

CHAPTER 1

General Description of ACT Aspire Assessments and Standards

1.1 Overview

The ACT Aspire[®] summative assessment program includes a vertically scaled battery of achievement tests designed to measure student growth in a longitudinal assessment system for grades 3–Early High School (EHS) in English, reading, writing, mathematics, and science. Taken as individual subject tests or as a battery, ACT Aspire can be delivered via computer or as a paper-and-pencil administration. The scale scores are linked to college and career data through scores on the ACT[®] test and the ACT National Career Readiness Certificate[™] (ACT NCRC[®]) program. To enhance score interpretation, reporting categories for ACT Aspire use the same terminology as The ACT College and Career Readiness Standards (ACT CCRS) and other standards that target college and career readiness, including the standards of many states and the Common Core State Standards (CCSS).

1.2 Purposes, Claims, Interpretations, and Uses of ACT Aspire

The purpose of the ACT Aspire assessments is to measure student achievement and progress toward college and career readiness. To identify college and career readiness constructs, ACT uses empirical and performance data to define requisite constructs in the content areas of English, reading, writing, mathematics, and science. Every three years, ACT administers the ACT National Curriculum Survey study to identify what kindergarten through postsecondary teachers, including instructors of

entry-level college and workforce-training courses, expect of their entering students—this includes the most current knowledge and skills students need to demonstrate to be ready for entry-level postsecondary courses and jobs. ACT also collects data about what is actually being taught in elementary, middle, and high school classrooms. Taken altogether, these results support ACT Aspire’s curriculum base and ACT’s ability to identify the key skill targets and knowledge that is most important for students to know to be ready for the next step. ACT uses these and other research results to design assessments and inform test blueprints so that each test targets the most important college and career readiness skills across skill progressions.

Additional validation of the constructs occurs through ACT’s longitudinal research (see figure 1.1).

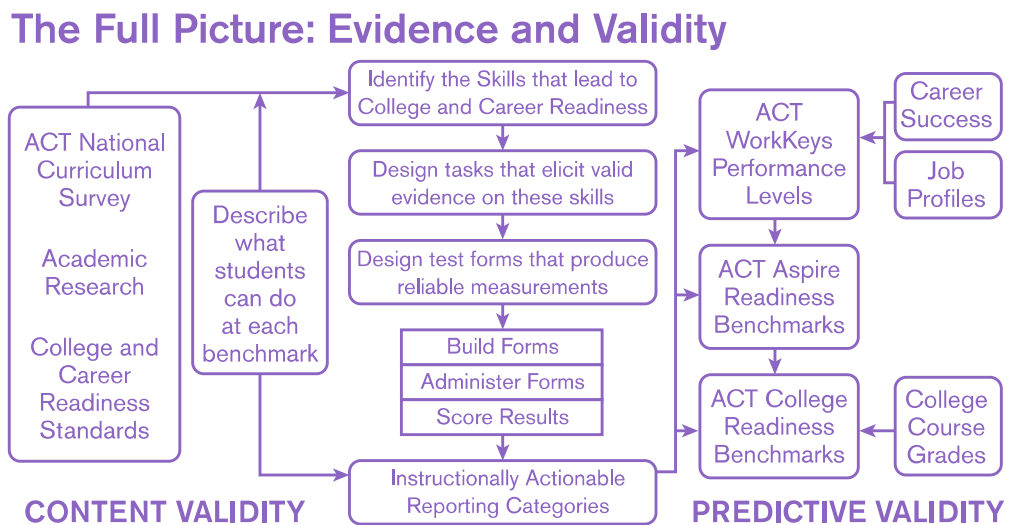


Figure 1.1. The full picture: evidence and validity.

Figure 1.1 shows how ACT uses research including empirical feedback loops to help inform continuous improvement. The ACT Aspire development starts by exhaustively understanding the most important requirements and most desired evidence needed to support inferences about college and career readiness, and tests are designed specifically to elicit the identified evidence. Subject matter experts (SMEs), item writers, and other educators work collaboratively to write items and review them for accuracy, appropriateness, and fairness. Operational forms are put together using pretested items and are built to test specifications. Scores from assessments are calculated, reported, and sent out on various reports designed for each audience. Instructionally relevant reporting categories provide immediate actionable information about how students perform on key skills at a more granular level. Additional psychometric work continues, including analyzing student performance along the Kindergarten to Early High School (K–EHS) continuum. Students who meet readiness score benchmarks at one grade level are compared to students who succeed in the next grade. This information is used to ensure the benchmarks are accurate and

up-to-date. Through research and feedback loops, ACT ensures that key targets are identified and measured appropriately across the continuum.

ACT Aspire was created by employing a theory of action (TOA) approach that fuses content validity (academic research) with predictive validity (empirical data), thus following similar methodologies used to build the ACT. The TOA begins by answering fundamental questions about the purpose of the assessment, such as: Who are the intended users? What are the intended uses of the assessment results? What are the consequences that may result from using the assessment? What are the intended interpretations or claims based on the assessment? What are measurable outcomes from using the assessment? The answers to these questions emerge as a result of rigorous research and data collection that inform and allow for the identification of high-value skill targets in each subject area, resulting in focal points for the development of tasks and test forms. The procedure set forth by the TOA further gives rise to hypothesized mechanisms or processes for bringing about the intended goals of the assessment results. For example, cognitive labs, piloting, and field testing are used to validate results, and iteratively improve the specifications and design of the assessment. Operational results are used to continuously improve the components of the assessment.

Artifacts of the assessment architecture emerge from the research and data collection process to ensure that items and test forms elicit the intended evidence to support the claims made by the assessment. For example, content and item specifications, test blueprints, benchmarks, and performance level descriptors (PLD's) influence the technical quality and output of test items and forms. These artifacts are informed by several factors, including:

- Academic research on skill targets, sequencing of skills, and grade level placement
- Data and evidence of student understanding collected from the assessments
- The ACT National Curriculum Survey
- Survey of standards frameworks—including, but not limited to the ACT CCRS, CCSS, and Next Generation Science Standards
- Subject Matter Experts (SME)

The principal claims, interpretations, and uses of ACT Aspire are the following:

1. To measure student readiness on an empirically derived college readiness trajectory. (Note that students taking the ACT Aspire battery will receive scores that can be compared to ACT Readiness Benchmarks that are linked to the ACT.)
2. To measure student readiness on a career readiness trajectory.

The secondary claims, interpretations, and uses of ACT Aspire are the following:

1. To provide instructionally actionable information to educators. Data from the ACT Aspire summative assessment can be used to identify areas of student strength and weakness in content areas at student, classroom, and school levels. Data can inform instruction and facilitate the identification of interventions.