

# Report on Online Learning

## Student and Faculty Experience at Mohawk College

OPSEU Local 240 Political Action Committee



# Table of Contents

<b>Introduction .....</b>	<b>3</b>
<b>Objective .....</b>	<b>3</b>
<b>Who We Are .....</b>	<b>4</b>
<b>Methodology .....</b>	<b>5</b>
March 21 <sup>st</sup> Forum on Online Learning.....	5
Student Feedback Questionnaire .....	7
<b>Results.....</b>	<b>9</b>
March 21 Forum on Online Learning .....	9
Shared Category Analysis.....	10
Student Feedback Questionnaire .....	14
<b>Discussion.....</b>	<b>16</b>
Quality of Education .....	16
Students' Perceptions of Online Education.....	17
Implementation.....	18
Access to Education .....	19
Technical Issues for Students and Faculty .....	20
<b>Conclusion .....</b>	<b>21</b>
What have we learned? .....	21
<b>Recommendations .....</b>	<b>23</b>
<b>References.....</b>	<b>25</b>
Appendix 1 – Student Feedback Questionnaire .....	27

## Introduction

---

On-line, blended and other forms of web enhanced learning are becoming increasingly popular as a means of delivering post-secondary education. According to a recent report completed by the Higher Education Strategy Associates, 57% of Canadian university courses make use of some online component (Rogers, Usher & Kaznowska, 2011).

The decision of Mohawk College to move to blended learning was part of a strategic plan begun in 2008 that focused on “advancing educational outcomes through the strategic integration of learning technologies” (Mohawk College 1). To this end the college formulated a committee composed of faculty, administration and management to examine the various learning platforms current at that time (FirstClass, WebCT) and tasked with deciding which learning management system the college should adopt. They selected Desire2Learn (D2L) as the learning management system to be adopted, and a further plan was developed to have all courses fully blended within five years of the initial start-up of D2L in 2009. Blended learning is defined as using the web “to deliver substantial course materials accompanied by a strategic reduction in face-to-face contact. Online and face-to-face learning spaces are thoughtfully integrated, maximizing the unique characteristics of each, in order to enhance the quality of the learning experience” (Mohawk College 2).

The Political Action Committee (PAC) of OPSEU Local 240 met to determine how best to understand the impact of this decision on students and faculty - the parties directly affected by it. Two modes of inquiry were decided upon. The first activity was to hold a forum open to all students and faculty within the college community. The purpose of the forum was to gather ideas on best practices, attitudes and experiences with e-learning. The second activity involved gathering students' opinions on blended learning through a survey of general education courses.

## Objective

---

The objective of this report is to summarize and present information generated by two different feedback sources. The first source was the March 21<sup>st</sup> Forum on Online Learning, organized by the OPSEU Local 240 Political Action Committee (PAC), and designed to create a space of dialogue for faculty and students concerning blended learning at Mohawk College. The forum was based on a focus-group format, and included semi-structured questions designed to elicit the experiences of students and faculty with online learning. Focus groups were facilitated and comments were recorded. These recorded comments were then analyzed for common themes by members of the PAC.

The second source of feedback summarized and presented in this report comes from a feedback questionnaire created by the PAC and sent to 898 students in primarily General Education courses, but also some courses in Language Studies and General Arts and Science. The questionnaire specifically addressed students' experience with online learning at Mohawk, and canvassed their opinion concerning blended learning – the exchange of in-class instruction time for on-line instruction.

In this report we discuss the results of each consultation method and reflect on what they reveal about online education at Mohawk – both its successes, and its failures. Engaging in the feedback processes and presenting the resulting information was of primary concern to PAC members as there had never been a survey of either faculty or students about the effectiveness of on-line learning. Anecdotal feedback regarding online education received by faculty and students to date has been both positive and negative. There are clearly ways in which on-line technology can enhance the learning environment and improve learning outcomes. However, there are also clear ways in which the technology needs further development and critical consideration. A “one-size-fits-all” model of on-line education seems strongly contraindicated by the feedback compiled in this report, and by the existing literature. The faculty members of Local 240 are concerned that implementing such an approach can impede the success of students at Mohawk and harm the status of the College as an institution that puts quality learning, and students, first.

