They rank the knowledge and skills areas with respect to relative importance and the number of items to be included in each area.

### **D. *SELECTION OF TEST ITEMS***

Job experts are assigned to work in pairs. They are given applicable sections of Ramsay Corporation's Database. Each test item in the database includes Difficulty (percent of persons getting the item right) and Discrimination Index (correlation of getting the item right with area or total test score). Job experts usually have 3-8 times as many items as they wish to select. They are able to select items reflecting the level of sophistication, types of equipment, and level of difficulty required.

### **E. *EDIT, COMPOSE, AND PRINT DRAFT TESTS***

Ramsay Corporation leaves the first day's meeting with the selected test items designated. We then edit the test and obtain 2 drafts of the test. The second draft is printed and taken to the job experts.

### **F. *ANGOFF PROCEDURE TO SET CUTTING SCORES AND REVIEW FINAL TEST***

Five to ten job experts review the test item-by-item. They select the correct answer, they are told the keyed answer, and they are asked what percent of qualified candidates would pass each item. They are told the percent passing the item in the largest group to whom the item has been given. This is also their final review of the total test before final printing.

### **G. *WRITING OF CONTENT VALIDATION REPORT***

Ramsay Corporation writes a content-related validation report in the format suggested by the *Uniform Guidelines on Employee Selection Procedures*. The company reviews a draft. The final report detailing the activities undertaken is then bound and provided to the client.

## ***Description of Basic Skills Test Validation Procedure***

The process shown below is followed when developing and validating a basic skills test battery for entry-level, apprentices, or trainees.

### **A. *JOB ANALYSIS***

After observation of the job activities and equipment, a job description is generated. The Job duties are placed into Ramsay Corporation's format of Job Summary, Work Performed, and Consequences of Errors. Job experts review and edit the description to ensure that it is up-to-date and reflects the job activities.

### **B. *EVALUATION OF TRAINING MATERIALS***

Ramsay Corporation evaluates readability levels, mathematics skills, and other requirements of the job and training program.

### **C. *COMPLETION OF JOB ACTIVITY CHECKLIST***

The job experts rate the job with respect to importance of job activities and percent of time spent on job activities. Ramsay Corporation evaluates the interrater agreement.

### **D. *SELECTION AND DEVELOPMENT OF TESTS***

Ramsay Corporation evaluates the job analysis information and determines the knowledge, skills and abilities and the methods for their measurement.

### **E. *ANGOFF PROCEDURE TO SET CUTTING SCORES AND REVIEW FINAL TEST***

Five to ten job experts review the test item-by-item. They select the correct answer, they are told the keyed answer, and they are asked what percent of qualified candidates would pass each item. The job experts judge which, if any, of the knowledge, skills, or abilities is measured by the tests. This is also their final review of the total test before it is printed.

### **F. *EDIT, COMPOSE AND PRINT TESTS***

Ramsay Corporation edits, composes, and prints the tests.

### **G. *WRITING OF CONTENT VALIDATION REPORT***

Ramsay Corporation writes a content-related validation report in the format suggested by the *Uniform Guidelines on Employee Selection Procedures*. The company reviews a draft and the final report detailing the activities undertaken is then bound and provided to the client.

## ***Description of Test Validation Procedure for a Pre-Existing Technical Test***

The process shown below is followed when validating a pre-existing technical test.

### **A. *JOB ANALYSIS***

The job description for the pre-existing test is compared with the description for the new job. Job experts review the description to ensure its similarity to the new description.

### **B. *COMPLETION OF MAINTENANCE ACTIVITY LIST***

The job experts rate the job with respect to importance of job activities and percent of time spent on job activities. Ramsay Corporation evaluates the interrater agreement.

### **C. *EDITING OF KNOWLEDGE AND SKILLS AREAS***

The job experts review the list of knowledge and skills areas to eliminate any which are not related to the new job. They add any areas which are not present.

### **D. *REVIEW OF TEST***

Job experts review the pre-existing test item by item. They judge each item's relatedness to the new job.

### **E. *ANGOFF PROCEDURE TO SET CUTTING SCORES AND REVIEW FINAL TEST***

Five to ten job experts review the test item-by-item. They select the correct answer, they are told the keyed answer, and they are asked what percent of qualified candidates would pass each item. This is also their final review of the total test before final printing.

### **F. *WRITING OF SUMMARY CONTENT VALIDATION REPORT***

Ramsay Corporation writes a summary content-related validation report in the format suggested by the *Uniform Guidelines on Employee Selection Procedures*. The company reviews a draft. The final report detailing the activities undertaken is then bound and provided to the client.

## ***Description of Test Validation Procedure for a Pre-Existing Basic Skills Test***

The process shown below is followed when validating a pre-existing basic skills test.

### **A. *JOB ANALYSIS***

The job description for the pre-existing test is compared with the description for the new job. Job experts review the description to ensure its similarity to the new description.

### **B. *COMPLETION OF JOB ACTIVITY CHECKLIST***

The job experts rate the job with respect to importance of job activities and percent of time spent on job activities. Ramsay Corporation evaluates the interrater agreement.

### **C. *EDITING OF KNOWLEDGE AND SKILLS AREAS***

The job experts review the list of knowledge, skills and abilities to eliminate any which are not related to the new job. They add any knowledge, skills and abilities which are not present.

### **D. *REVIEW OF TEST***

Job experts review the pre-existing test item by item. They judge each item's relatedness to the new job.

### **E. *ANGOFF PROCEDURE TO SET CUTTING SCORES AND REVIEW FINAL TEST***

Five to ten job experts review the test item-by-item. The modified Angoff method is used. The job experts may eliminate some of the test items. They select the correct answer, they are told the keyed answer, and they are asked what percent of qualified candidates would pass each item. This is also their final review of the total test.

### **F. *WRITING OF SUMMARY CONTENT VALIDATION REPORT***

Ramsay Corporation writes a summary content-related validation report in the format suggested by the *Uniform Guidelines on Employee Selection Procedures*. The company reviews a draft and the final report detailing the activities undertaken is then provided to the client.