KEY FACTS

Cognitive and noncognitive skills

Why do ACT WorkKeys assessments measure two types of foundational skills?

The ACT WorkKeys suite of assessments measures two types of foundational skills: cognitive and noncognitive. Although these assessments measure different constructs and rely on different designs, they produce results that complement each other. Cognitive and noncognitive foundational skills are integral to the industry competency models developed by the US Department of Labor and are applicable across all sectors of the economy. Combining two distinct skill areas gives employers valuable information that improves decision making related to recruitment, selection, promotion, and training and development. This information also helps career seekers and current employees to identify their strengths as well as the areas they should focus on improving.

ACT's portfolio of work-related products includes instruments that measure both types of foundational skills.

Cognitive vs. noncognitive skills: What’s the difference?

Cognitive skills involve conscious intellectual effort, such as thinking, reasoning, or remembering. ACT WorkKeys assessments that measure these skills require examinees to demonstrate their capabilities in areas including reading and mathematics.

Noncognitive or “soft skills” are related to motivation, integrity, and interpersonal interaction. They may also involve intellect, but more indirectly and less consciously than cognitive skills. Soft skills are associated with an individual's personality, temperament, and attitudes. For virtually all jobs, a worker needs the soft skills associated with working well with other people and functioning effectively in a work environment. The ACT WorkKeys noncognitive assessments measure the soft skills that are considered essential in many occupations.

Cognitive vs. noncognitive skill assessments: What do they measure?

More than 100 years of research have shown that cognitive skill assessments are among the top predictors of job-related success (e.g., job performance, job-related learning, training, and advancement). The ACT WorkKeys cognitive skill assessments require an individual to perform a specified skill in order to answer the items correctly.

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For example, the Applied Mathematics assessment consists of work-related math problems that examinees must solve by using their math skills—and the answer is clearly right or wrong.

**Noncognitive skill assessments** are also significant predictors of job-related success. Unlike cognitive skill assessments, they include statements regarding values, attitudes, and activities. Examinees are asked how well a description fits them, how important a value is to them, or how much they would like or dislike an activity.

The ACT WorkKeys noncognitive skill assessments are designed to measure an examinee’s soft skills: temperament or personality characteristics such as attitudes, preferences, interests, or values. For instance, an aspect of the Fit assessment reflects how highly individuals value autonomy in their work, while a tendency to think and plan carefully before acting is among the traits covered by Talent. These are only some of the soft skill attributes measured by these assessments.

**Why combine cognitive and noncognitive skill assessments?**

Cognitive and noncognitive skill assessments each capture unique aspects of work-related competencies. Together, they provide a stronger, more comprehensive, and complete picture of an individual. This “big picture” benefits:

- **Career seekers and current employees** by giving them a better understanding of their strengths and the potential workplace challenges they might encounter, as well as identifying areas in which they might explore developing their skills.

- **Employers and workplace professionals** by helping them to more accurately predict workplace success. Combining these two types of assessments increases the predictive power—called “incremental validity”—of the hiring and selection process. Compared to using cognitive skill assessments alone, personality and integrity assessments have been shown to increase the predictive power of a selection system.

Employers and employees alike gain a major advantage from the “big picture” that only the combination of these two foundational assessments can provide.