

ENGAGING INSTRUCTION

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TEACHING THAT ENGAGES STUDENTS AND ENABLES THEM TO DEVELOP KNOWLEDGE AND SKILLS

through real-world application is a hallmark of high-quality career and technical education (CTE) programs of study. For this reason, Engaging Instruction is one of ACTE's 12 elements of high-quality CTE within the *Quality CTE Program of Study Framework*.

The Engaging Instruction element of ACTE's quality framework includes seven criteria that describe instructional strategies within student-centered learning environments that support student attainment of relevant knowledge and skills. The criteria listed below are from the 2018 version of the *ACTE Quality CTE Program of Study Framework*.

Criteria for High-quality, Engaging Instruction

- a. Program of study instruction is driven by relevant content area standards and learning objectives.

- b. Project-based learning and related instructional approaches, such as problem-based, inquiry-based and challenge-based learning, are fully integrated into the program of study.

- c. Contextualized instruction results in students applying technical, academic and employability knowledge and skills within authentic scenarios.

High-quality CTE instruction is founded on program of study curriculum, standards and learning objectives, and engages students through exploration of authentic problems, questions and challenges. Project-based learning (PBL) and the related strategies of problem-, inquiry- and challenge-based learning are particularly relevant for CTE, which aims to build students' knowledge and skills across three domains: technical, academic and employability. Through PBL, CTE educators and students devise projects that develop a range of

knowledge and competencies under the umbrella of a particular question, challenge or need. Students engage in a process of inquiry, revision and reflection leading to a final product.

Criteria within the Prepared and Effective Program Staff element of the *Quality CTE Program of Study Framework* address educators' need for professional development and collaborative planning time to devise high-quality projects, and to develop other pedagogical skills addressed within the Engaging Instruction element.

These projects are most effective and engaging for students when developed in response to a real-world question or need. Business and community partners can contribute by proposing real-world projects, with real-world parameters, and by critiquing students' deliverables for strengths and areas of improvement. Criteria within the Business and Community Partnerships element can inform this industry engagement.

d. Instruction emphasizes the connection between academic and technical knowledge and skills, including through cross-disciplinary collaboration.

e. Instruction incorporates relevant equipment, technology and materials to support learning.

High-quality CTE instruction makes explicit the academic knowledge and skills within the CTE curriculum, building students' academic and technical competencies. This academic-CTE integration can occur: through activities and projects guided by the CTE teacher, through team teaching with an academic instructor, and through cross-disciplinary projects that bring together students in CTE courses and students studying other disciplines. These CTE-academic connections may be even more explicit in career academies and related program models that orient technical and academic learning around a career theme. Criteria within the Standards-aligned and Integrated Curriculum element address technical and academic integration from the curricular side.

In addition, high-quality CTE instruction incorporates technology and tools that support learning. This includes not only the equipment necessary to practice a particular skill, as addressed in the Facilities, Equipment, Technology and Materials element, but also digital tools such as skill-building games and reading materials that expose students to industry-specific terminology, trends and ethical issues.

f. Instruction is flexible, differentiated and personalized to meet the needs of a diverse student population.

g. Management of the educational environment builds a culture of learning and respect.

High-quality instruction is personalized to student needs and goals, including activities and lessons designed and paced for different

learning styles and speeds. CTE teachers can individualize learning, facilitated by CTE's smaller class sizes, within a classroom or laboratory environment united around a common goal of learning and exploration. In addition, CTE educators must consider the needs of students from special populations in their instruction, as further addressed in the Access and Equity element.

Success Strategy: Project-based Learning

Missouri's Columbia Area Career Center (CACC) began a major effort in 2015 to enhance PBL across the center's three sites, with support from the Southern Regional Education Board Technology Centers That Work program.

CACC faculty and administrators began with an intensive two-day workshop, followed by additional training and individualized assistance, and were supported by an instructional focus team. In year one, almost all teachers implemented at least one project informed by "essential project design elements" (Buck Institute for Education, 2015), projects that included:

- Creating magazine spreads
- Designing and building sawhorses
- Researching cuisine and developing restaurant menus
- Planning the layout of a new building that would house a bank branch

CACC continues to support PBL through professional development and protected work time for project planning. As teachers become more acclimated to PBL, administrators are encouraging them to engage in further reflection and refinement of projects through multiple iterations, and to be more explicit about the academic knowledge and skills developed through their projects.

Administrators report that the PBL focus has increased student engagement and enhanced collaboration across the school and with the community. Teachers and students are energized to create high-quality work for internal clients from other departments, leading

to cross-disciplinary projects, and with external clients from industry and the community.

Learn More and Assess Your Programs

Practitioners can turn to ACTE's High-quality CTE Tools online library for publications and other resources to help them enhance student-centered learning in CTE. Resources within the Engaging Instruction section address specific instructional strategies and tools, teaching and learning styles, and classroom management, including professional development models that can build pedagogical skills in PBL and CTE-academic integration.

Practitioners can also 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 Engaging Instruction 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

Buck Institute for Education. (2015). Gold standard PBL: Essential project design elements. Retrieved from http://www.bie.org/object/document/gold_standard_pbl_essential_project_design_elements.

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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