



STUDENT ASSESSMENT

By Catherine Imperatore

HIGH-QUALITY CAREER AND TECHNICAL EDUCATION (CTE) PROGRAMS OF STUDY USE MULTIPLE forms of reliable and valid assessment to measure student learning, particularly industry-aligned assessments that give students the opportunity to demonstrate their knowledge and skills in authentic scenarios. For this reason, Student Assessment is one of ACTE's 12 elements of high-quality CTE within the *Quality CTE Program of Study Framework*.

The Student Assessment element of ACTE's quality framework includes eight criteria that address the variety and quality of assessments used in the program of study, including the knowledge and skills assessed, types of assessments

offered, and the connection between assessments and valuable credentials. The criteria listed below are from the 2018 version of the ACTE *Quality CTE Program of Study Framework*.

Criteria for High-quality Student Assessment

- b.** Assessments are aligned to program standards and curriculum and appropriate to students' current level of knowledge and skill attainment.
- c.** Assessments are valid, reliable and developed or chosen in accordance with relevant quality standards.

High-quality programs of study follow established best practices in student assessment. Assessments used in the program of study should align to program standards and curriculum, so that they are measuring the knowledge and skills students are actively learning and practicing in the classroom, and which are important to employers. In addition, each assessment should be valid — meaning that it measures what it is meant to measure — as well as reliable; if students take the assessment today and again tomorrow, they should get a very similar score from one day to the next.

Instructors can design and validate their own rubrics and assessments using tools such as the U.S. Department of Education's Reform Support Network Assessment Design Toolkit. Career and technical educators also can choose third-party assessments that have been found valid and reliable through repeated use, through research, or by an educational testing and assessment organization. Frequently, states, school districts and community colleges provide lists of preapproved assessments.

- a.** Formative and summative assessments are integrated throughout the program of study to validate student learning gains, including both classroom/school-based and standardized, third-party assessments, as appropriate.
- d.** The program of study incorporates multiple forms of assessment, including performance-based assessment where students must demonstrate the application of their knowledge and skills.

High-quality programs of study evaluate student learning at regular intervals through formative assessment, of which there are many types: observation, discussion, quizzes, games and peer assessment, among a multitude of others. With practice, instructors can learn to adjust their instruction based on formative assessment results.

Summative assessments measure knowledge and skills after instruction is complete, including performance-based assessments that enable students to apply what they have learned. These demonstrations can come in the form of presentations, portfolios and/or projects. Performance-based CTE assessment frequently takes the form of a challenge with specific parameters. Individuals or groups develop a product or process in response to this challenge and present their work to a panel of judges. This model is particularly common for career and technical student organization competitive events.

Third-party summative assessments can be relevant for CTE programs, notably those that are developed by employers and industry associations as well as by organizations like NOCTI.

If educators or administrators choose third-party assessments, they should work with those providers to determine the modifications that are allowed for exams (particularly for exams leading to industry certification), and how these modifications fit with student needs and individualized education programs (IEPs) required under the Individuals with Disabilities Education Act, if applicable. To facilitate program improvement, CTE program staff should also have access to student performance data on these assessments, either through data-sharing agreements or because the institution, district or state pays the certification exam fee.

e. Assessments within the program of study provide objective information on student attainment of industry-validated technical knowledge and skills.

f. Assessments within the program of study provide objective information on student attainment of academic knowledge and skills.

g. Assessments within the program of study provide objective information on student attainment of employability knowledge and skills.

h. The program of study prepares students for assessments that lead to recognized postsecondary credentials, as available and appropriate.

High-quality programs of study assess student learning of technical, academic and employability knowledge and skills. Teacher-developed and third-party assessments may measure learning across one, two or all three of these domains, as appropriate. In addition, high-quality programs of study culminate in one or more recognized postsecondary credentials, including postsecondary certificates and degrees as well as licenses and industry certifications, which are earned primarily or solely through written and/or performance-based examinations.

Standards, curriculum and assessments should align closely to ensure students are learning relevant technical, academic and employability knowledge and skills that will enable them to earn credentials and succeed in careers. This is particularly important for programs that prepare students for occupations in which licenses are required for employment. High-quality CTE programs can formally or informally incorporate licensure and certification exams into curriculum to maximize this alignment.

Success Strategy: Multi-rater Feedback Model

Several years ago, the College of Western Idaho's surgical technology program incorporated the multi-rater feedback model to better evaluate student learning and build competency in the operating room. This more dynamic and interactive approach includes detailed, graded faculty evaluations; weekly, ungraded peer feedback and self-evaluation; pairings of stronger and weaker students for mentoring; and the use of video recordings during clinical experience and mock surgeries. This collaborative model mimics the peer support that is vital in the operating room and, according to former clinical coordinator Angie Wachter and Idaho State

University professor Robert W. Lion (2016), enables faculty to identify problems earlier and provide more targeted assistance to students. In addition, students develop the ability to more accurately self-evaluate, and higher-performing students grow their skills as mentors.

Learn More and Assess Your Programs

Practitioners can turn to ACTE's High-quality CTE Tools online library for publications and other resources about ways to measure student learning. Resources within the Student Assessment section provide questions to consider when implementing performance assessment systems, strategies for selecting and incorporating industry certification exams and career readiness assessments, and tips for using prior learning assessment.

In addition, practitioners can use the *Quality CTE Program of Study Framework Self-evaluation Instrument* to assess a single program or multiple programs across a district or institution, in relation to the Student Assessment element and all 12 elements of high-quality CTE. The rubric can be completed on paper or online, where users can receive automatically calculated scores, save and print their results, and be connected to the online library for areas identified as needing improvement. ■

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REFERENCE

Wachter, A., & Lion, R.W. (2016). Multi-rater feedback: Improving students' readiness for the OR. *Techniques*, 91(3), 44-49.

EXPLORE MORE

High-quality CTE Tools Online Library: www.acteonline.org/high-quality-CTE

Quality CTE Program of Study Framework and Self-evaluation Instrument: www.acteonline.org/high-quality-CTE