MAKING THE CASE FOR COMPETENCY-BASED EDUCATION

Webinar 3 of 4
Aligning for Learning: Evaluating Connections
THE “MAKING THE CASE” WEBINAR SERIES

This is the third of four webinars in a series about Making the Case for Competency-Based Education, designed to help institutions use data to demonstrate the value of CBE programs for their students and continuously improve program quality.

Produced by American Institutes for Research and its partners Public Agenda, the Competency-Based Education Network, and the National Institute for Learning Outcomes Assessment, Making the Case is made possible by the generous support of Lumina Foundation and other national philanthropies.
THE “MAKING THE CASE” WEBINAR SERIES

1. Getting Started with Evaluation
2. Evaluation for Improvement
3. The Role of Learning Assessment in Evaluation
4. Communicating Evaluation Findings
YOUR HOSTS

Natasha Jankowski
National Institute for Learning Outcomes Assessment

Kelle Parsons
American Institutes for Research

Matt Soldner
American Institutes for Research
We’re glad you – and more than 80 of your closest friends – have joined today!

Have a question? Just type it in the “Question” box. And, any time we ask you to participate in the “Chat,” we mean “Question.”

A copy of these slides and a recording of the webinar will be available next week at http://bit.ly/cbe-at-air
WHAT YOU’LL BE ABLE TO DO

- Describe a framework that can guide your thinking about aligning program competencies, curriculum, learning design, and assessment.

- Leverage data to evaluate alignment, strengthening program design and making a stronger case for how CBE benefits learners.
Let’s jump in!
NILOA's mission is to discover and disseminate effective use of assessment data to strengthen undergraduate education and support institutions in their assessment efforts.

- Surveys
- Web Scans
- Case Studies
- Focus Groups
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- Resources
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- Assessment Event Calendar
- Assessment News
- Measuring Quality Inventory
- Policy Analysis
- Environmental Scan
- Degree Qualifications Profile
- Tuning

www.learningoutcomesassessment.org
COMPETENCY-BASED EDUCATION AND ALIGNMENT

- Competency-Based Education is about the DOING of learning.
- Assessment of learning takes on significant prominence in the enterprise.
- Without clear alignment, using the information from assessment to make meaningful programmatic changes becomes increasingly difficult.
CHAT BOX TIME!

HOW ARE YOU DEFINING OR ADDRESSING ALIGNMENT?
In CBE programs, assessment is the mechanism by which we validate learning.

- It is not only a design element, but is the basis of design.
- It is realized by alignment.
Welcome to the Competency-Based Education Network (C-BEN) Design Planner

where C-BEN institutions are helping other institutions innovate responsibly by creating high-quality competency-based education programs, capable of serving many more students of all backgrounds.

Access Program Design Resources
CBE DESIGN PLANNER

- Indicator 1: Assessments measure learning and application of learning into multiple and novel contexts.
- Indicator 2: Assessments are frequent, informal and formal, formative and summative.
- Indicator 3: Assessments are rigorous with clear and valid measures.
- Indicator 4: Assessments provide real-time feedback for reflection and refinement.
Competency

- Learning Activities
- Assessments
- Evaluative Criteria
SELECTIVE ATTENTION TEST

Instructions
Count how many times the players wearing white pass the basketball.
IT’S ABOUT THE DOING

- Unique position of validation of learning for CBE.
- When our focus is on learning and not seat time, what happens to how we assess?
- Not about measures or types of assessment used, but about alignment to the competencies in question.
ALIGNMENT IN CBE

- Consensus on competencies – not just what they are, but what they mean
- Consensus on what counts as demonstration of competency attainment
- Consensus on integrated demonstration of multiple competencies

But what are the audiences we need to involve to reach consensus?
HOW DO WE GET THERE?

- Mapping
- Scaffolding
- Feedback
- Backwards-design
WHERE DOES IT POSITION US TO GO?

- Prior-learning assessments
- Alternative transcripts
- Links to external measures
- Communication with employers
- Selection of assessments
- Communication with students
National Institute for Learning Outcomes Assessment

January 2013

Equity and Assessment:
Moving Towards Culturally Responsive Assessment

Erick Montemayor and Natasha A. Jarecki

Occasional Paper #29
www.nilaoutcomesassessment.org
How do we ensure alignment between our assignments and a given competency for a learning experience?

How do we create assignments and activities that will elicit student demonstration of specific competencies?

How do we know that we have mapped our assignment to evaluative criteria?
ALIGNMENT

Curriculum → Co-Curriculum

Program Competencies → Curriculum Design

Learning Design → Assignments
ALIGNMENT

Curriculum → Co-Curriculum

Program Competencies → Curriculum Design

Learning Design → Assignments

ON WHAT BASIS CAN WE SAY THESE ARE ALIGNED?
ALIGNMENT

- How do learning experiences build towards mastery through repetition and increasing expectations for particular competency?

- How do assignments and activities elicit learner demonstrations of a specific competency?
Consensus

Alignment

Learner-Centeredness

Communication
We can also use our skills in research and evaluation to be systematic in answering questions about alignment, both to improve our programs and to make the case for CBE.
EVALUATION FOR IMPROVEMENT AND CASE-MAKING

Program Improvement
Formative Evaluation

- How can I understand alignment, not just within a single learning sequence, but across my entire program?

