

Blended Learning: How Faculty at 8 Canadian Universities Redesigned their Courses

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What is Blended Learning?

- blended learning--mixed mode or hybrid--learning is the integration of face-to-face (F2F) learning with online learning activities.



Why has it become popular?

- it allows for gradual restructuring of learning programs, thus reducing costs of going fully online
- some activities better suited to online, some better to f2f. Examples?
- research has shown that participants are less likely to drop out of BL courses compared to fully online, and achievement may be higher in BL courses (see UCF and Pew Foundation studies)

Our study

- each of the 8 universities in COHERE nominated several courses for the study
- one case selected to obtain a variety of disciplines in the study
- instructors interviewed by telephone, course materials examined, and their students completed online survey

Research Questions

1. What are the various blended learning approaches in use at COHERE member institutions and what are their salient features?
2. What are faculty perceptions of teaching and learning in blended learning environments? What pedagogical strategies do faculty employ? What technologies do they use? What are the challenges they face?
3. How do student view blended learning? How does the blended learning experience compare to traditional courses? Does the integration of technology contribute to or detract from learning? Does the quality of their interaction with peers and faculty change in blended learning courses?
4. What policy and support issues emerge from the use of blended learning in university courses?

Individual Case Descriptions

Albatross U



- 3rd year nutrition course
- 120 enrolled
- students from many different programs
- classroom time did not change for blended format
- online discussions worth only 5%
- students and instructor positive about value of online discussions
- Albatross students agreed least with statement that it was harder to relate to other students

Eagle U

- 1st year computer foundations course
- 241 enrolled
- previously fully online, now blended format
- lots of technology used
 - streamed audio and video for lectures and assignments
 - Web server log file analysis to *take attendance*
 - extraordinary amount of activity on server
- Eagle students agreed the most that BL helped them succeed and that online student interactions increased their understanding
 - successful implementation of online discussions in a large class



Heron U



- 1st year chemistry course
- 1,764 enrolled
- animated learning objects online
- 17.5% of course work online including labs
- FTF as well as e-lectures
- online quizzes improved dropout rates, but practice tests with hints not worth the instructor's effort
- Heron students agreed the least that they learned key concepts
- 25% more students who previously failed the course than those who passed thought blended format hindered their learning

Kingfisher U



- 3rd year communications in organizations course
- 159 enrolled
- weekly tutorials with TA for class discussion
- no online assignments but lectures only available electronically (no FTF)
- Kingfisher students agreed the least that online student interaction helped understanding
- nearly 20% did not know about online format before enrolling
- BL format enabled instructor to teach both 3rd and 4th year students

U Nuthatch



- 3rd year gender studies course
- 16 enrolled
- one FTF class cancelled for online work
- posted *critical take* on assigned readings worth 20%
- no other course materials posted online
- majority of these students wrote about technology problems
- Nuthatch students agreed the most that blended balance about right
- instructor noted apathy from colleagues for BL

Oriole U



- 4th year plant biology course
- 18 enrolled
- extensive course Website
- thesis proposals posted online worth 50%
 - no online discussion, just critiques
- all students agreed online interaction with instructor appropriate
- Oriole students agreed the most that course took more time and effort
- yet 94% agreed they learned key concepts

Redwing U



- 1st year communications and teamwork course
- 380 students/3 instructors
- alternated weekly--online then classroom activities
- BL format since course began
- Redwing students agreed the most that BL format hindered their learning
- online discussions successful yet not individually marked by instructors
- online participation motivated by teamwork

U Yellowlegs



- 3rd year social work practicum
- 18 enrolled
- Bb enabled interaction with remote groups of students
- online discussions worth 20%
- instructor participated less in online discussions in order to decrease teacher control
- Yellowlegs students agreed the least that amount of online interaction with instructor appropriate