A final objective of this report is to suggest some ways in which online learning's positive potential can best be harnessed by the College. Similarly, another goal is to suggest ways in which counterproductive use of online instruction, especially with regards to a non-differentiated implementation of blended delivery, can be avoided. As educational professionals, we are hopeful that these suggestions will make for a more effective utilization of new information technologies, while also expanding on those elements of successful learning, growth, and socialization that occur through face-to-face interaction.

## Who We Are

---

This report has been produced by the OPSEU Local 240 Political Action Committee (PAC). The PAC is comprised of Local 240 members and faculty at Mohawk College, and reports directly to the OPSEU 240 Local Executive Committee. The PAC is open to all Local 240 members who are interested in the values and activities of the committee.

The PAC became interested in the phenomenon of online learning through a number of channels. First, several PAC members are also union stewards, and have thus participated in the monthly discussions concerning online learning that have taken place during Local Executive meetings. These discussions involved a great majority

of stewards passing on problems and complaints associated with online learning. These complaints were based on the personal experience of faculty members as well as student feedback. In particular, faculty issues concerning workload, training, institutional technical capacity and teaching effectiveness were expressed.

The second motivating factor for the PAC to create feedback opportunities regarding online learning is the perceived lack of student consultation. Faculty have a primary professional interest in student success, in the quality of education offered at Mohawk, and in the reputation of the institution. It was feared that an uncritical and pedagogically unsubstantiated implementation of online learning, and in particular blended delivery, could negatively impact on all of these areas.

The third motivating factor for the PAC to address online learning is the lack of adequate research and evidence associated with the effectiveness of this new modality. As educational professionals, and, for many of us, as academics, Local 240 members were concerned about the dearth of information regarding student outcomes in blended and online course delivery. We were also unsure about how an uncritical move to online instruction would affect student access, employment and soft skills development, and student retention.

For these reasons the PAC, in consultation with the OPSEU Local 240 Executive, decided to convene the March 21<sup>st</sup> Forum on Online Learning, and to subsequently design and distribute the student feedback questionnaire.

## Methodology

---

The methodology section deals with both the March 21<sup>st</sup> Forum on Online Learning and the subsequent student feedback questionnaire.

### March 21<sup>st</sup> Forum on Online Learning

#### *Forum Structure*

The Forum on Online Learning was designed as a way to get faculty and students talking about their experiences to date with online learning at Mohawk College. It was intended to be a space where both groups could speak freely about their positive and negative experiences. The PAC decided that a small focus group approach would be preferable to a “town-hall” style meeting. One benefit of the structure chosen was to ensure that every attendee had multiple opportunities to contribute to the discussion, that discussion groups contained both student and faculty perspectives, and that people who might not normally speak out in a large meeting would feel comfortable participating.

Another goal considered by the PAC was to record all of the feedback generated by forum participants. In essence, the forum was a fact-finding exercise where ideas, issues and concerns involving online learning could be ascertained. We decided to randomly assign forum attendees to small groups of mixed faculty and students in order to create the best climate for free discussion. Each small group was facilitated by a PAC member, who was tasked with introducing discussion questions, keeping time, recording participant responses, moderating group discussion, and reporting back to the entire forum on their group's key themes and ideas.

Management attended the forum in an observational capacity. Members from the Centre for Teaching and Learning also attended the forum, sat together, and participated by facilitating and recording their group's feedback. In all there were eight mixed student/faculty groups of approximately eight people each, while the CTL table had approximately six members. In all there were approximately 80 participants.

