

Evaluation of Blended and Online Learning Courses in the Faculty of Liberal Arts and Professional Studies and the Faculty of Health

Second Evaluation Annual Report, 2012-2013

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EXECUTIVE SUMMARY

This report is the second report of the evaluation of blended and online learning courses in the Faculty of Liberal Arts and Professional Studies and the Faculty of Health at York University that first began in Winter 2012. The evaluation examines course Moodle website design, student perceptions of blended and online courses, and instructor experiences in teaching in the blended and fully online formats. The current report presents findings from evaluation activities conducted within 24 courses that were offered in Web-enhanced, blended, and fully online formats over the period of three semesters during 2012-13 and builds on the results discussed in the prior report (Owston & York, 2012).

Thirteen Moodle course sites were analyzed on four evaluation criteria derived from the literature and our prior study conducted in 2012: (a) Moodle organization and layout design, (b) instructional design and delivery, (c) student engagement, and (d) student support and resources. From our findings it is clear that most Moodle sites evaluated have been well received by students due to their usability and appropriate layout design. In addition, most Moodle sites produced evidence of structuring their course content in a logically sequential way that helped students find various course components and build their learning paths during their courses. Five course Moodle sites have satisfied most expectations appropriate for a blended and online course. The other eight course Moodle sites however produced little evidence of the expectations appropriate for a blended or online course, particularly in the areas pertaining to providing opportunities for student engagement and offering adequate access to student support and resources required for a blended or online course.

The student survey results show that 72% of students have been satisfied with their blended or online learning course, particularly students in mid-size, large, and extra-large classes. While students have indicated their preference for instruction in a blended format, a plurality of students are inclined to watch recorded lectures via the Internet, attend in-class tutorials, and participate in face-to-face discussions. According to a solid majority of students, blended and online learning have offered a greater flexibility in personal schedule, a substantial reduction of travel time to campus, and a broader access to useful online resources posted on Moodle. Of concern, however, is that a little over one-third of students have perceived increased connectivity to other students and felt more engaged in their blended and online courses.

Our findings suggest that the course instructors have been supportive of the blended and online learning initiative in LAPS and Health and are willing to continue to experiment and improve their teaching in a blended or online format. Most instructors appear to be less positive of students' learning experience in their courses, as opposed to students whose responses imply more satisfaction with blended and online learning. Furthermore, most instructors have asked for more pedagogical support offered by experts in instructional design using various formats.

Given the above findings, we offer four recommendations with respect to course Moodle site design, engagement strategies, instructor pedagogical support, and student support.

1. Considering the differences of reading text from a computer monitor or mobile device screen, we recommend that instructors in blended and online courses need to think carefully about how they present and organize course information on their

- course Moodle sites in order to encourage students to read and view materials online. Additionally, we recommend that a standard Moodle course shell template be designed and used as a foundation for all courses to address issues common to blended or online learning as specified in the evaluation rubric used for this study.
- 2. We recommend that instructors may wish to explore innovative instructional strategies and take advantage of a diverse repertoire of Moodle tools to enhance active learning and provide various learning experiences to achieve higher levels of interaction and reach out to students of different learning preferences.
- 3. We recommend that instructors and tutorial leaders should be provided with a comprehensive course redesign support system involving an instructional designer, opportunities for continuous professional development, and peer mentoring. In addition, we recommend that the Faculties may wish to create a digital depository of sharable and reusable resources on blended and online learning to ensure sustainability of the eLearning initiative in both Faculties.
- 4. Considering that students may be challenged by blended learning, initial support for such students is vital to their academic success, as well as to the reputation of both Faculties. In this regard, we suggest that students be provided with information on what they can expect from a blended course before they enroll in the course. Additionally, the Faculties may wish to develop a self-assessment survey to help students find out whether a blended and online course would be compatible with their learning style and what they need to do to succeed in blended or online learning.

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1. INTRODUCTION

This report is the second report of the evaluation of blended learning courses in the Faculty of Liberal Arts and Professional Studies (LA&PS) and the Faculty of Health (FH) at York University that first began in Winter 2012. The current report presents findings from evaluation activities conducted in 24 courses that were offered in Web-enhanced, blended, and fully online formats over the period of three semesters during 2012-2013 and builds on the results discussed in the prior report (Owston & York, 2012).

The second report addresses the following issues as observed up through the 2012-2013 academic year:

- assessment of course Moodle websites, their organization and layout design, their elements of instructional design and delivery, opportunities provided for student engagement, and the availability of student support and resources within the Moodle learning environment;
- examination of students attitudes toward their blended and online learning experience, such as their satisfaction with the course, their eLearning preferences, and their perceptions of learning opportunities, technology use, engagement, and learning outcomes in their blended and online courses;
- examination of instructor experiences in teaching in the blended and online format, their perceptions of strengths and weaknesses of the eLearning models they utilized, as well as their concerns about the pedagogical and technical support provided by York University.

The framework used to guide the study was developed as part of the eLearning Business Case for York University (<u>eLearning Working Group, 2010</u>). This framework uses four criteria to assess the merits of three instructional modes: Web-enhanced learning, blended learning, and fully online learning. The criteria asked of the three modes of instruction, how well they:

- 1. increase York's ability to respond to enrolment pressures;
- 2. provide better experience for commuter students;
- 3. better engage students;
- 4. improve student learning.

The criteria led to the development of data collection instruments and are used as organizers for presenting the results of student and instructor perceptions in this report.

The report begins with a brief overview of eLearning courses participated in the evaluation and a description of the methodological arrangements used to collect and analyze data. There then follows a section on the analysis of course Moodle websites designed and utilized to deliver the blended and online courses under investigation. In the next two sections, we report on the results derived from the analysis of data collected from the students' surveys of their blended and online learning experiences, and then provide an analysis of instructors' teaching experiences in the blended and fully online courses. The report concludes with a summary and recommendations for future eLearning offerings in the Faculty of Liberal Arts and Professional Studies and the Faculty of Health.

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In the evaluation, four models of eLearning programming were utilized to design and deliver courses in LA&PS and FH in the 2012-2013 academic year:

- Web-enhanced model: A variation of the supplemental blended model in which the course instructor delivered weekly face-to-face lectures and conducted in-class tutorials. There was no reduction of face-to-face time under this model. The instructor retained the structure of the traditional instruction and used Moodle to supplement in-class sessions with additional online activities in order to enhance students' understanding of key concepts and to increase interaction among learning participants. Furthermore, Moodle was utilized to build an accessible repository of course documents, reference materials, and complimentary resources for students to advance in their knowledge. Two courses utilized this model that made up a small percentage of the participating courses (8.3%).
- "Blend I" model (70:30 face-to-face and online ratio): A variation of the replacement blended model in which the number of in-class sessions was reduced and replaced with online learning activities. Under this model, nearly a third of the regularly scheduled course time that would have been spent in a classroom was replaced with online activities delivered via the Internet using the Moodle course management system. In the online portion of the Blend I courses, students usually studied individually and/or collaboratively by watching lecture recordings, participating in online forums, and/or working together with other students on Wiki-mediated projects. Fifteen courses utilized the Blend I model (62.5% of the participating courses).
- "Blend II" model (50:50 face-to-face and online ratio): Another variation of the replacement blended model in which a blending of in-class and online sessions was equally balanced with a split of roughly 50-50 between face-to-face and online instructional time. For instance, in-class sessions took place on even weeks (or on Tuesdays), while online sessions took place on odd weeks (or on Thursdays). The online component of the Blend II courses comprised of similar activities used in Blend I. Unlike the Blend I model, the Blend II model offers greater benefits for both students and the institution. As such, this model enables more flexibility for students under additional constraints on their lives (e.g., commuting challenges, work responsibilities, family commitments, etc.). As to the institution, the Blend II enables academic units to enhance scheduling and room sharing options in order to better respond to enrollment pressures. In this evaluation, four courses utilized this model that composed nearly 17% of the participating courses.
- *Fully online model*: The courses utilizing this model were delivered primarily via the Internet using Moodle. A course instructor guided students in cohorts that were paced with a fixed schedule. Students mainly were provided with recorded lectures and were required to participate in online forums. Three courses (12.5%) used this model.

2. METHODOLOGY

2.1 PARTICIPANTS

A total of 1,083 students who were enrolled in 24 courses in LA&PS and FH during the Summer 2012 and the Fall/Winter 2012-13 completed the survey. The student enrolments in 24 courses as reported by the instructors and survey responses are given in Table 1.

Table 1: Courses Included in Study

Faculty	Course Number	Course Title	Term	Enrolled	Number Responding
LA&PS	EN 4591	Recent Irish Poetry	SU2012	20	9
LA&PS	GEOG 2030	The End of the Earth	SU2012	59	49
LA&PS	MODR 1770	Techniques of Persuasion	SU2012	78	38
LA&PS	POLS 4290	Topics in Int. Polit. Econ.	SU2012	23	10
LA&PS	ADMS 2200	Introductory Marketing	WI2013	235	63
LA&PS	EN 3310	Poetry of United States	FY12-13	46	9
LA&PS	GEOG 2030	The End of the Earth	FA2012	78	52
LA&PS	HUMA 1825	Law and Morality	FY12-13	180	106
LA&PS	HUMA 2195	Defining Europe	FY12-13	72	40
LA&PS	ITEC 3230	Designing User Interfaces	FA2012	39	19
LA&PS	MODR 1730	Reasoning about Social Issues	FY12-13	49	24
LA&PS	MODR 1760	Reasoning about Morality	FY12-13	48	34
LA&PS	POLS 4125	Women and Current Policy	FA2012	25	16
LA&PS	POLS 4985	Global Political Studies	FY12-13	13	8
LA&PS	SOCI 4910	Sociology of Knowledge	FY12-13	21	15
LA&PS	SOSC 2730	The Culture of Cities	FY12-13	82	31
FH	KINE 4710	Psychology of Health	WI2013	124	94
FH	NURS 3514	Leadership & Change	WI2013	277	87
FH	NURS 3524	Health & Healing	WI2013	67	35
FH	PSYC 1010	Intro To Psychology	FY12-13	170	31
FH	PSYC 2120	Social Psychology	WI2013	187	50
FH	PSYC 3170	Health Psychology	WI2013	174	75
FH	PSYC 3430	Behaviour in Groups	WI2013	159	139
FH	PSYC 3495	Neuroscience of Aging	FA2012	69	49
TOTAL:				2,295	1,083 (47%)

2.2 ANALYSIS OF COURSE MOODLE WEBSITE DESIGN

We analyzed the content of Moodle course websites using the *Moodle Course Website Evaluation Rubric*, a modified version of the Moodle Course Website Evaluation Checklist we developed in the prior evaluation report (Owston & York, 2012). Our rubric is specifically tailored for assessing blended and online courses and its criteria are grouped into four areas of evaluation as follows:

- 1. *Moodle organization and layout design*: refers to the ease and clarity of navigation of the Moodle home page, consistent navigation from page to page, visual and functional consistency, and the use of multimedia within the Moodle course website.
- 2. *Instructional design and delivery*: refers to the analysis of learning needs and the systemic approach to organizing blended or online course and building learning paths in a manner that facilitate the transfer of knowledge and skills to the students through the use of a variety of instructional methods, resources, activities, and Moodle tools, which cater to multiple learning styles, strategies, and needs of students.
- 3. *Student engagement:* addresses how the Moodle course design, assignments, and collaborative Moodle tools effectively encourage exchanges amongst the instructor, students, and content.
- 4. *Student support and resources:* refers to information about being a successful learner in a blended or online course, course-related materials, academic, program, and technical support and resources available to students.

The criteria provided in this evaluation rubric represent some of the most important issues instructors face when they used Moodle to design their blended or online learning courses. Each of the above criteria has five sub-criteria. Each sub-criterion was rated using a 3-point scale, where 1 (*developing*) means that little evidence of this criterion present, 2 (*appropriate*) means that evidence of this criterion is clear and is appropriate for this blended or online course, and 3 (*outstanding*) means that evidence of this criterion exceeds the expectations of the "appropriate" criterion, and demonstrates best practices in a manner that models its use. Note that the sub-criterion is given "0" points in one of the three instances, such as: (a) if evidence of the sub-criterion is not present, but should be, based on design of a blended or online course and its content; (b) if evidence of the sub-criterion is present, but not appropriate for this course; or (c) if the criterion is not applicable based on design of a blended or online course. A complete description of the rubric is given in Appendix A.

Our analysis consisted of providing a quantitative overview and narrative summary of the extent to which the Moodle course websites met the above criteria for the delivery of blended learning. Thirteen course Moodle sites (54%) were analyzed.

