

Accessibility, Engagement, and Learning: Moving Ahead with Blended Learning at York University

Opportunity

In 2009-2010, a priority-setting exercise for York University in Toronto led to the development of a White Paper by the Vice-President Academic and Provost. In providing direction for York for the next decade, the paper called for a planned and coordinated expansion of online learning to improve student engagement, learning, and accessibility for commuter students, as well help to respond to enrolment pressure.

To further the goals of this White Paper, an e-Learning Working Group was set up to develop a business case for e-learning at York.

Also in 2010, the [Academic Innovation Fund](#) (AIF) was established by the Provost, with funding of up to \$2 million a year for three years to support initiatives that advance the strategic priorities outlined in the White Paper in relation to teaching and learning, including e-learning, experiential education, and the student experience, especially in first year. Since then, more than 50 projects have been funded, many for two years. Funding is now being awarded for 2013-2014, with projects expected to develop models and structures that can be applied for the benefit of all York students, as well as to demonstrate sustainability.

Within this broad content of the White Paper, the e-learning business case, and the AIF, faculty and staff at York have been creating and assessing online and blended learning courses and tools.

Innovation

The e-Learning Working Group charged with the development of the business plan began with a thorough review of the literature, concluding that overall both fully online and hybrid courses that blend face-to-face and online teaching and learning have advantages for student flexibility and access. The research also suggests that online learning can be cost effective, although high-start-up costs are the norm. In terms of student learning, the research has shown that students in online courses out-perform those in face-to-face classes, while students in blended courses outperform those in fully online.

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Based on these findings, the [Working Group business case](#) recommended that York's focus be on increasing courses and program offerings in the blended format, and produced a detailed cost and revenue projection of the proposed initiative.

As part of their considerations, the Working Group developed a table presenting how the three models - fully online, blended learning, and face-to-face learning with web enhancements - could be used to reach the goals articulated in the White Paper.

Green indicates the most advantages for achieving the objective, **yellow** indicates mid range and **red** indicates least.

E-LEARNING OBJECTIVES	FULLY ONLINE	BLENDED Online replaces 30% – 80% of face-to-face time	TRADITIONAL FACE-TO-FACE WITH WEB ENHANCEMENT
Increase York's ability to respond to enrolment pressures	<ul style="list-style-type: none"> - Maximum scalability — no physical space constraints. - Development costs for new online half-course = stipend + technical support + one-time training. - Ongoing instructor/student/technology support costs for online half-course. 	<ul style="list-style-type: none"> - Enhanced scalability — more intensive use of existing physical space. - Development costs for new blended half-course = stipend + technical support + one-time training. - Ongoing instructor/student/technology support costs for blended half-course. 	<ul style="list-style-type: none"> - Minimum scalability — growth requires new physical space. - Development costs limited to ongoing, instructor/student/technology support for web enhancement needed.
Provide better experience for our commuter students	<ul style="list-style-type: none"> - No commuting time (savings = 1.25 hours per course session per meet) and expenses (savings = \$11.25 per course session per meet). - Maximum time flexibility for off-campus work and activities. - No in-person connection to York community. 	<ul style="list-style-type: none"> - Reduced commuting time and expenses. Saving dependent on the proportion of face-to-face interactions. - Enhanced time flexibility for off-campus work and activities. - Regular, in-person connection to York community; face-to-face interaction enhances online community participation. 	<ul style="list-style-type: none"> - Maximum commuting time and expense. - Minimum time flexibility for off-campus work and activities. - Maximum in-person connection to York community, but student want to minimize on-campus time.
Better engage students	<ul style="list-style-type: none"> - No in-person connections to other students in classes. - No personal connection to York community. - Engagement limited to online interactions. 	<ul style="list-style-type: none"> - Best of both worlds — in-person connections to other students in classes and on-line interactions. - Some in-person connection to York community. - Students prefer blended model with "moderate" use of technology. 	<ul style="list-style-type: none"> - Maximum in-person connections to other students in classes. - Minimum on-line engagement with other students and York community. - Maximum in-person connection to York community, but students want to minimize on-campus time.
Improve student learning	<ul style="list-style-type: none"> - Blended learning outcomes better than either fully online or traditional face-to-face. - Limited flexibility to accommodate student learning 	<ul style="list-style-type: none"> - Blended learning outcomes better than either fully online or traditional face-to-face. - Multiple formats accommodate widest variety of student 	<ul style="list-style-type: none"> - Blended learning outcomes better than either fully online or traditional face-to-face. - Limited flexibility to accommodate student learning

styles.