After a brief introduction by the PAC, small groups began open discussion on three topics. Each topic was presented as a "question cluster" focusing on three themes deemed theoretically significant by PAC members. These themes were:

1. student success and quality of education
2. technological access, capacity and training
3. decision-making and implementation

Themes were determined by aggregating feedback from Local 240 Executive meetings, from the personal teaching experience of PAC members and from student feedback. On the day of the forum, the three themes were included in a handout presented to all participants as three question clusters:

1. What does research and our own experience as teachers and students tell us about where and in what ways on-line learning improves student success and learning? What does it tell us about where it fails in these areas? In your own courses and programs, would a decrease in face to face class time be beneficial or harmful?
2. What questions does on-line learning raise about assumed technical knowledge, student access to technology, appropriate levels of training and support, faculty and student workloads, and intellectual property rights?
3. Who should determine the way in which on-line learning is used – students, faculty, or administration? Who determines what kinds of programs, courses, information or skills it is used for?

The Forum began at 4:30pm and small group discussion of questions began at 4:45pm. Each question was discussed for 20 minutes, and after all questions were

discussed, each small group facilitator did a five minute report-back to the entire forum on the main themes that emerged in their group. Facilitators recorded feedback from their group participants on chart paper.

### *Data Collection and Analysis*

Following the forum, group facilitators transcribed their group's feedback, trying to keep the responses as raw as possible. Some small changes in sentence structure and wording were made to enhance clarity, but care was taken to not alter the message or intent of any response.

The small-group transcriptions were then aggregated and analyzed through the qualitative data-analysis method of Grounded Theory (Glasser & Strauss 1967). In Grounded Theory analysis, an inductive approach is taken to qualitative research data. Using an initial "coding paradigm", researchers identify themes, or "codes" around which to group data. In the case of the Online Learning Forum, these codes corresponded to the three thematic areas and three question clusters.

The raw qualitative data from the forum was analyzed, and responses were grouped according to emerging concepts. An example of this would be responses to the question cluster of access, capacity and training that expressed worry about student's access to a home internet connection fast enough for them to successfully complete online work. Similar concepts expressed included students' access to a computer and software sufficient to complete online work. In the concept stage of grounded theory analysis, each discrete concept is recorded as it appears in the raw data.

In the next stage of analysis, concepts are grouped into categories based on their similarity. For example, concepts of student internet access, computer access and software access all group into *student access to sufficient technology*. This category is then combined with similar concepts surrounding faculty access to form the higher-order category of *access to sufficient technology*.

In the final stage of analysis, the categories are analyzed from a theoretical perspective that attempts to explain their presence and relationships. This involves the creation of macro-level categories and generating explanatory hypotheses for the observed results. Returning to the example of technological access, an explanatory hypothesis for this response category is that the College has not provided sufficient technological resources (computer access, internet bandwidth) to ensure student success in online learning.

### **Student Feedback Questionnaire**

The goal of the student feedback questionnaire was to access student opinion concerning online learning at Mohawk College. A particular question referenced student understanding and perception of blended learning – the reduction of face-

to-face instruction in favour of online instruction. As the College was planning to unilaterally change general elective courses from face-to-face delivery to blended delivery in the fall semester of 2011, this was seen as an important issue on which to seek student feedback.

Due to much confusion among students concerning what blended learning constitutes, it was decided that the questionnaire would need to include a brief and unbiased description of what blended learning entails, along with a declaration of the College's intention to move to blended general electives in the fall. After this brief introduction, the questionnaire sheet includes 10 statements, each of which could be responded to in the following way (see appendix 1):

A – Strongly Agree B – Agree C – Unsure/Undecided D – Disagree E – Strongly Disagree

The statements were intended to be neutrally worded, and to address the following themes / concerns:

1. student success
2. access to technology
3. student learning styles
4. student learning preference

The questionnaire was distributed with a scansheet that the students filled out. Students were not asked to write their name on the questionnaires and were not asked for any additional comments. Despite this, several students included additional written comments on the questionnaire sheet when they handed it in. Questionnaires were administered on the final day of class, after the final exam had been written. Students were told that the questionnaire was optional to complete.

A total of 898 students completed the questionnaire. Results were analyzed for statistical significance using the Chi Square Goodness of Fit test.