2.3 STUDENT AND INSTRUCTOR SURVEYS

The student survey was modified by the researchers from the student questionnaire used in the prior study (Owston & York, 2012). Based on the results emerging from the internal consistency test, seven survey items with low item-total correlation coefficients (ranging from .079 to .491) were removed from the survey version used in the prior report. These questions were related to helpfulness of the York's technical support services, extra course

fee for video recordings, students' feelings of isolation and anxiety during the blended course, their time management skills and self-motivation, and self-reported GPA. Another seven items were rephrased to eliminate any possible ambiguity in the statements. For instance, the survey item "Moodle is well organized and easy to navigate" was rephrased to "I was able to find course information easily at the Moodle site." We also developed four new survey items and added them to the survey. Three new survey items were added to explore the improvement of students' perceptions of their learning outcomes in blended courses, compared to typical face-to-face courses. And the fourth new question that we added was used to estimate a proportion of commuting students in blended courses. The resulting final version of students' survey is given in Appendix B.

In addition, an alternative version of the student survey was developed by the researchers to examine students' perceptions of learning in fully online courses (see <u>Appendix C</u>). The online version of the students' survey was executed using a York University web-based survey system (http://www.yorku.ca/surveys/). An access to survey data was password protected to ensure confidentiality of students' responses.

For blended courses, a paper version of the student surveys was administered in class a week or two before the classes ended by the research team. For fully online courses, the instructors were asked to post a link to an online version of the survey for their students either in a "course announcement" forum or on their course home page within Moodle and draw students' attention to it. Online students were able to complete the survey at any time. Closer to the end of the Winter term, students were sent additional reminders to complete the survey. The students who volunteered to participate in a study were asked to read and then sign an informed consent form that was approved by York University's Research Ethics Sub-Committee. The participants were also asked to fill in their student numbers to allow correlation of responses to final course grade. A total of 1,083 respondents (47% response rate) agreed to complete the survey.

The researchers collected data on course instructors from two sources – surveys and interviews. The five instructors were invited to attend a face-to-face meeting: one was held for instructors who taught their courses in Fall 2012, and another meeting was held for instructors who taught in Winter 2013. In the meeting, the instructors were asked to complete a survey which asked about their most recent experience in teaching a blended course. The survey included 24 statements to measure instructor's perceptions of their experience in designing and implementing their blended course, their interaction with pedagogical and technical support given by York, as well as their interaction with students. Each statement was followed by a 5-point Likert-type scale with values ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). In addition, instructors were asked three open-ended questions so that they could describe in their own words the blended model they utilized in their course and share their thoughts on the improvement of support needed for effective design and implementation of blended courses in the future. The Blended Learning Survey for Faculty is provided in Appendix D. For instructors in fully online course the survey was slightly modified and is provided in Appendix E. Sixteen instructors (70% response rate) completed the survey.

3. ANALYSIS OF COURSE MOODLE WEBSITES

Next we present our analysis of course Moodle websites. Each of the 13 courses had its own Moodle website created by the course instructor. Our evaluation of Moodle sites is presented under the headings that represent four most important issues the instructors face when designing a course website for blended and online learning using a Learning Management System: (a) Moodle organization and layout design; (b) instructional design and delivery; (c) student engagement; and (d) student support and resources. More details on the evaluation rubric are given in Appendix A.

3.1 MOODLE COURSE WEBSITE ORGANIZATION AND LAYOUT DESIGN

Our analysis of Moodle course websites revealed that 9 of 13 Moodle sites were organized and navigable in accordance with stated measures. Two of those nine Moodle course sites exceeded the minimum expectations set for the site organization and layout design criteria therefore demonstrated best practice and could be suggested as an appropriate model for design of blended/online courses. Four courses demonstrated little evidence on some measures of the criteria. See Table 2 for further details.

Table 2: Summary of Course Moodle Site Organization and Layout Design (n = 13)

Evaluation criteria	Not present	Developing ¹	Appropriate ²	Outstanding ³
Ease and clarity of navigation of Moodle course website	0	1	8	4
Consistent navigation from page to page throughout Moodle	0	0	5	8
Visual consistency of a Moodle course website	0	1	9	3
Functional consistency of a Moodle course website	0	5	4	4
Use of multimedia	2	2	6	3
Decision for this category*	0	4	7	2

Note: ¹*Developing* means that little evidence of this criterion present. ²*Appropriate*) means that evidence of this criterion is clear and is appropriate for this blended course. ³*Outstanding*) means that evidence of this criterion exceeds the expectations of the "appropriate" criterion.

Some Moodle sites demonstrated inconsistencies in content organization and use of functionalities on their Moodle pages which could put an obstacle in communicating course expectations to a student in a clear and sequential order. The placement of course information on the course home page is crucial for a blended/online course. Moodle allows instructors to place important, course-related information in a general area located near the top of the home page. A number of Moodle sites had a large number of links to various course information (e.g., course outline, lecture notes, articles for reading, instructions for assignments, external links, and others) located in the high priority area that could be too

^{*}Decision on how many Moodle sites correspond to an evaluative measure is determined based on a total score in a particular category, which is given in Table 6.

overwhelming for students' eyes to locate necessary information. Furthermore, some weekly sections on a course home page had two or three links to resources or activities. A few Moodle site used numerous generic names rather than specific titles of lectures and readings on their home page. Therefore, such use of titles makes it difficult to navigate the website efficiently. In addition, many Moodle sites provided links to resources without giving a subtle visual cue or textual directives. Use of such links can increase frustration levels for many students as they are not aware where those links could take them next – either to a document, an external video, or elsewhere. Overall, most sites were clean and had sufficient amount of white space on the margins that is important for better readability of online text.

Some Moodle sites continued displaying Word- or PDF-processed documents, PowerPoint presentations, and audio files as individual items that needed to be open in a separate window to be able to view or listen to the file. Although more instructors this year embedded documents into Moodle, particularly those in a .pdf format and rich media files, that made the viewing experience smoother and more comfortable for students, especially those who access course materials using mobile devises or using computers in the University computer labs.

With regards to the use of multimedia elements, most course Moodle sites provided students with ample opportunity to access and review lecture content captured in rich media format, such as audio recordings and a combination of PowerPoint slides and audio (using Camtasia Relay). Two courses provided no evidence of any multimedia use. Most audio/video files met minimum audio and video standards, such as clarity, length, and system compatibility. In addition, most instructors made effective use of external media-sharing websites (e.g., YouTube, Vimeo etc.) either by embedding video fragments into their course page or by simply providing links to audio or video fragments relevant to the subject. One course provided links to a number of YouTube videos, access to which was terminated due to multiple third-party notifications of copyright infringement.

3.2 INSTRUCTIONAL DESIGN AND DELIVERY

Our analysis of Moodle course websites revealed that one Moodle site met the minimum criteria and four Moodle sites exceeded the minimum expectations for effective instructional design and delivery of a blended/online learning course. The other eight courses scored low on most sub-criteria in this category that could weaken the effectiveness of the learning process. Failure to provide details regarding the organization of the course and to explain how blended/online course was different could cause confusion for students and increase their anxiety about course expectations. See Table 3 for further details.

Nine Moodle sites demonstrated enough evidence of structuring the course content with resources and activities in a logical sequence (i.e., building learning paths) in order to meet the learning objectives of the course and to help students engaged with the course content on Moodle. A few courses though were structured inconsistently in terms of resources organization and their placement within weekly sections. Table 4 also indicates that most course websites provided adequate resources and/or activities to meet the diverse learning needs of the students in the blended course; most evidence was found in the course syllabir rather than on the pages of the course Moodle sites.

Table 3: Summary of Moodle Instructional Design and Delivery (n = 13)

Evaluation criteria	Not present	Developing ¹	Appropriate ²	Outstanding ³
Organization of a blended/ online course	2	4	3	4
Building learning paths	0	4	6	3
Meeting students' diverse learning needs	0	1	6	6
Use of Moodle technology	0	2	10	1
Use of a variety of learning activities	1	0	9	3
Decision for this category*	0	8	1	4

Note: ¹*Developing* means that little evidence of this criterion present. ²*Appropriate*) means that evidence of this criterion is clear and is appropriate for this blended course. ³*Outstanding*) means that evidence of this criterion exceeds the expectations of the "appropriate" criterion.

As can be seen from Table 3, little evidence was found for an organization of a blended course. Similar to the prior report (Owston & York, 2012), the instructors provided information about the organization of the blended course in the course syllabus rather than placing it on a course home page and draw students' attention to it. Only seven Moodle sites (6 blended and 1 online courses) showed evidence of providing students with detailed information about the organization of the course that was put in the general area of the home page. Representative descriptions of what was expected from students in a blended or online course were:

- It is important to note that this online course differs from typical university courses in that formal lectures are not held and interaction with the instructor and teaching assistants (TAs) is restricted to email or telephone contact. Consequently, you must be prepared for self-study and for monitoring and pacing your studying in order to avoid last minute cramming before tests. I have provided a link on Moodle to "Reading Guide and Test Schedule" to help you pace your studying. Your textbook is clear and concise and should be quite manageable on your own. If you encounter difficulties, however, we are here to help you. We will be meeting on campus only 4 times over the year, when you write your tests.
- This is a blended learning course which involves a combination of online instruction/materials and interactive in-class lectures led by the instructor. The course includes required readings, websites, videos, lectures (both online and in person), and online and in-class discussions. The required readings and online materials are central to the course. The in-class lectures and discussions will serve to enrich, clarify, and illustrate crucial issues from the online materials.
- This course is what is called a 'blended' course, which means that there are course requirements fulfilled online as well as in class. So instead of meeting in person for a 2 hour lecture and a 1 hour tutorial, you will engage what would normally be

^{*}Decision on how many Moodle sites correspond to an evaluative measure is determined based on a total score in a particular category, which is given in Table 6.

considered lecture material online prior to attending an extended tutorial. That tutorial will consist of a short mini-lecture and [questions and answers] session with me and then a discussion or activity conducted by your TA. We will be using Moodle as a means to disseminate readings, lectures and to facilitate online communication. The online activities include discussion threads on the readings, group work, short lectures and videos. While the online component is flexible in that it allows you to work from home or elsewhere, it is equally as important to your understanding of course content. All activities are critical to your ability to understand the material and do well in this course. None of them are optional.

• This is a blended format course, involving both face-to-face and online interaction between students and instructor. It is built primarily around the readings, and the format assumes familiarity with the relevant readings for that week. Careful outside preparation before class is therefore a condition for success in the course, as is active student participation. Lectures, discussion and writing will take place in both the online and classroom environments. The length and frequency of the regular Tuesday face-to-face meetings will therefore vary from week to week, although we will meet as a class most weeks.

Two Moodle sites provided no information regarding the nature of the course and its organization, even in a course syllabus. It also needs to be mentioned that most course instructors followed their own template of a course syllabus, suggesting that the instructors may have very different ideas about course structure and policies. Additionally, a few syllabi were poorly formatted that may reflect negatively on the instructor's attitude to the course and the quality of teaching.

Most instructors used a traditional set of Moodle technologies such as assignments and forums. While it is considered adequate and appropriate for blended/online learning according to our rubric, the use of only these Moodle technologies is less likely to promote a higher level of student communication and learning outside of the traditional classroom. A few instructors used Turnitin, Quizzes, Grades, Chat, Progress Tracking and Books. Additionally, four Moodle sites acted more as a depository of course documents and reference materials for self-directed learning rather than an active and supporting community of learners provided with multiple activities aimed at facilitating students' understanding of the course material. Future course offerings in the blended/online format should consider using appropriate technologies supported by Moodle to diversify their teaching approaches, to promote peer learning and support, and to facilitate contact more easily with tutorial leaders for those courses where tutorials or discussions are held online.

3.3 STUDENT ENGAGEMENT

In the student engagement category, our analysis revealed that four Moodle sites met the minimum criteria and one Moodle site exceeded the minimum expectations for effective student engagement in the blended/online course. Eight courses demonstrated little or no evidence on some measures of the criteria in the engagement category. Additionally, nine courses did not produce any evidence of having group work as part of their course. See Table 4 for further details.

Table 4: Summary of Student Engagement on Course Moodle Site (n = 13)

Evaluation criteria	Not present	Developing ¹	Appropriate ²	Outstanding ³
Student-to-student interaction	2	4	5	2
Student-to-instructor interaction	0	3	5	5
Student-to-content interaction	1	1	5	6
Organization and management of discussion forums	1	3	5	4
Organization and facilitation of group work	9	2	1	1
Decision for this category*	2	6	4	1

Note: ¹*Developing* means that little evidence of this criterion present. ²*Appropriate*) means that evidence of this criterion is clear and is appropriate for this blended course. ³*Outstanding*) means that evidence of this criterion exceeds the expectations of the "appropriate" criterion.

Most instructors utilized a course announcement feature as a tool to communicate course-related information, as well as to keep students updated about any changes occurring during the course. It is worth mentioning that six courses demonstrated an exemplary model of organizing and managing student interaction with content and among themselves. In most courses, instructors generally managed, monitored, and participated in students' discussions. Most online forums on Moodle were well-organized and managed accordingly. Two courses utilized wiki technology to facilitate students' group work.

