COMPETENCY-BASED EDUCATION

Leadership Challenges

By Thad Nodine and Sally M. Johnstone

In Short

- Competency-based education (CBE) can help the nation meet its graduation goals and address the shortages of skilled workers that are emerging as the economy improves.
- Several community colleges have developed their own versions of CBE programs, and two states are instituting CBE programs statewide.
- College leaders report that developing CBE programs offers opportunities to personalize the educational experience for students. They also say that doing so presents challenges and highlights the barriers to individualized educational delivery imbedded in existing systems (e.g., in programs, curricula, enrollment processes, and instructional and learner supports).
- College leaders also say that CBE offers opportunities to develop partnerships with local business and to work with faculty in cultivating a vision for change in higher education.

During the recession in 2009, President Barack Obama set a national goal for educational attainment: By 2020, the United States would again lead the world in the share of its population with a college degree or certificate. Many states then articulated their own goals for raising postsecondary attainment. Shortages of skilled workers were emerging as the economy improved, and studies projected increasing shortfalls of workers with postsecondary degrees over the decade.

Since then, colleges and universities have been experimenting with promising strategies to get there. One of them is the development and use of competency-based education (CBE), which college leaders hope will reach potential students who already have some training, college experience, or work-based skills but who do not have a degree or certificate to show for it.

CBE refers to online and hybrid courses and programs that offer credit or degrees based on evidence of student learning, or competencies, rather than on the amount of time spent in a course. Students work at their own pace, receive

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personalized academic support, and demonstrate mastery as they progress through their degree programs.

Although multiple colleges and universities have launched various forms of CBE over the past two years, Western Governors University (WGU) has demonstrated CBE's feasibility since its inception in 1997. Over 55,000 students enroll in its degree programs currently.

We do not know exactly how many institutions are developing competency-based programs, although the number seems to be increasing quickly. In *Competency-Based Education,* the American Enterprise Institute identified about 50 colleges that had announced plans to develop CBE programs as of spring 2014. In February 2015, however, Paul Fain in *Inside Higher Education* reported that the number of higher education institutions with CBE programs either in operation or in planning is now closer to 200.

At WGU, we have been working with a group of community colleges that have developed their own versions of CBE programs, mostly with their own resources but also supported by grants from the US Department of Labor and the Bill & Melinda Gates Foundation.

The group spans five states:

- Indiana: Ivy Tech and the Fort Wayne and Lafayette Districts
- Florida: Broward College and Valencia College
- Ohio: Sinclair Community College
- Texas: Austin Community College and Lone Star College
- Washington: Bellevue College, Columbia Basin College, Edmonds Community College, and Spokane Falls Community College

It is too early to know the results of the programs, but so far all of the colleges are moving forward with CBE expansion beyond the pilot phase, and two states are developing statewide CBE programs. In its March/April 2014 issue, this magazine reported five principles for developing high-quality CBE programs, based on the work of these colleges.

Considering CBE's continued traction in higher education, we went on to ask presidents and academic vice presidents at some of the colleges about the implications of CBE for college leadership. We found that developing CBE programs presents college leaders with opportunities and challenges in a number of areas:

Adapting college systems. College leaders said that CBE offers opportunities to streamline the educational experience for students. They also said that implementing a CBE program highlights the barriers to personalized educational delivery that are imbedded in existing systems—from federal and state regulations to institutional bureaucracies and procedures.

Developing partnerships with local businesses. Most of the CBE programs have engaged with business representatives in course development. Two colleges actively sought engagement with the business community beyond course development and have reported substantial traction, including in job placement.

Shaping their vision for higher education. College leaders said that their perspectives about CBE broadened during program implementation. They also said the work deepened their understanding of the difficulties associated with creating institutional change; at the same time, it renewed their faith in the teamwork and expertise of faculty and staff in resolving those difficulties.

COLLEGE SYSTEMS AND CBE

College leaders told us that developing CBE programs offered real opportunities to personalize the educational experience for students. Several emphasized that CBE—as an individualized learning approach aimed at developing the skills and knowledge associated with specific learning objectives—is not a radical concept for higher education.

The challenge historically, they said, has been that individualized approaches have been too expensive to implement for large numbers of students. With recent developments in technology, however, students can now access course materials online when they need to, and they can take assessments as soon as they think they have mastered the material.

College leaders said that CBE is not appropriate for all students. But for those who are comfortable in online or hybrid settings, CBE offers new opportunities for personalized learning. Meanwhile, rather than lecturing, instructors can focus on tracking student progress, initiating discussions, and providing guidance.