## Results

---

### March 21 Forum on Online Learning

The results from the focus groups from the Forum on Online Learning were first grouped into Faculty and Student concerns. Concepts in each group were then aggregated into seven categories for each group.

#### *Faculty Response Categories*

1. Quality of Learning
2. Sufficient Training
3. Health
4. Sufficient Technology
5. Implementation / Decision-making
6. Workload
7. Lack of Research

#### *Student Response Categories*

1. Quality of Learning
2. Sufficient Training
3. Health
4. Sufficient Technology
5. Implementation / Decision-making
6. Value of Education
7. Reducing access

Students and faculty both had overlapping categories of concern regarding Quality of Learning, Sufficient Training, Health, Sufficient Technology, and Implementation / Decision-making. Two issues pertaining only to faculty included Workload and Lack of Research. Two issues pertaining only to students concerned the Value of Education and Reducing Access.

Further aggregation of response categories led to the following macro-categories for each group:

#### *Faculty Macro-Categories*

1. Quality of Education (*Quality of Learning, Lack of Research*)
2. Technical (*Sufficient Technology, Sufficient Training*)
3. Quality of Workplace (*Workload, Health*)
4. Implementation / Decision-making

#### *Student Macro-Categories*

1. Quality of Education (*Quality of Learning, Value of Education, Health*)
2. Technical (*Sufficient Technology, Sufficient Training*)
3. Access to Education
4. Implementation / Decision-making

## Shared Category Analysis

Shared category analysis lists the concepts derived from each combined response category (faculty & student), along with examples of each concept from the raw data. The faculty and student-specific categories are also included. In the tables, F2F is short-hand for face-to-face.

### Category 1 - Quality of Learning

Concept	Example
F2F instruction is more contextually rich	<ul style="list-style-type: none"> <li>• online education can't capture humour, passion, compassion, voice tone &amp; body language</li> </ul>
F2F instruction offers more flexibility	<ul style="list-style-type: none"> <li>• in F2F instructors can be spontaneous</li> <li>• in F2F instructors can tailor lessons to student questions and interests</li> </ul>
F2F communication is more efficient	<ul style="list-style-type: none"> <li>• in F2F questions can be immediately answered</li> <li>• having everyone in the same place at the same time is more efficient</li> <li>• in F2F you can convey much more information in a given time-frame</li> </ul>
Online instruction is harder for certain students	<ul style="list-style-type: none"> <li>• online works for very organized, motivated students</li> <li>• online doesn't work well for students that need help with organization and motivation</li> </ul>
F2F instruction offers more active learning opportunities	<ul style="list-style-type: none"> <li>• F2F activities like groupwork, debates, discussion and note-taking are active learning</li> </ul>
F2F instruction is needed for socialization / employability skills	<ul style="list-style-type: none"> <li>• online education can't teach skills like appropriate social interaction &amp; communication</li> </ul>
Online instruction detracts from social bonds between teacher & classmates	<ul style="list-style-type: none"> <li>• an important part of College is the socialization &amp; relationships with classmates and teachers provided by F2F instruction</li> <li>• it is hard to motivate and coach online</li> </ul>
Online instruction is more time flexible for students	<ul style="list-style-type: none"> <li>• allows students to work at home &amp; around busy schedules</li> </ul>
Online instruction is more distracting	<ul style="list-style-type: none"> <li>• there are many more distractions at home (internet, games, television, family, etc.)</li> </ul>
Online instruction can save time	<ul style="list-style-type: none"> <li>• using gradebook and classlist features in D2L</li> <li>• easy access of class notes and assignments</li> </ul>
Online instruction can reinforce distractability & technology reliance	<ul style="list-style-type: none"> <li>• online environments are not real world environments; therefore habituating to online environments can have deleterious effects</li> </ul>
Online courses have much higher dropout rates	<ul style="list-style-type: none"> <li>• students are less likely to complete online courses</li> </ul>

