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Competency-Based
Education Emphasizes
Outcomes

INTRODUCTION

Anyone who works in postsecondary education understands that competency-based education (CBE) is a challenge. Institutions struggle with everything from which competencies to choose to how to structure assessments and credentialing programs—all while trying to ensure student success.

CBE programs can affect the entire institution. To help address some of these challenges, we spoke to five institutional leaders who specialize in CBE. During these discussions, the experts shared challenges and successes and recounted lessons they learned while putting new CBE programs into place.

These professionals offer their insights and advice on all aspects of building a successful CBE program. I trust that you'll find the information useful and that after reading this book, you'll have solid strategies and useful tips to strengthen your CBE program.



All the best,
David Rogelberg
Publisher



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These authoritative and diverse guides provide a full view of a topic. They help you explore, compare, and contrast a variety of viewpoints so that you can determine what will work best for you. Reading a Mighty Guide is kind of like having your own team of experts. Each heartfelt and sincere piece of advice in this guide sits right next to the contributor's name, biography, and links so that you can learn more about their work. This background information gives you the proper context for each expert's independent perspective.

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Competency-Based Education



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SUCCESSFUL CBE STARTS BY IDENTIFYING COMPETENCIES



**STEPHEN M.
KOSSLYN**

Chief Academic Officer,
Minerva Schools at KGI

Dr. Stephen M. Kosslyn is founding dean and chief academic officer of the Minerva Schools at KGI. He served as director of the Center for Advanced Study in the Behavioral Sciences at Stanford University and was previously chair of the Department of Psychology, dean of Social Science, and the John Lindsley Professor of Psychology at Harvard University. Stephen has written or co-written 14 books and more than 300 papers on human learning and cognition.



Website

Dr. Stephen Kosslyn, chief academic officer at the Minerva Schools at KGI, says developing a competency-based education (CBE) program requires a view from both the top and the bottom.

"I suggest that first, through a combination of focus groups and surveys, you should try to establish two things. One is market segmentation. Are there different groups of students who have different goals? The second is to find out, for each segment, what competencies students would find most useful to achieve their goals. Then, look at it from another perspective: Think about which categories of competencies you might want to suggest to them." From there, Kosslyn says, it's essential to break down the targeted competencies into specific learning goals. "Without well-defined, concrete learning goals, you're not going to be in a position to move forward to actually offer material," he says. >>>



Without well-defined, concrete learning goals, you're not going to be in a position to move forward to actually offer material.



KEY LESSONS

- 1** Before deploying any technology, spend time with both potential students and employers to find out which skills are in demand and how they can be broken down into digestible chunks that ultimately result in a desired credential.
- 2** Credentials in a CBE program may not be black or white. A phased credentialing strategy can help students see how close they are to achieving their goals and what they still need to do to reach completion.

SUCCESSFUL CBE STARTS BY IDENTIFYING COMPETENCIES

To ensure that the competencies students desire are viable, marketable competencies, Kosslyn suggests the following strategy. “I would have focus groups with employers, and then suggest competencies the employers may need,” he says. “Identifying a set of competencies that employers want then would feed into the process with the students, so you would derive the top-down part—when you suggest possible strategies—from what the employers have said. The motivation is for students to acquire competencies that will be useful.”

After you have defined the competencies, you then break them into smaller categories that students can more easily learn for credentialing purposes. “They can’t be these big heterogeneous categories like ‘critical thinking,’” Kosslyn says. “You’ve got to break them down into specific types so that you can then assess them by using rubrics or other methods. Without that, you’re never going to be able to build a credentials program because you won’t be able to assess whether the students have performed adequately to qualify for the credential.”

Even if you use assessment technologies, Kosslyn suggests that assessments are a challenge for any institution and even more so for CBE programs. “I would not have just a black-or-white credential. I would have staged credentials,” he says, explaining how to accomplish that. “I would have rubrics designed to indicate exactly what students need to do to qualify for each level. The qualification procedures can be of two sorts. They can be quantitative, where students have to achieve above a specific score on a test, or more qualitative, where students also have to be able to do something—perform some kind of problem-solving exercise or write an essay.”

