



Competency Based Education Basics: Vital Steps to Consider Before You Jump In

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Agenda

Attendees will leave this session being able to:

- Define competency based education, including differentiating it from other distance education models
- Identify at least four major benefits to students of quality CBE
- Describe technological tools that can assist schools to offer quality CBE
- Identify the funding issues currently in place for CBE implementation
- Discuss possible models for CBE at their school
- Discuss how the proposed PROSPER Act may impact funding for competency-based education



Does your institution currently offer competency-based education?

Yes - CBE is being offered now **A**

We're in the planning stages **B**

We're just curious **C**

About



Innovator, Educator, Former Lawyer, Lavender Farmer, Master Gardener
Lawyer at Bell Gully Buddle Weir before moving to higher education in the US
20+ years experience in correspondence, distance learning, and online education: Developing & Teaching online since 1998
2012 Recipient of DETC Outstanding Achievement Award
2014 Primal Blueprint Certified Expert
2017 Recipient of DEAC Innovation Award
2017/18 WSCUC Assessment Leadership Academy VIII
Site evaluator for DETC then DEAC, served on 15 visits as Business Standards, Education Standards or Chair
Former Product Advisory Board member for Pearson eCollege



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What is CBE?

Myriad of definitions causes problems: Set clear definitions first!

Competencies can be viewed from an input, output, or standards approach (Abner, 2014)

“While the input competency definitions aim to describe the knowledge, skills and abilities (i.e., the inputs) that an individual would require in order to produce efficient and competent performance, the output and standards approaches focus on tasks that a “competent individual” should be able to perform to demonstrate his/her competency and/or obtain accreditation as competent.”



What is CBE?

C-Ben definition:

*“**Competency-based education** is an approach to teaching and **learning** that focuses on the **competencies** (knowledge, skills and abilities) that students must master rather than the amount of **time spent in class** (as measured by credit hours). This approach benefits students and the state in multiple ways.”* - C-BEN Resource Library



Definitions

Council of Regional Accrediting Commissions (“C-RAC”) name two possible types of CBE:

- A course/credit based approach; or
- A direct assessment based approach

“In general, competency-based education (CBE) is an outcomes based approach to earning a college degree or other credential. Competencies are statements of what students can do as a result of their learning at an institution of higher education. While competencies can include knowledge or understanding, they primarily emphasize what students can do with their knowledge. Students’ progress through degree or credential programs by demonstrating competencies specified at the course and/or program level. The curriculum is structured around the specified competencies, and satisfactory academic progress is expressed as the attainment or mastery of the identified competencies. Because competencies are often anchored to external expectations, such as those of employers, to pass a competency students must generally perform at a level considered to be very good or excellent.”

<https://www.wscuc.org/content/competency-based-education-statement-c-rac>



PROSPER Definition

Except as otherwise provided, the term ‘competency-based education’ means education that—

“(i) measures academic progress and attainment—

“(I) by direct assessment of a student’s level of mastery of competencies;

“(II) by expressing a student’s level of mastery of competencies in terms of equivalent credit or clock hours; or

“(III) by a combination of the methods described in subclauses (I) or (II) and credit or clock hours; and

(ii) provides the educational content, activities, and resources, including substantive instructional interaction, including by faculty, and regular support by the institution, necessary to enable students to learn or develop what is required to demonstrate and attain mastery of such competencies, as assessed by the accrediting agency or association of the institution of higher education.

https://edworkforce.house.gov/uploadedfiles/prosper_act_bill_text.pdf



Best metaphor

Salman Khan's Bicycle 101...



CBE is not...

PLA (Prior Learning Assessment) or CPL (Credit for Prior Learning)

- Challenge exams, ePortfolios etc - although CBE may include exams and ePortfolios
- PLA/CPL is assessing what was learned in the past – CBE requires students demonstrate mastery **now** – not what you have learned but what you have retained

Correspondence

- By definition lacks regular and substantive interaction
- Students “teach themselves”
- Not eligible for Title IV

But CBE has similarities, history, and some overlap with both...



