

Competency-based Education Glossary of Terms

Action Plan: A plan created to organize a district- or school-improvement effort. It may take the form of an internal school document or a website that can be viewed publicly. Action plans may be reviewed and revised annually—based on progress made over the course of the preceding year or to reflect evolving school goals and values—but multi-year action plans are also common. For what to include in an action plan see <http://edglossary.org/action-plan/> for more information.

Action Research: Disciplined inquiry (research) in the context of focused efforts to improve the quality of the organization and its performance (action). Action research is a powerful tool for simultaneously improving practice and the health of the organization. By centering action on the careful collection of data to diagnose problems, a disciplined search for alternative solutions, an agreement to act, and the conscientious monitoring of whether and how much the solution worked—with a recycling of the process, either attaching the problem again or focusing on another one—educators live the problem-solving process and model it for students. [Calhoun, E.F. (1994). *How to use action research in the self-renewing school*. Alexandria, VA: Association for Supervision and Curriculum Development.]

Advancement: Progress to more advanced work within the content area. ([Iowa State Guidelines for CBE](#))

Anytime/Anywhere Learning: Students are given credit for evidence of learning regardless of when, where, or how they acquired and/or demonstrated the learning. Learning and demonstration of proficiency on standards and/or competencies can take place in school and during district provided internships and outside-of-school learning opportunities but also through outside-of-school environments such as 4-H, family-owned businesses, part-time jobs, church, clubs, and organizations. ([Iowa State Guidelines for CBE](#))

Assessment: A variety of methods used to determine where students are in their learning before, during, and after instruction. All assessments, including examinations, performance tasks, and other evidence of learning must align with the standards and instruction. Assessments, not machine scored, should be scored by educators appropriately licensed and endorsed in the grade level and content area. ([Iowa State Guidelines for CBE](#))

Authentic Intellectual Work (AIW): A framework for educators to assess and improve classroom instruction, student tasks, and results. (See <http://centerforaiw.com> for more information.)

Benchmarks: Discrete and measurable learning objectives by which to demonstrate proficiency. [Wolfe, Rebecca E. (2012). *Aligning Competencies to Rigorous Standards for Off-track Youth: A Case Study of Boston Day and Evening Academy*. Boston, MA: Jobs for the Future.]

Blended Learning: Any formal education program 1) in which a student learns at least in part through online learning, with some element of student control over time, place, path, and/or pace **and** 2) the student learns at least in part in a supervised brick-and-mortar location away from home **and** 3) the modalities along each student’s learning path within a course or subject are connected to provide an integrated learning experience. ([Iowa State Guidelines for CBE](#)) (See the [Christensen Institute](#) for definitions and models of the following blended learning models:

- **Rotation**
- **Individual Rotation (customized schedule; playlist)**
- **Station Rotation**
- **Lab Rotation**
- **Flipped Classroom**
- **Flex**
- **Enriched Virtual**
- **a la Carte**

Bloom’s Taxonomy Revised: A classification system used to define and distinguish different levels of human cognition—i.e., thinking, learning, and understanding. Educators have typically used Bloom’s taxonomy to inform or guide the development of assessments (tests and other evaluations of student learning objects (within curriculum units, lessons, projects, and other learning activities), and instruction (tasks assigned by teachers, questions teachers ask, etc.) (See <http://edglossary.org/blooms-taxonomy/> for more information. For deeper learning see Krathwohl’s 2002 article

http://www.unco.edu/cetl/sir/stating_outcome/documents/Krathwohl.pdf and this article from The Second Principle <http://thesecondprinciple.com/teaching-essentials/beyond-bloom-cognitive-taxonomy-revised/>.)

Capstone Project: Also called a *capstone experience*, *culminating project*, or *senior exhibition*, long-term investigative projects that culminate in a final product, presentation, or performance. Capstone projects are generally designed to encourage students to think critically, solve challenging problems, and develop skills such as oral communication, public speaking, research skills, media literacy, teamwork, planning, self-sufficiency, or goal setting—i.e., skills that will help prepare them for college, modern careers, and adult life. In most cases, the projects are also interdisciplinary, in the sense that they require students to apply skills or investigate issues across many different subject areas or domains of knowledge. Capstone projects also tend to encourage students to connect their projects to community issues or problems, and to integrate outside-of-school learning experiences, including activities such as interviews, scientific observations, or internships. (See <http://edglossary.org/capstone-project/> for more information.)