> "In some ways, the CBE process fits in really well with the requirements of accrediting bodies to assess student learning outcomes. This is just a natural step in that process."
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> —Linda Howdyshell,
> Senior Vice President for Academic Affairs,
> Broward College
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> "CBE itself is not a new concept. The novelty is in offering CBE via asynchronous and synchronous computing, and this has the potential for increasing access for a greater number of students."
> —David Rule, President, Bellevue College
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> "The traditional educational approach is to have semesters or quarters, and we expect students to start at the same place and learn the material by the end of that time. With CBE we customize the education to you, based on your needs and your gaps in knowledge."
> —Jerrilee Mosier, Chancellor, Ivy Tech Northeast

All the colleges we worked with had developed CBE programs within their existing organizational structures rather than housing them separately, such as in an extension unit. That is, the colleges are managing CBE in the context of their existing curriculum-development, course-delivery, registration, and student-service systems. This has required flexible approaches, adaptations, and work-arounds.

The leaders we spoke with said that instituting CBE within traditional settings highlights the barriers to individualized educational delivery that are imbedded in our existing systems. We describe some of these challenges and solutions below (additional information by college is available at CBEinfo.org).

Program and Curriculum Development

Among the colleges, two approaches to integrating CBE programs into the college structure emerged. Sinclair Community College already had a strong e-learning operation in place that included an instructional-design model, course- and assessment-development processes, tools, templates, and outcomes-mapping procedures. This division of the college became the home of the CBE programs.

But most of the colleges did not have strong centralized operations to support faculty in developing e-learning courses or programs. As a result, they housed their CBE programs within the academic departments where similar courses and programs already existed. This required adapting existing processes and procedures for online or hybrid program and course delivery.

At all the colleges, adjustments were needed to ensure that competencies were appropriate at the program and course levels and to assure that they were aligned with standards for industry and for transfer to four-year institutions. Faculty took the lead in program and curriculum development for CBE, working within the rules and procedures at the colleges.

At most colleges, the CBE courses were based on existing courses that faculty had been teaching for years. Where the CBE courses were part of a new curriculum, faculty members, working in teams, used existing development processes to create the new courses, usually with input from industry representatives and always under the review of appropriate curriculum committees.

All the college leaders we spoke with acknowledged the substantial work that faculty members had done in adapting courses to a CBE modality. Many faculty members described the implementation process as labor intensive but useful in sharpening course objectives and aligning them with the overall objectives of the certificate or degree program.

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Faculty Chairs, on Transforming Courses into a CBE Approach

"The process clarified and helped to distinguish what we were offering in each of the classes. For each element, we had to ask ourselves, 'Why should we have that in this program?'"

—Suzanne Marks, Chair,
Business Technology Systems, Bellevue College

"Mapping course objectives to student learning outcomes to achieve student success, that is not new. But taking the course and building it to achieve specific outcomes from the outset, that was new. . . . I think most courses could benefit from a ground-up review as to what you're teaching and what you expect students to get out of it."

—Gina Sprowl, Chair,
Computer Information Technology, Lone Star College

College presidents and academic vice presidents said that a key challenge was finding the resources to buy out faculty time to develop the courses and programs, during both the summer and year. Many faculty, however, have subsequently used the curriculum developed through CBE in their online and face-to-face courses. Once a course is developed based on competencies, making changes in specific areas does not require revising the entire syllabus.

Enrollment Systems

All the college leaders pointed to adaptations of enrollment systems as particularly challenging, since those systems were not set up to handle students progressing through a program at their own pace. In addressing these issues, each college has worked out its own solutions.

Perhaps the most ambitious is Edmonds Community College, which is currently shifting from traditional quarters to two six-month terms for CBE students only. The plan is that students will be able to start the program when they want to and progress through courses one at a time, at their own pace.

Most of the colleges developed shorter-term adaptations that provide students with some flexibility. For example, Lone Star College allows students in the CBE program to begin courses at staggered dates during the semester—at 14, 12, 10, or 8 weeks. No matter when the students start, however, they must finish their courses by the close of the semester.

College leaders said that engaging student-services personnel (including registrars, information technology staff, financial aid administrators, and counselors) early in CBE development was crucial to the success of their programs. They needed to provide enough time for the staff to understand the challenges associated with CBE development, brainstorm with faculty and others about options, and make the needed adjustments.

Instructional and Learner Supports

College leaders said that instructional and learner supports represent huge opportunities—and challenges—for CBE development and expansion. As with all courses, faculty members provide instruction for CBE courses, but their role changes.