3.4 STUDENT SUPPORT AND RESOURCES

Most course Moodle sites showed little evidence in the student support category suggesting that instructors may wish to develop guidelines for learning support in a blended/online course, as well as to present more clearly access to student support resources and services available on Moodle pages. See Table 5 for further detail.

None of the Moodle sites offered adequate information about being a successful learner in a blended course. One course, however, provided study tips for students which were mostly tied to the preparation for tests. Ten Moodle sites demonstrated evidence of providing students with links to course-related information, often provided in specially designated areas that could be easily located by students –in a general area, within a relevant weekly section, or in a widget located on the right-hand side. The course-related information usually included: a course outline, a calendar of due dates, assignment requirements, evaluation rubrics, an online code of conduct, a link to academic integrity tutorial, preparation notes for tutorials, examples of work, and the like. Other courses provided course-related information in their syllabi. Six courses embedded widgets into their home pages, for instance, recent activities, latest news, and section links.

^{*}Decision on how many Moodle sites correspond to an evaluative measure is determined based on a total score in a particular category, which is given in Table 6.

Table 5: Summary of Student Support and Resources Provided on Course Moodle Sites (n = 13)

Evaluation criteria	Not present	Developing ¹	Appropriate ²	Outstanding ³
Information about being a successful learner in a blended/online course	9	2	2	0
Course-related information	0	3	8	2
Technical support and resources	7	4	2	0
Academic support and resources	2	10	1	0
Institutional/program support and resources	2	9	4	0
Decision for this category*	3	10	0	0

Note: ¹*Developing* means that little evidence of this criterion present. ²*Appropriate*) means that evidence of this criterion is clear and is appropriate for this blended course. ³*Outstanding*) means that evidence of this criterion exceeds the expectations of the "appropriate" criterion.

Two courses provided adequate access to information about technical support in order to assist students in effectively using the technologies in a blended/online course. Such support included either links or visual tutorials uploaded to the Moodle site (e.g., links to LTS' resources on podcasting, how to subscribe to podcasts, Moodle quick start guide, Moodle browser settings; a forum for discussing technology issues; etc.).

Eleven courses offered access to resources related to York's academic support in order to assist students in improving their strategies for academic success and achieving better academic goals (e.g., links to writing center services, accessibility services etc.). Yet most of these links were located inside the course syllabus. Using a built-in widget on Moodle, seven course sites provided access to a wide range of library resources specific to the course subject (e.g., research help, subject guides for film studies, best online resources, course reserves etc.).

Most instructors offered access to institutional and program policies in their course syllabi, rather than on their Moodle sites. Most access to institutional and program support and resources was limited; only four course sites provided adequate access to resources related to university and program policies, procedures and regulations.

3.5 SUMMARY

Overall, the strongest areas of most Moodle sites evaluated were site organization, layout design, and instructional delivery. Additionally, five courses offered ample opportunities to achieve interaction and engagement. Five course Moodle sites that scored in the range of 42 – 48 out of 60 (maximum) appeared to meet the expectations appropriate for a blended/online course. The other eight course Moodle sites scored between 23 and 33 points, suggesting that they provided little evidence of the expectations appropriate for a blended/online course. Therefore, these Moodle sites need improvement, particularly in the areas of

^{*}Decision on how many Moodle sites correspond to an evaluative measure is determined based on a total score in a particular category, which is given in Table 6.

student engagement and student support and resources required for a blended/online course. See Table 6 for a quantitative summary of evidence for each course Moodle website in accordance with four major categories discussed in this section. Each measure represents an aggregated score that is derived from totaling the rating score given to five measures associated with each of the four criteria. More details on how to interpret each score for the category, as well as the final score of the Moodle site are provided in Appendix A.

Table 6: Moodle Course Websites: Total Score for Four criteria and Final Score

Courses	Website Organization	Instructional Design	Student Engagement	Student Support	Final Score
Course A	12	13	12	7	44
Course B	9	8	8	5	30
Course C	8	6	4	5	23
Course D	13	15	11	9	48
Course E	9	9	8	5	31
Course F	10	8	7	4	29
Course G	15	12	14	5	46
Course H	12	8	1	4	25
Course I	12	13	11	6	42
Course J	12	13	11	6	42
Course K	10	8	6	2	26
Course L	6	8	9	2	25
Course M	11	9	9	4	33

4. STUDENT RESPONSES TO BLENDED LEARNING

In this section, the results of the student survey on blended learning are presented under the headings of: Increase York's Ability to Respond to Enrolment Pressures; Provide Better Experience for Commuter Students; Better Engage Students; and Improve Student Learning. Under each heading, we provide an analysis of descriptive statistics. For more details on mean scores and standard deviations consult Appendix F. Following the quantitative analysis, a summary of students' written comments is given.

4.1 INCREASE YORK'S ABILITY TO RESPOND TO ENROLMENT PRESSURES

Six survey questions addressed York's ability to respond to enrolment pressures. In particular, two questions dealt with student satisfaction with their eLearning course and another four questions related to student preference for instructional format. Table 7 shows that students reported higher levels of satisfaction (72% agreed and strongly agreed), similar to those reported in the first year of evaluation. Slightly fewer (62.2%) would take another blended course in the future if given the opportunity as compared to 69.7% reported in 2012.

Table 7: Students Responses to Questions Relating to Enrolment Pressures (%)

Survey Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Q1 (overall satisfied)	2.1	9.0	16.9	45.8	26.2
Q3 (I'd take another course) ^a	6.9	9.7	20.5	29.5	32.7

Note: a 0.7% responded as "Not Applicable."

Interestingly, a breakdown for Q1 across eLearning models revealed three drastic patterns of students' satisfaction with the courses deviating from the total mean for course satisfaction (M = 3.85) across all courses (see Table 8). The most satisfied students were in online courses (M = 4.23), less satisfied in Blends I and II (3.82 and 3.94 respectively), and least satisfied were in Web-enhanced (M = 3.49) courses. As to Q3, most students in fully online courses reported that they were most likely take another course in a similar format in the future, followed by students taking a course in other modalities.

Table 8: Students Responses to Questions Relating to Enrolment Pressures across eLearning Models: Means and Standard Deviation

Survey Item	Web- enhanced	Blend I	Blend II	Fully Online	Total
Q1 (overall satisfied)	3.49 (1.02)	3.82 (.97)	3.94 (.95)	4.23 (.87)	3.85 (.98)
Q3 (I'd take another course)	3.70 (1.18)	3.65 (1.25)	3.55 (1.30)	4.38 (.91)	3.80 (1.05)

Note. Based on a 5-point Likert-type scale ranged from 1 (strongly disagree) to 5 (strongly agree).

Furthermore, when we compare student satisfaction across eLearning formats, it appeared that students in mid-size, large, and extra-large classes were the most satisfied with either

blended or fully online courses (see Table 9). In particular, we found that students in extralarge classes were most satisfied with Blend II (M = 4.66); followed by students in mid-size classes who were the most satisfied with Blend I (M = 4.39) and students in large classes were the most satisfied with fully online learning.

Table 9: Students Satisfaction across eLearning Models and Class Sizes

Course format	Class Size ¹	Mean ²	Std. Deviation
Web-enhanced	Intermediate (34-103)	4.00	.82
	Large (104-211)	3.40	1.03
	Total	3.49	1.02
Blend I (less than 30% online)	Small (1-19)	3.38	.92
	Medium (20-33)	4.39	.63
	Intermediate (34-103)	4.01	.83
	Large (104-211)	3.60	1.06
	Total	3.82	.97
Blend II (50%)	Medium (20-33)	4.19	.64
	Intermediate (34-103)	3.54	.99
	Extra-large (over 211)	4.66	.48
	Total	3.94	.95
Fully online	Intermediate (34-103)	4.00	1.22
	Large (104-211)	4.26	.83
	Total	4.23	.87

Note: ¹Class size metrics is adopted from a study by <u>Bandiera</u>, <u>Larcinese</u>, <u>and Rasul (2010)</u>. ²Based on a 5-point Likert-type scale ranged from 1 (*strongly disagree*) to 5 (*strongly agree*).

When asked to choose their preferred format of instruction (Q24), about half of the participants (51.9%) favored instruction in a blended format, whereas a third of the participants inclined towards a traditional mode of instruction (34%) and only 14.1% chose entirely online (see Table 10). Similar preferences were reported in the 2012 evaluation, 27.6% chose face-to-face, 57.6% chose blended, and 14.7% chose entirely online instruction (Owston & York, 2012).

Table 10: Students Responses to Course Format Preferences (%)

Course	Entirely Face-to-Face	Blended	Entirely Online
Q24: Course format	34.0	51.9	14.1
Q25: Lecture format	36.6	21.8	41.6
Q26: Tutorial format	48.3	26.9	24.9
Q27: Discussion format	38.6	31.8	29.6

In contrast to the findings presented in the 2012 report, students' preference for a lecture in a blended format has declined by nearly 20%, whereas video lectures have gained more support by 18%. As to the tutorial sessions, we have observed an increase in students'

preference for attending in-class tutorials by 9%, while their preference for online tutorials have dropped by almost 7%; students preference for tutorials in a blended format has remained about the same (26.9% in 2012-13 and 28.3% in 2012). Similar tendency have been noted in relation to the modes of discussion activities – 8% increase for in-class discussions, about 9% decline for online discussions, and students' preference for a combination of face-to-face and online discussions has remained consistent.

In Table 11, we present student preferences for course format across eLearning models. Nearly two-thirds of students in fully online courses gave their preference for learning in entirely online environment. Students in Web-enhanced and Blend I courses, chose blended learning over face-to-face and fully online instruction. Interestingly, Blend II students' preferences were almost equally divided between face-to-face and blended format of instruction

Table 11: Students Responses to Course Format Preferences across eLearning Models (%)

Course	Entirely Face-to-Face	Blended	Entirely Online
Web-enhanced	30.8	64.2	5.0
Blend I	35.5	54.2	10.2
Blend II	41.6	47.3	11.1
Fully Online	6.7	33.3	60.0

4.2 PROVIDE BETTER EXPERIENCE FOR COMMUTER STUDENTS

Responses to the seven survey items related to improving commuter students' university experience are given in Table 12. The responses suggest that the overwhelming majority of students (90%) commuted to campus, while only a fraction of students (9.5%) lived on campus for the duration of their course (note that responses to Q28 are not available for summer courses). The responses indicate that nearly two thirds of students (66.6%) worked during their period of study, while another third (33.4%) did not work. The employment workload reported by students concurs with the findings reported in the 2012 evaluation.

In terms of students' perceptions of blended learning benefits, an overwhelming majority of the participants (71.3%) responded that they agreed or strongly agreed that the eLearning course allowed them to have more flexibility in their personal schedule, as compared to a slightly higher frequency of responses (79.1%) was given to Q9 in 2012. Additionally, slightly fewer (63.2%) indicated that taking an eLearning course resulted in less travel time compared to 72.2% reported in the 2012 evaluation.

Table 12: Students Responses to Questions on Better Experience for Commuter Students (%)

Survey Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
Q9 (flexibility in personal schedule) ^a	3.4	7.8	16.9	28.8	42.5	
Q10 (reduced travel time) ^b	6.3	12.9	15.4	24.2	39.0	
Q19 (extra effort required) ^c	7.1	21.1	24.3	31.3	15.7	
Q15 (feel connected to others) ^d	12.0	23.9	31.0	21.8	10.2	
Q18 (overwhelmed with information) ^e	10.4	26.5	28.4	23.3	10.3	
Q28 (commuting status) ¹	9.5% live on campus 90.0% commute to campus					
Q29 (employment workload)	Not working – 33.4 1-9 hours – 15.0 10-19 hours – 25.3 20-29 hours – 16.1 30-39 hours – 7.0 40+ hours – 3.2					

Notes: a 0.6%, b 2.2 %, c 0.6%, d 1.1%, and e 1.1% responded "Not Applicable."

Less than half of participants (47%) responded that eLearning courses required extra effort (34.9% was reported in 2011-12). Nearly one- third of students (32%) reported that they agreed that they felt more connected to other students; a similar frequency of responses was reported in 2012). The responses to Q18 suggest that about one-third of the participants (33.6%) felt overwhelmed with information in the eLearning course (24.1% reported in 2012).