Carnegie Unit: The Carnegie unit is a system developed in the late nineteenth and early twentieth centuries that based the awarding of academic credit on how much time students spent in direct contact with a classroom teacher. The standard Carnegie unit is defined as 120 hours of contact time with an instructor—i.e., one hour of instruction a day, five days a week, for 24 weeks, or 7,200 minutes of instructional time over the course of an academic year. (See <http://edglossary.org/carnegie-unit/> for more information.) Credit in a competency-based system is awarded upon demonstration of proficiency rather than on a Carnegie Unit.

Challenge-based Learning: Learning is collaborative and hands-on, asking students to work with peers, teachers, and experts in their communities and around the world to ask good questions, develop deep subject area knowledge, identify and solve challenges, take action, and share their experience. (See <http://www.challengebasedlearning.org/pages/welcome> for more information).

Collaborative Learning: Students engage in learning by constructing group solutions, texts, experiments, or works of art. Effective group work is well planned and strategic. Students are grouped intentionally, with each held accountable for contributing to the group work. Activities are designed so that students with diverse skill levels are supported, as well as challenged by their peers. They are planned around meaningful tasks in the subject area that are conceptually rich, engaging, with multiple entry points. ([Common Instructional Framework](#))

Collaborative Inquiry: A wide variety of evaluative, investigative, and analytical research methods designed to diagnose problems or weaknesses—whether organizational, academic, or instructional—and help educators develop practical solutions to address them quickly and efficiently. Action research may also be applied to programs or educational techniques that are not necessarily experiencing any problems, but that educators simply want to learn more about and improve. The general goal is to create a simple, practical, repeatable process of iterative learning, evaluation, and improvement that leads to increasingly better results for schools, teachers, or programs. (Education Reform: See <http://edglossary.org/action-research/> for more information.)

Common Formative Assessment: Student learning is assessed using the same instrument or process and according to the same criteria. (See [Using Common Formative and Summative Assessments](#) for more information.)

Community-based Learning: A wide variety of instructional methods and programs that educators use to connect what is being taught in schools to their surrounding communities, including local institutions, history, literature, cultural heritage, and natural environments. Community-based learning is also motivated by the belief that all communities have intrinsic educational assets and resources that educators can use to enhance learning experiences for students. Synonyms include *community-based education*, *place-based learning*, and *place-based education*, among other terms. (See <http://edglossary.org/community-based-learning/> for more information.)

Competency: Expected learning based on one or more enduring conceptual understandings that requires the transfer of knowledge, skills, and dispositions to complex situations in and/or across content areas and/or beyond the classroom.

Multiple standards both within and across disciplines outline the knowledge, conceptual understanding, abilities, and skills required to meet the complex demands of the competency. Although individual standards may be assessed/demonstrated at any level of Bloom’s Taxonomy or Webb’s Depth of Knowledge, the expectation of deeper learning related to the competency requires assessment/demonstration at the upper levels of Bloom’s (analyze, evaluate, create/synthesize) or Webb’s (Level 3: Strategic Thinking, Level 4: Extended Thinking) as well as the appropriate use of the Universal Constructs, dispositions, and employability skills.

Competencies guide students and teachers toward a shared development of pathways to demonstration of learning. ([Iowa State Guidelines for CBE](#))

Competency-based Education: A system of education in which learners advance through content or earn credit based on demonstration of proficiency on competencies. Some students may advance through more content or earn more credit than in a traditional school year while others might take more than a traditional school year to advance through the same content or to earn credit. Credit may also be earned for out-of-school experiences and/or accomplishments. Students at all grade levels are afforded opportunities for more explicit or intensive instruction or enrichment within the content. ([Iowa State Guidelines for CBE](#))