Regular and Substantive Interaction

Regular and Substantive Interaction separates CBE from Correspondence

- Determining how to provide regular and substantive interaction can significantly affect learner support, motivation, persistence, and cost of a competency program
- Models include: Split coaching/faculty roles (Explicitly mentioned in 2016 Guidance) but faculty interaction is still key
- Misinterpreting the Department's guidance can be costly: See Office of the Inspector General's Audit report of Western Governors University released Sep 22, 2017 & ordered to repay 740 million in Title IV
<https://www2.ed.gov/about/offices/list/oig/auditreports/fy2017/a05m0009.pdf>
- A lot of confusion and nervousness about what is required, led to...



2016 Guidance: Key Takeaways

- Faculty member need not be primary monitor of student engagement with learning
- Must be some combination of staffing and systems to monitor student engagement, level of performance, and to provide proactive support.
- Institutions must demonstrate that students are not left to educate themselves, a chief characteristic of correspondence programs.
- Program design must integrate regular and substantive interaction between students and faculty. “Regular” means periodic; can be broadly interpreted but should have predictable regularity and built into program design.
- For self-paced CBE, predicted regularity can be event driven and include, but is not limited to, completion of certain key competencies, a percentage of competencies, or the submission of assessments.
- While individual students may elect not to initiate contact with qualified faculty, program design must include periodic contact by qualified faculty with the students.
- Contact could be through email or other social media, but must create the opportunity for substantive interaction. An automated system for initiating contact with students could be one aspect of program design, but such a system in and of itself could not meet the requirement for regular and substantive interaction.



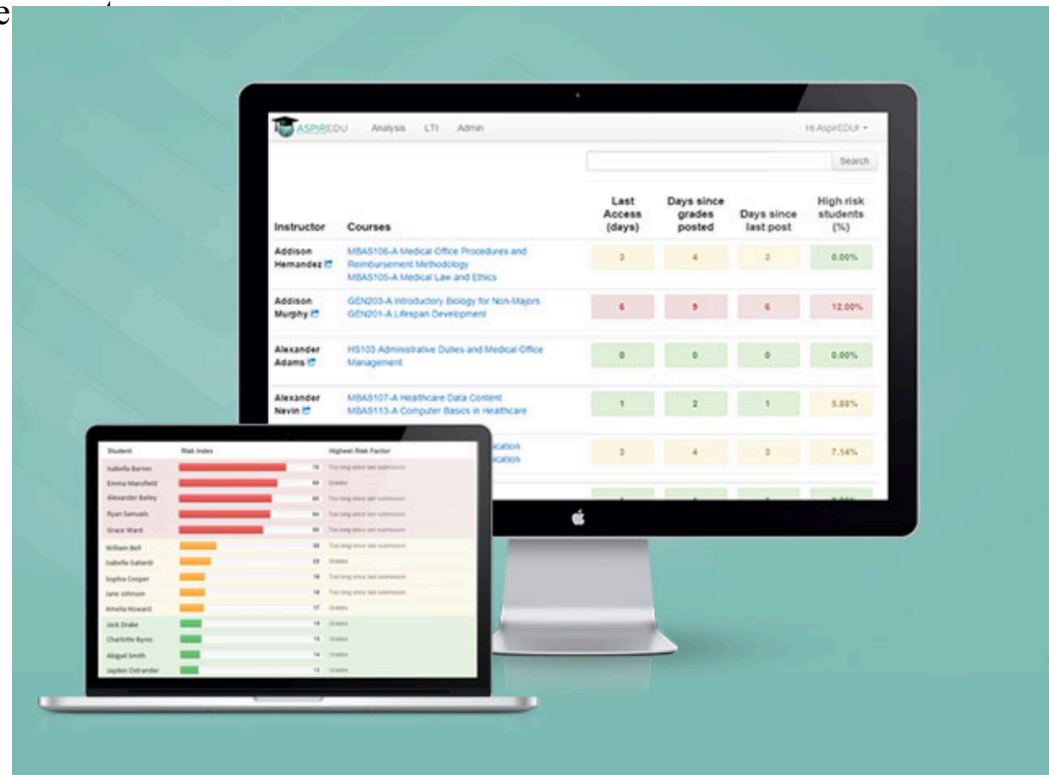
Key Takeaways cont...