### Category 2 – Sufficient Training

Concept	Example
Faculty receive insufficient training in online instruction	<ul style="list-style-type: none"> <li>• faculty are not taught how to develop and deliver online courses</li> <li>• faculty are having to do more tech support as instruction becomes more reliant on technology</li> </ul>
Students receive insufficient training in online instruction	<ul style="list-style-type: none"> <li>• we are assuming a level of computer knowledge in our students that not all of them have</li> <li>• students aren't taught how to take online courses</li> </ul>

### Category 3 – Health

Concept	Example
Faculty and Students can experience health problems from excessive computer use	<ul style="list-style-type: none"> <li>• VDTs can be harmful to the eyes with prolonged exposure</li> <li>• computer use for long hours can have negative ergonomic effects</li> </ul>

### Category 4 – Sufficient Technology

There are problems with student ability to access needed technology	<ul style="list-style-type: none"> <li>• there are not enough open access computers at the College</li> <li>• students may not have computers at home</li> <li>• student computers may not have current software</li> <li>• students may not have a sufficient internet connection at home</li> </ul>
There are issues with the College's internet service and network	<ul style="list-style-type: none"> <li>• the College does not have sufficient bandwidth to support online learning</li> <li>• there have been issues with servers crashing and the network going down</li> </ul>
It is difficult to get technical support when needed	<ul style="list-style-type: none"> <li>• there are insufficient tech support resources for faculty and students</li> </ul>
Equipment failure can be catastrophic	<ul style="list-style-type: none"> <li>• equipment failure can make instruction difficult in web-facilitated classes</li> </ul>

### Category 5 – Implementation / Decision-Making

Concept	Example
Online learning should not be "one size fits all"	<ul style="list-style-type: none"> <li>• online learning makes sense for certain subjects requiring rote memorization</li> <li>• online learning makes sense for students living far from the College</li> <li>• online learning works poorly for courses that rely on interaction, communication, group dynamics, presentations, and active learning</li> </ul>
Students should have a choice about whether they take their courses online or F2F	<ul style="list-style-type: none"> <li>• students should be able to choose between online and F2F based on their learning style, preference and success</li> </ul>
Faculty should decide which courses are amenable to online delivery	<ul style="list-style-type: none"> <li>• as experts in education and in their particular field, faculty should play a key role in deciding how their course is best taught – online or F2F</li> </ul>
There is no clear pedagogical rationale for moving to online learning	<ul style="list-style-type: none"> <li>• a pedagogical case has not been made as to why certain classes are being forced to go blended (Fall 2011 Gen Eds)</li> <li>• this decision was made unilaterally by management</li> </ul>
Students and faculty should be consulted about their experiences with online learning	<ul style="list-style-type: none"> <li>• there has been no survey of students regarding their experiences with online learning or their preferences for learning</li> </ul>

### Faculty Category 6 – Workload

Concept	Example
With online learning faculty are expected to perform more as technical support	<ul style="list-style-type: none"> <li>• faculty end up fielding more questions about technology performance and the learning platform than about course content</li> </ul>
With online learning faculty are not given enough time for course development	<ul style="list-style-type: none"> <li>• blending a course or moving it online takes longer than faculty are being given credit for</li> </ul>
With online learning faculty are not given enough time for course delivery	<ul style="list-style-type: none"> <li>• it takes longer to mark online</li> <li>• it takes longer to communicate and answer student questions online</li> <li>• faculty are not being SWF'd for extra delivery time with blended and fully online courses</li> </ul>
Online learning can be a strategy to reduce faculty positions	<ul style="list-style-type: none"> <li>• there are examples of other institutions who have used online learning as a means of reducing faculty</li> </ul>

### Faculty Category 7 – Lack of Research

Concept	Example
There is not sufficient research to support the claims made by online proponents	<ul style="list-style-type: none"> <li>• there is no research saying that students are demanding blended or online courses</li> <li>• there is no research proving that online courses are more effective at producing successful learning than F2F courses</li> </ul>
There is research that suggests significant problems with online learning	<ul style="list-style-type: none"> <li>• there is research that suggests online courses have much lower completion rates than F2F courses</li> <li>• there is research that suggests that online courses are not appropriate for certain kinds of students and learners</li> </ul>
There has been no research review or research case made for pursuing online learning	<ul style="list-style-type: none"> <li>• no pedagogical rationale including research has been made by management for moving unilaterally toward blended or online delivery</li> </ul>