Continuous Improvement: Any school- or instructional-improvement process that unfolds progressively over extended periods of time without a predetermined end point. The concept rests on the belief that improvement requires an organizational or professional commitment to an ongoing process of learning, self-reflection, adaptation, and growth. (Ed Reform Glossary: <http://edglossary.org/continuous-improvement/>)

Credit: A unit awarded toward high school graduation. Credit awarded toward high school graduation should be the same for students demonstrating proficiency on standards through competency-based pathways as for those working through the same standards in a traditional time-based pathway or other nontraditional pathways such as online learning. PK-8th grade students advance through content independent of units of credit. ([Iowa State Guidelines for CBE](#))

Cultural Responsiveness: Learners have opportunities to engage with content through various cultural lenses and perspectives and to draw from their cultural backgrounds to build their learning. (“Personalized Learning”: www.cesa1.k12.wi.us/institute/designdevelop/personalized-learning.cfm)

Deeper Learning: A set of competencies students must possess to succeed in 21st century jobs and civic life, including: 1. Master core academic content 2. Think critically and solve complex problems 3. Work collaboratively 4. Communicate effectively 5. Learn how to learn 6. Develop academic mindsets. (In Iowa the [Universal Constructs](#)) ([Hewlett Foundation](#)) Deeper learning occurs when learners use a combination of these competencies to transfer learning or apply what they learn in one situation to new situations. [Bellanca, J.A. Ed. (2015). *Deeper learning: Beyond 21st century skills*. Bloomington, IN: Solution Tree.]

Demonstration of Proficiency: Projects, presentations, or products through which students “demonstrate” what they have learned, usually as a way of determining whether and to what degree they have achieved expected [learning standards](#) or [learning objectives](#). A demonstration of proficiency is typically both a learning experience in itself and a means of evaluating academic progress and achievement. (See <http://edglossary.org/demonstration-of-learning/> for more information.)

Design Thinking: An orientation to learning that focuses on identifying need, challenging assumptions, generating a range of possibilities, and learning through targeted stages of iterative prototyping. A key component of the process not only to solve but to define problems. (Stanford University REDLab: <http://web.stanford.edu/group/redlab/cgi-bin/faq.php>)

Employability Skills: For more information visit 21st Century Skills Iowa Core <https://iowacore.gov/iowa-core/subject/21st-century-skills>.

Flexibility: Students may work as individuals or in peer or multi-age groups and are provided appropriately challenging work according to their identified needs and not always a common learning objective. The amount of time each student works on a specific standard and/or remains in an assigned group is determined by performance on ongoing assessments. ([Iowa State Guidelines for CBE](#))

Formative Assessment (Assessment FOR Learning): Formative assessment is a process teachers and students use during instruction to determine feedback to adjust further teaching and learning toward improved student achievement of the instructional outcomes. CBE schools embrace a strong emphasis on formative assessment practices as the unit of learning becomes modular. Formative assessment:

- provides students with a clear understanding of the intended learning (e.g. learning goals, success criteria) aligned to the standards and linked within a learning progression;
- includes eliciting on-going evidence of student learning using instructionally sensitive assessment methods (e.g. rubrics/scoring guides for performance tasks, exit tickets for conceptual understanding, quick writes for pre-assessment);
- uses evidence of student learning to make instructional decisions and to help students learn to make learning strategy decisions;
- provides students with non-judgmental, immediate, and actionable feedback based on the learning goals and the evidence collected of current learning;
- provides students with opportunities for self-assessment/reflection on their learning, and
- provides students with opportunities to provide non-judgmental and actionable peer feedback in a collaborative setting. ([Iowa State Guidelines for CBE](#)) (See Common Formative Assessment above.)

Growth Mindset: The belief that one’s abilities develop through hard work and persistence rather than innate talent. (“What is Mindset.” www.mindsetonline.com/whatisit/about/index.html)

Individual Learning Plan: See Personalized Learning Plan (PLP) below.

Learner-centered: Integrating personalization, anytime-anywhere learning, competency education, and student ownership to foster postsecondary, career, and civic success. Sometimes used to indicate an older or professional population in the learner role. (Students at the Center: <http://studentsatthecenterhub.org/wp-content/uploads/2015/04/SATC-FAQ-Definitions-010815.pdf>)

Learning Goals: Specific statements of intended student attainment of essential concepts and skills.