- Substantive can also be broadly interpreted, but refers specifically to interaction, or the opportunity for interaction, with a student that is relevant to the academic subject matter in which the student is engaged.
- Substantive interaction could include direct instruction, substantive feedback to assessments, or, as described above, contacts with students that create the opportunity for relevant discussion of academic subject matter.
- Assessment is vital in outcomes-focused programs like CBE.
- Faculty need not administer and/or grade all assignments, but faculty feedback on student assignments may be a very effective form of substantive interaction.
- Some assessments might be exam-based and machine graded, but those forms of assessment would not be considered substantive interaction.
- Using teaching assistants, such as graduate students within the discipline, to assess and grade student work, is acceptable in CBE programs.



Predictive Analytic Tools

Predictive analytics for outreach a good solution. We use Canvas analytics plus Dropout Detective from Aspiredu, which uses a proprietary algorithm integrated with Canvas via LTI to provide a risk score for students. Our faculty reach out to students who are in the red or the orange weekly. Green students are receiving formative feedback through completed assignments.



Reporting Tools

We use Canvas analytics and Instructor Insights from Aspiredu, which uses a proprietary algorithm integrated with Canvas via LTI to provide reports on instructor activity – we give instructors access to this data so they can see how they compare to their peers and institutional benchmarks



DEAC Benchmarks Currently

DEAC Graduation and Completion Rate Benchmarks

	<i>Average Graduation Rate</i>	<i>Graduation Rate Benchmark</i>
Associate Degree Programs		
<i>Distance Education</i>	47%	32%
<i>Correspondence/Competency-Based</i>	28%	*
Bachelor Degree Programs	58%	43%
Master's Degree Programs	69%	54%
First Professional Degree Programs	88%	73%
Doctorate Degree Programs	55%	40%

**The Commission does not set a benchmark at 15 points below the average for correspondence/competency based associate degrees. However, it recognizes that different factors could fairly account for an institution reporting a rate below the 28% average. Accordingly, with respect to schools reporting lower rates, the Commission will conduct a secondary analysis of individual course completion rates, measures of student learning, and other information that would reasonably demonstrate institutional effectiveness.*



Who Benefits from CBE?

When done well, CBE offers significant advantages for:

- Students ✓
- Graduates ✓
- Employers ✓
- Society & the Economy ✓
- Institutions ✓



