Competency-Based Education and Assessment: Help Is on the Way

TESC National Institute on the Assessment of Adult Learning

June 18, 2014
What is all of the fuss about?

- National concern about rising costs and **accountability** in higher education
  - Employers’ changing work force needs and their concerns about college grads’ preparation – Colleges are concerned about high school grads’ preparation.
- National push for degree completion
- New technology and innovation
- Interdependent world, changing demographics
- **What does a degree mean?**
Crisis in Higher Ed?

- Academic quality/ perceived value of college degree by:
  - Students
  - Employers
- Cost
“The American public and senior administrators at U.S. colleges and universities overwhelmingly agree that higher education is in crisis, according to a new poll, but they fundamentally disagree over how to fix it and even what the main purpose of higher education is.”

*Time*, Oct 18, 2012
Lumina/Gallup Survey

America’s Call for Higher Education Redesign – Feb 2013.

87% of Americans think students should be able to receive college credit for knowledge and skills acquired outside the classroom.

75% would be more likely to enroll in higher ed if they could receive credit for what they already know.
Lumina/Gallup Survey

America’s Call for Higher Education Redesign – Feb 2013.

70% of Americans think that if a student demonstrates that they have mastered material in less time, the student should get credit for a course without completing the full session (typically 16 weeks)
The Big Shift

Old paradigm: expand ACCESS to higher education

New paradigm: offer high-quality education that is affordable

- With fewer resources
- With a more diverse and “non-traditional” student body
- With better results/graduation rates
- In the context of MOOCs
Learning is now what is important, - not how, when, or how long it took to learn: CBE and PLA!
Why Competencies?

Quality

- Clearly define what graduates are expected to know, do
- Communicate these expectations to students, employers

Cost Saving

- Direct Assessment model offers potential cost saving through technology-based curriculum, assessment, and student support
Definition of Competencies

- Beyond “learning outcomes”
- Not just skills and knowledge, but also ability to apply learning in different situation
- Specific in terms of levels of performance
- Objectively measurable
Many Models of Competency-Based Degrees

Variations in terms of:

- Ties to the credit hour
- Types of learning activities
- Role of faculty
- Methods of assessment
Everyone has something to say.

- Employers
- Defined Comps
- K12
- Colleges
- Innovators and Professional Certifications
National Efforts

- Lumina
  - Public Agenda – Learning Communities and C-Ben
  - CBE Jumpstart
  - New America Foundation/Amy Laitinen – collaboration with DoE on policy
  - DQP

- Gates
  - Community College Consulting
  - “Incubator”
C-BEN Participants

- Antioch U
- Argosy U
- Brandman U
- Broward College
- Capella U
- Charter Oak State College
- City U of Seattle
- DePaul U
- Excelsior College
- Lipscomb U
- Northern Arizona U
- Salt Lake CC
- Southern New Hampshire U
C-BEN Participants

- Texas Higher Ed Coordinating Board (Texas A&M U-Commerce and South Texas College)
- U of Maine at Presque Isle
- U of Maryland University College
- Westminster College
- Kentucky Community & Technical College System
- University of Wisconsin-Extension
Incubator Participants

- Antioch University
- Austin CC
- Central Wyoming College
- Empire State College–SUNY
- Excelsior College
- Kentucky Council on Postsecondary Ed/Commonwealth College
- Paul Smith’s College
- University of Maryland-University College
- University of New England
- Cuyahoga Community College – 2015
Jumpstart Participants- Rd 1

- Kalamazoo Valley Community College
- Los Angeles Trade Technical College
- The New School
- Golden Gate University
- LeTourneau University
- IUPUI
- Valdosta State University
- Minnesota State Colleges and University System
Jumpstart Participants- Rd 2

- Community College of Philadelphia
- Davenport University
- Pace University
- University of Toledo
- Granite State College
- Missouri Department of Higher Education/Missouri Community College Association
CAEL’s CBE Jumpstart

- Training
- Technical Assistance
- CBA through LC.org
- Research and Documentation
CBA Through LC.org

- LC.org to assess competencies tied to degree framework based on DQP
  - Work with SME’s to develop competency framework and related rubrics for assessment
- Five institutions will commit to
  - Sending 10 business admin students to LC.org
  - Accepting dual transcript showing credit hours and demonstrated competencies
Research and Documentation

- Training: Pre- and post-surveys for participants on their views of CBE/CBA
  - Follow up with 10-12 per year
- TA: Publish 3-4 case studies per year on CBE programs
- Dual transcript: Interviews with institution personnel before and after transcripts
Academic Consideration

