

The purpose of this paper is to summarize the validity evidence collected to date on the updated ACT WorkKeys® assessments—Workplace Documents, Applied Math, and Graphic Literacy—that form the foundation of the ACT WorkKeys National Career Readiness Certificate® (ACT WorkKeys NCRC®). The assessments and the WorkKeys NCRC are measures of cognitive foundational workplace skills and are used for a variety of purposes, some of which involve high-stakes decisions. ACT issues the WorkKeys NCRC at four levels: Bronze, Silver, Gold, and Platinum. The levels are determined by the scores a test taker earns on the three WorkKeys assessments.

The validity of a test is the degree to which evidence and theory support the interpretations of test scores for proposed uses of the test. The primary sources of guidance for test publishers are the *Uniform Guidelines on Employee Selection Procedures* (1978), the *Standards for Educational and Psychological Testing* (2014), and the *Principles for the Validation and Use of Personnel Selection Procedures* (2003). All ACT assessments, including ACT WorkKeys, are developed and supported in adherence to the professional standards and best practices reflected in these documents.

Validity Claims for the ACT WorkKeys NCRC

When skill levels on the WorkKeys NCRC are aligned to the specific skills required for a job, ACT claims that individuals who earn a WorkKeys NCRC will tend to have the following characteristics:

1. They are more likely to possess essential and foundational job-related cognitive skills.
2. They are more likely to successfully complete the related job training program(s).
3. They are more likely to have greater career success resulting in better general job performance, along with higher earnings and retention rates.

Further, ACT makes two additional claims regarding the WorkKeys NCRC:

1. The assessments that constitute the WorkKeys NCRC measure important job-related cognitive skills that improve an individual's chances of employment, entry into and success in career pathway programs, or attainment of stackable credentials in industry sector credentialing systems.
2. When large numbers of employees possess the skills certified by the WorkKeys NCRC, employers will see more efficient and effective business outcomes such as higher job placement rates, higher productivity, lower turnover rates, and lower accident rates.

ACT is continually collecting and evaluating data to determine the extent to which the assessment claims are supported by evidence. As more data and evidence are collected, this paper will be revised and updated.

Why Workplace Documents, Applied Math, and Graphic Literacy?

In today's economy, foundational skills are critical to employment success because learning job-specific skills and other types of advanced learning are dependent on whether an individual can read and comprehend workplace documents, understand and interpret information presented in graphic formats, and solve applied mathematical problems.

The identification of these three skills as foundationally critical to a wide array of jobs in areas ranging from manufacturing to health care to information technology is supported by over 20 years of research conducted by ACT's job profiling services and the evaluation of the skill requirements for a wide variety of industries and occupations.

Based on ACT's job profiling studies and meta-analyses conducted by other researchers, individuals' foundational cognitive skills are highly predictive of their ability to succeed in a wide variety of occupations that cut across multiple industries and businesses.

What information did ACT use to develop its updated WorkKeys assessments?

ACT primarily used information from three sources:

1. Professional literature, including white papers sponsored by business, manufacturing, and think tanks, including ACT's Holistic Framework[®], to identify 21st-century job skills
2. ACT's content and job profiling expertise related to workplace reading, applied mathematics, and graphic literacy
3. Input, feedback, standards provided by a team of external experts who reviewed all ACT documentation. Team members included specialists with experience in human resources, job placement, advanced manufacturing, state workforce development, business consulting, community college, or academic research.

How did ACT evaluate the quality of the updated assessments?

ACT conducted three sets of field test studies, each with a specific purpose:

- 1) A timing Study, to ensure that all examinees would have an adequate amount of time to complete the assessments
- 2) A scaling Study, to define the score scale for each assessment
- 3) A linking/mode Study, to develop linkages among the assessments and establish score comparability between paper and online testing

Pending Research

ACT is continually collecting and evaluating data to determine the extent to which its assessment claims are supported by evidence. ACT is committed to ensuring that the three WorkKeys assessments measure relevant cognitive skills and help to identify applicants who have the skills needed to acquire job-related skills and meet the needs of employers. As the updated WorkKeys assessments are launched, ACT will continue to monitor and evaluate their effectiveness and that of the WorkKeys NCRC. ACT will work with specific employers and education institutions to gather data on the entire WorkKeys system and to evaluate its effectiveness. As more data and evidence are collected, ACT will publish the findings and update this validity summary.