Successful Online Courses in California Community Colleges

Hans Johnson, Marisol Cuellar-Mejia, and Kevin Cook

Supported with funding from the Donald Bren Foundation

June 2015
Outline

- Online learning in community colleges
- Identifying highly successful courses
- What makes an online course successful?
- Where do we go from here?
Online enrollment at California’s community colleges is enormous...
... and growing as a share of all enrollment
Course success rates are lower in online courses

Difference in success rates between online and traditional courses

-7.4
-11.4
-14.0
Achievement gaps are exacerbated in the online setting

- White-Asian achievement gap
- White-African American achievement gap
- White-Latino achievement gap
- Older-younger achievement gap
- Female-male achievement gap

**Percentage points**

- Online courses
- Traditional courses
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Our approach

- Analyzed course success rates in transfer courses
- Accounted for student mix and other factors
- Defined highly successful courses in three ways
  - 70% of students earn a passing grade
  - Online course success at least as high as traditional course
  - Students perform well in subsequent courses in same subject
- Interviewed online learning experts
  - Including instructors of highest performing courses
Traditional courses have higher passage rates than online courses
Online students tend to perform well in subsequent courses

Grade in the next course that the student took in the same subject area

Better grade: 46.0 (%)
Worse grade: 33.6 (%)
The same grade: 40.4 (%)
## Wide variation in passage rates

<table>
<thead>
<tr>
<th>Course</th>
<th>Percent of sections with high passage rates</th>
<th>Number of times offered online in 2013-14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting 120</td>
<td>76.2</td>
<td>42</td>
</tr>
<tr>
<td>English 105</td>
<td>61.4</td>
<td>70</td>
</tr>
<tr>
<td>Psychology 180</td>
<td>60.9</td>
<td>46</td>
</tr>
<tr>
<td>Economics 201</td>
<td>60.9</td>
<td>46</td>
</tr>
<tr>
<td>Economics 202</td>
<td>76.2</td>
<td>58</td>
</tr>
<tr>
<td>Sociology 110</td>
<td>34.8</td>
<td>112</td>
</tr>
<tr>
<td>Child Development 100</td>
<td>31.9</td>
<td>72</td>
</tr>
<tr>
<td>Business 110</td>
<td>22.1</td>
<td>68</td>
</tr>
<tr>
<td>Psychology 110</td>
<td>21.9</td>
<td>128</td>
</tr>
<tr>
<td>English 100</td>
<td>20.6</td>
<td>102</td>
</tr>
<tr>
<td>Accounting 110</td>
<td>13.6</td>
<td>66</td>
</tr>
</tbody>
</table>
Students are more likely to pass new online courses than old ones.
Identifying highly successful courses

- Relatively few online courses meet our definition of highly successful (11%)
- Success varied substantially within colleges, subjects, and courses
- Success has depended on individual instructors
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How do we improve online courses?

- Course design
- Faculty support and development
- Student orientation and expectations
- Regular and effective interaction
A team approach to course design will help

- Individual approach rarely works well
- A team approach is better
  - Instructional designers, media developers, programmers, and faculty
- Draws on a variety of skills
Faculty need training and support

- Significant differences in pedagogy between online and traditional courses
- Technology is constantly evolving
- Faculty generally lack sufficient training and support
Managing student expectations is important

- Autonomy and time-management requirements are challenging for students
- Students’ technological skills vary
- A systematic approach to teaching online learning skills is needed
Key to success: Regular and effective interaction

- Online learning can be isolating
- Regular interaction helps to form a “learning community”
- Students who feel part of a community are more invested and perform better
- Multiple avenues of communication increase likelihood of interaction
  - Message boards, social media, skype
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Online learning offers potential advantages

- Improved knowledge of student engagement and ability
  - Resources can be targeted to struggling students
  - Instructor time and attention can be maximized

- Personalized learning
  - Students have more control over pace
  - Course can be adapted to individual learning styles
  - Student progress can be monitored in real time
Policy, funding, and costs

- Governor’s 2013 budget
  - $31 million over 4 years to improve online learning in the community college system
- Established the Online Education Initiative
- No empirical evidence that online learning lowers costs
- But it is important in improving access to higher education
Implications for the future

- Ethnic and racial achievement gaps in online learning must be addressed
- A more data-driven, integrated, systematic approach is needed
- Online Education Initiative is an important step
- Lessons and technology from online learning can improve traditional courses too
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Notes on the use of these slides

These slides were created to accompany a presentation. They do not include full documentation of sources, data samples, methods, and interpretations. To avoid misinterpretations, please contact:

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Thank you for your interest in this work.
Our approach in detail

- Restricted sample to:
  - Transferable courses with a CI-D designation
  - Taught both online and face-to-face in the academic year 2013-14
  - With more than 25 students enrolled in each version of the course

- Predicted the probability of student success in specific course sections controlling for student mix and other factors

- Defined highly successful courses in three ways:
  - 70% of students earn a passing grade
  - Online course success at least as high as traditional version
  - Students perform well in subsequent courses in same subject

- Interviewed online learning experts
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