BLENDED AND ONLINE LEARNING IN THE FACULTY OF ARTS AND SCIENCE

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Higher Education Context

- Attention to higher education
- Demand for accountability
- Evolution of technology
- Knowledge about learning
- Growing enrolments
- Financial pressures
- Teaching → Learning
Blended Learning

- What does it mean?
- Why are we doing it?
- Is it effective?
Faculty of Arts and Science

- Intake of 2,700 first-year students
- Curricular structure → large courses
- 400 – 1,800 students
It’s a Challenge to be Active When You’re BIG
Active Learning

- Listening - also discussing and problem solving, analyzing, synthesizing, evaluating (Chickering & Gamson, 1987)

- Active learning → deeper engagement → improved learning and knowledge retention
Blended Learning - A Solution?

- Blended Learning is the purposeful and complementary integration of face-to-face learning with online learning activities (Garrison & Vaughn, 2008)

- “Flipped classroom” - focus on active learning and enhanced student engagement in the classroom
First Blended Courses

- Human Geography (GPHY 101)
- Principles of Psychology (PSYC 100)
- Instructors were dissatisfied with student learning experience
Blended Learning Initiative

- Large, first-year courses and large electives
- Principles: high impact, evidence based, cost effective, sustainable
- Goals:
  - Enhance student engagement
  - Improve student learning outcomes
  - Improve knowledge retention
Framework for Blended Course

- Focus on active and collaborative learning in classroom
- Fundamental information through readings and online
- Consistent student learning hours $\rightarrow$ fewer contact hours
- Design based on pedagogical research
Course Redesign Project

- Phase 1: Sociology, Gender Studies 1, Classics, Film & Media
- Phase 2: Calculus, Chemistry, Biology, Gender Studies 2, Drama
- Fall 2013: over 8,000 enrolments in blended courses
Principles of Psychology

- Team-taught + teaching assistants (TAs)
- Traditional:
  - 1,600 students
  - 3 lectures per week (sections of 450 students)
  - 1 optional tutorial (sections of 30 students)
Redesigned blended model:

- 1,800 students
- Fundamental information online
- One “lecture” per week (case studies, research; sections of 450)
- One “manualized” applied learning lab per week (30 students in groups of 6)
Engagement
Ancient Humour (CLST 205)

- Single Instructor + limited TAs
- Traditional:
  - 400 students
  - 2 x 1.5-hour lectures per week (single section)
Redesigned blended model:

- 560 students
- Two “bookend” lectures per term
- Fundamental information and pre-class activities online
- One “manualized” group learning lab per week (40 students in groups of 8)
Evaluation

- Engagement: Classroom Survey of Student Engagement (CLASSE)
- Approaches to learning, academic performance, knowledge retention
- Longitudinal research study (4 years)
- Approval from the General Research Ethics Board (GREB)
Evaluation: CLASSE Step 1

- Data collected at end of course – last traditional version, blended version
- Analysis (principal component analysis): CLASSE divided into seven subscales that relate to various engagement practices
- Used by instructors for review and enhancement of redesigned course
Question: Are students in the blended format engaged in their learning differently than those in the traditional format?

Analysis (independent sample T-tests) to see if there are statistically significantly differences between traditional and blended versions
Evaluation: CLASSE Step 3

- CLASSE data merged with student data
- Question: Are differences due to course redesign or due to systematic differences between student cohorts?
- Analysis (regression) to determine which variables best predict greater student engagement subscale scores
## Results for Classics Course

<table>
<thead>
<tr>
<th>Scalelet</th>
<th>Sample Size</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active Learning During Class</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>107</td>
<td>1.1682</td>
</tr>
<tr>
<td>Blended</td>
<td>486</td>
<td>2.8529*</td>
</tr>
<tr>
<td><strong>Student-Faculty Interactions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>107</td>
<td>1.5304</td>
</tr>
<tr>
<td>Blended</td>
<td>483</td>
<td>1.6672*</td>
</tr>
</tbody>
</table>

*statistically significant difference found between formats using alpha = 0.05
Benefits for Students

- Active learning experience
- Improved engagement
- More small group activities
- Greater flexibility/learner driven
- Exposure to faculty research
- Better access to courses
Faculty Member Perspective

- Impediments to course redesign: time, support, resources (Vaughn, 2007)
- Faculty project designed to remove barriers
- Participation is voluntary through proposal submission
Faculty Member Support

- Development stipend (release time)
- Instructional designer partner
- Curriculum approval
- Faculty Office coordination so that individuals aren’t working in isolation
- Regular informal gatherings to share experiences and knowledge, discuss instructional methods, guest speakers
Benefits for Faculty Members

- Support for pedagogical innovation
- Spend less contact time on delivery of fundamental “textbook” materials
- Incorporate research into classroom
- Engage in scholarship in teaching and learning (co-investigator in research study)
Challenges

- Students: need to be active participants in their learning
- Faculty members: redesign means back to fundamentals – learning outcomes
- Faculty: resources to support blended models; ways to recognize innovations
- University: active learning requires different spaces
$2 million donation to convert under-utilized classrooms in Ellis into active learning spaces
Online Learning

- What does it involve?
- Why are we doing it?
- What does the future look like?
Online in Arts and Science

- Long history of distance studies (CDS)
- Distance students
  - BAs in Psychology, English, History
  - 55 courses
- Flexibility for current on-campus students
- Advances in educational technology and knowledge about online learning → high quality online courses
Academic Quality

- Partnership between academic department and CDS
- Department: academic and disciplinary quality
- Same learning outcomes as on-campus courses
Online Design Quality

- Design based on pedagogical research
- Instructional design assistance
- Focus on active and collaborative learning online

Interaction:
- Student and material
- Student and instructor
- Student and peers
Project to Grow Distance Enrolments

- 2011 business case, 2012 investment
- Quality assurance
- Student services: admission
- Marketing
- Staffing
- Enrolments
Project to Grow Distance Enrolments

- New courses – 21
- New non-credit programs:
  - Professional Certificates
- New credit programs (planned):
  - BA Liberal Studies
  - Diploma in Medical Sciences (with DBMS)
  - Professional Writing Certificate
Model for Partnership

- Course revenues must offset costs
- Costs:
  - development stipend – paid by CDS
  - instructional designer – paid by CDS
  - overheads to mount & deliver (CDS)
- New budget model: net revenue shared between partners
The Future?

- Senate Academic Planning Task Force
- Ontario Universities Online
- MOOCs
The Last Word

“I am always ready to learn although I do not always like being taught.”

Winston Churchill