Still, Kosslyn points back to the most important step in developing a CBE strategy. “The key is to pick the right competencies. That seems obvious, but I’m not sure it is because to be relevant to employers you need to figure out how to break down the big core competencies in a way that is specific and precise enough for instructors to teach and assess.” ■



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METRICS AND INNOVATIVE TECHNOLOGY DRIVE CBE



**SCOTT
PULSIPHER**

President,
Western Governors University

Scott Pulsipher serves as president of nonprofit Western Governors University (WGU), the nation's first and largest competency-based university, leading all academic, operational, and organizational functions. Scott blends a personal drive for making a difference in the lives of individuals and families through education with a passion for technology-powered innovation. At WGU, he drives innovation by focusing on rapidly advancing curriculum quality, new faculty models, data-driven learning, and a different cost model.



Scott Pulsipher, president of Western Governors University (WGU), has a student-focused view of competency-based education (CBE). “One of the first things we understood about creating a competency-based model is that the Internet and technology affect how we develop the curricula, the engagement with the student, the self-service processes, and the intuitive flow students will go through,” he says. “As we developed our programs, we knew that the students we serve have different needs, different requirements from traditional students.”

“For many of our students, who are adult learners (although they may have had some college) there was a reason they didn’t complete their degree,” he explains. “While our online, competency-based learning model makes college more accessible to them, we knew that the faculty were going to be vital to improving the students’ likelihood of progressing in their studies and completing their degrees. So we had to think about faculty engagement.” >>>



One of the first and most important things about a competency-based model is that you have to ensure that the quality and relevancy of your degree programs and courses align with workforce needs.



KEY LESSONS

- 1 To be successful, a CBE program must use available and accepted technologies to provide students with the tools they need to achieve success as conveniently as possible.
- 2 Successful assessment and credentialing programs rely on two things: abundant metrics and, where necessary, an innovative technological approach.

METRICS AND INNOVATIVE TECHNOLOGY DRIVE CBE

“In WGU’s case, we disaggregated the faculty model. We knew that no one person could do all those things really well for students, so we have four faculty models. This allows faculty to focus on what they do best—work with students as mentors, provide subject matter expertise and instruction, develop course materials and assessments, and evaluate student assessments.”

CBE isn’t all about the faculty, however. Students turning to CBE programs have specific needs. “One of the first and most important things about a competency-based model is that you have to ensure that the quality and relevancy of your degree programs and courses align with workforce needs,” says Pulsipher. To do that, WGU has advisory councils for each discipline that include academic and industry leaders who help identify the competencies graduates need to be successful in the workplace.

When those needs have been defined, WGU begins course design, using technology tools with the understanding that all elements of a degree program must be connected. “We design the assessments directly into the curriculum, so in the context of the degree itself, experts are defining the assessments up front. We have an assessment council. We employ psychometricians and use their input to understand which assessments will best demonstrate the student’s mastery of each competency,” he says. “At WGU, we keep learning standards constant, meaning that the assessments for every student completing a course are the same.” 

“
When you think about student outcomes, you have to define all those critical, detailed inputs and variables . . . to be able to have confidence that your students are ultimately going to be successful.”

METRICS AND INNOVATIVE TECHNOLOGY DRIVE CBE

Even the assessment process uses innovative technology. Pulsipher explains, “We have developed a model that uses technology to distribute our assessments with a high degree of accuracy and reliability—an online proctoring model that uses web cameras. Students are provided an external web camera when they enroll, and we have the ability to verify identity as well as detect patterns of copying or using other web-based materials [to cheat]. We know the quality, the differentiation, the authenticity, and the reliability of our assessments are at a level that we think is far above anyone else, especially considering that all of them are proctored, whether online or at a proctoring center.”