Table 13: Students Responses to Questions on Better Experience for Commuter Students across eLearning Models: Mean and Standard Deviation

Survey Item	Web- enhanced	Blend I	Blend II	Fully Online
Q9 (flexibility in personal schedule) ^a	3.1 (1.20)	3.92 (1.15)	4.28 (.96)	4.61 (.70)
Q10 (reduced travel time) ^b	2.65 (1.35)	3.77 (1.32)	3.70 (1.39)	4.67 (.65)
Q19 (extra effort required) ^c	3.70 (1.10)	3.27 (1.18)	3.24 (1.17)	2.61 (1.16)
Q15 (feel connected to others) ^d	2.97 (1.25)	2.96 (1.15)	2.96 (1.24)	2.36 (1.20)
Q18 (overwhelmed with information) ^e	3.46 (1.18)	2.87 (1.19)	3.02 (1.15)	2.36 (1.08)

Note. Based on a 5-point Likert-type scale ranged from 1 (strongly disagree) to 5 (strongly agree).

When we compare students' responses to questions on better experience for commuter students across eLearning models (Table 13), the responses suggest that fully online courses provided greater flexibility in personal schedule and reduction of travel time, followed by Blend II courses. Further, the results suggest that students in Web-enhanced courses (M = 3.70) reported a higher workload rather than in fully online courses (M = 2.61). Interestingly, students felt more connected to their peers in Web enhanced and blended courses rather than in fully online courses. Additionally, students felt more overwhelmed with course information in Web-enhanced courses (M = 3.46), as compared to students in fully online courses (M = 2.36).

¹ 13.5% missing data (Q28 was not part of the survey administered during Summer 2012).

4.3 BETTER ENGAGE STUDENTS

Twelve survey questions dealt with topics related to student engagement, interaction, and effectiveness of technology use in eLearning courses (see Tables 14 through 19). In Table 14, the responses to Q11 suggest that a plurality of students (44.2%) felt more engaged in their eLearning course. In particular, students in fully online and Blend I courses felt more engaged than in Blend II and Web-enhanced courses (see Table 15). Students in their reactions to the perception of engagement in blended courses are being consistent with those reported in 2012 (47.7% felt more engaged, 26.6% were neutral, and 25.7% did not feel more engaged). Nearly one-third of the participants (32.6%) reported that they did not feel they had more opportunities to ask questions in their course, whereas similar number of students (35.5%) opted for neutrality (see Table 14). The analysis of mean scores across the eLearning models (Table 15) suggests that students in fully online courses felt more engaged, while students in Blend II courses appeared to perceive more opportunities for asking questions.

Table 14: Students Responses to Questions on Engagement (%)

Survey Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Q4 (online and F2F components enhanced each other) ^a	6.6	15.0	25.9	31.6	20.1
Q7 (clearly communicated expectations) ¹	2.4	7.9	16.0	37.7	36.1
Q11 (more engaged) ^b	9.5	15.3	30.6	28.4	15.8
Q12 (likely to ask questions more) ^c	7.8	23.1	35.5	22.8	9.8

Notes: a 0.8%, b 0.4 %, and c 0.9% responded "Not Applicable."

Similar to the 2012 findings, a majority of students (51.7%) felt that the online and face-to-face components enhanced each other. Of interest was that students across the three models of blended learning (see Table 15) took a similar position towards the relationship between online and face-to-face components. Additionally, more than two-thirds of the participants (73.8%) perceived that the course expectations were clearly communicated in their course (Table 14). The analysis of mean scores indicates that students in fully online courses felt much stronger about communication of course expectations (M = 4.48) than students in blended courses (see Table 15).

¹ 11% missing data (Q7 was not part of the survey administered during Summer 2012).

Table 15: Students Responses to Questions on Engagement across eLearning models: Means and Standard Deviation

Survey Item	Web- enhanced	Blend I	Blend II	Fully Online
Q4 (online and F2F components enhanced each other)	3.31 (1.18)	3.43 (1.20)	3.41 (1.20)	NA
Q7 (clearly communicated expectations)	3.74 (1.01)	3.95 (1.05)	3.94 (.95)	4.48 (.93)
Q11 (more engaged)	3.08 (1.19)	3.30 (1.16)	3.12 (1.26)	3.51 (1.17)
Q12 (likely to ask questions more)	2.94 (1.25)	2.93 (1.09)	3.23 (1.07)	2.97 (1.19)

Note. Based on a 5-point Likert-type scale ranged from 1 (strongly disagree) to 5 (strongly agree).

Four of the questions focused on the quantity and quality of interaction with other students (Q13 and Q14) and between students and instructor (Q16 and Q17) in the blended and fully online courses (see Table 16). An overall response to these questions was neither positive nor negative – almost equal proportion of students were either disagreeing, being neutral, or agreeing with the statements regarding their level of interaction with other students or their instructor. Compared to the 2012 evaluation, it appears that students have reported slightly lower levels of perceptions of their interaction with the instructor.

Table 16: Students Responses to Questions on Interaction (%)

Survey Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Q13 (increased <u>amount</u> of interaction among <u>students</u>) ^a	13.0	21.4	25.5	24.9	14.1
Q14 (better <u>quality</u> of interaction among <u>students</u>) ^b	11.2	20.1	30.8	25.3	11.4
Q16 (increased <u>amount</u> of interaction with <u>instructor</u>) ^c	12.5	21.9	32.5	22.9	9.0
Q17 (better <u>quality</u> of interaction with <u>instructor</u>) ^d	9.9	16.4	37.1	22.9	11.9

Notes: a 1.0%, b 1.2 %, c 1.3%, and d 1.8% responded "Not Applicable."

The analysis of mean scores across eLearning models suggests that students in blended courses seemed to report higher levels of interaction with their instructor and other students, as compared to students in fully online courses (see Table 17). In particular, students' reactions towards better interaction in their course were revealed in Blend II courses.

Table 17: Students Responses to Questions on Interaction across eLearning Models: Means and Standard Deviation

Survey Item	Web- enhanced	Blend I	Blend II	Fully Online
Q13 (increased <u>amount</u> of interaction among <u>students</u>)	3.08 (1.23)	3.07 (1.24)	3.11 (1.35)	2.38 (1.26)
Q14 (better <u>quality</u> of interaction among <u>students</u>)	3.15 (1.13)	3.02 (1.18)	3.11 (1.27)	2.57 (1.28)
Q16 (increased <u>amount</u> of interaction with <u>instructor</u>)	2.81 (1.30)	2.88 (1.15)	3.04 (1.20)	2.79 (1.21)
Q17 (better <u>quality</u> of interaction with <u>instructor</u>)	3.02 (1.24)	3.03 (1.17)	3.14 (1.21)	2.96 (1.22)

Note. Based on a 5-point Likert-type scale ranged from 1 (strongly disagree) to 5 (strongly agree).

Four survey items related to students' perceptions of the effectiveness of technology use in the blended and fully online courses (see Table 18). The use of technology, particularly Moodle, in the eLearning courses received a very positive response from students. An overwhelming number of participants (84.8%) reported that they were able to navigate and locate easily course information on Moodle, a slightly fewer participants (77.6%) found the resources on Moodle helpful, and 74.2% reported that the technology used for an online portion of their course was reliable. Compared to the 2012 evaluation, students' perceptions of Moodle navigation and the quality of online resources have improved by 10.7% and 5% respectively. Still, a number of students (21.7%) felt that technology interfered with their learning in the eLearning courses, compared to a smaller fraction (9%) reported in 2012.

Table 18: Students Responses to Questions on Use of Technology (%)

Survey Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Q5 (easy to find course information on Moodle)	1.1	4.0	10.0	37.2	47.6
Q6 (Moodle resources were useful)	1.4	4.1	16.9	40.4	37.2
Q8 (technology for online activities was reliable) ^a	3.0	5.9	16.7	38.9	35.3
Q23 (technology interfered with learning) ^b	23.9	32.2	20.1	15.0	6.7

Notes: a 0.2% and b 2.1 % responded "Not Applicable."

The analysis of mean scores across eLearning models suggests that students in fully online courses seemed to report higher levels of perception of technology use in their courses, as compared to students in Web-enhanced. Additionally, the findings suggest that online students appeared to be more equipped to handle technology challenges than students in blended courses (see Table 19).

Table 19: Students Responses to Questions on Use of Technology across eLearning Models: Means and Standard Deviation

Survey Item	Web- enhanced	Blend I	Blend II	Fully Online
Q5 (easy to find course information on Moodle)	4.15 (.87)	4.27 (.88)	4.21 (.91)	4.53 (.72)
Q6 (Moodle resources were useful)	3.76 (.99)	4.05 (.95)	4.22 (.74)	4.30 (.85)
Q8 (technology for online activities was reliable)	3.56 (1.18)	3.95 (1.05)	4.01 (.89)	4.53 (.67)
Q23 (technology interfered with learning)	2.49 (1.24)	2.38 (1.23)	2.63 (1.31)	1.98 (1.02)

Note. Based on a 5-point Likert-type scale ranged from 1 (strongly disagree) to 5 (strongly agree).

4.4 IMPROVE STUDENT LEARNING

Four questions asked students about their perceptions of whether the blended or fully online format helped improve their learning (see Table 20). Nearly two-thirds of students indicated that they agreed or strongly agreed that their interest in the subject matter increased (68.4%), and their understanding of key concepts of the course was better (63%) as compared to their experiences in previous face-to-face courses. Almost half of participants (49.7%) felt that they had more opportunities in the eLearning course to reflect on what they had learned. The report also shows that nearly one-third (35.6%) perceived that the eLearning course helped them develop better communication skills than traditional courses.

Table 20: Students Responses to Questions on Learning Outcomes (%)

Survey Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Q2 (increased interest in subject) ¹	3.8	8.3	19.5	41.1	27.3
Q20 (improved understanding of concepts) ^a	2.2	7.2	27.1	45.2	17.8
Q21 (developed better communication skills) ^{2, b}	6.5	22.1	35.0	24.9	10.7
Q22 (more opportunities to reflect) ^{3, c}	3.0	16.6	30.0	35.8	13.9

Notes: ^a 0.5%, ^b 0.6 %, and ^c 0.6% responded "Not Applicable."

The analysis of mean scores across eLearning models suggests that students in fully online and Blend II courses seemed to report higher levels of perception of increased interest in subject and improved understanding of key concepts, as compared to students in Webenhanced courses. Interestingly, students in Webenhanced and Blend II courses perceived that they improved their communication skills, as opposed to students in fully online courses. Additionally, the findings suggest that students were offered almost equal opportunities for reflection regardless of whether they were enrolled in a blended or fully online course (see Table 21).

¹ 10.8%, ² 11.1%, and ³ 11.2 missing data (Q2, Q21, and Q22 were not part of the survey administered during Summer 2012).

Table 21: Students Responses to Questions on Learning Outcomes across eLearning Models: Means and Standard Deviation

Survey Item	Web- enhanced	Blend I	Blend II	Fully Online
Q2 (increased interest in subject)	3.54 (1.12)	3.76 (1.06)	3.95 (.96)	4.03 (1.04)
Q20 (improved understanding of concepts)	3.58 (.98)	3.64 (.96)	3.72 (.91)	3.97 (.95)
Q21 (developed better communication skills)	3.18 (1.19)	3.07 (1.07)	3.14 (1.12)	2.93 (1.14)
Q22 (more opportunities to reflect)	3.28 (1.01)	3.36 (1.04)	3.50 (1.06)	3.49 (1.14)

4.5 STUDENTS' WRITTEN COMMENTS

Students had the opportunity to provide written comments on the survey. Two themes were dominant: advantages of eLearning and challenges of eLearning courses.

Advantages of eLearning. Many students felt that learning in face-to-face lectures and tutorials was more engaging and more effective. However, some students admitted that online learning allowed them to learn at their own pace and increased flexibility in their schedule. Another benefit was that students did not have to commute to class every week and that way saved money and time. Students really appreciated courses in which instructors allowed them unlimited access to videos and practice quizzes in Moodle, which they noted were extremely helpful in their learning and as a result they performed better on the tests. Most students perceived that online material posted on Moodle supplemented and enhanced the material in lectures. Some of the typical feedback with regards to the strengths of combining face-to-face and online components was as follows:

- I really like the fact that I can access the lectures online, at my own time.
- I appreciated online lectures because of the ability to return and replay them, as well as pausing to make sure I understood what was said, to get a longer look at a graph, and to take fuller notes. The reduced time face-to-face helped me fit the course into a hectic class schedule while still maintaining a personal connection to the class.
- I believe that having video presentations were very beneficial. I was able to access it anytime I needed it, plus if I missed anything, I just had to rewind back.
- The posted online material supplemented and enhanced the material in lecture. Being that this course talks about history, the videos helped me understand the historical events better.
- Online lectures were very helpful. Moreover, by the time of the final exam it was the most effective tool of preparation.