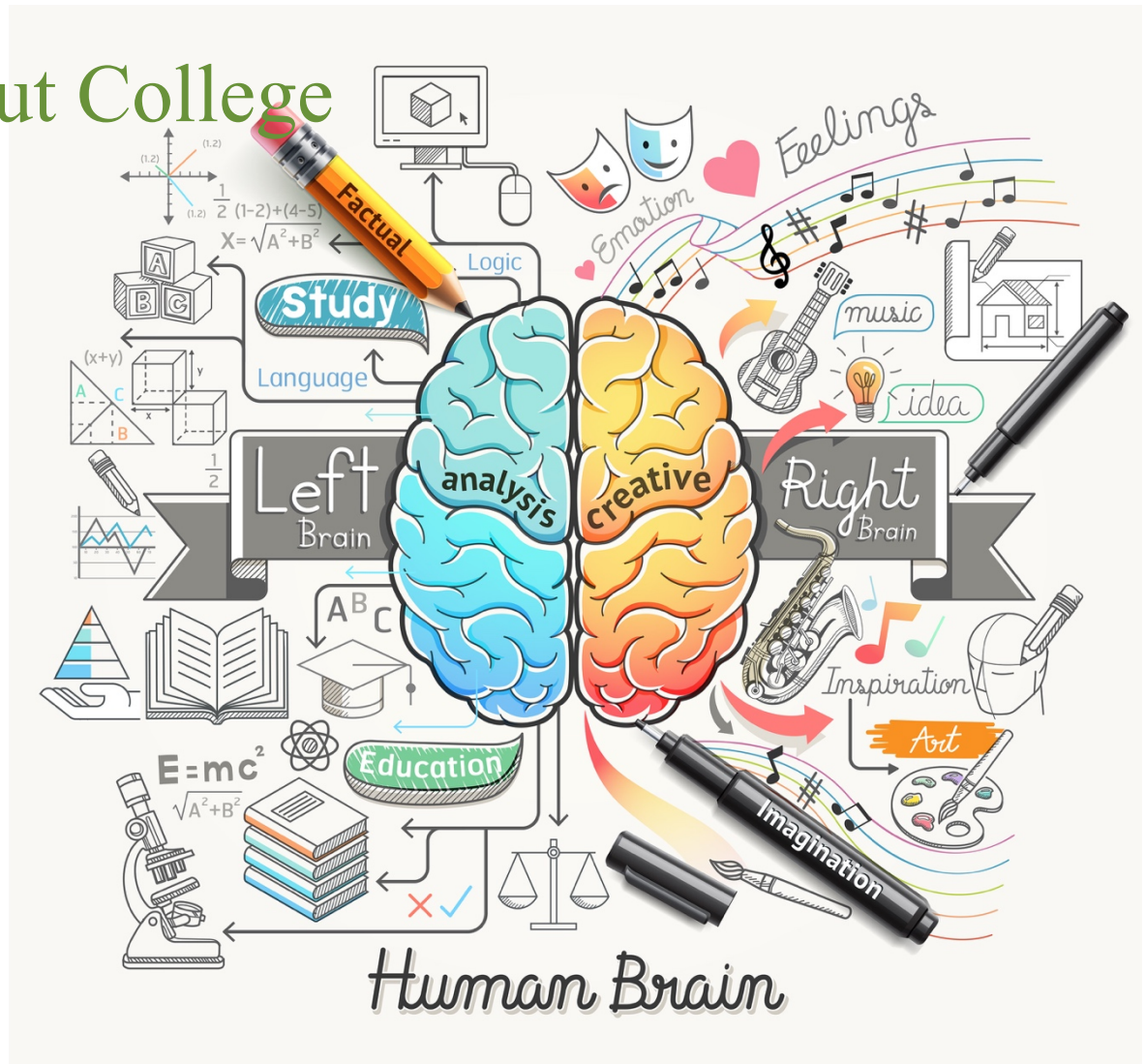
Students



Concerns about College



Concerns about College



Benefits for Students

When done well, CBE offers significant advantages for students, including:

- Increased personalization of learning
- Lowered cost to credential (US has highest direct cost in OECD)
- Increased speed to credential (2017 NCES data shows only 59% FTFT students complete a bachelors within 6 years)
- Increased access to education for marginalized groups and the “post-traditional student”.
- Removing barriers to returning to college: 2012 Gallup Poll: 36% cited family responsibilities, 28% cost of attendance, 15% job responsibilities, 11 % time it takes to complete programs as “significant” barriers



Benefits for Graduates

College graduates:

- Earn more over a lifetime (Carnevale, Rose and Cheah, 2011)
- Lower unemployment
- Health benefits (Walsemann, Bell, & Hummer 2012)
- Lower smoking rates (Baum & Payea 2004)
- Children of College graduates more likely to attend (Note: US one of the lowest) (OECD, 2014)
- Personal satisfaction of achievement
- Mastery offered by CBE programs may help improve confidence. Self regulation is an important part of motivation.



