INNOVATIONS IN TEACHING AND LEARNING
RESEARCH BRIEF 1

Competency-Based Education

*CIC Project on the
Future of Independent Higher Education*

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About the Project on the Future of Independent Higher Education

CIC's Project on the Future of Independent Higher Education is a multi-year initiative to identify and examine the forces that are most likely to affect the future of independent colleges and universities and to help member institutions prepare for both new challenges and new opportunities. With the guidance of a steering committee of college and university presidents, the project considers potentially disruptive changes to American society and education and explores fresh approaches to higher education and new college business models. The project also examines the distinctive characteristics and missions of independent colleges that have enabled them to offer a high-quality education for so many years. The project is supported by the Lumina Foundation for Education and the TIAA-CREF Institute.

This Research Brief is part of a series of short papers on innovations in pedagogy and curriculum that may enhance student learning at independent colleges and universities. Each brief includes a review of recent literature, examples of how the innovation has been adopted by CIC members, discussion questions for further exploration, and recommendations for additional reading. The principal author is Philip M. Katz, CIC's director of projects.

The Council of Independent Colleges (CIC) is an association of 750 nonprofit independent colleges and universities and higher education affiliates and organizations that has worked since 1956 to support college and university leadership, advance institutional excellence, and enhance public understanding of private higher education's contributions to society. CIC is the major national organization that focuses on providing services to leaders of independent colleges and universities as well as conferences, seminars, and other programs that help institutions improve educational quality, administrative and financial performance, and institutional visibility. CIC conducts the largest annual conference of college and university presidents. CIC also provides support to state fundraising associations that organize programs and generate contributions for private colleges and universities. The Council is headquartered at One Dupont Circle in Washington, DC. For more information, visit *www.cic.edu*.

Competency-Based Education

KEY POINTS:

- Competency-based education (CBE) is an approach to pedagogy that emphasizes the mastery of skills and concepts rather than credit hours or seat time. The assessment of mastery can take several forms, including formal assessments of prior learning (such as portfolio reviews or examinations) and automated evaluations of online coursework.

- Advocates of this approach argue that CBE can reduce the time and cost of earning a traditional college degree while providing students with specific workforce skills that are valued by students, funders, and employers.

- Independent colleges and universities have been more reluctant to explore CBE than public institutions or for-profit education providers. Some independent institutions, however, have successfully adopted elements of CBE for undergraduate and graduate education.

- CBE may help address two important concerns about the future of independent higher education: maintaining high standards for student learning and containing student costs. But CBE also represents a challenge to assumptions about curricula based on credit hours, sustained student-teacher interactions, and the residential experience.

Introduction

For more than a century, the course and the credit hour have been the essential building blocks of college degrees in the United States. Over the past few years, however, a combination of forces—some internal, but mostly external to higher education—have called into question the use of the credit hour as the measure of educational achievement. These forces include widespread concern about the cost of higher education; declining confidence among some employers about the readiness of college graduates for the workforce; the changing demographics of postsecondary students; increasing demands from the funders and consumers of higher education for quantifiable accountability; and the development of new technologies and platforms (such as MOOCs) that promise to teach, assess, and credential students at low cost and high volume. Based on these trends, some observers have predicted the imminent "death of the course" (Butin 2014). Others, including the federal government, accrediting agencies, private foundations, commercial enterprises, and colleges and universities in all sectors, are instead exploring innovative ways to combine traditional college-level instruction with "competency-based education."

Competency-based education, or CBE, is "broadly defined as a form of higher education in which credit is provided on the basis of student learning rather than credit or clock hours" (Kelchen 2015, ii). CBE emphasizes the mastery of discrete concepts, knowledge, and skills, regardless of how

long it takes to achieve such mastery or where the mastery is achieved. A closely related concept is prior learning assessment (PLA), also known as credit for prior learning, which the American Council on Education defines as "academic credit granted for demonstrated college-level equivalencies gained through learning experiences outside of the college classroom, using one of the well-established methods for assessing extra-institutional learning, including third-party validation of formal training or individualized assessment, such as portfolios" (Lakin et al. 2015, 3). Two other pedagogical approaches are sometimes confused with CBE or incorrectly used as synonyms: "personalized learning" and "adaptive learning," which rely on automated assessment and feedback systems to guide students through predefined learning pathways by identifying skills and topics that need more or less emphasis for individual learners (Helix Education 2014, 1–3).