Challenges of eLearning courses. There were many students who felt that watching lectures online could be challenging because of distractions from things like social networks. They also felt that learning online was more time-consuming and could be alienating. Some students identified that online lectures, such as video recordings, were beneficial to their learning. They indicated, however, that it allowed them to procrastinate. In weeks that lectures were online some students admitted to neglect watching them all together, and acknowledged that this way they could fall behind on course work. There were some

students who articulated that online lectures were hard to fit into their personal schedule and therefore it made them easy to fall behind in the course. Comments also showed that some students experienced challenges while working online over a computer monitor. For instance, students noted:

- Compared to face-to-face courses, at the present moment I would overwhelmingly choose face-to-face over blended, even with a 70 min. commute.
- Having a combination of both face-to-face and online would be great, but face-to-face allows more focus and less distraction from online media, social networks, etc.
- Personally I do not like to use technology, due to light sensitivity. So online tutorial and materials is something I rather not experience again.
- The online lectures can make it more accessible, especially to students with disabilities.
- I prefer face-to-face course formats where the lectures are entirely given in class and where I am less inclined to procrastinate.

With regards to Moodle, there were several issues raised by student: some were of technical nature while others were of educational matter. These included glitches and miscommunication or lack of communication of course-related information. This suggests that instructors should state clearly critical course information on Moodle, such as include important dates, deadlines for assignments, and the like. Students also noted confusion with the course schedule. They believed it was easy to mix up when the course was taught online or in class, especially in last minute or mid-term changes of online to face-to-face modes. Some of the comments are worth mentioning:

- As far as I have observed, there has been little to no online quizzes, tutorials, or activities, not sure how this course qualifies as blended.
- What online resources? We do everything face to face. Well the lecture recordings don't work half the time.
- I believe that this blended course was unfair. It wasn't expected and was not informed about this type of teaching. I think consent should have been taken prior before putting this type of teaching style upon students. Everyone has a different way of learning. This type of style was not effective for me. I personally didn't learn anything. It was mostly self-taught; it could have just been an online course.
- The only thing I would change is ensuring that homework and assignment details are adequately and more clearly written online and found with easy access.

Students felt that online lectures seemed longer than in-class lectures and suggested that recorded lectures should be shortened or divided in smaller parts. A traditional length of face-to-face lectures taught online made it hard to stay engaged, listen, read the material presented, and understand core concepts presented in the lecture. Students noted that it was difficult to study online in some course subjects. In terms of format of lectures, students pointed out that instructors should use various audio-visual methods and media to communicate information and structure online lectures. Some students voiced a need for the face-to-face lectures and tutorials throughout the term. That way they could ask the instructor questions in 'real-time', which was noted as a very significant component in their learning. A representative comment pertaining to online lectures was:

• Even though I would prefer online lectures or tutorials, I found that I was hard for me to pay attention when online and often couldn't commit to listen to the whole thing or anything at all. I would rather be in class because then I pay more attention and feel more engaged even though the commute is a waste of time; the experience in class is worthwhile.

As to participation in online forums on Moodle, students' responses varied. Some students felt that online posts decreased the depth of postings to a mere opinion and therefore online tutorials limited interaction with the instructor and their peers. It also seemed that some students did not feel accountable for their participation in Moodle discussions. For instance, one student commented:

- I personally felt VERY overwhelmed with the amount of material posted online (not including the articles). It was VERY challenging to keep up with all the forums.
- Accountability on students to participate; there was no grade allocated for online participation.

4.6 SUMMARY

From the above responses a clear majority of students reported higher levels of satisfaction with their blended or online learning course, particularly in mid-size, large, and extra-large classes. Nevertheless, only half of the participants had a preference for instruction in a blended format and a small fraction chose a fully online mode of instruction. In relation to a preferred mode of learning activities, a plurality of students were inclined to watch recorded lectures online, attend in-class tutorials, and participate in face-to-face.

Since most students commuted to campus, they felt quite positive about the benefits of blended or online learning, such as greater flexibility in their personal schedule, substantial reduction of travel time to campus, and usefulness of online resources. The use of Moodle and other technology in the blended/online course appeared to be beneficial to student learning experiences. Of concern, however, was that only one-third of students perceived more connected to other students and felt overwhelmed with information in their eLearning course.

The findings show that a solid majority of students appeared to increase their interest in the subject matter and improve their understanding of key concepts of the course. However, less than half of students felt more engaged in their eLearning course and perceived that they develop better communication skills, as compared to traditional courses. These findings imply that instructors may wish to explore more innovative strategies to achieve better engagement and interaction. At the same time instructors need to make sure that they are not creating an additional workload than students normally would have had in a traditional lecture style course.

5. INSTRUCTOR RESPONSES TO BLENDED AND ONLINE LEARNING

The instructors' perceptions of teaching a blended or fully online course were grouped under the same four criteria that were used for student responses. The instructor survey responses are quantified and presented in the frequency tables. This is followed by a brief analysis of their responses to the open-ended survey questions. Sixteen out of 23 instructors completed a survey.

5.1 INCREASE YORK'S ABILITY TO RESPOND TO ENROLMENT PRESSURES

With regard to issues related to York's ability to respond to enrolment pressures by offering blended and online learning, the instructor responses are provided in Table 22. The results suggest that a majority of instructors (13) gave preference to teach their courses in the blended format, where two instructors leaned towards teaching in a fully online format, and one instructor opted for a traditional mode of instruction.

To strengthen further their position on blended and/or online learning, 15 instructors agreed or strongly agreed that designing a blended/online course gave them an opportunity to experiment with both new teaching methodologies and technologies (Q1 and Q3). Slightly fewer (12) instructors were in agreement that teaching in a blended/online format consumed more time than they would spend on the delivery of a traditional in-class format (Q11). However, only five instructors agreed with the statement that the development of their blended/online course took about the same amount of time as the preparation of a traditional face-to-face course (Q6). Interestingly, most instructors (12) indicated that blended/online learning gave them more flexibility in the schedule than traditional classes (Q8). Compared to instructors' reactions reported in 2012, the findings suggest that more instructors assumed a positive attitude towards teaching in a blended/online format. Nevertheless, only half of the participating instructors tended to be optimistic about students' satisfaction with their blended/online course (Q22).

When asked questions related to support issues (Q2 and Q4), most instructors (15) indicated that technical support given by York during the design and implementation phases was effective, whereas almost half of instructors reported similar reactions as to pedagogical support provided. This suggests that university will need to provide more instructional design and delivery support to faculty who teach eLearning courses. Similarly, a small fraction of instructors indicated that TAs were provided with sufficient training (Q7). Of interest was the fact that most instructors (13) indicated that they were capable of using technology effectively in their teaching.

Table 22: Instructor Students Responses to Questions Relating to Enrolment Pressures (n=16)

Survey Item	Disagree	Neutral	Agree	Strongly Agree
Q25 (course format preference)	Face-to-		Blended for line – 2	rmat – 13
Q1 (designing a blended/online course gave me an opportunity to experiment with new teaching methodologies)	1	0	7	8
Q3 (designing a blended/online course gave me an opportunity to experiment with new technologies for teaching)	0	1	5	10
Q6 (With the support given by York, it took about the same amount of time to develop my blended/online course as it would have taken for a new fully face-to-face course) ¹	(3SD*) 6	1	4	1
Q11 (teaching a blended/online course is a time-consuming experience)	(1SD*) 1	2	6	6
Q8 (blended/online learning gives me more flexibility in my work schedule)	(1SD*) 2	1	5	7
Q22 (students enjoyed this blended/online course more) ¹	2	5	8	0
Q2 (York's pedagogical support to design this blended/online course was effective)	(1SD*) 2	2	4	3
Q4 (York's technical support to deliver this blended/online course was effective)	1	0	7	8
Q5 (I have sufficient skills to make effective use of the technologies)	0	3	8	5
Q7 (TAs had adequate training to perform their duties in this course) ²	(2SD*) 3	0	3	1

Note: ¹ One instructor indicated "Not applicable." ² 7 instructors indicated "Not Applicable." *SD stands for "strongly disagree"

5.2 PROVIDE BETTER EXPERIENCE FOR COMMUTER STUDENTS

Table 23 shows instructors' responses to a question related to building a better experience for commuter students (Q13). It appears that only six instructors felt that having in-class activities with students helped them collaborate better with other students in an online environment.

Table 23: Instructor Responses to Questions on Better Experience for Commuter Students

Survey Item	N/A	Neutral	Agree	Strongly Agree
Q13 (students collaborated online better after building a sense of community in a face-to-face context)	7	3	5	1

5.3 BETTER ENGAGE STUDENTS

Instructors' responses to questions pertaining to student engagement are given in Table 24. It appears that a few instructors (5) felt more confident about student engagement in their blended/online courses. Similarly a few instructors reported an increased level of interaction with their students, as well as among students. In terms of student participation in the blended/online course, only three instructors were anxious about students' reluctance to online participation. Four instructors also worried about academic integrity in the blended/online course. Overall, instructors tend to be less positive of students' learning experience in their courses, as opposed to students whose responses imply more affirmation and satisfaction with eLearning.

Table 24: Instructor Responses to Questions on Engagement

Survey Item	Disagree	Neutral	Agree	Strongly Agree
Q12 (more engaged) ¹	3	7	2	3
Q14 (S-S amount of interaction increased) ¹	3	3	9	0
Q15 (S-S quality of interaction better) ¹	2	6	6	1
Q16 (S-I amount of interaction increased) ¹	(1SD)	6	5	3
Q17 (S-I quality of interaction better) ¹	(1SD) 3	5	3	3
Q18 (assessment of student achievement differed) ¹	(1SD) 5	0	7	2
Q19 (concerned about academic integrity in this course)	(4SD) 3	5	4	0
Q9 (students were reluctant to participate in online activities) ²	(4SD) 2	3	1	2
Q20 (concerned about low student attendance in this course) ¹	7	2	5	1

Note: ¹ One instructor indicated "Not applicable." ² Seven instructors indicated "Not Applicable." ² Four instructors indicated "Not Applicable."

5.4 IMPROVE STUDENT LEARNING

With regard to instructors' opinions on the improvement of student learning in a blended/online format (Table 25), 14 instructors indicated that they were either neutral or positive about better quality of students' educational experience in the blended/online course, compared to a fully face-to-face (course Q21). Similar reactions were reported by the

instructors regarding students' overall performance in the blended/online course (Q24). Nevertheless, a majority of instructors (10) felt that students were capable of monitoring their progress in the course (Q10). There was a mixed response among the instructors as to whether they that got to know their students better – nine instructors were neutral and six disagreed with the statement. Overall, instructors were neutral or negative rather than positive in their reactions to the improvement of student learning experience in their blended/online courses.

Table 25: Instructor Responses on Questions Related to Learning

Survey Item	Disagree	Neutral	Agree	Strongly Agree
Q21 (quality of students' educational experience was better)	2	8	3	3
Q23 (I got to know students better)	(2SD) 4	9	1	0
Q24 (students' overall performance was better) ¹	3	9	2	0
Q10 (students lacked the ability to monitor their progress in this course) ¹	(4SD) 6	1	3	0

Note: 1 Two instructors indicated "Not applicable."

5.5 ADDITIONAL INSTRUCTORS' COMMENTS

Instructors had the opportunity to provide written comments on the survey as well as express their opinions in an informal group interview with their colleagues. Two themes were dominant: pedagogical and technical support provided for course instructors.

The first was the need for more pedagogical support during preparation and delivery of blended or online learning courses. Some instructors indicated that they were challenged with finding a proper balance between face-to-face and online components in order to make up for losses of physical interaction and consolidate pedagogical gains of online learning. Additionally, some instructors noted that they lacked proper strategies for evaluating the viability of Moodle tools needed for bridging effectively their technical attributes to a learning activity in order to achieve a certain instructional goal. For instance, one instructor wondered why a poll tool was more effective than an online forum, or why should she use a wiki instead of a blog. Furthermore, course instructors perceived a pressing need for knowledge and support in the following areas:

- active learning and student-centered pedagogies in the design of a blended/online course;
- substantial guidance on recording lectures and production of multimedia objects (e.g., assistance in finding content, copyright advising, editing and reviewing strategies);
- a resource for engagement strategies capitalized on the use of Moodle forum and other interactive technologies to bring more students into online discussions and enhance community building beyond the classroom's walls;
- a resource for instructional techniques to help students absorb the content of recorded lectures posted on Moodle in a creative and critical way;

• assessment and analytical tools that can assist instructors in monitoring and tracking students' participation and engagement on Moodle (including a Moodle grades tool, its set up and management).

Instructors felt that they needed more workshop opportunities offered in the forms of oneon-one meetings with an educational consultant and a full-day workshop. Within such a workshop, a number of instructors were asking for combining pedagogical knowledge with sharing classroom experience by their peers who were successful in their teaching in a blended/online format so that they could observe concrete examples of innovative pedagogy and application of technology. Furthermore, instructors suggested that the workshops should be offered for faculty based on their eLearning experience and technical proficiency with Moodle to provide better support, as opposed to workshops focused on an "average Moodle user" that are least effective and time intensive.