The result of tying together all the elements of a degree program, says Pulsipher, is that everything focuses on the student, with the intention of helping him or her earn a degree and use that degree to create further opportunities. “We are able to look at detailed student performance, student progress, and faculty engagement because we are analyzing even the third-party content we use as learning resources,” he says. “When you think about student outcomes, you have to define all those critical, detailed inputs and variables. You must establish measurements and standards to be able to have confidence that your students are ultimately going to be successful.” ■



Graduates must be able to navigate with confidence the work environments they find themselves in upon graduation.



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KECIA RAY

Executive Director, Center for Digital Education

SAY "YES" TO AN OUTCOMES-BASED APPROACH TO EDUCATION



CARIE ANN POTENZA

Director, Academic and Grant Services, Ellucian

Carie Ann Potenza has more than two decades of experience in higher education and teaching, specializing in academic innovation, student success, and teaching and learning with technology. As director of Academic and Grant Services for Ellucian, she leads a team of higher education consultants to help institutions find opportunities for institutional growth and create innovative initiatives to drive technology-enhanced education.

For education consultant and former Rasmussen College administrator Carie Ann Potenza, the answer for most institutions to the question, "Should we build a competency-based curriculum?" is "yes."

"An outcomes-first approach to teaching and learning is really what education is meant for," says Potenza. "It's to educate the learner. Competency-based education (CBE) actually measures student learning and drives students to where the learning is consistent and time is the variable. Being able to truly say that a student has the knowledge, skills, and aptitude for a specific content area is a great design for teaching and learning."

Planning a CBE program from the ground up may be intimidating for some institutions, however, and CBE programs aren't a good fit for all students. When modeling specific CBE initiatives, it's important to look at curricula and faculty holistically, and then build on existing competencies. To get started, Potenza advises asking a lot of questions. >>>

Being able to truly say that a student has the knowledge, skills, and aptitude for a specific content area is a great design for teaching and learning.

KEY LESSONS

- 1 Institutions must first identify the students they are looking to serve, and then focus on one or two types of student populations.
- 2 Involving the community on multiple levels will help build useful programs that serve not just the needs of the student population but also of employers, local governments, and other organizations.

SAY “YES” TO AN OUTCOMES-BASED APPROACH TO EDUCATION

“Each institution has to ask, Who are the students we’re looking to serve,” says Potenza. “Is it the adult population? Is it incoming high school students? Is it the bachelor’s degree–completion type of student? Is it focused on a technical field? Is it more about direct workforce credentials that the student is seeking? The institution must first identify who the students are that it’s looking to serve, and then focus on one or two types of student population.”

With the target student population identified, institutions can plan programs and curricula. This process also requires many up-front considerations. “What level will you address first,” asks Potenza. “Is it the course level? Is it the certificate level? Is it the degree level? From there, you decide on the content area. Are you looking to do something more in the general education field, or are you looking to do something more in the vocational, technical field? Are you looking to do something like accounting, information technology, or health care, or are you considering something more general, like information literacy, critical thinking, or problem solving?”

Many CBE programs address the demands of local employers or specific competencies in the workforce, so Potenza advocates for close community involvement when planning CBE initiatives. “Future students are most likely going to come from your community,” says Potenza, “so evaluating community needs and working with community employers are essential. Employers can be part of that discussion at every point in the process, identifying the types of skills they want their employees (your students) to know. Then, you can identify what kind of credentialing levels are appropriate and what the focus of the program will be.” >>>

“
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SAY “YES” TO AN OUTCOMES-BASED APPROACH TO EDUCATION

Potenza also believes strongly that successful CBE programs tap into and involve existing faculty and administration rather than building separate structures. “Working with the faculty and the content experts at the institution is one of the best predictors of success,” she says—that and working with appropriate third-party experts. “CBE programs can help faculty members become further experts in their area of specialty,” says Potenza, so don’t think of outcomes-first learning as being just about student growth.