Competency-based higher education is not a new idea. As early as the 1940s, in the wake of the G.I. Bill, the American Council on Education began to develop recommendations to award college credit for military training. In the 1970s, a few pioneering public institutions (including Empire State College in New York and Thomas Edison State College in New Jersey) created degree programs for returning adult students that relied heavily on prior learning assessments while independent **Alverno College** (WI) introduced an ability-based curriculum dubbed "Competence Based Learning." In the 1990s, the multistate, public Western Governors University began offering degree programs that combined faculty mentors with self-guided study and assessment tests. But these programs remained largely marginal experiments for decades (New America Foundation 2013).

Because the precise definition of CBE remains unsettled, experts disagree on how many colleges and universities have now adopted this form of pedagogy, citing figures as low as 34 institutions with "active CBE programs that offer credit for at least some types of PLA" and as high as "500+ institutions [that have]

either developed a CBE offering or have indicated their intent to do so" (Kelchen 2015, ii; Ebersole 2015). Enthusiasm for CBE also varies by sector, with the leaders of independent colleges and universities more cautious to adopt CBE than their counterparts at public and for-profit institutions. According to a 2014 survey conducted by Gallup and *Inside Higher Ed*, 35 percent of chief academic officers from independent baccalaureate institutions "oppose the awarding of academic credit based on demonstrated competence," and just 25 percent of their colleges "award academic credit based on demonstrated competence." The comparable figures for all public institutions: 12 percent of CAOs are opposed and 55 percent of institutions offer credit (Jaschik and Lederman 2015, 14–15).

Recent Developments and Criticisms

The strongest proponents of CBE since 2013 have included prominent foundations, enterprises with a stake in assessment and instructional resources, and the federal government. That year, Jamie Merisotis, president of the Lumina Foundation for Education, stated that CBE was "a big deal":

> [T]he attention to competencies is not an alternative or exception to the mainstream model. It is, instead, a long-overdue shift of emphasis from what is taught to what is learned (Merisotis 2013).

Lumina began to fund two national initiatives to promote CBE: the Competency-Based Education Network (C-BEN), which expanded to 45 members in early 2015, and the Jump Start Program of the Council for Adult and Experiential Learning. Starting in 2013, the Gates Foundation has collaborated with EDUCAUSE, the education technology association, to support CBE projects at **Southern New Hampshire University** (SNHU) and other colleges through generous Next Generation Learning Challenges grants (Parry et al. 2013). In 2014,

Pearson, the education publishing and services giant, introduced "a framework and assessment for Competency-Based Education" to help postsecondary institutions "assess their readiness to implement this new model" (Pearson Education 2014). This was seen as a logical extension of its core business activities in textbooks and testing, as nearly every variety of CBE relies on customizable content and assessment tools. Other organizations investing in for-profit CBE initiatives include Capella University, Flat World, Lumen Learning, and various MOOC providers (Watters 2014).

Also in 2013, the U.S. Department of Education issued its first guidelines for CBE programs as part of the Obama administration's college completion agenda. In January 2015, partly at the urging of the Gates Foundation, the Department granted waivers to about 40 colleges and universities that will allow them to experiment with new CBE and PLA programs without threatening the financial aid eligibility of the institutions or their students (Fain 2015). In March 2015, SNHU president Paul LeBlanc was appointed a special advisor to the Department on CBE-related issues.

This wave of activity has highlighted but failed to resolve basic questions about the efficacy of competency-based education. For example, does it improve student learning or produce outcomes that are comparable to other forms of higher education? The research on student learning outcomes that compares CBE to more traditional modes of instruction remains inconclusive, though it does suggest that prior learning assessment can be an effective approach for many adult and returning students (Klein-Collins 2012, 32–33; Lakin et al., 2015, 5–6, 20; Feldstein 2014). Skeptics argue that "CBE, for all its emphasis on 'mastery as non-negotiable,' has no theory of learning" and that pedagogic approaches originally developed to teach and assess discrete skills may be inadequate to develop the higher-order skills that traditionally define a liberal arts education (Butin 2014; Feldstein 2014). This, too, remains unproven.

Does CBE help prepare students more effectively for careers? For most proponents, an essential advantage of CBE is that competencies can be "aligned to employability" by focusing on specific workplace skills, perhaps in consultation with employers (Feldstein 2015; Weise 2014). This is noteworthy, in a moment of heightened public concern about the value of higher education in preparing students for the workforce. Yet the vocational focus and origins of CBE may represent a barrier to adoption by liberal arts institutions, with more than half of the independent college CAOs who responded to the recent Gallup/*Inside Higher Ed* survey agreeing that "Competency-based education may be damaging to general education."

