Blended Learning in a Liberal Arts College Setting
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Blended Learning in a Liberal Arts College Setting

What is Blended Learning?

Would It Work at a Liberal Arts College?

Results from a 40-College Study

Blended Learning in the Liberal Arts
What is Blended Learning?

See for example, Clayton Christensen Institute’s definition
http://www.christenseninstitute.org/blended-learning-definitions-and-models/
What is Blended Learning?

Poll: Are you teaching “blended” courses according to this definition?

- Yes
- No
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Blended Learning in the Liberal Arts
Would It Work at an LAC?

- In 2010, research showed that blended courses out-performed online **and face-to-face** courses:
  - Higher faculty and student satisfaction\(^1\)
  - Greater student engagement\(^2\)
  - Improved student performance\(^3\)
Would It Work at an LAC?

- But all of these studies were of large institutions.
Would It Work at an LAC?

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- Would blended learning offer equivalent benefits at a liberal arts college?
Would It Work at an LAC?

- But all of these studies were of large institutions.

- Would blended learning offer equivalent benefits at a liberal arts college?

- Was it compatible with the culture and values of liberal arts colleges?
Would It Work at an LAC?

- NGLC Wave I Grant 2011-2013

- Foster faculty experimentation
  - 14 faculty at Bryn Mawr College, AY11-12
  - 40 faculty at 25 of 40 partner colleges, AY12-13

- Assess experiments and share findings
Would It Work at an LAC?

**Note:** for the study, definition was …

… in which students get **feedback on learning** outside classroom via online component
Would It Work at an LAC?

Example:
Online interactive quiz

Consciously or unconsciously, we identify minerals using a few key characteristics that we associate with them. Name the two or three characteristics of this mineral that allowed you to name it:

Name the mineral:
-sillimanite

Note: Case does not matter, but spelling does!
Would It Work at an LAC?

Example: Online interactive quiz
Would It Work at an LAC?

Poll: Are you teaching blended courses according to *this* definition?

- Yes
- No
Questions so far?
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Would It Work at a Liberal Arts College?

Results from a 40-College Study

Blended Learning in the Liberal Arts
100% of BMC faculty who piloted have continued using a blended approach
Use of Moodle Quiz has tripled (per year, doubled).

<table>
<thead>
<tr>
<th>Number using Moodle Quiz</th>
<th>AY 11-12</th>
<th>AY 12-13</th>
<th>AY 13-14</th>
<th>Total Unique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty (in pilot study)</td>
<td>17 (12)</td>
<td>34</td>
<td>36</td>
<td>52</td>
</tr>
<tr>
<td>Courses</td>
<td>20</td>
<td>44</td>
<td>44</td>
<td>67</td>
</tr>
<tr>
<td>Departments</td>
<td>8</td>
<td>17</td>
<td>15</td>
<td>22</td>
</tr>
</tbody>
</table>
75% of students reported having online component positively impacted how well they did in course.
Results from a 40-College Study

- Could we measure evidence of impact?

- Comparison to historical norms possible in 4 BMC courses:
  - CHEM101 (chemistry prep)
  - CHEM103 (general chemistry)
  - BIOL101
  - GEOL202 (gateway to geology major)
In 3 of these 4, average grade was ~1 SD higher …
... and merit completion rate was 100%, or 0.8-1.5 SD higher.
Results from a 40-College Study

- What about that 4\textsuperscript{th} course? (general chemistry)
Significant correlation between percentage of online material completed and final grade based on exams.
SATM scores predicted only 30% of final grade. SATM plus percentage of online material completed predicted 58%.
Results from a 40-College Study

- Blended Learning enhances faculty-student interaction
  - Assessment and instant feedback enabled students to ask better, more timely questions
  - Access to learning data helped faculty provide coach and teach more effectively
Results from a 40-College Study

- Blended learning supports individualized, learner-driven education
  - Can help differentiate instruction
  - Can help free up time or prepare students for activities that foster deep learning
  - Can be used to emphasize mastery, and students appreciate this
  - Can be used to help students develop metacognitive skills
Results from a 40-College Study

Summary of Findings:

1. Faculty and students found blended learning supported LAC culture and values

2. Blending can improve learning outcomes in LACs as well as in large schools

3. Main barrier to adoption for faculty is “start up costs”
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Would It Work at a Liberal Arts College?

Results from a 40-College Study
Blended Learning in the Liberal Arts

Rethinking our study definition …
Blended Learning in the Liberal Arts

- Where goals are
  - Increasing opportunities for formative assessment
  - Differentiating instruction
  - Empowering learners to take ownership of learning
  - Fostering deeper learning
Questions?
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