STUDENT ASSESSMENT

High-quality CTE programs employ multiple forms of formative and summative assessments, founded on technical competencies that are aligned to program standards and allow students to demonstrate academic, technical and employability skills.

Key Issues to Address

- Assessing learner gains and losses after spring closures
- Providing multiple methods of assessment, multiple formats for feedback and accommodations
- Modifying performance assessments for social distancing or virtual platforms
- Providing assessment materials to remote learners
- Taking advantage of remote proctoring, alternative testing sites and other testing flexibilities for credentialing exams

Credentialing options such as certifications, licensures, apprenticeship certificates, digital badges and degrees are important parts of CTE student assessment that could be significantly impacted by COVID-19. Socially distanced in-person, remote and blended instructional models could all affect how learners demonstrate their knowledge and skills for these credentials, and their ability to meet seat time and other requirements. Assessments tied to industry credentials in particular are often administered by a third party, so educators will have to work closely with partners to provide students continued access in the new school year.

Instructor assessment of knowledge and skill gains is equally important. Regardless of the instructional model chosen, CTE educators will need to determine learning gains and losses when students return to campus after a long hiatus, particularly for students who are entering the next course in a sequence that assumes preexisting knowledge and skills.

In-person Considerations

If learners return to campus, then many assessments can be carried out as normal. However, some assessment delivery may need to be modified to meet social distancing requirements. For instance, performance assessments in which students show their technical or employability skills through collaboration, such as working together to complete a construction task, may need to be modified to allow for more individual demonstration of knowledge and skills. Learners may also need additional personal protective equipment during assessments, and educators may need additional time to assess individual student skills in light of social distancing requirements.

For industry certification or licensing exams, instructors may need to identify alternative sites for students to take assessments, such as colleges or local union training centers, if some testing centers remain closed or have limited capacity. Some testing sites may also limit the number of learners being assessed at a given time, leading to scheduling challenges.

Remote Considerations

Assessing CTE student learning using remote methodologies will involve new techniques. A number of resources and tips exist that can help CTE instructors transition classroom assessment online. Some recommendations include providing smaller and more frequent assessments spread out across the course, as well as using online quizzes and polls, student reflections, and multiple formats of instructor-to-learner feedback as well as feedback among students through virtual breakout groups or discussion boards. Feedback can be communicated via written comments, phone, email or video, in synchronous or asynchronous formats, and may be shared with a group or provided independently, depending on the technology used and the goals of the instructor.
Some assessment options, such as quizzes, may be built into learning management systems or online textbooks. Whichever options are chosen, it is important to ensure any technology used for assessment is accessible and easy to navigate so that students’ content knowledge and skills, rather than technology access or expertise, is being measured.

Developing assessments that reduce cheating and are a valid representation of what students know was an issue raised frequently during the spring transition to remote instruction. Institutions can provide guidance and policies on academic integrity for remote assessments. One strategy is to strive for assessments that require knowledge or skills to be applied, rather than just recalled — and allowing students to use textbooks or other tools as references during assessments (since access to outside resources is difficult to monitor remotely). Find more tips and resources about online assessments in the Resources, Tools and Examples section below.

Access and Equity Implications

When you are considering how to provide students with quality assessment, remember that students with disabilities may still need assessment accommodations, and these accommodations may differ between in-person and remote environments. In addition, learners with and without disabilities may perform better at different types of assessments than others. Instructor flexibility and using multiple modes of assessment will be key, regardless of the instructional scenario. Furthermore, in the remote learning model, some learners may struggle to access virtual assessments because of technology issues. Last but not least, less time on campus will impact students’ ability to demonstrate skills and earn clock hours toward industry credentials, which can be life changing, especially for lower-income learners, opportunity youth and unemployed or underemployed adults.

