“With more online courses, are we moving implicitly to a different model of education?”
Insights from a Hybrid Course
Nature of Course

- 315 students, TuTh lectures
  - Powerpoint slides, films, etc.
- Required weekly section
  - Discussion and hands-on exercises
- Satisfied general education IS requirement
- About 50-50 Lower vs. Upper Division
- Heterogeneous majors
- Assessment
  - 8 one-two page essays from workbook prompts
  - 8-10 online quizzes on lecture content
  - Graded section and field exercises
Anthro. 3 Divisional Composition, Proportions Online

2006
- Soc. Sci.
- PBSci
- Humanities
- Engineering
- Arts
- Anthro major

2007
- Soc. Sci.
- PBSci
- Humanities
- Engineering
- Arts
- Anthro major

2008
- Soc. Sci.
- PBSci
- Humanities
- Engineering
- Arts
- Anthro major
Findings and Opinions

- Online students lauded the flexibility of 24-hour access.
- Online students: in-person sections and TA’s were “lifelines” for success in course.
- Online students: archived material served broad range of learning styles, life situations.
- Online students used web-archived streaming videos much less than expected.
- Instead, BOTH sections used web-archived lecture pdfs and podcast audio files.
- by GPA, live vs. online students not statistically significantly different in performance.
  - Lecture content delivery format did not affect student outcomes. See detailed slide on GPA.
- Podcast advantages over streaming video (the “market model”)
  - Lecturers can create and post themselves.
  - Don’t need video personnel, processing, posting to streaming server.
  - Fewer “moving parts” = less risk of failure.
  - Widely used for courses at UCSD.
- Nonetheless, a “rapid response” technical team must be on call, to handle glitches swiftly.
- Students and the public are very sophisticated viewing audiences.
  - Expect glitch-free, “invisible” technology.
  - Requires more, rather than less, investment in support services, infrastructure.

With such an online course, we are not moving to a different model of education, but the model exposes some interesting questions about “market segmentation.”

Diane Gifford-Gonzalez, UC Santa Cruz dianegg@ucsc.edu
Course Delivery Mode and GPA

- Class level, division, gender did not predict GPA
- What did: GPA in other courses attempted the same term.
  “…the relationship between residual GPA and course grade was statistically significant for both on-line (r=.301) and live (r=.325) sections. It is important to note that while they were significant, they are on the weak side.”
  J. Fernald 2 June 2008
- Online students were slightly less successful in all their courses, not just in Anthro 3.

<table>
<thead>
<tr>
<th></th>
<th>06 Live</th>
<th>06 Online</th>
<th>07 Live</th>
<th>07 Online</th>
<th>08 Live</th>
<th>08 Online</th>
</tr>
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<tbody>
<tr>
<td>06</td>
<td>3.14</td>
<td>3.03</td>
<td>3.37</td>
<td>3.24</td>
<td>3.38</td>
<td>3.26</td>
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<tr>
<td>Survey Question</td>
<td>Sp 06 Live (Sec. 1)</td>
<td>Sp 06 Online (Sec. 2)</td>
<td>Sp 07 Live (Sec. 1)</td>
<td>Sp 07 Online (Sec. 2)</td>
<td>Sp 08 Live (Sec. 1)</td>
<td>Sp 08 Online (Sec. 2)</td>
</tr>
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<td>-----------------------</td>
<td>--------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>1. Use of Webcast lectures to review and study</td>
<td>none/rarely 55%</td>
<td>none/rarely 53%</td>
<td>none/rarely 67%</td>
<td>none/rarely 44%</td>
<td>none/rarely 75%</td>
<td>none/rarely 52%</td>
</tr>
<tr>
<td>(Q #3)</td>
<td>sometimes 17%</td>
<td>sometimes 28%</td>
<td>sometimes 18%</td>
<td>sometimes 27%</td>
<td>sometimes 20%</td>
<td>sometimes 32%</td>
</tr>
<tr>
<td></td>
<td>often/most 28%</td>
<td>often/most 10%</td>
<td>often/most 16%</td>
<td>often/most 29%</td>
<td>often/most 5%</td>
<td>often/most 16%</td>
</tr>
<tr>
<td>2. Use of online ppt notes/slides to review and study</td>
<td>none/rarely 15%</td>
<td>none/rarely 13%</td>
<td>none/rarely 28%</td>
<td>none/rarely 27%</td>
<td>none/rarely 37%</td>
<td>none/rarely 32%</td>
</tr>
<tr>
<td>(Q #4)</td>
<td>sometimes 11%</td>
<td>sometimes 13%</td>
<td>sometimes 11%</td>
<td>sometimes 18%</td>
<td>sometimes 16%</td>
<td>sometimes 14%</td>
</tr>
<tr>
<td></td>
<td>often/most 75%</td>
<td>often/most 74%</td>
<td>often/most 61%</td>
<td>often/most 55%</td>
<td>often/most 47%</td>
<td>often/most 54%</td>
</tr>
<tr>
<td>3. If I took Anth3 again, I’d take online section</td>
<td>no 40%</td>
<td>no 10%</td>
<td>no 45%</td>
<td>no 21%</td>
<td>no 49%</td>
<td>no 22%</td>
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<td>neutral 20%</td>
<td>neutral 23%</td>
<td>neutral 27%</td>
<td>neutral 13%</td>
<td>neutral 25%</td>
<td>neutral 8%</td>
</tr>
<tr>
<td></td>
<td>yes 41%</td>
<td>yes 68%</td>
<td>yes 28%</td>
<td>yes 67%</td>
<td>yes 26%</td>
<td>yes 70%</td>
</tr>
<tr>
<td>4. Live Lecture only: How often a week did you attend the I TuTh live lecture?</td>
<td>&lt;once 22%</td>
<td>&lt;once 29%</td>
<td>&lt;once 7%</td>
<td>&lt;once 7%</td>
<td>&lt;once 7%</td>
<td>&lt;once 7%</td>
</tr>
<tr>
<td>(Q #1)</td>
<td>once 33%</td>
<td>once 21%</td>
<td>once 7%</td>
<td>once 7%</td>
<td>once 7%</td>
<td>once 7%</td>
</tr>
<tr>
<td></td>
<td>twice 45%</td>
<td>twice 52%</td>
<td>twice 86%</td>
<td>twice 86%</td>
<td>twice 86%</td>
<td>twice 86%</td>
</tr>
<tr>
<td>5. Online only: My educational experience was comparable to the live lecture</td>
<td>no 36%</td>
<td>no 19%</td>
<td>no 21%</td>
<td>no 21%</td>
<td>no 21%</td>
<td>no 21%</td>
</tr>
<tr>
<td>(Q #1)</td>
<td>neutral 17%</td>
<td>neutral 13%</td>
<td>neutral 12%</td>
<td>neutral 12%</td>
<td>neutral 12%</td>
<td>neutral 12%</td>
</tr>
<tr>
<td></td>
<td>yes 47%</td>
<td>yes 69%</td>
<td>yes 67%</td>
<td>yes 67%</td>
<td>yes 67%</td>
<td>yes 67%</td>
</tr>
</tbody>
</table>
Online Learning: What Questions Should We Be Asking?