- Where to start? A new course/micro credential (incremental), program, certificate, degree or institutional shift? PLA? Model: Hybrid or D.A.
- Faculty roles?
- Faculty governance and organization?
- Framework? Existing, new, or combination?
- Working with community, employers?
- Ensuring we fulfill our mission
- Transfer and articulation
Many Faculty Roles

- Determining the learning outcomes (competencies, skills, knowledge sets) that students must achieve in order to earn the credential (micro, certificate, or degree).
- Determining how best to demonstrate the learning
- Designing the assessments/rubrics
- Ensuring link with K12, employers, receiving colleges
Many Faculty Roles

- Locating the learning resources, materials, texts, exercises, etc.
- Mentoring, coaching students
- Determining how competencies fit throughout the curriculum, levels of competencies (proficiency to mastery), overlap/reinforcement of competencies
- Teaching/Assessing
Administrative Considerations

- Infrastructure concerns: SIS
- How will we produce a transcript?
- Business model: Will the subscription model work for us? Or, should we keep with our current tuition structure and credit hours?
- Permissions: DOE, Regional Accrediting Body, State
- Resources for planning: such as providing release time for faculty, applying for grants, etc.
Direct Assessment: Basic Model
Direct Assessment Elements

- Degree based on student demonstrating a predetermined set of competencies
- Student learns through a variety of modes
- Faculty serve as mentors and advisors
- Separate faculty as assessors
- Competency-based assessments, with format dependent on the competency assessed
- Students complete assessments at their own pace
- Start at any time
## Direct Assessment Programs

<table>
<thead>
<tr>
<th>Western Governors University</th>
<th>KCTCS Learn on Demand</th>
<th>SNHU College for America</th>
</tr>
</thead>
<tbody>
<tr>
<td>N. Arizona U Personalized Learning</td>
<td>Westminster College</td>
<td>University of Wisconsin Extension</td>
</tr>
<tr>
<td>Excelsior School of Nursing</td>
<td>Iron Range Engineering</td>
<td>…and more in development</td>
</tr>
</tbody>
</table>
Students demonstrate mastery of competencies by completing tasks
  - Project-based learning
  - Authentic, engaging and relevant
Students can revise and resubmit until they demonstrate mastery
Students may also take third-party, nationally normed assessments
**College for America Program**

*Students must demonstrate 120 Competencies for AA Degree in General Studies available through employer-sponsored programs only.*

<table>
<thead>
<tr>
<th>Foundational Knowledge</th>
<th>Personal and Social Skills</th>
<th>Content Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Skills</td>
<td>Personal Effectiveness</td>
<td>Science, Society, and Culture</td>
</tr>
<tr>
<td>Creative and Critical Thinking</td>
<td>Ethics and Social Responsibility</td>
<td>Elective</td>
</tr>
<tr>
<td>Quantitative Skills</td>
<td>Teamwork and Collaboration</td>
<td></td>
</tr>
<tr>
<td>Digital Fluency and Information Literacy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SNHU College for America

- 20 Task Families
  - 5 to 8 competencies per family
- Three Task Levels
- Each Task comes complete with:
  - Overview
  - Instructions
  - Resources for skill-building
  - Rubric
Rubrics are tied to specific deliverables (such as papers, projects, spreadsheets) designed to demonstrate the competency.

Each Rubric has multiple criteria (the specific learning outcomes) on which the student is rated:

- YES
- Not Yet
UW Flexible Option

- UW Colleges are offering:
  - Associate of Arts & Sciences Degree*
- UW Milwaukee is offering:
  - RN to BSN
  - Biomedical Sciences Diagnostic Imaging Degree Completion Program
  - Bachelor in Information Science and Technology
  - Business & Technical Communications Certificate

*Fulfills Gen Ed requirements.
3-Month Subscription Model

- Academic Success Coach – points to all materials for prep, mentors, helps through processes (even financial aid)

Subscription model levels:

1. “All you can learn” so you can complete as many competency sets as possible

2. Focus on a single competency set (for a slower, less expensive pace)

A competency set is a grouping of competencies that together make up the skills and knowledge in a specific education area
Hybrid Elements

- Multiple pathways to a credential
  - Direct assessment
  - On-the-ground traditional courses
  - Prior learning assessment

- Conversion of competencies to credit hours
Examples of Hybrid Models

- DePaul University School for New Learning (Chicago)
- Lipscomb University (TN)
- University of Maryland University College
- Charter Oak State College (CT)
Lipscomb University’s Approach

- Uses behavioral assessments (including simulations) similar to what employers use in making high stakes hiring decisions.
- First university to use the Polaris® competency model system.
- **CORE** = Customized, Outcomes-Based, Relevant, Evaluation
Lipscomb University – CORE

- Degree program: CPS in Organizational Leadership
- 15 relevant competencies are assessed (like a pre-test)
- Students benefit from a Customized Development Plan for target competencies (for personalized learning).
- Still uses a course structure
The Lipscomb program is designed to appeal to both degree-seeking and those adults seeking e-Credentials.