Is CBE more cost effective than traditional forms of instruction and thus more affordable for students? Here, too, the evidence is incomplete. The most comprehensive review of the landscape of competency-based education, prepared for the American Enterprise Institute by researcher Robert Kelchen, concludes that while "it is typically assumed that CBE is less expensive than traditional education models because it uses less time and fewer instructor resources ... this has yet to be rigorously examined" (Kelchen 2015, 17). For students, the cost of earning credits through prior assessments (whether standardized tests or portfolio reviews) can be cheaper than per-credit tuition, but pricing models and institutional subsidies vary widely. Finally, under current law, students cannot use federal financial aid to pay for most portfolio assessments or self-paced courses and programs that employ CBE.

Examples of CBE at Independent Colleges and Universities

A number of CIC member institutions have adapted elements of CBE that are consistent with their distinctive needs and missions. There are at least three models in the sector: CBE programs that are integrated with the undergraduate curriculum; CBE programs that are run as distinctive units, with little

or no interaction with campus-based programs; and CBE programs that are targeted at specific student populations, such as returning adult students or students pursuing professional credentials.

Alverno College, a small, Catholic women's college in Milwaukee, integrates specific competencies into an undergraduate liberal arts curriculum that includes core courses and conventional majors and minors. Alverno has a long record of serving adult students, but today the majority of students are traditional aged undergraduates who live on campus for at least two semesters.[*] Alverno was among the earliest adopters of CBE in the United States, introducing a pilot "Competency Based Learning" program in 1973 after four years of discussion spurred by institutional and societal crises in the 1960s. The goal was to replace credit hours with eight competencies collectively defined as "a working set of outcomes of liberal learning" (Alverno College 1974; Klein-Collins 2012, 16–18). A modified version of this approach, now called the "Ability-Based Curriculum," remains in place. Alverno students are still expected to master eight core competencies: Communication, Analysis, Problem Solving, Valuing, Social Interaction, Developing a Global Perspective, Effective Citizenship, and Aesthetic Engagement. Instruction includes a mix of traditional credit-bearing courses, required internships, and projects. Ongoing assessment and feedback are provided by faculty members, peers, and professionals from the internship sites, supplemented by guided, online self-assessments. Narrative transcripts and a digital portfolio system have replaced traditional letter grades.

At its core, **Southern New Hampshire University** is a residential liberal arts college, despite multiple satellite campuses and extensive graduate and continuing-education programs across the state. At the same time, SNHU is a leading innovator in

CBE: It was the first university approved by the federal government in 2013 for "direct assessment of student learning" (meaning that students can apply their federal financial aid to competency-based associate's degree programs offered by the institution); it has received substantial grants from the Lumina and Gates Foundations; and it has been ranked among the best online colleges and most innovative organizations in the country. SNHU's signature CBE program, labeled "College for America," offers students an annual subscription rate of $2,500 for as many credits as they can complete at their own pace during the year; at least one student has completed an associate's degree in three months (Kelchen 2015, 13–15; College for America n.d.; Weise 2015).

The two sides of SNHU are operated as separate units and rarely meet. According to SNHU's president, Paul LeBlanc, that was an intentional decision—and an acknowledgment of the distinctive culture and mission of the residential undergraduate college:

> [W]hen we created College for America ... it really stood almost outside of traditional campus-based governance. Each unit now has a governance structure designed specifically for its particular needs and culture. ... [E]ach business/academic unit is quite separate from each other because the jobs to be done that each are asked to do are quite different, thus the student markets that they serve are very different. Thus they need to have their very specific structures, culture, governance, and way of being in the world, if you will (Weise 2015).

At the same time, surplus revenues from the online and CBE programs are being used to subsidize and enhance the residential campus, one of many examples of innovation supporting tradition at independent colleges and universities (Weise 2015; Hechinger 2013).

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[*]*Except where noted elsewhere, the descriptions of academic programs in this section are based on information from the institutions' public websites.*

Several independent institutions have adopted programs for prior learning assessment but have not integrated CBE into other aspects of the undergraduate curriculum. The Experiential Learning Assessment (ELA) at **Bellevue University** (NE) begins with a free, self-paced online course called "Discover Your Value: Turning Experience into College Credit," which is offered in a MOOC format (Canvas Network 2015). The course is designed to help students explore their readiness for further education and assemble an assessment portfolio of prior work and informal learning experiences. Until recently, Bellevue offered a similar course in a face-to-face format, but moving to a MOOC platform has allowed hundreds of students to take the course at the same time and increased by 50 percent the number of portfolios submitted (Lakin et al. 2015, 19). Students can then have their portfolios reviewed for $150 and receive credit for both the online course and their previous work, but no more than 30 degree credits can be earned through PLA.