### Student Category 6 – Value of Education

Concept	Example
Students feel they are getting financially short-changed with online courses	<ul style="list-style-type: none"> <li>• students feel they should be paying less for online courses</li> <li>• students comment that they are paying to have a teacher teach them, not to teach themselves at home</li> </ul>
Students feel they are getting educationally short-changed with online courses	<ul style="list-style-type: none"> <li>• students report their best educational experiences are related to the passion of memorable F2F instructors</li> <li>• students feel “conned” when they sign up for College expecting F2F instruction and get online courses instead</li> </ul>

### Student Category 7 – Access to Education

Concept	Example
With online learning, access to post-secondary education will be reduced due to technology costs	<ul style="list-style-type: none"> <li>• low income students can't afford up-to-date computers &amp; software</li> <li>• low income students can't afford a high-speed internet connection</li> <li>• online courses can pass on extra photocopying costs to students</li> </ul>
Some government educational supports require students to be in class	<ul style="list-style-type: none"> <li>• young mothers report needing to be physically present in class in order to receive government childcare supplements</li> </ul>

With online learning, special needs students will be less able to succeed	<ul style="list-style-type: none"> <li>• ESL students have a harder time with online delivery</li> <li>• LD students have a harder time with online delivery</li> </ul>
Students from educationally non-supportive environments will have a harder time with online learning	<ul style="list-style-type: none"> <li>• online learning works well for mature, motivated and organized students</li> <li>• younger &amp; low SES students may lack the self-management skills needed to succeed online</li> </ul>



## Student Feedback Questionnaire

Questionnaires completed by 898 students from General Education courses at Mohawk College, the results obtained were as follows:

	A Strongly Agree	B Agree	C Unsure/ Undecided	D Disagree	E Strongly Disagree	Unanswered
Question 1	69	104	110	236	<b>367</b>	12
I would be more likely to learn this material successfully, if half of it were delivered only online.						
Question 2	41	78	87	243	<b>435</b>	14
A reduction in face-to-face instruction time (replaced by online time) would enhance my learning about complex problems, concepts or issues.						
Question 3	246	<b>259</b>	113	138	126	16
I would have no problem regularly and reliably accessing a computer to do required online work.						
Question 4	239	<b>262</b>	121	136	127	13
I would have no problem regularly and reliably accessing a sufficient internet connection to do online work.						
Question 5	81	185	125	233	<b>257</b>	17
The College provides enough public access computers to enable students to do online work.						
Question 6	37	92	118	235	<b>402</b>	14
I would be more motivated to complete course work if it were presented online rather than in a face-to-face classroom setting.						
Question 7	64	85	128	247	<b>360</b>	14
I would like to have less classroom time and more online-learning time.						
Question 8	<b>488</b>	236	86	46	24	18
I would like to have a traditional instructor who teaches course material in a classroom (e.g. through PowerPoint, videos, whiteboard, elearn, group work, discussion & other media).						
Question 9	75	160	216	181	<b>252</b>	14
The Blended Learning model would work well for this course.						
Question 10	<b>438</b>	242	116	36	46	20
There should be choice for students about the form of courses they must take (i.e. blended or in-class delivery).						

Table 1. The compiled response totals for each question presented to Mohawk College General Education students. The modal response has been indicated in bold.

In order to evaluate the statistical significance of the observed response trends the data was assessed using Pearson's Chi Square for goodness of fit. The null hypothesis was that all responses were equally likely, predicting a flat response across all options. In each case, a significant result was observed at the  $p < 0.0001$  level.