Since course materials are provided online, many instructors have more time to provide personalized academic support to students because they do not have as many lecturing responsibilities. But at the same time, they need to be prepared to work this way—and with a variety of students who may be at different stages of a course at any one time. WGU has helped faculty gain this preparation.

As college leaders pointed out, questions about faculty roles represent a substantial challenge for CBE development, partly because they have implications for faculty contracts. Currently, teaching loads are based on credit hours. In expanding the use of an asynchronous model such as CBE, it is not clear how colleges and faculty will calculate the equivalent of full-time instruction.

How many students will a faculty member need to work with to be considered full-time? How much engagement, and of what types, would be required weekly, and would this be adequate for supporting student progress? College leaders said that because CBE is so new, these kinds of issues have not yet been resolved.

> "The faculty role is crucial in building and keeping relationships with students. Technology may be able to free up faculty time, so they can spend more time with those student relationships. There are also some things that academic coaches are doing that frees up our faculty, so that they can reach more students with instruction."
> — Jim Minkler, Vice President for Learning, Spokane Falls Community College

Nevertheless, the pilot projects have made substantial progress in identifying what kinds of learner supports appear to be critical to student success. It appears that the most effective CBE programs provide students with "mentors" or "coaches" who contact each student regularly, check in on their progress, keep them on track with deadlines, and either provide or make recommendations for academic or other help. During the pilot period, most of the colleges provided these supports.

College leaders said these coaching or mentoring positions have implications for institutional costs but that the costs are justified if the positions increase student success. And indeed, effective student supports are crucial for community college students, they said, especially in online programs.

At several colleges, the coach/mentor positions have spread to additional departments outside of CBE. One college has also created a job-outreach coordinator to facilitate the development of resumes, organize mock interviews, and otherwise connect graduates to employers.

Implications for Institutional Costs

College leaders highlighted the following start-up and ongoing costs for colleges considering CBE development:

- *A mid-level position to support the start-up.* Developing a CBE program involves engagement across college systems. As a result, it extends beyond the duties of academic deans.
- *Program and course development.* This takes time, money, and many conversations, which most colleges supported through faculty stipends.
- *Technology support.* Larger colleges might be able to subsume these costs within existing systems. Others might need new systems.
- *Faculty roles.* Faculty will always be the subject-matter experts. The other roles they provide in learner support will have implications for ongoing costs.
- *Mentor, completion coach, or navigator.* This staff member regularly contacts students and/or monitors and encourages their engagement, in addition to providing individualized guidance. In some cases this responsibility can be shared across programs, depending on program size and the nature of the academic support offered.
- *Professional development for faculty.* As CBE expands, faculty need opportunities to explore and shape the future of CBE through teaching and learning. They may also benefit from working with professional instructional designers.

BUSINESS PARTNERSHIPS

Most of the colleges collaborated with business representatives in developing their CBE programs. For example, faculty at Edmonds Community College worked with an instructional designer and industry subject-matter experts through a curriculum-development process called DACUM, which includes occupational analysis.

Panels identified competencies for each course, grouped them into modules, and identified or created online learning materials linked to each module. After developing assessments and linking them to competencies, faculty had them evaluated by external experts and reviewed by a panel of employers.

Two colleges engaged with local businesses from the start, and not just in course development. David Siefert, the co-director of the CBE program at Sinclair Community College in Dayton, Ohio, has been active in bringing together regional CEOs, CFOs, and CIOs to share their strategic plans for information technology.

The participants include small startups as well as larger enterprises in healthcare, the automotive industry, manufacturing, and technology—all of which are important in the Dayton region. With input from this panel and other commu-

nity groups, the college is developing a regional staffing plan focusing on the areas of employment growth for the next five years—including job descriptions that can be translated into competencies.

The participation of business leaders has been outstanding, according to Siefert, partly because they need employees with advanced IT skills. The regional staffing model, he said, helps the CBE program remain directed toward opportunities that are expanding, rather than jobs that have been popular in the past. He said the links between job descriptions and program competencies will help ensure that graduates have both the specific skills and the general knowledge they need for the regional job market.

Austin Community College too launched its CBE program, Accelerated Programmer Training, by actively working with business. Its approach was to develop an industry-partner program from day one, in order to facilitate student recruitment, inform program development, and catalyze career opportunities.

Talking CBE with Business Leaders

College leaders said that they regularly highlight their CBE program when they talk with business and community groups.