Some CTE performance assessments can be adapted relatively easily to remote learning, such as a written business plan, a graphic design product or a presentation. For more hands-on demonstration of skills, research suggests that simulation-based assessment can be effective. The same simulation tools or at-home kits that can be used for student practice, as described further in Facilities, Equipment, Technology and Materials, can be harnessed for remote assessment. Virtual simulation settings can be modified to move from practice to a timed assessment. Students may be able to demonstrate skills using at-home kits and live or prerecorded video; for instance, a health care student could record themselves placing an IV into a training arm. If at-home kits are used for assessment, however, all the materials must be supplied to the student to ensure equity. Programs should consult with business partners about the effectiveness of remote assessment options for demonstrating learning.

This past spring many certifying bodies allowed remote proctoring using a variety of methods to accomplish industry credentialing. The Association of Test Publishers and the National College Testing Association provided guidance for remote testing using live, real-time, remote trained proctors, and states such as Florida removed barriers to remote industry credentialing. Some certifiers have also extended the eligibility window for testing. ACTE has heard from several credentialing bodies that they are planning to continue remote proctoring, extended testing windows and other flexibilities in the 2020–21 school year.

However, some credentialing options require an in-person performance assessment; if programs cannot bring learners to campus individually or in socially distanced groups, they may be able to access a testing site where that performance could occur, or may need to wait to offer that part of the exam. Another issue is that remote proctoring can be costly and may not be easily scalable in areas with resource or technology limitations, raising equity concerns. In addition, many credentials have seat time and work-based learning requirements that will be challenging to fulfill during remote learning. Advisory committee members can provide guidance about how to meet requirements for credentialing through remote learning.
Whatever remote assessment options are available, it will be important to keep student assessment data secure, as addressed more in Data and Program Improvement.

Blended Considerations
The blended approach will entail considering all of the options outlined above, as students are assessed both remotely and in person, as necessary. In each field of study it will be important to determine which knowledge and skills are better assessed in-person and which knowledge and skills can be assessed remotely, without sacrificing the validity or reliability of assessments.

Resources, Tools and Examples
- The University of Central Florida’s (UCF) Teaching Online Pedagogical Repository describes pedagogical practices in online assessment such as discussion board rubrics. UCF also offers the BlendKit Course of subject-matter-neutral, open educational resources related to blended learning and available for self-study or for group use.
- The Vanderbilt University Center for Teaching Blended and Online Learning Guide includes online pedagogical practices in assessment.
- Edutopia has published recent articles with tips on formative assessment and summative assessment in distance learning.
- This review of research on simulation-based assessment in health education finds that simulation-based assessment is best when multiple simulations are used and when simulation is used in combination with other assessment types.
- Certifiers including NOCTI, the Manufacturing Skill Standards Council, CompTIA, Certiport and NCCER, among many others, implemented remote proctoring and other testing flexibilities this spring. The Association of Test Publishers and the National College Testing Association have provided guidance on remote testing, and Florida allowed at-home testing for industry certification exams.
- This blog post from Advance CTE describes COVID-impacted considerations for industry credentials.
Student Assessment: Key Questions to Consider

Cross-cutting Questions
• How will you assess learning loss when classes resume?

In-person Questions
• How can you modify assessments when performance tasks call for a group to work together in close quarters? Can more socially distanced tasks or simulations be substituted?
• How will changes made to assessments for social distancing impact accommodations for special populations?
• How will you schedule performance assessment to maintain social distancing?
• If your usual testing centers for industry certification or licensing exams remain closed, can you proctor assessments on campus or at a worksite?

Remote Questions
• What assessments that work for you in the face-to-face classroom can be modified to the remote environment? How can your business partners contribute to these decisions?
• How will you provide feedback to learners?
• How will you manage the time needed to assess student skills, particularly if you must assess performance individually?
• How will you develop remote assessments that measure content knowledge and skills rather than skills using the online platform?
• How will you continue to provide accommodations with remote assessments?
• How can you use simulations, at-home kits, video or similar tools for assessment?
• How will you facilitate credentialing exams through remote proctoring, alternative testing sites or other flexibilities?
• What other aspects of industry credentials, such as seat time and work-based learning requirements, will be impacted by remote learning? How can your business partners help you navigate these challenges?

Blended Questions
• How will you coordinate online and in-person assessments to cover course content without too much repetition?
• Which standards within your program are best assessed in person, and which can be evaluated remotely?