Learning Progressions: The purposeful sequencing of teaching and learning expectations across multiple developmental stages, ages, or grade levels. Learning progressions also include careful attention to the individual’s prior understanding necessary for building future, more complex understanding, as well as the need for students to encounter content matter in different ways and over time to deepen understanding. (Ed Reform Glossary: <http://edglossary.org/learning-progression/>)

Metacognitive Skills: Learning processes and behaviors involving self-reflection and critical thinking, information literacy, reasoning and argumentation, innovation, self-regulation, selection of learning strategies, and learning habits. (Rethinking the Notion of ‘Noncognitive’, EdWeek <http://www.edweek.org/ew/articles/2013/01/23/18conley.h32.html>)

Online Learning Providers (OLPs): Providers of online learning tools for student learning. (See for more information.) For a list of possible OLPs see <http://olp.aeak12online.org>.

Peer Assessment: Students give informed feedback to one another. Effective peer assessment connects to clear standards and involves constructive critique. Feedback from peers can carry more immediacy and achieve greater volume than that from teachers. It ideally relates to works in progress so that peers may use the feedback to revise their work. Being able to provide peers with positive, usable feedback is also a critical life skill. (Student-centered Assessment Guide: Peer Assessment: <http://studentsatthecenterhub.org/resource/student-centered-assessment-guide-peer-assessment/>)

Performance Assessment (Assessment AS Learning): A task that provides opportunity for a student to engage in the process of gaining knowledge and skills and becoming more proficient at the Universal Constructs, which results in the demonstration of that learning. The assessment task design assures that the student has engaged in critical thinking to develop a product of learning. In a competency-based system, the teacher and the student work together to determine what process, product, and/or presentation will both guide learning and become the natural outcome to demonstrate the learning. Performance assessments allow students to use their knowledge and skills as well as the Universal Constructs and personal work habits to engage in learning connected to their interests and passions and even to extend their influence beyond the classroom. ([Iowa State Guidelines for CBE](#))

Personalized Learning: Learning is tailored to each student’s strengths, needs and interests in order to provide flexibility and supports to ensure all students reach proficiency of the highest standards/competencies possible. Personalized learning enables student voice and choice in what, how, when, and where they learn. ([Iowa State Guidelines for CBE](#))

Personalized Learning Plan (PLP): A plan developed by students—typically in collaboration with teachers, counselors, and parents—as a way to help them achieve short- and long-term learning goals, most commonly at the middle school and high school levels. Personal learning plans are generally based on the belief that students will be more motivated to learn, will achieve more in school, and will feel a stronger sense of ownership over their education if they decide what they want to learn, how they are going to learn it, and why they need learn it to achieve their personal goals.

While personal learning plans may take a wide variety of forms from school to school, they tend to share many common features. For example, when developing their plans, students may be asked to do any or all of the following:

- Think about and describe their personal life aspirations, particularly their collegiate and career goals.
- Self-assess their individual learning strengths and weaknesses, or reflect on what they have academically achieved, excelled at, or struggled with in the past.
- Identify specific **learning gaps** or skill deficiencies that should be addressed in their education, or specific knowledge, skills, and character traits they would like to acquire.
- List or describe their personal interests, passions, pursuits, and hobbies, and identify ways to integrate those interests into their education.
- Chart a personal educational program that will allow them to achieve their educational and aspirational goals while also fulfilling school requirements, such as particular **learning standards** or credit and course requirements for graduation.
- Document major learning accomplishments or milestones. (See <http://edglossary.org/personal-learning-plan/> for more information.)

Proficiency: Demonstrated skill or knowledge required to advance to and be successful in higher levels of learning in that content area or using that content. Districts and schools participating in competency-based education will determine proficiency levels and appropriate assessments to ensure all students being awarded credit toward high school graduation or advanced through content at any level have demonstrated the skills and knowledge required to be successful at the next level of advanced learning in the content or related areas as appropriate. ([Iowa State Guidelines for CBE](#))

Project/Problem-based Learning (PBL): A teaching method in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an engaging and complex question, problem, or challenge. (See http://bie.org/about/what_pbl for more information.)