"When I talk with business people, I find that they are less concerned with degrees and more concerned with students' actual competence. A lot of employers are intrigued by CBE because of that. They get it real quick."

—Rich Cummins, President,
Columbia Basin College, Washington

"Business partners respond right away. It's given me an avenue to talk with major companies about all kinds of things, including paid internships and jobs for graduates. When I talk about our Accelerated Programmer Training program, it energizes the conversation."

—Richard Rhodes, President,
Austin Community College

The CBE program created an industry advisory committee of presidents and directors and a review panel of technical employees and mid-level managers. In soliciting participation, the program began by asking companies if it could post their logos on the program's website, with a link to the companies' human-resources departments.

According to Sam Greer, director of Accelerated Programmer Training at the college, "We knew if we could have a website that looks like a NASCAR vehicle with business logos everywhere, that's a siren call to students. That's a pathway to the middle class." The program now has over 100 company logos on its website, and student enrollment has exceeded its initial goals.

The program is also developing a process that populates portfolios for students and makes them available to companies on the program's website, filtered by descriptions of personnel the company is seeking. The program's outreach coordinator manages the portfolio process, as well as mock interviews in which upcoming graduates participate in practice interviews with human-resource representatives from industry. The program has only recently had its first round of graduates, and it has reported that 90 percent of them have gotten jobs in their fields.

VISION AND PURPOSES

When asked about the purposes of developing CBE programs, college leaders were quick to focus on increasing access to higher education and student success as their primary motivators. In particular, they emphasized reaching those who have not been successful with traditional forms of higher education.

They spoke about the increasing numbers of digital natives who are comfortable with online approaches. They also emphasized online CBE as one approach among many in appealing to diverse students—along with traditional brick-and-mortar settings, online education, and hybrid models.

"As a first-generation college graduate and a Hispanic female, I've always been very interested in and committed to opportunities that expand access for nontraditional students. CBE is a great pathway for our students."

—Jean Hernandez, President,
Edmonds Community College

"There are one million Washingtonians who have college credits but no credential. Part of our statewide goal is to get those million to attain a credential that the job market will value."

—Rich Cummins, President,
Columbia Basin College

College leaders said that the potential of CBE to accelerate student pathways to degrees and certificates is also a high priority. This includes the ability to provide credit toward degrees for students with certain knowledge and skills. They said that in providing students with accelerated and flexible options, CBE programs have the potential for increasing student success and bringing down the cost per degree.

For all these reasons, leaders said that developing CBE programs gave their colleges an edge in an increasingly competitive marketplace for students. Several said that they'd seen television or online advertising from private or public colleges in other states offering competency-based credentials to students in their region. They said their faculty and staff know their student populations better than out-of-state providers, so why shouldn't they be providing those credentials?

The perspectives college leaders had on CBE broadened during program implementation. Several said they were impressed by the extent to which a CBE model can work online or in a hybrid approach; in a self-paced or semester framework; and for general education courses, as well as career-based or technology programs.

MOVING FORWARD

Full-scale CBE approaches at these colleges are in their infancy. Challenges await all the colleges as they examine the outcomes associated with their pilot projects, make adjustments, and plan next steps. Some colleges are moving toward competency-based associate degrees as well as certificates.

Most of the colleges are considering plans for CBE expansion, as faculty in programs such as health care and business applications have expressed interest. At least one college has adopted CBE approaches in developmental math—splitting the curriculum into competency-based modules and providing instruction through computer labs, with students moving through coursework as quickly as they can for one set price each semester.

Meanwhile, two CBE programs are going statewide. Washington is developing a competency-based associate degree in business that will be available online to Washingtonians by June 2015. Columbia Basin College will be the lead institution, with seven other public colleges participating. In Indiana, Ivy Tech is also planning a statewide competency-based program.

College and university leaders in the US face a host of challenges and pressures to increase access and improve student completion. Meanwhile, funding for higher education from state legislatures has not recovered since the Great Recession. As of May 2014, state support of higher education per student in the US remained below pre-2008 levels, after adjusting for inflation.

In this climate, college leaders who have developed CBE programs are saying that those programs can help their colleges reach new pools of potential students, provide personalized instruction to students, and accelerate the time to degree. They say, though, that CBE is best considered as one strand of a multi-layered approach. CBE is appropriate for some but not all students.

And they acknowledge the difficulties in implementing CBE programs, which requires new conversations about, and perhaps substantial change in, business-as-usual practices in higher education. But isn't that what higher education leadership is about: providing opportunities for and stimulating conversations and innovations among faculty and staff who have the expertise to increase student access and success? C

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