Benefits for the Country

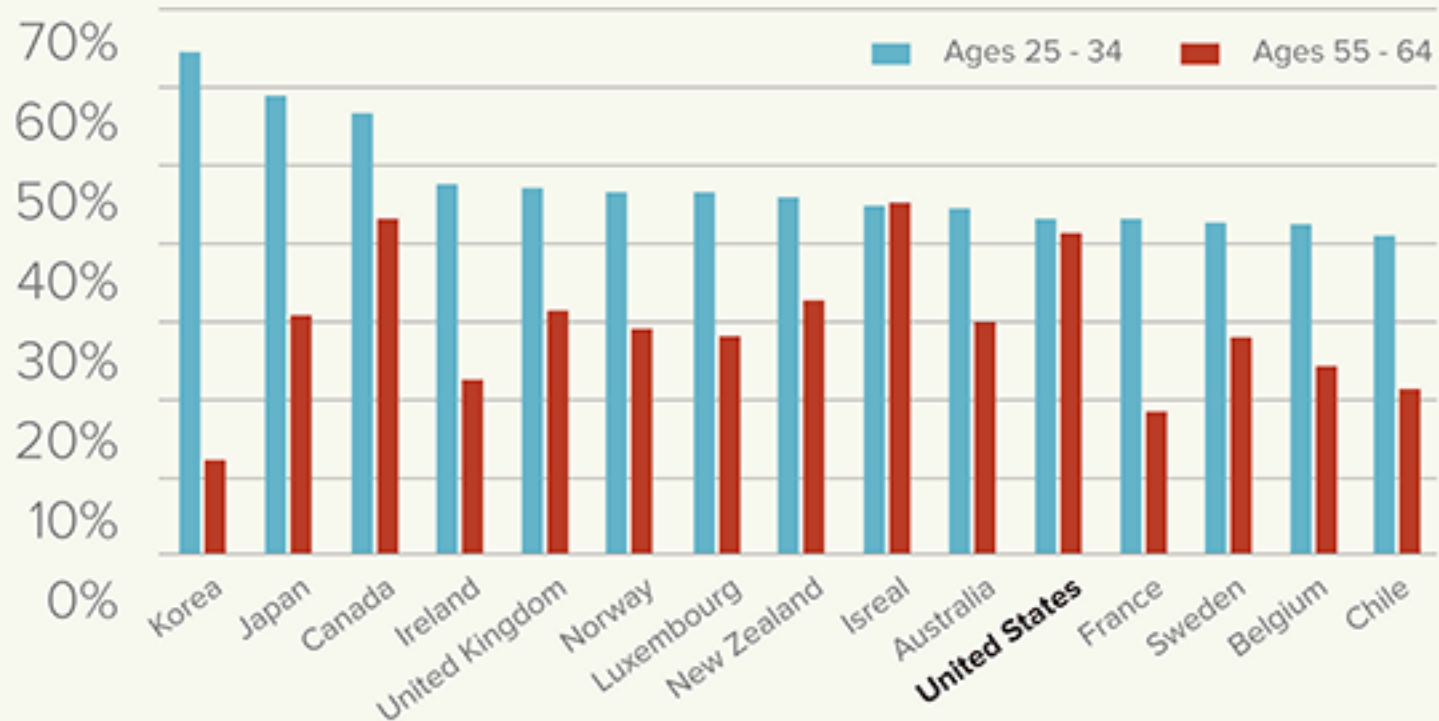
Lumina Foundation has set a goal of 60% of American adults holding a higher education credential by 2025.

When done well, CBE offers significant advantages for the country, including:

- Acquisition of higher education credentials is a measure of future GDP (OECD 2016)
- Lowered cost to credential means lower loan balances
- Increased speed to credential means more available trained employees (Lumina 2018)
- If CBE meets employer needs, employers can invest less in internal training – vital for small to medium sized companies
- Increased equity in access helps society at large (lower crime, lower cost of social services)
- Health and wellness and happiness benefits of higher education (lower cost of healthcare and lower crime rates)
- Keeping up with education attainment in other countries will be key for future growth (Lumina, 2018)