Case-making
Summative Evaluation

- How can I demonstrate my program is externally aligned and yields benefits for learners and employers?
FOUR STEPS TO USING EVALUATION TO UNDERSTAND INTERNAL ALIGNMENT

1. FOCUS on a core competency.

2. TRACE competency forward through program.

3. MEASURE student performance.

4. EVALUATE alignment between assessment results within program, acting on gaps and mismatches.
Program design team following cohort of students in Health Informatics AA program.

How can we verify the alignment of competencies and assessments within a program?

**Step 1:** Identify a focal competency.
Alignment and Assessment for Program Improvement: Tracing and Measurement Steps

- **Step 2**: Trace where the competency appears later in substantively similar form.
- **Step 3**: Make plan for capturing data from subsequent, relevant assessments.
Alignment and Assessment for Program Improvement:
One Possible Outcome

Introductory Composition Sequence

Competency: How to construct a proper paragraph

80

Human Biology
Assignment: Lab Report

100% score at achieved or higher on composition element assessment rubric

Intro. Health Informatics
Assignment: Memo to Supervisor

50% score at achieved or higher on composition element assessment rubric

Leadership in Health Professions
Assignment: Reflective Essay

75% score at achieved or higher on composition element assessment rubric
Alignment and Assessment for Program Improvement: Taking Action on Alignment Data

- **Step 4:** Take appropriate action on emerging alignment data.

Previous attendees know we have two tools to at our disposal:

**Root cause analysis**, which helps us identify where to take action;

**The Plan-Do-Study-Act cycle**, which gives us a framework for being systematic about our improvement action.
Alignment and Assessment for Program Improvement: Possible Root Causes

There are several potential root causes:

- Competencies are distinct;
- Assessments are not aligned to competency;
- Mastery has been poorly defined.

How can we use data to better understand which may be at work?
Alignment and Assessment for Program Improvement: “Plan” and “Do” Steps

**PLAN**

Explore key dimensions of alignment between introductory composition sequence and three core courses later in the program.

**DO**

For each cohort member, gather assessment from each of the four measurement opportunities and explore patterns in the data using a simple table.
Alignment and Assessment for Program Improvement: “Study” Step

<table>
<thead>
<tr>
<th>Final Paragraph Assessment Score</th>
<th>“Achieved” after Initial Biology Assessment</th>
<th>“Achieved” after Initial Leadership Assessment</th>
<th>“Achieved” after Initial Informatics Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-84</td>
<td>100%</td>
<td>45%</td>
<td>0%</td>
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<td>85-89</td>
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</tbody>
</table>

Is one (or both) of our assessments presenting too little challenge to learners? (Perhaps.)
Alignment and Assessment for Program Improvement: “Study” Step

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If we are confident in our judgment of “achieved” in the leadership module, is our threshold for mastery in composition too low? (Probably.)
Alignment and Assessment for Program Improvement:
“Study” Step

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Even if we accept our standards for mastery in composition are too low, do these results suggest we have a substantial mismatch between key design elements in this part of the program? (Yes.)
Alignment and Assessment for Program Improvement: “Act” Step

ACT

Consider redesigning the learning and assessment activities in the Informatics course’s “Memo to Supervisor” assignment.

OR

ACT

Consider whether an incremental increase in the threshold for mastery in the composition sequence is indicated.
THIS SAME APPROACH EXTENDS TO EXTERNAL ALIGNMENT

1. FOCUS on one or more core competencies required by employers.

2. TRACE backward through program to design create curricular and co-curricular learning opportunities and authentic assessments.

3. MEASURE student performance.

4. EVALUATE alignment between in-school assessment results and data held by the employer.
Employer Requirement

“Effective Writer”

Program of Study

Writing Demonstrations

Introductory Composition

Biology Lab

Health Informatics

Leadership in Healthcare

Capstone Course

Post-Completion

HR Scoring of Cover Letter

Mgr’s Review of Memo to Hospital Leadership

Salary
THREE IMPORTANT QUESTIONS ABOUT EXTERNAL ALIGNMENT

**Program Improvement**

1. Do summative measures of student performance (e.g., Capstone Course) have a relationship among my graduates and measures that are meaningful to the employer?

**Case-Making**

2. Do my graduates have substantially different results on measures that are meaningful to the employer than workers prepared in other ways?

3. Do my graduates have substantially different results on measures that are meaningful to themselves than workers prepared in other ways?
7 KEYS TO SUCCESS IN EXTERNAL ALIGNMENT

- Collaborative relationships with relevant employers
- A shared understanding between the institution and the employer about the value of a “talent pipeline” between the parties
- A thorough understanding of core competencies the employer requires
- Backward design of program content to employer needs
- Systematically capturing data from valid assessments aligned to competencies
- Employer identifies and captures relevant workplace assessments of employee performance
- Employer agrees to share data about graduates for program improvement, and comparison group for case-making
Aligning, and evaluating alignment both internally and externally, can be (and has been) done ... just ask us how!
WHAT YOU CAN DO NOW

- Begin to describe a framework that can guide your thinking about aligning program competencies, curriculum, learning design, and assessment.

- Begin to leverage data to evaluate alignment, strengthening program design and making a stronger case for how CBE benefits learners.
Q&A

Questions after today?
Email us at PostSecCBE@air.org