Asking the right questions and tapping into the right people at both the institution and community levels, says Potenza, will be worth the effort. “CBE can help an institution create adaptive and customized content based on the student,” she says. “It has taken off because technology now allows that kind of customization on a larger scale and with consistent tools. Personalizing learning to meet student needs gets students to their goal sooner, and that is one of the most important success factors in CBE.” ■

CBE REQUIRES TECHNOLOGIES FOR INSTITUTIONWIDE CHANGE



Laurie Dodge

**Vice Chancellor, Institutional Assessment and Planning;
Vice Provost,
Brandman University**

Dr. Laurie Dodge, vice chancellor of Institutional Assessment and Planning and vice provost at Brandman University, was a key leader in building the university's CBE direct assessment programs. Dr. Dodge serves as the WASC senior accreditation liaison officer, is on the Substantive Change Committee, is chair of the Competency-Based Education Network Board of Directors, and was named as one the "Sixteen Most Innovative People in Higher Education" by *Washington Monthly*.



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Laurie Dodge, vice provost and vice chancellor of Institutional Assessment and Planning for Brandman University, says that implementing a competency-based education (CBE) program must start with institutional culture, and then move to the technologies that enhance that culture. "First, reflect and think about your own institutional culture, your mission and vision. Different universities are approaching CBE in different ways, I think because we are all a bit different in the students we serve and the programs we offer," she says. "I also think it's important to reflect on initiatives that the university recently undertook and the process it went through to accomplish them. What were the opportunities and the challenges? Should we start big? Should we start small? What is our existing approval process? Are folks ready for a change? Those are deep conversations institutions must have."

Once they have that larger context for CBE, Dodge says universities can then look at, "What programs would this start with? Should it be an existing program? Should it be new? Is someone eager for innovation? I would start wherever you have the chance to be most successful." She also thinks that universities should inventory the technologies they're already using and try to use those systems to build their CBE program. >>>



CBE is truly disruptive. It's not just a different delivery model . . . It's universitywide.



KEY LESSONS

- 1 When building a CBE program, look at past projects and the technologies and programs used to determine whether they are appropriate.
- 2 The technology used to develop a CBE program will affect every aspect of the institution, so be sure that representatives from each area are involved in the process from the beginning.

CBE REQUIRES TECHNOLOGIES FOR INSTITUTIONWIDE CHANGE

"I think a piece of that is figuring out the degree program. Most institutions are conducting some type of market analysis to see which program is best to start," says Dodge. "You're aligning your institutional culture and your various goals and faculty with employment needs. You want to see what is already out there and what could be your unique stamp." What worked well for Brandman, says Dodge, was getting through this process, building its own systems, and then bringing employers in to vet the process.

"We actually built our CBE program on what I call a *framework origin*. We used the U.S. Department of Labor O*NET data, degree qualification profiles, 21st-century learning skills, and Association of American Colleges and Universities Essential Learning Outcomes, looking at the knowledge, skills, and abilities a graduate needs to be successful in various jobs. The faculty then wrote competency statements based on those data, and we brought the employers and our advisory group in," she explains. "For us, the employer was sort of a virtual partner in the beginning because we were using huge databases. Then, we brought them in to make sure we had the right program."

The most important lesson Dodge has to share is this: Look at how CBE will affect the whole institution. "I think whom you have around the table when building these programs is important because that's a huge element of success," she says. "CBE is truly disruptive. It's not just a different delivery model. You have to change your faculty model, your payment, financial aid, admissions—everything. It's universitywide. Start that collaboration process from beginning: Don't build your program, and then invite stakeholders to the party." ■

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Competency-based education supports a smooth transition to the workplace for our students. We can memorize, learn and retain, but without applying this knowledge to actionable work, it stays deliberative as opposed to experiential.