Real World Learning: Educational and instructional techniques that connects learning in school to authentic issues, problems, and applications. It equips them with practical and useful skills, and addresses topics that are relevant and applicable to their lives outside of school. (Ed Reform Glossary: <http://edglossary.org/authentic-learning/>)

Self-assessment: Students identify strengths and weaknesses in their own work and revise accordingly. Effective self-assessment involves students comparing their work to clear standards and generating feedback for themselves about where they need to make improvements, then having time to make those improvements before submitting for a grade. (Student-centered Assessment Guide: Peer Assessment: <http://studentsatthecenterhub.org/resource/student-centered-assessment-guide-self-assessment/>)

Self-regulation: The ability to be goal-directed, demonstrate control over and responsibility for one's focus and effort when engaged in learning activities, and to strategically modulate one's emotional reactions or states in order to be more effective at coping and engaging with the environment. [Toshalis & Nakkula (2012). UDL Guidelines - Version 2.0: Principle III. Provide Multiple Means of Engagement]

Shared Leadership: The practice of governing a school by expanding the number of people involved in making important decisions related to the school's organization, operation, and academics. In general, shared leadership entails the creation of leadership roles or decision-making opportunities for teachers, staff members, students, parents, and community members. (See <http://edglossary.org/shared-leadership/> for more information.)

Stakeholder: Anyone who has a personal, professional, civic, or financial interest or concern in the school and/or its graduates.

- **Internal Stakeholders:** Anyone who attends or works at the school.
- **External Stakeholders:** Anyone in the local or expanded community who has an interest in the school or its graduates. External stakeholders include, but are not limited to, parents, grandparents, current and potential employers of students, business owners and other community members, organizations and nonprofits, colleges and universities.

Standards (Early Learning Standards, the Iowa Core standards, and other content standards not yet a part of the Iowa Core): (For more information, visit <https://iowacore.gov/iowa-core>.)

Student Voice and Choice (also known as Student Agency or Student Ownership): Learners have significant and meaningful choices regarding their learning experiences and take increasing responsibility for their learning using strategies for self-regulation.

Student-centered: Integrating personalization, anytime-anywhere learning, competency education, and student agency and ownership to foster postsecondary, career, and civic success.

(www.iff.org/sites/default/files/initiatives/files/SATC-FAQ-Definitions-010815.pdf)

Success Criteria: I Can Statements based on learning goals.

Teacher Pace: The pace the teacher knows will keep the student on track for timely graduation. Students being able to work at their own pace must be balanced with the goal to graduate on time. Educators in the system are responsible to work together toward on time graduation for all students. ([Iowa State Guidelines for CBE](#))

Transfer of Knowledge, Skills, and Dispositions: Apply what is learned to new situations.

Understanding by Design (UBD): The Understanding by Design® framework (UbD™ framework) offers a planning process and structure to guide curriculum, assessment, and instruction. Its two key ideas are contained in the title: 1) focus on teaching and assessing for understanding and learning transfer, and 2) design curriculum “backward” from those ends. ([UBD White Paper](#))

Universal Constructs: Metacognitive (see definition above) skills considered as “essential for 21st century success” that couple with standards to form competencies (see definition above). The Universal Constructs are creativity, critical thinking, complex communication, collaboration, flexibility/adaptability, and productivity/accountability. (See the [Iowa Core](#) website.)

Universal Design for Learning (UDL): a scientifically valid framework for guiding educational practice that: (A) provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and (B) reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient. ([National Center for Universal Design for Learning](#))

Webb’s Depth of Knowledge: Webb's Depth of Knowledge (DOK) provides a vocabulary and a frame of reference when thinking about our students and how they engage with the content. DOK offers a common language to understand "rigor," or cognitive demand, in assessments, as well as curricular units, lessons, and tasks. Webb developed four DOK levels that grow in cognitive complexity and provide educators a lens on creating more cognitively engaging and challenging tasks. ([NYC Department of Education](#))

*Definitions are either excerpted or adapted from the sources listed.