The Prior Learning Assessment Program at **Marylhurst University** (OR) relies on two workshops, a sequence of online tutorials, and guided instruction instead of a MOOC, and returning adult students can submit portfolios and essays for assessment, earning as many as 45 undergraduate credits in the process. In a third model, **Wisconsin Lutheran College** has partnered with the Council for Adult and Experiential Learning (CAEL) on a PLA program called "Learning Counts" as part of a new accelerated degree completion program ("Making a Career Change," 2014). Students enroll in an online course—ADU 200, "Assessment of Prior Learning: Theory & Practice"—developed and administered by CAEL, then prepare portfolios with the advice of CAEL staff and the college faculty. CAEL trains the assessors.

The fees for the online portfolio development course and the review process are set by CAEL. According to Daniel Johnson, president of Wisconsin Lutheran College, the most significant challenge in implementing this program at a small institution that previously focused on traditional undergraduates was convincing the faculty that PLA is "grounded in research and best practice" and measures "authentic learning ... not just experiences" (Johnson 2015).

Other CIC institutions offer competency-based degrees but only for graduate or professional studies. These include a master of science in educational design and technology at **Concordia University** (WI), a master of arts in teaching at **Southwestern College** (KS), and the master of strategic communication, MBA, and RN to BS programs at **Westminster College** (UT) (see program descriptions at the C-BEN website). Each program includes a combination of project-based and self-paced online components, and at least one institution, Concordia, awards digital badges for specific competencies as well as degrees (Concordia University Online n.d.).

Finally, it should be noted that CBE is no different in kind from many other forms of prior learning assessment that have long been standard practice at independent colleges and universities, including the awarding of credit for AP or IB coursework in high school, credit for CLEP (College-Level Examination Program) exams, or even placement tests for incoming students. In addition, many CIC members have demonstrated a commitment to innovative competency frameworks while evaluating and implementing the Degree Qualifications Profile, which defines a set of high-level intellectual skills and competencies that might be expected from a degree recipient (Grimes 2014; Merisotis 2013).

QUESTIONS TO CONSIDER:

- Which, if any, elements of CBE are appropriate to the mission and values of the institution?

- Is CBE appropriate for some but not all students served by the institution? For example, an institution may want to offer opportunities for prior learning assessment to transfer students who need to satisfy requirements usually fulfilled during the underclass years but not to incoming first-year students. Or it may want to incorporate CBE into graduate and professional programs but not undergraduate programs in the liberal arts.

- How should institutions calculate the costs of providing CBE, including both fixed costs (such as investments in technology) and the marginal costs of enrolling additional students (Kelchen 2015, 17)? Can CBE help stretch financial resources, reducing instructional costs that can be passed to students as tuition savings?

- How can CBE be combined with the student-centered, residential college experience that defines so many smaller independent colleges?

- Many aspects of the existing business models and operational procedures at independent colleges and universities—from faculty compensation to curriculum design to enrollment management and financial aid—are based on the assumption of credit-based courses of a given duration. What business models and procedures might have to be altered to accommodate CBE?

- Will independent colleges and universities be compelled to offer competency-based credentials in a world where other types of education providers offer competency-based credentials (such as "badges" for MOOCs or online tutorials) that are considered of value by employers?

- What counts as a "competency" and how do institutions measure it? As education technology expert Audrey Watters notes, shifting the focus from credits to competencies "does not really resolve the question of *what* it is we expect college students to learn or what's the best way for them to demonstrate this" (Watters 2014).

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Suggestions for Further Reading

Robert Kelchen, "The Landscape of Competency-Based Education: Enrollments, Demographics, and Affordability," *AEI Series on Competency-Based Higher Education* (Washington, DC: American Enterprise Institute, 2015). This includes a review of the different business models used by CBE programs and a preliminary analysis of cost-effectiveness.

Rebecca Klein-Collins, *Competency-Based Degree Programs in the U.S.: Postsecondary Credentials for Measurable Student Learning and Performance* (Chicago, IL: Council for Adult and Experiential Learning, 2012), *www.cbenetwork.org/sites/457/uploaded/files/2012_CompetencyBasedPrograms.pdf*.

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New America Foundation, "Prior Learning and Competency-Based Education: A Background Primer" (2013), *www.newamerica.org/postsecondary-national-policy-institute/prior-learning-and-competency-based-education*

Deborah Seymour, Deborah Everhart, and Karen Yoshino, *The Currency of Higher Education: Credits and Competencies* (Washington, DC: American Council on Education and Blackboard, 2015). This report asks whether "we need a new currency for measuring post-secondary outcomes and achievement" and whether competency-based measures can be aligned with traditional course credit measures.

Competency-Based Education Network (C-BEN), *www.cbenetwork.org*. An expanding network of individual institutions (including five CIC members) plus four public university systems designed to "address shared challenges to designing, developing and scaling competency-based degree programs." The website includes an extensive library of resources.