The other theme related to some technical challenges arose during instructors' delivery of blended/online courses. One instructor was concerned with an issue of reliability of Moodle. She commented that students sometimes lost their forum discussions when they tried to post, and that not all course announcements or discussion posts resulted in email notification. When having such specific problems whether they related to technical or instructional support issues, instructors appeared to be unable to find and/or locate contact information of a person (e.g., Teaching Commons, Center for Distance Education, or Learning Technology Services) who could help them in efficient and timely manner. They believed that having such information at hand would help ensure the effectiveness of the support system that is already in place. Additionally, a couple of instructors indicated that they experienced inconvenience and frustration when their computer or recording technology was not working properly or when they needed to install software applications on their office computer. In this regard, they asked for having immediate access to a person who could come to them and provide support needed.

Lastly, a few instructors indicated that blended courses should be easily distinguished from other formats in a course calendar so that students have an option to choose to sign up for a section or course in a blended format. They noted that many students enrolled into their courses found out too late that it would have a combination of online and face-to-face sessions.

5.6 SUMMARY

Overall, the course instructors supported the eLearning initiative by the Faculty of Liberal Arts and Professional Studies and the Faculty of Health. They showed their willingness to continue to experiment and improve their teaching in a blended or online learning format. Most instructors tended to be less positive of students' learning experience in their courses, as opposed to students whose responses implied more satisfaction with eLearning. While most instructors were satisfied with technical support provided, they called for more effective instructional support provided by experts using diverse mediums of instruction. The instructional support issues mentioned above are of concern and need to be explored further.

6. OVERALL SUMMARY AND RECOMMENDATIONS

In this report, we present the results of the evaluation on the second year implementation of the blended and online learning initiative in the Faculty of Liberal Arts and Professional Studies and the Faculty of Health that was supported by the York's Academic Innovation Fund. Twenty-four courses were redesigned using a fully online mode of instruction and three models of blended learning – a Web-enhanced version of the supplemental model and two versions of the replacement model, in which a certain proportion of in-class seating time was reduced and replaced with online learning activities using roughly either 70:30 or 50:50 face-to-face and online ratios. We analyzed course Moodle sites, administered surveys to students, and surveyed course instructors for their perceptions of teaching a blended and online learning course.

Thirteen Moodle course sites were analyzed on four evaluation criteria derived from the literature and our prior study conducted in Winter 2012: (a) Moodle organization and layout design, (b) instructional design and delivery, (c) student engagement, and (d) student support and resources. From our findings it is clear that most Moodle sites evaluated have been well received by students due to their usability and appropriate layout design. In addition, most Moodle sites produced evidence of structuring their course content in a logically sequential way that helped students find various course components and build their learning paths during their courses. Five course Moodle sites satisfied most expectations appropriate for a blended/online course. The other eight course Moodle sites however produced little evidence of the expectations appropriate for a blended/online course, particularly in the areas pertaining to providing opportunities for student engagement and offering adequate access to student support and resources required for a blended/online course.

The student survey results show that 72% of students have been satisfied with their blended or online learning course, particularly students in mid-size, large, and extra-large classes. While students have indicated their preference for instruction in a blended format, a plurality of students are inclined to watch recorded lectures online, attend in-class tutorials, and participate face-to-face. According to a solid majority of students, blended and online learning have offered greater flexibility in personal schedule, substantial reduction of travel time to campus, and broader access to useful online resources posted on Moodle. Of concern, however, is that a little over one-third of students have perceived increased connectivity to other students and felt more engaged in their blended and online courses.

Our findings suggest that the course instructors have been supportive of the blended and online learning initiative in LAPS and Health and are willing to continue to experiment and improve their teaching in a blended or online format. Most instructors appear to be less positive of students' learning experience in their courses, as opposed to students whose responses imply more satisfaction with blended and online courses. Furthermore, most instructors have asked for more pedagogical support offered by experts in instructional design using various formats.

Given the above findings, we offer four recommendations below with respect to course Moodle site design, engagement strategies, instructor pedagogical support, and student support.

RECOMMENDATION 1: COURSE MOODLE SITE DESIGN

Considering the differences of reading text from a computer monitor or mobile device screen, instructors in blended courses need to think carefully about how they present and organize course information on their course Moodle sites in order to encourage students to read materials online. We recommend a number of techniques that can be applied to improve navigation and readability of on-screen text so that students are able to locate, perceive, read, and comprehend online text effectively. First, it is crucial to place course information or materials consistently in the same location on a course home page so that students are able to find easily and quickly critical information. Moodle allows instructors to move all course-related information (e.g., course outline documents, course announcements, etc.) to a general area located in a very specific area – in the upper center of the home page. Second, the instructors need to limit the amount of online text in lengthy documents (e.g., course outline, recorded lectures) by dividing it into several sections (e.g., course schedule, grading scale, calendar of due dates, etc.) to promote effective scanning of information on screen and reading it without scrolling down. Third, the instructors should provide subtle visual cues or text directives to hyperlinks (e.g., an external video or requires Passport York to access this document), particularly if those links direct students to resources outside of Moodle. Finally, instead of attaching documents to Moodle, it is better to embed documents into Moodle pages. This will allow students to view the content of a file in its entirety either on a computer monitor or any mobile device without making extra steps to save, download, and open a document.

Furthermore, we recommend that a standard Moodle course shell template be designed and used as a foundation for all blended/online courses. While the content of courses is different, this template should be carefully developed to address issues common to blended/online learning as specified in the evaluation rubric used in this study. Additionally, having a standard Moodle course template will provide students with a consistent learning experience in other blended/online courses and help them feel comfortable with their structure and delivery mechanisms. An instructional designer may need to work with instructors to develop a shell template and explain how it can be integrated effectively into their courses so that the instructor can focus on the development of course content and learning activities rather than on the look and feel of the course website.

RECOMMENDATION 2: STUDENT ENGAGEMENT

The instructors may wish to explore innovative instructional strategies and take advantage of a diverse repertoire of Moodle tools to enhance active learning and provide various learning experiences to reach out to students of different learning preferences. We recommend that the instructors may want to encourage interactions among students by providing opportunities on Moodle for gathering, discussing, and thinking in the forms of online forums, virtual office meeting spaces with instructor and TAs, wiki-mediated project working space, real-time chats, etc. With regards to the content of recorded lectures posted on Moodle, we recommend that the instructors provide students with opportunity to interact with the content of a recorded lecture by encouraging students to discuss its content in a linked discussion forum on Moodle. This would allow students to have more in-depth exploration of themes and concepts, as well as to gain feedback on critical issues presented in the lecture from other students, TAs, and instructor. In addition, instructors would have

an additional mechanism of monitoring and analyzing what students are watching and how they engage with the lecture content.

RECOMMENDATION 3: INSTRUCTOR PEDAGOGICAL SUPPORT

We recommend that instructors and TAs should be provided with a comprehensive pedagogical support system involving an educational developer or instructional designer who ideally should meet with instructors before a course starts so that they could develop an instructional plan and course material, review effective instructional re-design strategies and assessments, evaluate the viability of emerging technologies and eLearning innovations, and resolve critical issues in advance. The pedagogical support system should also provide opportunities for continuous professional development in both face-to-face and blended formats, as well as for peer mentoring and sharing of best teaching practices among course instructors. In addition, we recommend that the Faculties may wish to create a digital depository of sharable and reusable learning objects, resources, lessons learned, and exemplar models and engagement strategies related to blended and online learning in order to ensure sustainability of the eLearning initiative in both Faculties.

RECOMMENDATION 4: STUDENT SUPPORT

Considering that some students may be challenged by blended learning, initial support for those students is vital to their academic success, as well as to the reputation of both Faculties. Before enrolling in a blended course, we recommend that students should be provided with information on what they can expect from a blended course. In this regard, we suggest that the Faculties may wish to develop a self-assessment survey to help students find out whether a blended course would be compatible with their learning style and what they need to do to succeed in blended learning. The link to the survey can be placed next to a course description in the course calendar, and students should be encouraged to take the survey before enrolling in the blended course. After completing the survey, a student should be clear as to what is expected through various stages of the blended course and provided with guidelines and additional information that would be helpful to improve their learning abilities (e.g., links to guidelines or workshops on time management, self-regulation, Moodle skills, and other related study habits). Similar links to student support services are suggested to be posted on a course Moodle home page to assist students during their blended and online courses.

7. REFERENCES

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8. APPENDICES

APPENDIX A: MOODLE COURSE WEBSITE EVALUATION RUBRIC

The framework employed was an adaptation of three existing evaluation rubrics frequently used to assess the design and delivery of online courses in higher education. These rubrics include: the *Quality Online Course Initiative (QOCI) Rubric*¹, the *Quality Matters Rubric*², and the *Rubric for Online Instruction*³.

INSTRUCTIONS

The criteria are grouped into four areas of evaluation: (a) Moodle organization and layout design; (b) instructional design and delivery; (c) student engagement; and (d) student support and resources. The criteria provided in this evaluation rubric represent some of the most important issues instructors face when designing Moodle for their blended or online learning courses.

Here's how to use the rubric:

- Respond to each criterion along the 3-point scale (1 to 3) provided. The scale is provided along with each criterion. Please select "0," if evidence of the criterion is not present, but should be, based on design of a blended course and content; or present, but not appropriate for this course. Also, select "0," if the criterion is not applicable based on design of a blended or online course.
- There are three interpretive statements for each criterion that will assist the evaluator in selecting the right score:
 - 1 "Developing" (i.e., does not meet the criterion) means that little evidence of this criterion present, but it *needs improvement* (to be presented more clearly or better developed).
 - 2 "Appropriate" (i.e., meets the criterion) means that evidence of this criterion is clear and is *appropriate* for this blended or online course. More could possibly be added.
 - 3 "Outstanding" (i.e., exceeds the criterion) means that evidence of this criterion is clear, appropriate for this blended or online course, exceeds the expectations of the "appropriate" criterion, and demonstrates best practices in a manner that models its use.
- From a drop-down menu select the score that best represents your viewpoint regarding the Moodle course site. Be honest and realistic in your assessment.
- Although criteria ask the evaluator to rate the Moodle site in a quantitative way, the evaluator can respond from his/her own perspective in the "observation notes" field at the end of the rubric.
- At the end of each evaluation category, the evaluator is provided with information on how to interpret the total score in a particular category. At the end of evaluation, interpretation for the final score is also provided to determine the overall state of the Moodle course design and implementation.

¹ Quality Online Course Initiative (QOCI) Rubric. An initiative sponsored by Illinois Online Network (ION) University of Illinois. Retrieved February 09, 2012, from http://www.ion.uillinois.edu/initiatives/goci/rubric.asp

² Quality MattersTMRubric Standards 2011-2013 (2011) developed by Quality Matters Program, Maryland Online Inc. Retrieved February 09, 2012, from http://www.qmprogram.org/files/QM_Standards_2011-2013.pdf

³ Rubric for Online Instruction (2009). An initiative sponsored by California State University, Chico. Retrieved February 09, 2012, from http://www.csuchico.edu/tlp/resources/rubric/rubric.pdf

MOODLE ORGANIZATION AND LAYOUT DESIGN

Evaluation		Criteria interpretation		
criteria	Developing (1)	Appropriate (2)	Outstanding (3)	Score
Ease and clarity of navigation of Moodle course website	Much of Moodle is <u>under</u> <u>construction</u> , with some key components identified such as the syllabus.	Moodle is <u>organized and</u> <u>navigable</u> . Students can understand the key components and structure of the course.	Moodle is well-organized and easy to navigate. Scrolling is minimized and facilitated with anchors. Hyperlinks are based on visual cues such as color, underlining, and text directives (e.g., Start here).	0
Consistent navigation from page to page throughout Moodle	Windows open in inappropriate frames that might confuse students. Alien (third-party, other than those within Moodle) frames (widgets, applications) are used.	Most windows/hyperlinks open in appropriate frames that do not confuse students. The use of non-Moodle frames (applications) is avoided.	All windows/hyperlinks open in appropriate frames. The use of additional frames, other than those within the Moodle is avoided.	0
Visual consistency of a Moodle course website	The visual design elements (e.g., sizes and colours of heading and body text styles) are used inconsistently, and do not present course information clearly (long activity/resources names, cluttered with images or other dynamic visuals).	Most Moodle pages are visually consistent. Short activity/resources names are used. The use of images and other dynamic visual objects (animation, videos) is limited to only those that contribute to the learning experience	All Moodle pages are readable and visually consistent. Use of short names, images, and other dynamic visuals enhances the course and streamlines delivery of the content.	0
Functional consistency of a Moodle course website	Moodle pages are functionally <u>inconsistent</u> and do not communicate course information clearly.	Most Moodle pages are functionally consistent, and communicate course information clearly and in sequential order.	All Moodle pages are functionally consistent, and communicate course information clearly and in sequential order throughout Moodle.	0
Use of multimedia	Multimedia files do not meet minimum standards, e.g., blurry (quality), too large size, or inadequate length of audio/video files – that restrict users' ability to view/download the file. Audio/video player required is not compatible with multiple operating systems and requires additional plug-ins.	Multimedia files meet minimum standards: clear (quality), adequate (size/length). Audio/video player required is compatible with multiple operating systems and requires only a free, standard, and easily downloadable plug-in.	Multimedia files exceed minimum standards and are optimized for efficient loading on computers with lower bandwidths. A written transcript is provided with all audio/video files.	0
Total score (in this	• •			0

Interpretation of the total score in this category

- 13-15 (90-100%) Moodle exceeds the expectations of the "appropriate" criteria for the Moodle site organization and layout design. Overall, the Moodle site demonstrates best practices in a manner that models its use.
- **10-12** (67-89%) Moodle meets the minimum criteria for the Moodle site organization and layout design and is appropriate for a blended or online course.
- **5-9** (33-66%) Moodle shows little evidence of the criteria for the Moodle site organization and layout. Some areas need to be better developed.
- 4 > (32% and less) Moodle does not meet the minimum criteria for the Moodle site organization and layout, and may confuse the users. This Moodle may be a very difficult sell for blended or online learning. Major improvements are needed.