Taken from Lipscomb University Website, March 2014
Competency is a persistent pattern of behavior associated with effective performance resulting in a positive organizational consequence.

Active Listening

- direct eye contact, verbal and non-verbal affirmations (nodding, “uh huh’s”), paraphrasing, smiles, summarizing, open probe questions, etc.

*Taken from Lipscomb University Website, March 2014*
Competency-based Assessment
Assessing Competencies

SAMPLE COMPETENCIES

- Can use logic, reasoning and analysis to address a basic business problem
- Can write a business memo
- Can use a spreadsheet to perform calculations
- Can synthesize material from multiple sources to reach conclusion
- Can evaluate information and its sources critically
Example of Assessment

OVERVIEW: You will use your critical thinking skills to weigh two options and recommend one. You will summarize your thinking in a formal memo.

RESOURCES:
Students are provided with links online to potential vendor proposals, as well as advertising brochures and the results of an employee opinion survey. They are also given links to resources related to writing business memos and using spreadsheets.
DIRECTIONS:

Your boss has asked you to write a formal memo evaluating two potential vendors for a new vending machine for the employee lounge. Recommend one vendor to your boss and justify your reasoning. Read and analyze the relevant material and perform any necessary calculations. Use correct spelling and grammar and spell-check your work before submitting it.
What we measure must link back to what we value as an institution.

Consideration of how competencies build in complexity over a program in order to develop/prove mastery

Similar to PLA, the assessments are wide-ranging – from standardized tests, writing papers, hands-on assignments, to projects and capstones.
Tracking Competencies

Competency Report
Liberal arts Major
Small Business Administration Minor

WHAT ARE COMPETENCIES?
Each bold title listed below is a Competency – a skill or conceptual understanding demonstrated by all graduates of NAU Personalized Learning. To earn his or her degree, this student demonstrated proficiency in all competencies listed here through analysis or application of the subject matter described. Competencies are intentionally cross-disciplinary, and consistently reinforce how students can apply multiple approaches to solving real-world problems.

WHAT IS MASTERY?
After taking each lesson, a student may optionally attempt to show Mastery by demonstrating high-level comprehension of the material. Mastery demands more complex application of the subject matter through an additional test, presentation, paper, case study, or other form of assessment. By choosing to attempt and successfully complete a mastery assignment, the student has demonstrated personal initiative and knowledge relevant to their career and personal development. You can see which competencies contain mastered lessons in the column at left.
Tracking Competencies - NAU

COMPETENCY REPORT KEY:

- **Competency**: Student has demonstrated competency in this area.
- **Partial Mastery**: Student has put in additional work to master some lessons within this area.
- **Full Mastery**: Student has gone above and beyond, mastering every lesson within this area.

**Major** (Liberal Arts)

### Work in a team structure

Identify key concepts and theories in Group Dynamics, identify key concepts and theories in intercultural communication and engage in intelligent, rational discussion about contemporary issues concerning work.

### Communicate with diverse populations

Tracking Competencies - NAU

Describe ethical theories
Use a social theorist to describe “ethics” and “morality” in multiple applications and analyze moral conflicts.

Apply ethical theories to education
Explain the ethical and moral arguments for desegregation and for technology in education.

Formulate and substantiate theses
Formulate hypotheses about literary and social theories. Apply theories of intercultural communication identifying places of success and failure.

Formulate and test hypotheses in humanities and social science
Formulate and test hypotheses in humanities and in social science and formulate a theory about political events

Demonstrate knowledge of leadership in the working of organizations
Describe diverse types of organizations and distinguish between them.

Demonstrate knowledge of the significance of the humanities
Examine theories of subjectivity, personal identity, and human nature in the Humanities. Identify and discuss the aesthetic components of films.
Competency-Based Assessment

- What are we assessing? Defined competency with appropriately designed and validated assessment/rubric
- How will students demonstrate the learning or mastery of a competency?
- Do we use a binary approach or add levels of proficiency?
- Who will assess it?
- How do we help the student try again?
Competency-Based Assessment

- Formative and summative assessments
  - How can the student check his/her progress? Practice quiz? Low stakes assignments?
- Performance-based assessments, narratives/papers, simulations, projects, capstones, portfolios
- Multiple Choice or Standardized Tests
- How will the assessments be administered?
- Are we seeking competency or mastery?
Questions?
• Dorothy Wax
  • dmwax@cael.org
  • 215-731-7168