Brent Haddad
I teach *ENVS 65: Introduction to Fresh Water*
I teach *ENVS 65: Introduction to Fresh Water*

This is a fully, intended-to-be online course.
I teach *ENVS 65: Introduction to Fresh Water*

This is a fully, intended-to-be online course.

This is what class looks like – we meet twice a week.
I teach *ENVS 65: Introduction to Fresh Water*

This is a fully, intended-to-be online course.

This is what class looks like – we meet twice a week.

Other online courses are/will be very different.
Questions we should ask about online education
Questions we should ask about online education

1. How much are students learning?
Questions we should ask about online education

1. How much are students learning?
   - In an absolute sense
   - Compared to the class they otherwise would take
     - Is there a difference over time?
     - Are there differences in WHO is learning?
Questions we should ask about online education

2. What are the implications of online courses for academic freedom?
Questions we should ask about online education

2. What are the implications of online courses for academic freedom?

Can we and our students speak freely in the online world?

Does recording class sessions have a chilling effect on speech?
Questions we should ask about online education

3. What are the implications for access to education?
Questions we should ask about online education

3. What are the implications for access to education?
   - Computer and upload/download access
     - Distance access
     - Disabled access
Questions we should ask about online education

4. What are the resource implications?
Questions we should ask about online education

4. What are the resource implications?
   - course designers
   - Software purchases
   - Training professors and students
   - computer centers for examinations
   - Grading
Questions we should ask about online education

5. What are the environmental implications?
Questions we should ask about online education

5. What are the environmental implications?
   - Construction avoided
   - Commuting avoided
   - Greenhouse gas accounting
Questions we should ask about online education

6. Why are we pursuing online education?
Questions we should ask about online education

6. Why are we pursuing online education?
   - Expand access?
   - Make money?
   - Better learning experience?
   - Reduce costs?
   - Explore new approaches to teaching?
     - Quicker time to degree?
   - More variety in course offerings?
Questions we should ask about online education

Second Tier Questions
Questions we should ask about online education

7. Rewarding faculty effort to create/maintain online courses

8. Faculty rights to online materials
Questions we should ask about online education

9. How do we upgrade software and hardware and maintain excellent production values?
Questions we should ask about online education

9. How do we upgrade software and hardware and maintain excellent production values?

- Awareness of new products
- training
Thank you!
Should we allow our students to get credit for MOOCs?

Ira Pohl
Computer Science
MOOC

• Massively Online Open Class
• Examples:
  • Udacity:
  • Coursera:
  • edX
Characteristics

• Open – free; provide email address
• Massive – can have 100,000 participants
• Online – semi-synchronous and taken by using an internet connection
• Course – well over 200 are now being offered across a wide range of disciplines
Questions?

• Should our students be allowed to take MOOCs?

• If so what would be the format?
  – An enhanced “textbook” –
  – In conjunction with the flipped classroom
  – A means for “challenging” classes; ie credit by exam
  – As a group tutorial
  – Other???
Benefits

• “Improved” learning experience
• More effective use of campus resources
• Expanded curriculum
• Help in impacted disciplines
Objections

- Not the experience the student is paying for “not the gold standard of the in-class instructor”
- Opens up more potential for cheating
- Demeans the local faculty
MOOC’s are Innovative

• Coursera has over two hundred courses
  - in many disciplines- including the arts and humanities. It has over 33 distinguished universities contributing including top 5 universities overseas

• edX has extremely rigorous classes from Mit, Berkeley and Harvard

• MOOC’s are pioneering peer evaluation and social network tutoring
Should UCSC be trying to compete or cooperate with the likes of EdX and Coursera?

Kip Téllez
Chair, Education Department
Compete or Cooperate?

- With all due respect to the hard-working folks in ITS, remember all the Cruz products and efforts?
- Many universities made their best effort to out Google Google. And just how has that worked out?
# 33 Universities Have Partnered With Coursera

| University of London International Programmes | Princeton University |
| University of Pittsburgh | Brown University |
| Rice University | University of Melbourne |
| Berklee College of Music | University of California, Irvine |
| Brown University | University of California, San Francisco |
Options

- Continue with the UCOE project
- Join with an established organization
- Tweak eCommons, add Video support and go on our own
- Stop UCOE and begin a new UC wide effort