INSTRUCTIONAL DESIGN & DELIVERY

Evaluation criteria	Criteria interpretation				
Evaluation criteria	Developing (1)	Appropriate (2)	Outstanding (3)	Score	
Organization of a blended/online course	Moodle provides fragmentary information about the blended/online course and its structure. It is unclear about what is expected of students in the course.	Moodle provides adequate information about the blended/online course, its structure. Specifically, it identifies and delineates the role the online component will play in the blended course.	Moodle provides extensive information about the blended/online course, the structure of learning; clearly delineates the role the online component will play in the course; and clarifies the relationship between the face-to-face and online components.	0	
Building learning paths (i.e., a logical way of structuring the course content – resources and activities)	The structure of the course (e.g., modules and activities) is <u>unclear</u> on Moodle.	The course content on Moodle is logically sequenced OR grouped. Navigational instructions make clear how to get started and where to find various course components.	The course content on Moodle is logically sequenced AND integrated to help students engage with it. Instructions to students on how to meet the learning objectives are adequate.	0	
Meeting the diverse learning needs of students	Moodle provides limited visual, textual, kinesthetic and/or auditory activities/multimedia resources to enhance student learning and accommodate different learning preferences.	Moodle provides adequate visual, textual, kinesthetic and/or auditory activities/multimedia resources to enhance student learning and accommodate different learning preferences.	Moodle provides multiple visual, textual, kinesthetic and/or auditory activities and multimedia resources to enhance student learning and accommodate different learning preferences.	0	
Use of Moodle technology	Course uses <u>limited</u> Moodle tools to facilitate communication and learning.	Course uses <u>adequate</u> Moodle tools to facilitate communication and learning.	Course uses a variety of Moodle tools to appropriately facilitate communication and learning. The course design also takes advantage of other technologies and media to support the learning objectives.	0	
Use of a variety of learning activities Total score in this ca	Moodle provides <u>limited</u> activities to help students master the content, develop critical thinking and/or problem-solving skills.	Moodle provides <u>adequate</u> activities to help students master the content, develop critical thinking and/or problem-solving skills.	Moodle provides multiple activities that help students master the content, develop critical thinking and problem-solving skills.	0	
Total score in this ca	alegory.			U	

Interpretation of the total score in this category

- 13-15 (90-100%) Moodle exceeds the expectations of the "appropriate" criteria for instructional design and delivery. Overall, the Moodle site demonstrates best practices in a manner that models its use.
- **10-12** (67-89%) Moodle meets the minimum criteria for effective instructional design and delivery, and appropriate for a blended/online course.
- **5-9** (33-66%) Moodle shows little evidence of the criteria for effective instructional design and delivery. Some areas need to be presented more clearly.
- 4 > (32% and less) Moodle does not meet the minimum criteria for effective instructional design and delivery, and may prevent students from achieving the stated learning objectives in the blended/online course. Major improvements in developing the blended/online course are needed.

STUDENT ENGAGEMENT

Production suitorio		Criteria interpretation				
Evaluation criteria	Developing (1)	Appropriate (2)	Outstanding (3)	Score		
Student-to-student interaction	Moodle offers <u>limited</u> opportunity for student-to-student interaction and communication.	Moodle offers adequate opportunity for student-to-student interaction and communication. The requirements for interaction are clearly articulated.	Moodle offers ample opportunities and activities to foster student-to-student interaction and communication. Students are asked to introduce themselves to the class.	0		
Student-to- instructor interaction	Moodle offers <u>limited</u> opportunity for student-to-instructor interaction and communication.	Moodle offers adequate opportunity for student-to-instructor interaction and communication. Clear standards are set for instructor response and availability (turn-around time for email, grade posting).	Moodle offers ample opportunities for student-to-instructor interaction and communication. The course design prompts the instructor to be active and engaged with the students.	0		
Student-to-content interaction	Moodle offers <u>limited</u> opportunity for student-to-content interaction.	Moodle offers <u>adequate</u> opportunity for student-to-content interaction.	Moodle offers ample opportunities and activities to foster student-to-content interaction. Communication tools guide the student to become more engaged with the course content.	0		
Organization and management of discussion forums	Course engages students in Moodle discussions in a very limited way. Discussions are unstructured, inconsistent, and lack regulation.	Course takes the full advantage of Moodle forums and effectively engages students in online discussions. Discussions are organized in clearly defined forums and/or threads.	Moodle effectively engages students in Moodle discussions in a variety of ways and offers separate forums for community-related issues, course Q&A, content discussions, etc.	0		
Organization and facilitation of group work	Moodle offers <u>limited</u> opportunity for students to work in groups.	Moodle offers adequate opportunities for students to work in groups. Instructions on how to form groups and carry out the group's overall task are adequate.	Moodle offers ample opportunities for students to work in groups. The expectations of group participation and instructions on how to form groups and carry out the group's overall task are clearly stated.	0		
Total score in this category				0		

Interpretation of the total score in this category

- 13-15 (90-100%) Moodle exceeds the expectations of the "appropriate" criteria for student engagement. Overall, the Moodle site demonstrates best practices in a manner that models its use.
- **10-12** (67-89%) Moodle meets the minimum criteria for effective student engagement, and appropriate for a blended/online course.
- **5-9** (33-66%) Moodle shows little evidence of the criteria for effective student engagement. Some areas need to be organized and managed better.
- 4 > (32% and less) Moodle does not meet the minimum criteria for effective student engagement, and may prevent students from productive interaction and communication in the blended/online course. Major improvements in fostering communication, interaction, and collaboration are needed.

STUDENT SUPPORT & RESOURCES

To do at the state of		Criteria interpretation		0
Evaluation criteria	Developing (1)	Appropriate (2)	Outstanding (3)	Score
Information about being a successful learner in a blended/online course	Moodle contains <u>limited</u> information about being a blended/online learner and offers <u>limited</u> resources for students to succeed in a blended/online course.	Moodle contains <u>adequate</u> information about being a blended/online learner and provides <u>adequate</u> resources for students to succeed in a blended/online course.	Moodle contains <u>extensive</u> information about being a blended/online learner and provides <u>links to a wide range</u> of tutorials and resources for students to succeed in a blended/online course.	0
Course-related information (See Note below for more details)	Moodle provides <u>limited</u> course-specific resources, <u>limited</u> instructor information (e.g., contact information).	Moodle provides <u>adequate</u> course-specific resources, <u>appropriate</u> instructor information (e.g., contact or biographical information).	Moodle provides a variety of course-specific resources, extensive instructor information (contact, biographical, office and virtual availability information, and picture).	0
Technical support and resources (e.g., links to Moodle and other technology tutorials, contact information for technical assistance)	Moodle offers limited information about technical support for Moodle and other course-related technologies that can assist students in effectively using the technologies in a blended /online course.	Moodle offers adequate information about technical support for Moodle and other course-related technologies in order to assist students in effectively using the technologies in a blended/online course.	Moodle offers access to a wide range of resources related to technical support for Moodle and other course-related technologies in order to assist students in effectively using the technologies in a blended/online course.	0
Academic support and resources (i.e., links to library, academic advising, learning skills, ESL, counseling services, writing centre, etc.)	Moodle provides <u>limited</u> information about (or links to) York's academic support that can assist students in improving their strategies for academic success and achieving their academic goals.	Moodle offers access to adequate resources related to York's academic support in order to assist students in improving their strategies for academic success and achieving their academic goals.	Moodle offers access to a wide range of resources related to York's academic support in order to assist students in improving their strategies for academic success and achieving their academic goals.	0
Institutional/program support and resources (i.e., academic integrity expectations, grading and attending policies, emergencies, etc.)	Moodle provides <u>limited</u> information about university and program policies, procedures, and regulations, and <u>limited</u> contact information for department and program.	Moodle offers access to adequate resources related to university and program policies, procedures, and regulations, and provides some contact information for department and program.	Moodle offers access to a comprehensive list of resources related to university and program policies, procedures, and regulations, and provides full contact information for department and program.	0
Total score in this category				0

Note: Components of course-related information include (but not limited to) articulation or link to: course description, syllabus, navigational instructions (i.e., how to get started and where to find various course components), course resources (i.e., a list of textbooks and other instructional materials needed for the course), instructions on how to access resources at a distance, grading scale and weights, calendar of due dates and other events, a code of online conduct (i.e., netiquette expectations with regard to Moodle discussions, email, and other forms of communication), the requirements for course interaction, a list of technical competencies and minimum learning skills (if applicable, prerequisite knowledge in the discipline) necessary for course completion, a list of technical requirements, and any other instructions to students on how to meet the course objectives. In bold – essential elements the blended/online course must have present on Moodle as part of the "appropriate" criterion.

Interpretation of the total score in this category

- 13-15 (90-100%) Moodle exceeds the expectations of the "appropriate" criteria for student support and resources. Overall, the Moodle site demonstrates best practices in a manner that models its use.
- **10-12** (67-89%) Moodle meets the minimum criteria for adequate student support and resources, and appropriate for a blended/online course.
- **5-9** (33-66%) Moodle shows little evidence of the criteria for adequate student support and resources. Some resources need to be presented more clearly and/or better developed.
- 4> (32% and less) Moodle does not meet the minimum criteria for adequate student support and resources, and may prevent students from access to available resources to improve their strategies for academic success in the blended/online course. Major improvements are needed in articulating an explanation of how available support systems can assist students and/or in providing links to available resources that answer students' questions for the duration of the blended/online course.

OBSERVATION NOTES:
FINAL DECISION FOR MOODLE WEBSITE EVALUATION:
Total score:
Strong areas: Weak areas:

Interpretation of the total score:

- **54-60** (90-100%) The Moodle site exceeds the expectations of the "appropriate" criteria a blended/online course must meet. It thus demonstrates best practices in a manner that models its use.
- **40-53** (67-89%) The Moodle site meets the expectations appropriate for a blended/online course. More could possibly be added.
- **20-39** (33-66%) The Moodle site is under development, little evidence of the expectations appropriate for a blended/online course present. Therefore, Moodle needs to be presented more clearly or better developed.
- > 19 (32% and less) Moodle does not meet the minimum criteria appropriate for a blended/online course, but there are potential improvement opportunities.

Blended Learning Survey for Students

Please indicate your response by darkening the appropriate bubble on the answer sheet. Your frank opinions will help us improve the design of courses at York in future. Your answers will not be seen by your course instructor.

