

EXECUTIVE SUMMARY
Of
VALIDATION RESEARCH

SUPPORTING THE

GENERAL INFORMATION APPRAISAL

Prepared by

Kurt G. Helm, Ph.D.
Helm and Associates, Inc.
Helmsburg, IN

Purpose of the Executive Summary

This summary of the validation research supporting the GENERAL INFORMATION APPRAISAL provides an overview, in non-technical terms, of the research, development and validation of the GENERAL INFORMATION APPRAISAL. Every effort has been made to present this material free from the specialized jargon of statistics and research. The purpose of such jargon is to increase the precision of language used to

describe technical work. Therefore, avoiding it will, at times, result in our making more general statements than would otherwise be the case. We accept this limitation in order to clarify the research findings for the non-technical reader. A more technically precise explanation of the issues presented here is available in the full validation report on the GENERAL INFORMATION APPRAISAL (Technical Report # 1525)

Description of the GENERAL INFORMATION APPRAISAL

The GENERAL INFORMATION APPRAISAL is a timed test that measures that set of job-relevant knowledge and skills assumed to be present in entry-level job

applicants. Specifically, the GENERAL INFORMATION APPRAISAL measures the following:

General Knowledge:

U.S. Weights and Measures

U.S. Monetary Units

Basic Business Vocabulary

Basic Spelling

Days of the Week

Months of the Year

The GENERAL INFORMATION APPRAISAL is also powerful enough to also provide a good approximate reading of an individual's general mental abilities. The

Cognitive Skill Areas:

Math Fundamentals

Ability to Tell Time

Logical Reasoning

Ability to Follow Instructions

GENERAL INFORMATION APPRAISAL can be administered in either a paper-and-pencil or in a computer-administered format.

Design and Development of the GENERAL INFORMATION APPRAISAL

The content areas of the GENERAL INFORMATION APPRAISAL were chosen to reflect the basic knowledge and skills that are required for a person to perform at a minimum level of competence in most entry-level jobs.

The group of job-relevant knowledge and skill areas that were chosen, when looked at together, provides a good working definition of what many people think of as "common sense." Questions on the GENERAL INFORMATION

APPRAISAL are arranged from easier to more difficult in order to provide a fair evaluation of the knowledge and skill levels of both those individuals with very limited knowledge and skills and those individuals with a high level of knowledge and skills. In order to avoid penalizing those test takers with limited reading skills, short sentences were used and long, or infrequently used, words were avoided. These efforts produced a fifth grade reading level for the GENERAL INFORMATION APPRAISAL. The number of test items in the GENERAL INFORMATION APPRAISAL was held to fifty in order to meet the statistical requirements of test reliability without unduly fatiguing the test taker.

A preliminary study was conducted to establish an appropriate time limit for the GENERAL INFORMATION APPRAISAL. This study indicated that a time limit of twelve (12) minutes would allow all test takers to fully display the level of knowledge and skills they possess.

The Validation Process

The validation process is a way of determining, through scientific research, whether a test effectively measures what it is designed to measure. There are three approaches to test validation: Content-Related Validation, Construct-Related Validation, and Criterion-Related Validation. While validation evidence obtained using any one of the three is acceptable, a stronger case for a test's validity is built when validation evidence comes from two, or even all three, of these approaches. Consequently, the initial effort of the GENERAL INFORMATION APPRAISAL validation research focused on providing validation evidence using all three approaches.

The GENERAL INFORMATION APPRAISAL validation research was designed and conducted according to the criteria and standards for test development established by the American Psychological Association in

their "Standards for Educational and Psychological Testing."

A. Evidence of a Normal Distribution

The effectiveness of the GENERAL INFORMATION APPRAISAL is based on the assumption that the job-relevant knowledge and skills that it measures are distributed normally across a representative sample of people. Therefore, the first "test" of the GENERAL INFORMATION APPRAISAL is to administer it to a group of people and plot the test results of each individual. If the GENERAL INFORMATION APPRAISAL is accurately reflecting the diversity of knowledge and skills in the population, then this diversity should be reflected in a distribution of test scores that ranges from low to high, with a relatively small percentage scoring low, a similarly small percentage scoring high and most people scoring somewhere in the middle. This type of distribution of responses looks like a bell and is called a normal distribution. The dispersion of scores for the group of people who participated in the initial study very closely resembles a normal, bell-shaped distribution, providing evidence that the GENERAL INFORMATION APPRAISAL accurately reflects the diversity of knowledge and skills that exist in the population.

B. Content-Related Validation Evidence

Content validity is determined by examining the extent to which the items or questions on a test are representative and address the subject, or content domain, they are intended to address. All fifty items on the GENERAL INFORMATION APPRAISAL were constructed to match as closely as possible in content, presentation format and terminology the actual behavior of demonstrating minimum competency in an entry-level job. Thus, the fact that the content and format of items on the GENERAL INFORMATION APPRAISAL focus directly and unambiguously on the body of knowledge and skills defined as its intended content domain, provides evidence for the

content-related validity of the GENERAL INFORMATION APPRAISAL.

C. Construct-Related Validation Evidence

Construct validity is determined by how well a test measure the content areas it has been designed to measure, relative to how well the same, or similar, content areas are measured by other established tests that address the same content areas. Performance on the GENERAL INFORMATION APPRAISAL was correlated with performance on three other measures of general knowledge and cognitive skills: The Wonderlic Personnel Test, The Cashier Operations Inventory: Numerical (COIN) Test and The Smart Cash Register version of the COIN Test. The GENERAL INFORMATION APPRAISAL showed strong correlations with all three measures, providing strong evidence of the construct-related validity of the GENERAL INFORMATION APPRAISAL.

D. Criterion-Related Validation Evidence

Criterion validity is determined by comparing the ability of a test to predict other objective, independently gathered indicators of the behavior that the test measures. The following six independent indicators of general knowledge and cognitive skills were chosen: The Scholastic Aptitude Test I Reasoning (SAT I), The Preliminary SAT (PSAT), The National Educational Development Tests (NEDT), The ACT Assessment (ACT), high school cumulative grade point average, and high

school rank in class. The GENERAL INFORMATION APPRAISAL showed strong correlations with all six of these indicators, providing strong evidence of the criterion-related validity of the GENERAL INFORMATION APPRAISAL.

EEOC Issues

The scoring procedure for the GENERAL INFORMATION APPRAISAL does not adjust scores on the basis of race, color, religion, sex, or national origin, in compliance with U.S. employment law as amended by Section 106 of the Civil Rights Act of 1991 and the Americans with Disabilities Act (ADA) of 1990.

Legality of Use

The GENERAL INFORMATION APPRAISAL is designed to be used as **part, and only part**, of the pre-employment evaluation of prospective applicants for entry-level, and above, jobs. It is intended to give an employer an indication of the level of an applicant's basic job-relevant knowledge and skills.

The GENERAL INFORMATION APPRAISAL is intended to be used as only **one part, and only one part**, of a process that should include information from interviews, background checks, reference checks, drug screening, physical examinations and other relevant sources.

For more information please contact:

HELM AND ASSOCIATES

P. O. Box 130

Helmsburg, IN 47435

(812) 988-0999

(800) 886-4356