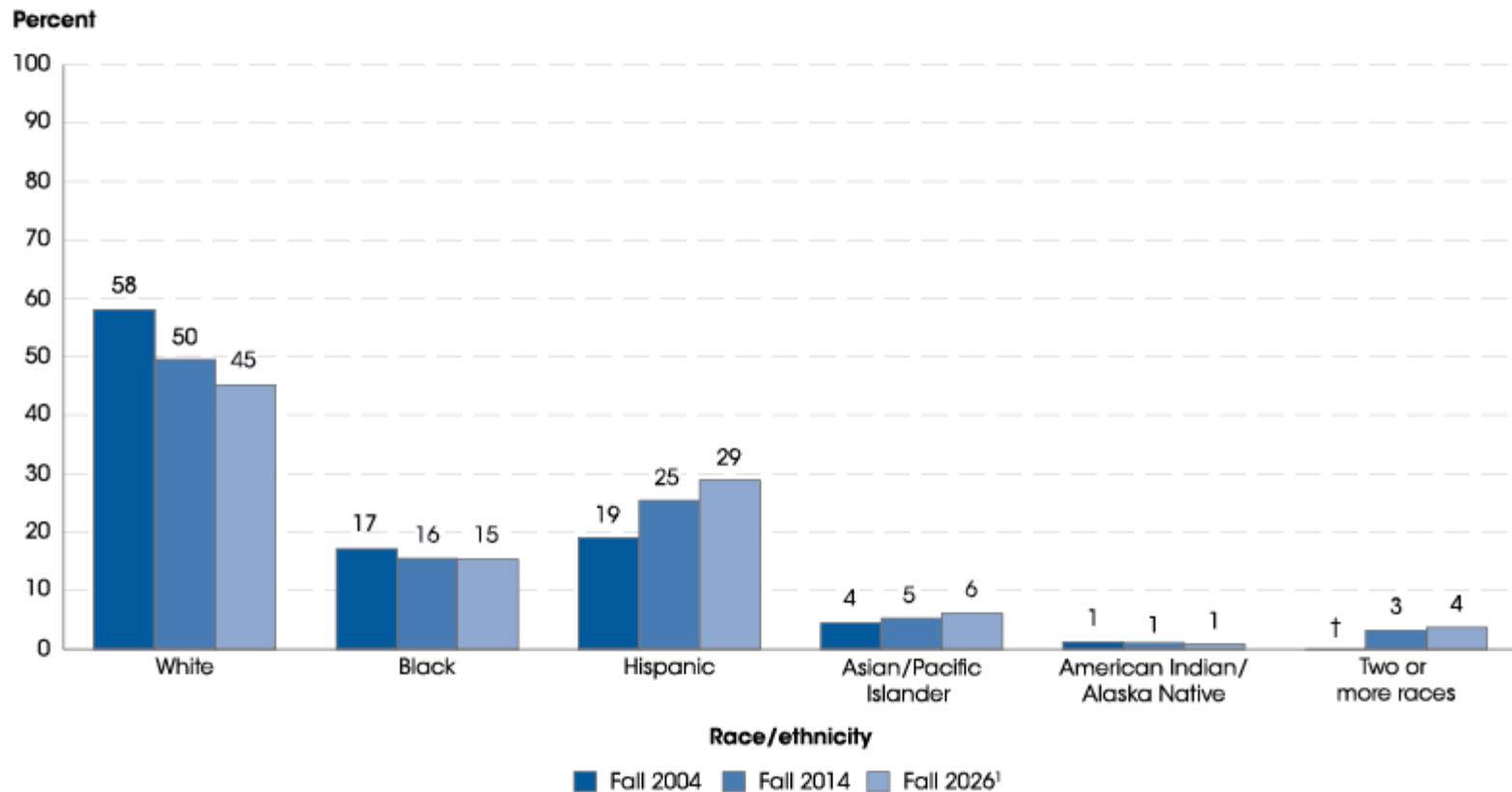
Attainment rates in the developed world



Source: OECD, Education at a Glance 2013



OECD Data, 2013. Source: Lumina Foundation 2018

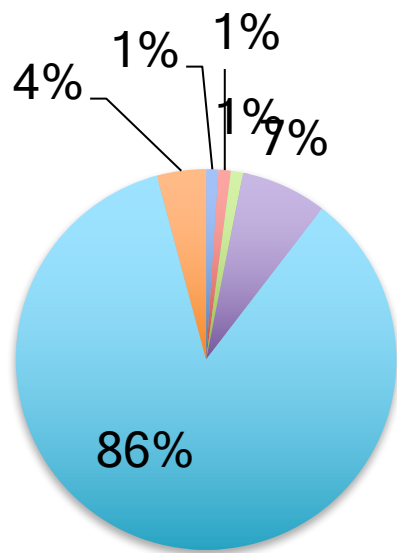


Race/ethnicity of College Students 2004/2014/2026. https://nces.ed.gov/programs/coe/indicator_cge.asp



Increase Equity in Access to College

Undergraduate Students



Hispanic/Latino

American Indian or Alaska Native

Asian

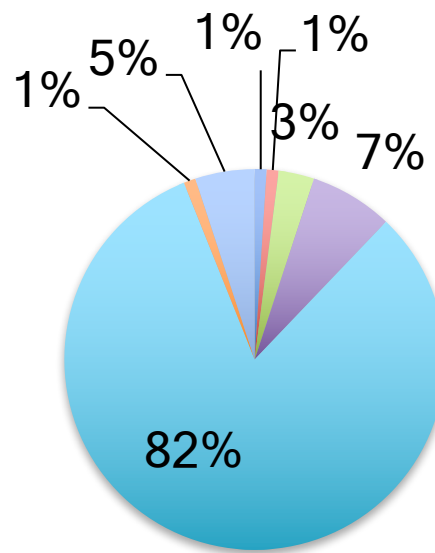
Black or African American

White

Two or more Races

Unknown

Graduate Students



Hispanic/Latino

American Indian or Alaska Native

Asian

Black or African American

White

Two or more Races

Unknown

ACHS enrollments between July 1, 2016 and June 30, 2017.