How much you agree or disagree with the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly	Not Applicable
Overall, I am satisfied with this course.	A	В	С	D	E	F
Taking this course increased my interest in the material.	A	В	C	D	E	F
Given the opportunity I would take another course in the future that has both online and face-to-face components.	A	В	C	D	E	F
4. The online and face-to-face course components of this course enhanced each other.	Α	В	C	D	E	F
5. I was able to find course information easily at the Moodle site.	A	В	C	D	E	F
6. The resources at the Moodle site were useful.	A	В	C	D	E	F
The course expectations were clearly communicated.	A	В	C	D	E	F
8. The technology used for online portions of this course was reliable.	A	В	C	D	E	F
Compared to typical face-to-face courses I have taken	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Not Applicable
9this course allowed me to have more flexibility in my personal schedule.	A	В	C	D	E	F
10this course allowed me to reduce my total travel time to campus each week.	A	В	C	D	E	F
11I was more engaged in this course.	A	В	C	D	E	F
12 I was more likely to ask questions in this course.	A	В	С	D	E	F
13the amount of my interaction with other students in this course increased.	A	В	С	D	E	F
14the quality of my interaction with other students in this course was better.	A	В	С	D	E	F
15I felt connected to other students in this course.	A	В	C	D	E	F
16the <u>amount</u> of my interaction with the <u>instructor</u> in this course increased.	A	В	C	D	E	F
17the quality of my interaction with the instructor in this course was better.	A	В	C	D	E	F
18I was overwhelmed with information in this course.	A	В	C	D	E	F
19this course required extra effort.	A	В	C	D	E	F
20this course improved my understanding of key concepts.	A	В	С	D	E	F
21this course helped me develop better communication skills.	A	В	С	D	E	F
22I had more opportunities in this course to reflect on what I have learned.	A	В	С	D	E	F
23the technology used in this course interfered with my learning.	A	В	С	D	E	F

Course Format Preferences

- 24. If the same course is being offered in different formats, which course format would you prefer?
 - A. Entirely face-to-face course format
 - B. Blended course format (meaning some face-to-face activities are replaced with online activities)
 - C. Entirely online course format (with no face-to-face class time)
- 25. If you had a choice between attending lectures face-to-face or accessing lectures online which would you choose?
 - A. Attending lectures face-to-face
 - B. Accessing online downloadable videos of lectures
 - C. A combination of both
- 26. If you had a choice between attending tutorials face-to-face or participating in tutorials online which would you choose?
 - A. Attending tutorials face-to-face
 - B. Participating in tutorials online
 - C. A combination of both
- 27. If you had a choice between participation in classroom discussion or online discussion which would you choose?
 - A. Class discussion
 - B. Online discussion
 - C. A combination of both

Additional Information

- 28. Please indicate which of the following best describes your situation:
 - A. I live on campus.
 - B. I commute to campus.
- 29. How many hours a week on average are you employed?
 - A. I'm not working
 - B. 1-9 hours
 - C. 10-19
 - D. 20-29
 - E. 30-39
 - F. 40+

Please share any additional comments or suggestions.

Thank You!

EVALUATION OF ONLINE COURSES AT YORK

How much you agree or disagree with the follo	wing stateme	ents:			
	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1. Overall, I am satisfied with this course.	•	•	•	•	•
2. Taking this course increased my interest in the material.	•	•	•	•	•
3. Given the opportunity I would take another fully online course in the future.	•	•	•	•	•
4. I was able to find course information easily at the Moodle site.	•	•	•	•	•
5. The resources at the Moodle site were useful.	•	•	•	•	•
6. The course expectations were clearly communicated.	•	•	•	•	•
7. The technology used for this course was reliable.	•	•	•	•	•
Compared to typical face-to-face courses I hav	e taken				
	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
8this course allowed me to have more flexibility in my personal schedule.	•	•	•	•	•
9this course allowed me to reduce my total travel time to campus each week.	•	•	•	•	•
10I was more engaged in this course.	•	•	•	•	•
11I was more likely to ask questions in this course.	•	•	•	•	•
12the amount of my interaction with other students in this course increased.	•	•	•	•	•
13the quality of my interaction with other students in this course was better.	•	•	•	•	•
14I felt connected to other students in this course.	•	•	•	•	•
15the amount of my interaction with the instructor in this course increased.	•	•	•	•	•
16the quality of my interaction with the instructor in this course was better.	•	•	•	•	•
17I was overwhelmed with information in this course.	•	•	•	•	•
18this course required extra effort.	•	•	•	•	•

19this course improved my understanding of key concepts.	•	•	•	•	•
20this course helped me develop better communication skills.	•	•	•	•	•
21I had more opportunities in this course to reflect on what I have learned.	•	•	•	•	•
22the technology used in this course interfered with my learning.	•	•	•	•	•

Course Format Preferences

23. If the same course is being offered in different formats, which course format would you prefer?

- Entirely face-to-face course format
- Blended course format (meaning some face-to-face activities are replaced with online activities)
- Entirely online course format (with no face-to-face class time)

24. If you had a choice between attending lectures face-to-face or accessing lectures online which would you choose?

- Attending lectures face-to-face
- Accessing online downloadable videos of lectures
- A combination of both

25. If you had a choice between attending tutorials face-to-face or participating in tutorials online which would you choose?

- Attending tutorials face-to-face
- Participating in tutorials online
- A combination of both

26. If you had a choice between participation in classroom discussion or online discussion which would you choose?

- Class discussion
- Online discussion
- A combination of both

Additional Information

27. * Please select the name of the online course you are currently taking.

- AP/EN 3310, Poetry of United States
- HH/PSYC 1010, Intro to Psychology
- HH/PSYC 2120, Social Psychology

28. Please indicate which of the following best describes your situation:

- I live on campus.
- I commute to campus.

29.	. How many hours a week on average are you employed?
•	I'm not working
•	1-9 hours
•	10-19 hours
•	20-29 hours
•	30-39 hours
•	40+ hours
	Please enter your student number. (Note. Be assured that your student number will be kept confidential d no identifying information will appear in any report or publication of the research.)
31.	. Please share any additional comments or suggestions.

APPENDIX D: BLENDED LEARNING SURVEY FOR FACULTY

Please circle your response to each question and answer the open-ended questions as appropriate. Be assured that your responses will be kept confidential.

In this section, please rate the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A
Designing a blended course gave me an opportunity to experiment with new teaching methodologies.	Α	В	С	D	E	F
The <u>pedagogical</u> support given by York to help me design this blended course was effective.	Α	В	С	D	E	F
Designing a blended course gave me an opportunity to experiment with new technologies for teaching.	Α	В	С	D	E	F
The <u>technical</u> support given by York to help me deliver this blended course was effective.	Α	В	С	D	E	F
I have sufficient skills to make effective use of the technologies in this course.	Α	В	С	D	E	F
With the support given by York, it took about the same amount of time to develop my blended course as it would have taken for a new fully face-to-face course.	Α	В	С	D	E	F
The TAs had adequate training/preparation to perform their duties in this course. (Circle N/A if not applicable.)	Α	В	С	D	E	F
Blended learning gives me more flexibility in my work schedule.	Α	В	С	D	E	F
Students were reluctant to participate in online activities in this course.	Α	В	С	D	E	F
Students lacked the ability to monitor their progress in this course.	Α	В	С	D	E	F

Any Suggestions

vivial suggestions, if any, do you have for improving support in (a) designing and (b) implementing blended courses?

Compared to typical face-to-face courses I have taught	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A
teaching a blended course is a time-consuming experience.	A	В	С	D	E	F
students are more engaged in this blended course.	A	В	C	D	E	F
students collaborated online better after building a sense of community in a face-to-face context.	A	В	C	D	E	F
I feel that the <i>amount</i> of <i>student-to-student</i> interaction in this blended course increased.	A	В	C	D	E	F
I feel that the <i>quality</i> of <i>student-to-student</i> interaction in this blended course was much better.	A	В	C	D	E	F
I feel that the <i>amount</i> of my interaction with <i>students</i> in this blended course increased.	A	В	C	D	E	F
I feel that the <i>quality</i> of my interaction with <i>students</i> in this blended course was much better.	A	В	C	D	E	F
assessment of student achievement in this blended class differed.	A	В	C	D	E	F
I was concerned about academic integrity in this course.	A	В	C	D	E	\mathbf{F}
I was concerned about low student attendance in this course.	A	В	C	D	E	F
the quality of students' educational experience in this blended course was better.	A	В	C	D	E	F
students enjoyed this blended course more.	A	В	C	D	E	F
I got to know students better in this blended course.	A	В	C	D	E	F
students' overall performance was better.	A	В	C	D	E	F

Course Format Preferences

In the future, if you had a choice, which format would you consider teaching this course?

- A. Entirely face-to-face teaching
- B. Blended teaching (meaning some face-to-face activities are replaced with online activities)
- C. Entirely online teaching (with no face-to-face class time)

Please share any additional commo	ents or suggestions about your course.

APPENDIX E: ONLINE LEARNING SURVEY FOR FACULTY

Online Learning Survey for Faculty

Please circle your response to each question and answer the open-ended questions as appropriate. Be assured that your responses will be kept confidential.

In this s	section, please rate the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A
1.	Designing a fully online course gave me an opportunity to experiment with new teaching methodologies.	A	В	С	D	E	F
2.	The pedagogical support given by York to help me design this fully online course was effective.	Α	В	С	D	E	F
3.	Designing a fully online course gave me an opportunity to experiment with new technologies for teaching.	Α	В	С	D	E	F
4.	The technical support given by York to help me deliver this fully online course was effective.	Α	В	С	D	E	F
5.	I have sufficient skills to make effective use of the technologies in this course.	Α	В	С	D	E	F
6.	With the support given by York, it took about the same amount of time to develop my fully online course as it would have taken for a new fully face-to-face course.	Α	В	С	D	E	F
7.	The TAs had adequate training/preparation to perform their duties in this course. (Omit if not applicable. Answer for yourself if you are a TA.)	Α	В	С	D	E	F
8.	Fully online learning gives me more flexibility in my work schedule.	A	В	С	D	E	F
9.	Students were reluctant to participate in online activities in this course.	A	В	С	D	E	F
10.	Students lacked the ability to monitor their progress in this course.	A	В	С	D	E	F
Any Su	ggestions						
What suggestions, if any, do you have for improving support in (a) designing and (b) implementing fully online courses?							

Compa	red to typical face-to-face courses I have taught	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A
11.	teaching a fully online course is a time-consuming experience.	Α	В	С	D	E	F
12.	students are more engaged in this fully online course.	Α	В	С	D	E	F
13.	students collaborated online better.	Α	В	С	D	E	F
14.	I feel that the <i>amount</i> of <i>student-to-student</i> interaction in this fully online course increased.	Α	В	С	D	E	F
15.	I feel that the <i>quality</i> of <i>student-to-student</i> interaction in this fully online course was much better.	Α	В	С	D	E	F
16.	I feel that the <i>amount</i> of my interaction with <i>students</i> in this fully online course increased.	Α	В	С	D	E	F
17.	I feel that the <i>quality</i> of my interaction with <i>students</i> in this fully online course was much better.	Α	В	С	D	E	F
18.	\dots assessment of student achievement in this fully online class differed.	Α	В	С	D	E	F
19.	I was concerned about academic integrity in this fully online course.	Α	В	С	D	E	F
20.	I was concerned about low student attendance in this fully online course.	Α	В	С	D	E	F
21.	the quality of students' educational experience in this fully online course was better.	Α	В	С	D	E	F
22.	students enjoyed this fully online course more.	Α	В	С	D	E	F
23.	I got to know students better in this fully online course.	Α	В	С	D	E	F
24.	students' overall performance was better in this fully online course.	Α	В	С	D	E	F
Course	Format						
25.	5. Briefly describe the model of online learning you applied in this course						
26.	26. In the future, if you had a choice, which format would you consider teaching this course? D. Entirely face-to-face teaching E. Blended teaching (meaning some face-to-face activities are replaced with online activities) F. Entirely online teaching (with no face-to-face class time)						

Please share any additional comments or suggestions about this course.

APPENDIX F: MEANS AND STANDARD DEVIATIONS OF STUDENT AGREE/DISAGREE STATEMENTS

Survey Questions	N	Mean	Std. Dev.
I was able to find course information easily at the Moodle site.	1069	4.26	.878
The resources at the Moodle site were useful.	1074	4.08	.908
This course allowed me to have more flexibility in my personal schedule.	1073	3.97	1.143
The course expectations were clearly communicated.	964	3.97	1.025
The technology used for online portions of this course was reliable.	964	3.97	1.030
Overall I am satisfied with this course.	1077	3.85	.980
Taking this course increased my interest in the material.	966	3.80	1.051
This course allowed me to reduce my total travel time to campus each week.	1068	3.70	1.377
Given the opportunity I would take another course in the future that has both online and face-to-face components.	1076	3.69	1.251
This course improved my understanding of key concepts.	1072	3.68	.954
The online and face-to-face course components of this course enhanced each other.	987	3.41	1.199
I had more opportunities in this course to reflect on what I have learned.	962	3.39	1.052
This course required extra effort.	1071	3.26	1.192
I was more engaged in this course.	1073	3.25	1.194
This course helped me develop better communication skills.	963	3.09	1.104
The quality of my interaction with the instructor in this course was better.	1067	3.05	1.194
The amount of my interaction with other students in this course increased.	1073	3.02	1.281
The quality of my interaction with other students in this course was better.	1069	3.02	1.212
I was more likely to ask questions in this course.	1072	3.01	1.118
I was overwhelmed with information in this course.	1072	2.93	1.193
I felt connected to other students in this course.	1069	2.91	1.199
The amount of my interaction with the instructor in this course increased.	1066	2.90	1.190
The technology used in this course interfered with my learning.	1067	2.42	1.243

Note: Mean scores are sorted out in descending order.