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PAIGE FRANCIS

Associate CIO, University of Arkansas Fayetteville

APPROACH CBE AS AN INTEGRATION RATHER THAN A BUSINESS UNIT



**KARA
MONROE**

Vice President, Academic
Innovation and Support,
Ivy Tech Community College
of Indiana

Dr. Kara Monroe serves the state of Indiana as the vice president for Academic Innovation and Support at Ivy Tech Community College, Indiana's community college system. Having earned her doctorate degree in higher education leadership from Capella University in 2006, Kara has a wide array of experience and interests in higher education, including new pathways to credentials, alternative delivery methods, increasing and improving professional development opportunities and experiences for faculty, and improving academic support services for students.



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The first tenet of developing a successful competency-based education (CBE) program, according to Dr. Kara Monroe, vice president of Academic Innovation and Support at Ivy Tech Community College, is to understand what CBE means to your institution and why you're moving toward that model. "An institution's CBE strategy really does need to focus on how it provides an opportunity to improve the quality of instruction and the quality of the student experience," she says.

Monroe continues, "CBE is not just a flavor of the month. This is something institutions need to address and think about in terms of their strategies for online learning. Many institutions went to CBE because it was a way to increase enrollment at a time when we were all competing for students. Institutions that moved first in terms of online course development were able to raise enrollment more quickly." Unfortunately, organizations that jumped into CBE without first considering the bigger picture could be missing out on an opportunity to improve the institution as a whole, says Monroe. >>>



CBE is not just a flavor of the month. This is something institutions need to address and think about in terms of their strategies for online learning.



KEY LESSONS

- 1 A successful CBE program begins with a solid understanding of how the program can affect and improve the institution as a whole.
- 2 All CBE business processes, even competencies and credentials, should be viewed through the lens of how they will affect and improve existing degree programs.

APPROACH CBE AS AN INTEGRATION RATHER THAN A BUSINESS UNIT

“A lot of institutions spin off online learning into separate departments and separate business units to allow them to ramp up much more quickly and get outside some of their institutional policies. There is that dualistic need to move this process along quickly, but there are also the larger questions: What does this mean to the quality of instruction we offer as an institution, and what can it do for the institution as a whole,” she says.

Ivy Tech’s approach to CBE has changed everything, Monroe says. “We have a large online program that permeates the institution and has driven us to do things like put our entire library online and create an online, one-stop student answer. It has driven institutional culture change in a way that separating it into a different business unit could never have done. At the end of the day, it makes us a better institution overall.”

Even approaching CBE as in integration rather than a separate business unit isn’t without some growing pains. For example, aligning student competencies with employer needs is still tough, says Monroe. “We’re piloting a few different tools, but that’s one of the things we’re looking at. How do you measure student progress toward completion or mastery of a competency, and how do you use the technology to do that effectively, knowing that students are going to be at different places in the learning continuum?”



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APPROACH CBE AS AN INTEGRATION RATHER THAN A BUSINESS UNIT

Monroe continues, "Measuring knowledge, skills, and ability doesn't look the same in nursing as it does in software development. It doesn't look the same in math as it does in chemistry, and so you've got to have different tools that allow you to make those measurements more effectively." Monroe adds, "CBE touches every aspect of the institution. Our business and operations team, which is spinning up our competencies program, has a representative from nearly every functional unit of the organization looking at every process, every procedure, every policy we have and how CBE is going to affect it, from registration, advising, enrollment, transcription, coaching, and mentoring to monitoring students' success, finance, billing, and financial aid. There isn't a single, solitary area that isn't affected."

"I've said for a long time that the curriculum and the design of the competencies are the easy part," Monroe says. "It's the business process management for CBE that is hard. That is why a lot of institutions spun off online learning years ago: They couldn't figure out how to do it within their institutions. The problem is, they never get to capture the innovation that occurs when you do figure out how to engage that process within an existing organization." ■