DoIKnowYouU.com:
Validating MOOC Learning for College Credit
Appearing Today

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- Ruth Olmsted, Center for Educational Measurement, Excelsior College

- Devon Ritter, Special Projects Administrator, The Saylor Foundation
Appearing Today (virtually)

- Kim Student, age 43, working full-time as an administrative assistant in a large business
  - Would like to move up in the company
  - Has been told that improving communication skills would help
  - Has also been encouraged to finish the college degree started 20 years ago
  - One of the missing courses was a Math requirement
  - No tuition assistance is available from the company
Validating “Non-Collegiate” Learning: The Bottom Line

- What does it take to make learning credit-worthy?
- How many pathways to credit should we offer our students?
- What learning resources should we recommend?
- Under what terms will we grant credit for MOOC learning?
What is Academic Credit, Anyway?

- Assurance that someone knows something appropriate for a particular academic program
  - The someone, the something, and the appropriateness must be verified

- Both traditional college courses and CBE do this quite well
  - Colleges still decide what outside credit to accept
  - Can MOOCs be brought into the fold?
“What you know is more important than where or how you learned it”

- Credit by exam (CBE) measures what you know, independent of any particular learning experience
  - Convenient and cost-effective
  - Comprehensive single measure
  - Independent study resources include MOOCs and other OER
  - National agencies recommend credit based on their evaluation criteria
Colleges looking to increase their students’ credit options can

- Grant credit for CBE, knowing that students prepared using MOOCs
- Grant credit for MOOCs based on ACE or NCCRS recommendation alone
- Build their own challenge exams to test MOOC learning
MOOCs and CBE Are Symbiotic

- MOOCs are in the news right now; they’re popular and controversial
  - Imagine taking a free college-level course from a super-star professor, along with thousands of your closest friends! What’s not to like?

- By validating MOOC learning with CBE, colleges can help both current students and prospects they’d like to capture, and be confident they’re giving credit where credit is due.
MOOCs and CBE Are Symbiotic

In a MOOC:

- Learners are excited and motivated
- Learners can remain anonymous or they can help each other
- Flexibility and interactivity rule: access is open, free, and timeless
- Multiple self-testing opportunities exist
- Badges and certificates give personal satisfaction

In CBE:

- Learner identity is validated
- Test security meets national standards
- Assessment of content mastery is comprehensive
- No need for the MOOC administrators or the institution to provide multiple proctored sessions or create institutional test-out exams

Credit systems could result in more cheating (gaming the system) and stratification of testers vs. dabblers.

For under $100 and 2 hours of your time, you get an independent evaluation of what you’ve learned.
Statistics: Scary but Popular

Udacity
- Intro. to Statistics: Making Decisions Based on Data
- Statistics from San Jose State University

Coursera
- Statistics: Making Sense of Data from U Toronto
- Statistics One from Princeton

Saylor
- Introduction to Statistics
- Business Statistics

CBE Statistics exams:
- UEexcel MAT 210 Statistics
- DSST Principles of Statistics

ECE/UEexcel formally recommends free resources that closely match the exam blueprint and highlights others that are good for specific topics or for enrichment.
“What you know is more important than where or how you learned it”

- Direct collaboration between OER and CBE providers based on
  - Learning outcomes matching
  - Gap identification and subsequent adjustment on the part of one or both provider
- Cross-promotion arrangements
The Saylor Model

Saylor.org is more about providing Free Online Courses (FOCs) than Massively Open Online Courses (MOOCs)

Key Differences

- Saylor.org courses are available all the time
  - Don’t purport to provide access to instructors, and therefore don’t have to be offered as sessions, in specific windows of time

- Saylor courses as a whole are Openly Licensed (CC-BY), and strive to use individual pieces of openly licensed content
  - The result is that Saylor.org is “open” in the OER sense of the word, meaning anyone else is free to Reuse, Redistribute, Revise, and Remix
  - Not the case with all (or any?) major MOOC providers
Case Study: Saylor.org’s MA101-EXC

Background:
- Saylor.org has offered an independent version of Single-Variable Calculus I course, MA101.
- Excelsior College, in partnership with Pearson VUE, offers a MAT150 Calculus UExcel exam.
- Saylor.org and Excelsior College formed a partnership in 2012 to align Saylor OER to Excelsior CBES.

Result:
- Creation of Saylor.org’s MA101-EXC: Single-Variable Calculus I, fully aligned to MAT150 UExcel Exam.
Case Study Cont.