Question 1	$X^2 = 334.598$ , $df = 4$ , $p < 0.0001$
Question 2	$X^2 = 606.595$ , $df = 4$ , $p < 0.0001$
Question 3	$X^2 = 111.685$ , $df = 4$ , $p < 0.0001$
Question 4	$X^2 = 103.867$ , $df = 4$ , $p < 0.0001$
Question 5	$X^2 = 122.116$ , $df = 4$ , $p < 0.0001$
Question 6	$X^2 = 476.781$ , $df = 4$ , $p < 0.0001$
Question 7	$X^2 = 350.808$ , $df = 4$ , $p < 0.0001$
Question 8	$X^2 = 846.864$ , $df = 4$ , $p < 0.0001$
Question 9	$X^2 = 100.989$ , $df = 4$ , $p < 0.0001$
Question 10	$X^2 = 644.073$ , $df = 4$ , $p < 0.0001$

Table 2. Chi square results for ten independent tests of goodness of fit. For each question, a significance threshold of  $p < 0.0001$  was reached.

These data indicate that for each question, the observed result was not consistent with the null hypothesis, such that the responses were not distributed uniformly across all possible responses.

Examining the data, it can be observed that the majority of students tended to agree or strongly agree with the statements in questions 3 (56.24%), 4 (55.79%), 8 (80.62%), and 10 (75.72%). The majority of students tended to disagree or strongly disagree with the statements of questions 1 (67.15%), 2 (75.50%), 5 (54.57%), 6 (70.94%), 7 (67.59%), and 9 (48.22%).

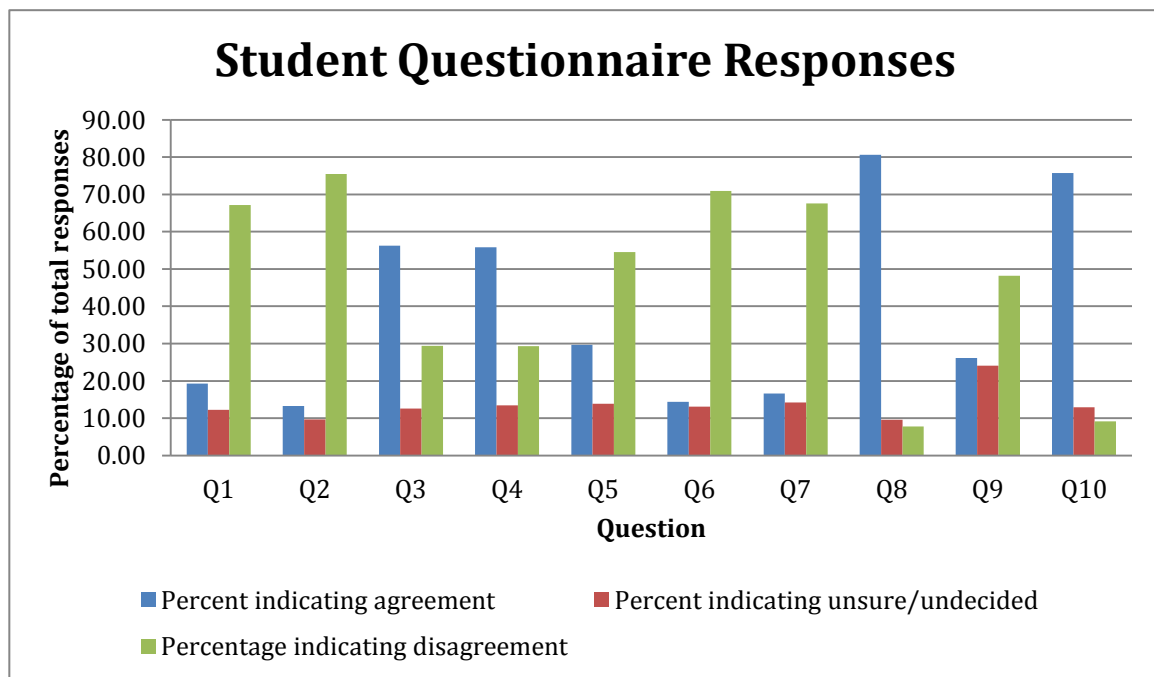


Figure 1. Student responses as a percentage of total responses, grouped into categories indicating agreement (responses A and B), disagreement (responses D and E) or unsure/undecided (response C).