Benefits for Institutions

When done well, implementing and revitalizing CBE programs offers significant opportunities, including:

- Examining existing assumptions of teaching and learning
- Invigorate staff and faculty if handled well (Kezar's Change theories very useful here)
- Work done on creating competencies can be looped back to traditional online and on-campus programs
- Research for CBE applies to traditional on campus and online programs too: Employer feedback, Advisory Council input – don't silo this information
- Forces need for integration IT systems: LMS, SIS, CMS that helps all areas of institution
- New revenue sources
- CBE programs can provide a wealth of data on student and faculty behavior



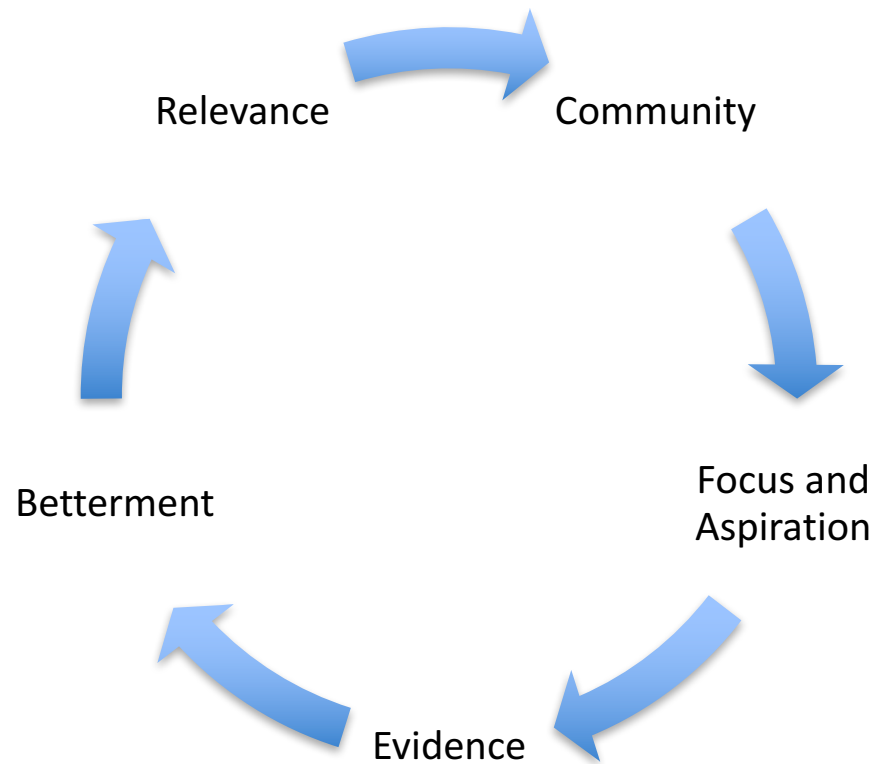
Supporting Institutional Change

Kezar model

- Establish vision
- Examine landscape and conduct capacity analysis
- Identify & analyze challenges and opportunities
- Choose strategies
- Determine readiness for action
- Begin implementation
- Measure results
- Disseminate results and plan next steps



Use CBE process to Trigger Institutional Cycles of Improvement



Connect with Organizations: C-Ben

- Goals:
 - Grow demand, Build capacity, Remove barriers
 - Quality frameworks, collabotories, conference (exchange) in September for members
 - Very collaborative
 - Encourage membership if you are thinking about CBE



Key Features for Successful CBE

Lots of models – look at the options and think about your mission and infrastructure when selecting what to pilot.