Steps for Alignment

- Saylor.org staff and faculty review of UExcel content guide for MA150 exam
  - Identified all Learning Outcomes and Objectives tested on the exam, and reviewed previously suggested content sources for preparation

- Creation of a LO Map
  - Essentially, a 1:1 listing of UExcel objectives and current MA101 Learning Outcomes
  - Enabled Saylor.org to clearly identify gaps in course objectives

- Development of newly aligned OER course
  - Using a combination of MA101, MA102, and some additional open content, Saylor created the MA101-EXC course, which will prepare students for the MAT150 Calculus UExcel exam
Case Study Cont.

**Major Benefits**

- No need for NCCRS review of MA101-EXC
  - Because an affordable, comprehensive, and widely accepted UExcel exam already existed for Calculus, Saylor.org did not have to invest course development resources towards a review by NCCRS for credit potential.

- Free online prep course for Excelsior CBE
  - Learners no longer have to guess/cobble together multiple open resources – Excelsior can point students to one open course, fully aligned to the exam, and with its own built-in textbook.

**Future**

- More Saylor.org courses are being aligned to Excelsior exams, including Micro and Macro Economics, Intro to Psych, and College Writing.
“What you know is more important than where or how you learned it”

- NCCRS and ACE review non-collegiate course offerings for
  - Comparability of learning outcomes to college course outcomes
  - Validity and reliability of course-embedded assessments
  - Identity verification and test security
Case Study: NCCRS Review of Saylor Courses

- Saylor determination of courses for review
  - Business Law & Ethics
  - Corporate Communication
  - Introduction to Western Political Thought
- Development of additional Unit Assessments
- Creation of new, proctored Final Exam
- Selection of identity verification process (ProctorU)
Case Study: NCCRS Review of Saylor Courses

- Why ProctorU?
  - Sophisticated method for identity verification
  - Widely used by brick and mortar schools for online testing
  - Great support system
  - Ease of use for adding new exams and updating passwords
  - Offers anytime and by appointment exams
  - Cost effective for students ($25 per event)
Identity Verification: A Closer Look

CBE administration typically includes
- 1-2 forms of photo ID required
- Use of fingerprint or palm-vein or other biometrics
- Sign-in/sign-out of testing room
- Video surveillance throughout the testing event

MOOCs that achieve credit recognition typically use
- Remote proctoring of at least some assessments
- Data mining-based random verification
- Biometrics and/or keystroke analysis

Qualms about MOOCs include the comprehensiveness of the proctored/verified measure(s) as well as the appropriateness of the proctoring systems to the stakes involved
Some Remote Proctoring/ID Verification Systems

- ProctorU
- Acxiom
- Kryterion
- BSI (Biometric Signature, Inc.)
- Software Secure: RemoteProctorPro/NOW
- LG Electronics (iris)
- CSID: cdIDentity (Voice Verified)
Factors in Selecting a Remote Proctoring/ID Verification System

- Cost
- Level of security
- ID plus proctor together
- Web cam range plus screen video
- Who’s watching and how many screens at one time?
- Browser Lock-Down vs. screen monitoring
- Rent vs. own devices
- Auto-messaging to remind students
- Reporting features
- Appointment vs. anytime testing
- Record keeping
Saylor’s Verification Choices

Typically, students who opt for the credit-bearing version of a MOOC must pay a fee to join some sort of premium track

- In addition to providing more stringent identity measures, the track entitles the student to sit for a proctored, credit-bearing exam (for an additional fee)

Saylor, true to its FOC mission, charges no extra fee for eligibility (ProctorU does charge a fee)

Depending on the course, students can opt for

- CBE (ECE, UExcel, etc.) ($95 and up)
- ProctorU administration of a Saylor final exam ($25)
Credit for a Saylor Course: Corporate Communication

- Matches 3-credit ECE called Workplace Communication with Computers
  - ECE itself was developed to mirror a regular Excelsior College online course (that costs 3X as much as the exam)
- Received 3-credit recommendation from NCCRS on its own
- Excelsior’s mapping process
- NCCRS’s evaluation process
- Result: the same credit recommendation
- How to choose?
Kim’s college accepts both CBE credits and NCCRS/ACE credit recommendations

- Saylor Business Communication gets Kim 3 LL credits on an NCCRS transcript
- Kim uses Saylor’s Introduction to Statistics and Business Statistics courses (he needs all the confidence he can get!) to prepare for the UExcel Statistics exam and receives 3 LL credits for that missing Math requirement
- Having discovered Saylor, he polishes off a couple of 3-credit LL electives with the other two NCCRS-reviewed courses
- Having discovered ECEs and UExcel, Kim takes the Organizational Behavior, Human Resource Management, and Social Psychology exams, receiving 9 upper-level credits