- Success requires maturity and time-management discipline.

learning styles.

styles.

- Advantages for students lacking maturity, time-management discipline.

Blended learning was seen as the best choice for student learning, engagement, and accessibility with several blended learning projects funded through the AIF.

Liberal Arts and Professional Studies (LA&PS): In Winter 2012, eight courses were re-designed and taught in blended format, with from 27% to 50% of the course time dedicated to online activities. The portion of the student's grade varied from no marks for online activity to 60% of the grade based on online work.

Fine Arts: In five compulsory introductory courses, face-to-face tutorials were replaced with blended and online versions for the Winter 2012 term.

Education: In September 2013, a large enrolment foundation course will feature face-to-face lectures with various professors addressing their areas of particular expertise, supplemented by online tutorials.

Engineering: Engineering has expanded from a small program and moved to a new building with space designed to accommodate flipped classrooms. Even large lecture halls can be re-configured so that small groups can meet to discuss and work on projects, following online lectures.

Benefits and Challenges

The Director of the [Institute for Research on Learning Technologies](#), Dr. Ron Owston (now Dean of Education) was asked to lead the evaluation of the blended learning initiatives and developed a methodology and questionnaire, based on the criteria outlined in the White Paper and Business Case – accessibility, engagement, learning, and response to enrolment pressures. Faculty, tutorial leaders, and students were surveyed; the learning management system sites were also examined.

Liberal Arts and Professional Studies: A majority of the students favoured blended learning over fully online or lecture only, and felt they understood better in the blended format. They also liked the convenience and reduced time pressures for commuting to campus that it offers. Many of the students, but not a majority, felt they were more engaged with blended learning.

Instructors thought that preparing a blended course takes more time than a lecture course, but they also felt they had more interaction with students in the online

component. They agreed that students performed better overall and they did not have concerns about academic integrity or student engagement.

Fine Arts: The offering of tutorial sessions online satisfied fewer than half of the students. Students felt disconnected and that blended learning took more time and effort. About 40% still preferred blended to face-to-face or fully online.

Instructors were generally supportive of the blended format but need more technical support. The tutorial leaders felt disconnected and concerned about additional workload.

In Fall 2012, the blended courses in Fine Arts were re-designed so that the lectures were offered online, featuring guest lecturers as well as faculty, and the tutorial sessions were face-to-face.

Dr. Owston completed a survey on the relationship between student perceptions in blended learning and course achievement. Over 575 students from various faculties responded to questions including their:

- Overall satisfaction with blended learning
- Convenience afforded by blended learning
- Sense of engagement
- View on learning outcomes

The most striking result was the strong relationship between perceptions and grades – high achievers were the most satisfied with blended learning, finding it more convenient and more engaging. In addition, as they preferred blended to online and face-to-face, they are more likely to take another blended course. As it seems low achievers are less able to cope with the blended environment, institutions may want to offer a choice of blended or face-to-face classes or provide additional supports, especially in courses students find particularly difficult.

In a study on lecture capture and academic performance, it was found that high achieving students would view the recording less often than lower achievers, and often fast forward through sections. The conclusion of this study was that lecture capture may be more beneficial to lower achieving students.

Potential

The evaluation studies produced a number of recommendations that are being integrated at York.

Course Design

- Participation and grade weighting for online activity have to be clearly explained.
- Standard course templates to be developed which instructors can adapt.
- Patterns for the split of face-to-face and online time are to be developed so that facilities can be used more efficiently.

Students

- A higher level of student satisfaction (80%) should guide all course design and delivery decisions.
- Students need better orientation to studying in the blended format, as well as information on the course schedule and online requirements.
- Students should not be overburdened with work by instructors simply adding an online component to an existing course.

Instructors

- All instructors should be encouraged to participate in the training course on using the blended learning format.
- Working with an instructional designer will help instructors achieve quality course designs.
- Continued technical support of instructors is required.

York is continuing to expand online and blended initiatives. Two other examples are included in [Pockets of Innovation](#):

- Intercultural Learning Online – Students on the Thai/Burma Border and at York University Share their Learning
- SPARK, the Virtual Learning Commons – An online resource for academic Literacy.

Within three years, Dr. Owston predicts that York will have about 100 additional courses available for online or blended learning.

For Further Information

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