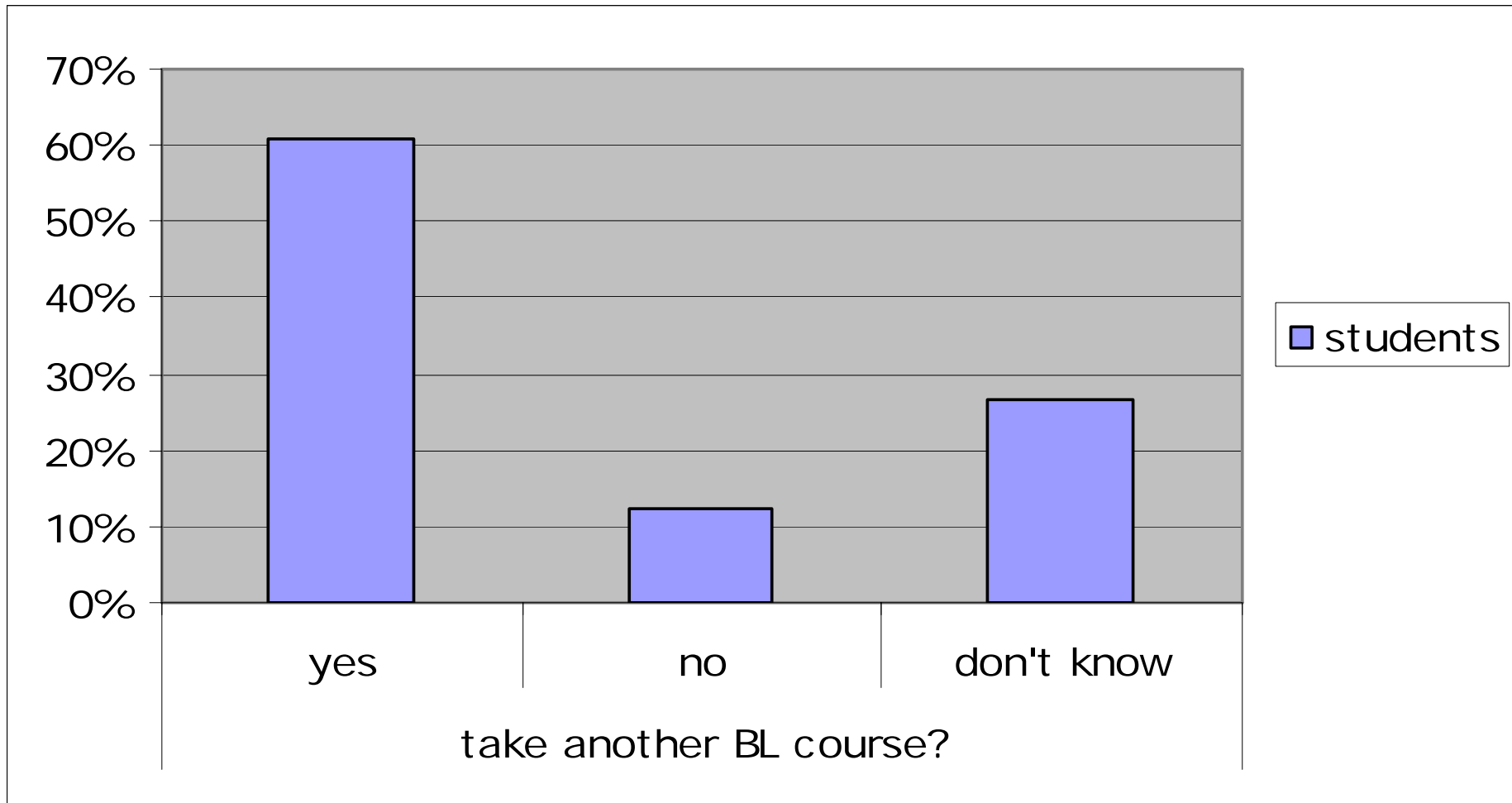
Overall Findings

Technology Used in Courses

- 5 used WebCT and 1 Bb and 1 Angel
- only one had non-commercial in-house system
- 3 instructors developed animated learning objects
- 2 instructors had Web site in addition to CMS
- technology was not a problem for students and no statistically significant differences across universities

Student Satisfaction

(no statistically significant differences among universities)



Online Pedagogy

- online discussions primary e-learning component for 5 courses
- most worth 20% of mark
- online labs and online quizzes also used
- large classes avoided online discussions, yet it was successfully implemented in one large enrollment class (Eagle U)
- another successful implementation of online discussions demonstrated not necessary to mark individual online contributions (Redwing U)
- BL encouraged higher order thinking skills
- instructors got to know students better with BL*

Instructor Challenges

- how to work with high enrolment courses
- students valued interaction with instructors equally as well as with peers
- students' overall satisfaction with their course was correlated with both *online* and *face-to-face* interaction with other students
- BL takes more time and effort for both students and instructors

Policy and Support

- variation in BL approaches due to instructor or academic discipline rather than university policies
- all instructors had technical and/or teaching support available to them
- yet peers and administrators often apathetic about their efforts
- only 3 of 8 received any funding to develop BL course

Conclusions

- pragmatic advantages of BL format
- interaction a key ingredient for success
- online discussions can work in large classes
- online contributions do not have to be individually graded to be meaningful
- students and instructors reported that more time and effort required—but student outcomes appeared to be better
- faculty get to know their students better than in f2f or online
- institutions need clear policies and support for further development of BL courses

Links of interest

- Full report <http://www.yorku.ca/irlt/reports.html>
- This presentation
<http://www.yorku.ca/irlt/events.html>
- Pew Foundation
<http://www.center.rpi.edu/PewGrant.html>
- Univ. of Central Florida
<http://pegasus.cc.ucf.edu/~rite/>
- Cohere.ca