

# Competency-Based Education

## Scenario

Math was one of the reasons Bob didn't go to college out of high school. He did fine in other subjects, but he struggled with math. He earned enough math credits to graduate, but he never learned the fundamentals. After graduation, he went to work at a local manufacturing plant, first as a technician and eventually as shift supervisor. Now 34, he has risen as high as possible in the company without a college degree. With two children, however, returning to school seems daunting—not to mention the math requirement. Then he hears about a competency-based program at a local community college. The program recognizes prior learning, and he can work independently and progress when he demonstrates the skills needed for each step along the way. Tuition is a flat rate per term, and most of the learning activities are online.

In his first term, Bob earns nearly three semesters' worth of credits, mostly through assessments of material he already knew. He also takes a course in psychology, which he completes in about six weeks, and one in geography, which takes closer to ten weeks.

In his second term he signs up for college algebra, working slowly at first, struggling with the principles of algebra. Over the years, Bob had used videos, tutorials, and other online tools to learn math concepts when he needed to—when he bought his house, he learned about mortgages from banking websites. As a result, many of the online resources for his algebra course are familiar, and they respond to his rate of learning, providing the support he needs. It is not easy, but Bob knows he is really learning. Because progress requires mastery of the material, his rate of progress increases. In the end, he spends nearly 17 weeks completing the course, but he finishes confident that he can succeed in statistics, the other math course he needs for his AA degree. Once that is finished, an agreement with the state college allows his credits to transfer toward a bachelor's program if he decides to continue.

## 1 What is it?

**Competency-based education (CBE) awards academic credit based on mastery of clearly defined competencies.** CBE stands in contrast to education in which learning is structured around seat time and the credit hour. With CBE, learners take as much or as little time as they need to understand the material. Competency-based programs can recognize prior learning and learning outside the scope of a course, regardless of where, when, or how that learning took place. CBE shifts the focus from grades to learning, emphasizing frequent, meaningful feedback that empowers students to take more responsibility for learning than in conventional models. CBE is not new, but various challenges facing higher education, combined with new models and technologies, have brought a new focus on CBE and the implications it might have for student learning, business and pedagogical models, the role of faculty, and other aspects of higher education.

## 2 How does it work?

**CBE is built around clearly defined competencies and measurable learning objectives that demonstrate mastery of those competencies.** These elements tend to be more granular and more modular than in a conventional course. Feedback is quick and frequent, and because it is structured as formative assessment, this feedback is an integral part of the learning experience rather than occurring at the end. Instruction often takes the form of facilitation and guidance for learners, who use new tools and supports to progress through the material until they demonstrate mastery of the content, related skills, or other competencies. In this way, students proceed when they have satisfied the measured learning objectives at whatever level the institution has set. Some take CBE a step further, saying that demonstrating competency is not simply showing what you know but also understanding how to apply that knowledge.

## 3 Who's doing it?

The notion of measuring learning by competency is not new. Western Governors University, an institutional pioneer in higher education CBE, was launched in the late 1990s. At WGU, students sign up for a six-month term, during which they work online to complete as many competency-based assessments as they choose, leveraging learning from job

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experience or independent study as they work through online resources curated by WGU faculty. In recent years, **a growing number of other CBE programs have been developed at all levels of instruction**, buoyed by support from the U.S. Department of Education and some accrediting bodies, which have recognized CBE as a valid form of instruction. At Brandman University, for example, students working on a bachelor of business administration degree are mentored by faculty through online courses in a self-paced program. The 55–60 identified competencies map to a traditional 120 credit-hour equivalent. In 2013, Northern Arizona University received accreditation for its competency-based Personalized Learning Program, in which students in liberal arts, computer information technology, and small business administration can take competency-based assessments to complete their degrees more quickly. Numerous other pilots and programs are emerging as higher education explores the potential for CBE.

## 4 Why is it significant?

For the past half century, CBE has quietly operated in limited programs and at nontraditional universities. It has lately become the focus of considerable attention in higher education due to factors including a growing demand for accountability, the need to streamline the path to a credential, the rising costs of education, and concerns about whether graduates are adequately prepared for the workplace. CBE capitalizes on the potential of online learning, enabling new models that can reduce both the cost and time needed to earn credentials while better preparing students for their professional lives. CBE focuses on learning, pushing students toward mastery rather than a grade, and it brings needed emphasis on the assessment of learning. Students in competency-based programs have new opportunities to pursue learning at an appropriate pace, with greater clarity about learning objectives and progress toward them. CBE replaces the conventional model in which time is fixed and learning is variable with **a model in which the time is variable and the learning is fixed**.

## 5 What are the downsides?

A common assumption is that because CBE involves independent learning, it must be impersonal, even though the focus on learners may make it more personal. That said, the social component of traditional higher education can be an integral part of learning, and this dynamic may suffer when students work independently, without consistent cohorts of peers in educational programs. **Ensuring that**

**learning objectives are measurable and that the competencies can be demonstrated is not a trivial undertaking**, requiring instructors and institutions to redesign the basic components of higher education, including the credit hour, which has long been the standard for validating learning. To the extent that CBE leads to new educational models, existing learning management and student systems will need to be modified to work with those new structures. Until institutions agree on relatively common competencies, it will be difficult for CBE to scale and for credits to transfer widely.

## 6 Where is it going?

For CBE to be fully incorporated into higher education, **the value of CBE credentials must be widely accepted, both by consumers (students and employers) and by providers (institutions and accrediting agencies)**. CBE will also likely usher in completely new instructional models, and it challenges the credit hour as the basis for federal financial aid. Recognition of skills and knowledge acquired from the workplace and elsewhere will become increasingly important to students who work before or during their academic careers. As CBE gains currency, colleges and universities might place a greater dependence on mentors, coaches, and tutors to direct students across a diverse curriculum. Such an academic environment might include not only courses with traditional classroom lectures, labs, and online coursework but also internships and project-based activities where work is assessed and validated in portfolios.

## 7 What are the implications for teaching and learning?

Research indicates that students are more active, engaged, and motivated when working with coursework that is challenging but within their capacity to master. CBE accomplishes this by linking progress to mastery, avoiding boredom for those moving quickly and frustration for students who need more time. Some say that faculty are also more engaged in a CBE environment, as they work through defining competencies and the means to assess them. CBE challenges the notion that learning only takes place within the time and space of the classroom. Learning and degree programs might become less linear, allowing students to find their own pathways and to embrace failure as a valuable component—but not an outcome—of the learning process. **Students emerge from CBE with a more consistent standard of learning, having met all of the competencies included in an educational program.**