Implementing Competency-Based Education Models in Community Colleges: Findings and Implications from the Evaluation of a TAACCCT Grant

Presentation at the ACF meeting on “Developing and Assessing Competencies for Teachers and Caregivers Serving Infants and Toddlers”

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Presentation Overview

• CBE models in postsecondary education

• Background on the CBE grant and evaluation
  – Trade Adjustment Assistance Community College Career Training (TAACCCT) grant program
  – “Adapting and Adopting Competency-Based Education (CBE)” consortium grant

• Overview of evaluation findings
  – Implementation
  – Participation
  – Outcomes

• Implications for competency-based approaches in other fields
CBE Models in Postsecondary Education
Common Characteristics of CBE Models

• Programs include measureable, job-relevant competencies
  – Learning outcomes (competencies) must be precisely defined and objectively measurable
  – Competencies must reflect skills necessary for a given position or field, especially as articulated in federal, state, and industry standards

• Learners demonstrate competency through valid assessment
  – Assessments must be clearly linked to required competencies and accurately measure mastery; must be secure and reliable
  – Learners demonstrate mastery of each competency before moving on to the next and advancing through a course or program
Characteristics of CBE Models (continued)

• Variable pacing with potential acceleration through the educational program
  – Flexible pacing not based on “seat time,” but students’ ability to demonstrate mastery
  – Pacing guidelines used to ensure students’ timely progress

• Need for high quality materials and timely support
  – Instructional designers and student support staff play important roles
  – Learning management systems and other technological platforms must be user-friendly
## Comparison of Traditional and CBE Models

<table>
<thead>
<tr>
<th>Traditional postsecondary programs</th>
<th>CBE programs</th>
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</thead>
<tbody>
<tr>
<td>Time based progress; fixed entry and completion dates</td>
<td>Mastery based progress; flexible entry and completion dates</td>
</tr>
<tr>
<td>Course and exam content largely determined by faculty</td>
<td>Course and exam content aligned with competencies required for a given field</td>
</tr>
<tr>
<td>Ad hoc, learner initiated supports</td>
<td>“Holistic” (sometimes intrusive) supports triggered as needed</td>
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Background on the Grant and Evaluation
TAACCCT Grant Program

• USDOL invested $2 billion over 4 years in community colleges and other postsecondary institutions
  – Grants to consortia and individual colleges (totaling nearly 270 colleges) in all 50 states;
  – Range from $2 million (individual) to $25 million (consortia)

• Goal is to build workers’ skills and credentials, meet employer demand for skilled workers

• Target TAA-eligible and other adult workers

• Requirements:
  – Short-term programs (2 years or less) in high-demand fields
  – Partnerships with employers
  – Rounds 2-4 required to have external evaluation
# Grant Overview: Adapting and Adopting CBE

## Who?
- Austin Community College (Austin, TX)
- Broward College (Ft. Lauderdale, FL)
- Sinclair Community College (Dayton, OH)
- Western Governors University (WGU)

## What?
- $12 million consortium grant to “adapt and adopt” WGU competency-based model in community college IT programs
- CBE curriculum development and delivery standardized and collaborative; most courses fully online and flex-paced
- Enhanced and technology supported student services, academic and career coaching
- Adult students progress independently through stacked and latticed IT credentials (certificates, certifications, degrees)

## How?
- Documented in Mathematica implementation and outcomes studies (Y1 and Y3 implementation reports, practice brief, final outcomes/impact study, executive summary)
Evaluation Findings
Implementation Findings: Curriculum

• CBE curriculum development was more collaborative and more standardized than traditional models and relied heavily on instructional designers.

• CBE curriculum delivery was primarily online and standardized to reduce students’ learning curve; assessments were not entirely online.

• More strategic “chunking” of content may improve student progress.
Implementation Findings: Learner Supports

• **Student “fit”** with CBE models was critical for success, so colleges screened students
  – Intake included readiness assessments, personal interviews
  – “High-tech/high-touch” approach put students on right path

• **Coaching models varied but evolved to be similar; tools supported coaches’ work** (for example, data reports, pace charts)

• **Career and transition supports at different levels of evolution**
  – All leveraged college career services
  – Other activities included resume prep, mock interviews, different types of job fairs
Implementation Findings: Industry/Workforce Engagement

• Industry partners informed curriculum development, including identification of competencies; new programs developed in response to employer input

• Partnerships addressed local and regional economic conditions; often built upon existing relationships

• Engagement with workforce agencies was less prominent (especially at ACC and BC), but purposes were largely similar (recruitment and career supports)
Participation Findings

Source: College administrative and state wage record data.

Note: Figure shows percentage of participants with the indicated characteristic, by college and overall. Number of participants at each college was as follows: ACC: 814; BC: 509; and SCC: 4,233.
Outcome Findings

• Consortium-wide, 35 percent of participants completed a CBE program; participants completed programs quickly
  – Industry certification preparatory courses took, on average, less than two terms to complete
  – Certificates and degrees took approximately four terms

• Employment rates started and remained high; wages for employed participants increased at a higher rate than the national average

• Differences in participants’ and nonparticipants’ credential completion rates varied by college and may reflect unobservable differences between groups
Implications for CBE in Other Fields
General Implications

• Postsecondary institutional culture and structures pose challenges for CBE implementation, but programs can be launched without first resolving all these issues

• CBE curriculum development and delivery require a high degree of standardization; industry standards can serve as a foundation

• CBE models require relatively high level of academic preparation and maturity; should be one of multiple options for those seeking education and training

• Enhanced learner supports may help students, but they may be the most difficult program components to structure and sustain
Implications for Infant/Toddler Teacher and Caregiver Programs

• Postsecondary institutional cultural and structural challenges

➤ Where would I/T programs be offered and what institutional challenges might apply?

• Standardization of CBE curriculum development and delivery

➤ To what extent do federal, state, or industry standards fully articulate required job competencies?

• Expectations for participants’ academic preparation and need for enhanced learner supports

➤ What academic and other supports would the target population need and how could they be provided?
Thank You!

Questions?

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Links to CBE Research Products

• **Competency-Based Education in College Settings: How Students, Institutions, and Workforce Partners Fare** is a two-page fact sheet highlighting findings and policy recommendations (2016)

• **Implementation and Outcomes of Competency-Based Education in Three Community Colleges: Findings from the Comprehensive Evaluation of a TAACCCT Grant (Executive Summary)** highlights implementation and outcomes findings (2016)

• **Outcomes of Competency-Based Education in Community Colleges: Summative Findings from the Evaluation of a TAACCCT Grant** describes participants’ outcomes based on a comparison group design (2016)

• **Implementation of Competency-Based Education in Community Colleges: Findings from the Evaluation of a TAACCCT Grant** details how the consortium worked with Western Governors University (WGU) to adapt and adopt the WGU model of online, competency-based education (2015)

• **Best Practices in Competency-Based Education: Lessons from Three Colleges** highlights the promising practices from the consortium’s experiences (2015)

• **Developing Competency-Based Program Models in Three Community Colleges** provides the first analysis of program implementation and documents the models near baseline (2014)