Johnstone and Soares (2014) focus on just four key aspects for success, stemming from the work done by WGU in 2013, sharing their model with eleven community colleges across the US:

- A degree that reflects robust and valid competencies
- Learners can learn at their own pace and are supported in their learning
- Effective learning resources are available at any time and are reusable
- Assessments are secure and reliable



Public Agenda 2015:

Shared Design Elements and Emerging Practices of Competency Based Education Programs:

- Clear, cross cutting and specialized competencies
- Coherent, competency driven program and curriculum design (alignment to industry/national norms)
- Embedded Process for Continuous Improvement
- Enabling and Aligned Business Processes and Systems
- Engaged Faculty and External Partners
- Flexible Staffing Roles and Structures
- Learner-Centered
- Measurable and Meaningful Assessments
- New or Adjusted Financial Models
- Proficient and prepared graduates



Key Features for Successful CBE

- Robust and valid competencies: Context is vital
- Learning pace is variable to meet student: Competencies replace the Carnegie Unit
- Students are supported in their learning at their pace: Context
- Effective learning resources are available any time and are reusable
- Assessments are secure and reliable: Mix objective and project based
- Technology in place to support interaction and efficient administration: Can't sustain a program that costs a fortune to administer
- Funding: Well thought out ways to use Title IV (terms? Subscription periods?) or self pay



Robust and Valid Competencies?

- Don't just take existing courses and remove the time element
- Two approaches:
 - Start from scratch working on competencies; or
 - Disaggregate existing programs/courses to determine core competencies and adapt



Learning Pace is Variable to Meet Student

Subscription period most common model: Choose a length that works for your learners, competency groupings & infrastructure: 3 – 6 months common

Note: Grading of assessments has to be fast to avoid holding up students



Effective learning resources

- Online is most common model. What LMS works with CBE best?
 - Canvas?
 - D2L?
 - Moodle?
 - Custom?
- Available any time & reusable
- Adaptive & personalized (Acrobatiq, Lumen Learning, CogBooks, Smart Sparrow)
- OER a big player but custom content likely to be required



Assessments are secure and reliable

- Do the assessments demonstrate MASTERY of COMPETENCIES
- Not just exams but authentic assessment
 - Authentic in the context in which graduate will use knowledge and skills
 - Case studies
 - Research and writing
 - Oral communication
 - Examples of direct measures include projects, papers, examinations, presentations, performances, and portfolios (USDOE Dear Colleague Letter 2013)
- Rubrics (norming and calibration for reliability)
- Identity verification essential (ProctorU, Proctorio, others) Live vs tech-based: Effect on success
- Academic honesty checks essential (Vericite or TurnItIn)



Technology

- IT is an integral part
- Meet students where they are: Mobile, Texting
- LMS, SIS, & Communication tools all need to talk to each other
- Make vendors your partners: Success is contagious
- Create alliances with other institutions using the same vendors
- Make it fun but keep focus on learning



Why Adaptive or Personalized Learning?

- Post-traditional students bring a wide range of backgrounds to their studies
- People learn at different speeds
- Personalized learning enhances completion, retention, and persistence



Funding

1. Self Pay (helps with 90/10)
2. Title IV available for CBE if:
 - Convert back to credit hours model (WGU)
 - Approved as direct assessment
3. Employer paid

PROSPER ACT – Track its progress and get involved

Remember: VALUE is key no matter who is paying



Alignment with Employers & Industry & Trends

- Advisory councils more important than ever: Include a range of employer sizes and types
- Industry boards & standards are critical
- Linked learning at K12 a useful model
- Don't forget the big picture – we are training students for jobs that do not exist yet in industries that may not exist yet – look to futurists and include focus on SKILLS not just KNOWLEDGE
- Can your graduates think critically? Pitch ideas? Present? Influence?



Possible Models

- Big players: WGU, SHNU, University of Wisconsin Extension, Capella Flex: Each has pros and cons
- Pull apart your systems to determine what is feasible for you and your organizational capacity
- What works for your mission?



PROSPER ACT

- Reauthorization of the HEA Act
- Introduced December 1, 2017
- Demonstrates full support for competency based education
- Current draft (at time of writing) specifically removes “regular and substantive interaction” requirement for CBE - but leaves some in the definition of CBE
- Critics worry it could open the field to “players” (New America)
- Some indication that it won't pass before the elections (i.e. this year)



The Opportunity

- DEAC schools have been providing one on one support for 100+ years
- DEAC schools have an opportunity to contribute to the CBE industry, but CBE rollout needs to be
 - Careful
 - Planned
 - Published
 - Collaborative
- DEAC could highlight DEAC Institutions' work in CBE – start by separating benchmarks for CBE and Correspondence.
- Avoid appearance of considering them interchangeable in general
- Create a collaboration of DEAC schools offering CBE to share best practices





Questions?





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Resources

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