## Discussion

---

Significant external research has been conducted in the past several years that corresponds with both the qualitative and statistical findings discussed in this report. As technological advancements emerge, so too do opportunities to advance online delivery in educational settings. As such, there is a wealth of information available for review for any institution making this transition. As we attempt to implement a college-wide online delivery system at Mohawk, it is important to consider the research done by other institutions so as to understand and replicate their successes, and to avoid the mistakes that have led to failure for other schools in the past.

### Quality of Education

Effective education in the virtual world requires a dramatic pedagogical shift in how both the instructor and the learner engage with the classroom. “Clearly, good and bad results can be achieved in either online or traditional classroom teaching depending on the quality, skill and motivation of the instructor and students” (Moore, 2005). However, both the forum results and the questionnaire reflect misgivings about making this transition without having access to proper training and support.

Until recently, the role of the teacher in a traditional classroom has essentially remained unchanged, and as a result,

With the exception of a few programs ... preparation for teaching distance learning courses is nearly nonexistent in higher education. As a result, most distance learning courses resemble traditional classroom courses or poor imitations ... talking heads, lots of text, and streaming video. Distance education has failed to take advantage of the Internet as a new medium (Levine & Sun, 2003).

In the event that teachers are not provided with adequate training about effective online delivery, no substantial shifts in educational pedagogy are likely to occur; and therefore, perceptions in the quality of course delivery suffers for both the teacher and the student. A summary of the forum results indicates that faculty feel “they are not [being] taught how to develop and deliver online courses”. External research on how this shift is experienced from the perspective of the educator further suggests that teachers experience an increase in workload in several arenas,

Distance learning entails a host of teaching and learning practices that may be convenient for students but are far more labor intensive than traditional college practices: Creating courses, maintaining chat rooms, and responding to e-mails from students around the clock require far more time and energy from faculty than traditional courses. This new level of service raises potential barriers in terms of



staffing, course loads, advising expectations, [and] faculty support (Levine & Sun, 2003).

The forum results echo concerns about workload time-commitments for online delivery that aren't adequately reflected on faculty Standard Workload Forms, and external research demonstrates that "the greatest de-motivating factor was inadequate compensation for the increased workload involved in online learning" (Mac Keogh, Fox, 2009). For college faculty, the lack of information on how to make a successful pedagogical transition to the online environment, coupled with poor acknowledgement of the additional workload involved, are cited as major impediments for introducing online delivery to the educational sector.

Teachers further feel that a "one size fits all" approach to delivering various course curricula online is misguided, and that e-learning should only be used to deliver particular content. Mohawk teachers further expressed misgivings about the fact that "no pedagogical rationale or research has been provided for the unilateral move towards blended or online delivery". Indeed, as most instructors know, "to truly create effective instruction, learning professionals need to match the right instructional strategy to the content being delivered, whether online or in a classroom" (Kapp, 2011). At the forum many Mohawk teachers expressed feelings of being left out of the decision-making process about online adaptation in their subject areas. This fact further complicates the transition to online delivery and impacts on the perception of quality for both the teacher and the student.

The unilateral move toward online and/or blended delivery is not addressing the flexible approach external sources say is required for this sort of structural shift in education. "Because of the unique factors involved in the development of human performance, no single solution—be it classroom, self-directed learning, telephone, satellite, online, or electronic performance support—in and of itself can be a complete solution for skill development" (Weaver, 2006). Both students and teachers at the forum expressed that while online learning may be appropriate for some subjects, it may not be suited for subjects "that rely on interaction, communication, group dynamics, presentations, and active learning". More institutional research is needed in this area to address this concern, as it will inevitably impact the success of online course delivery in these subject areas.

### **Students' Perceptions of Online Education**

Considering students' perceptions, "in spite of the fact that they have grown up in a digital world, young adults are as skeptical about online learning as are their older counterparts." (Parker, 2011). It is vitally important that student attitudes are taken into account, as "success in web based education depends mainly on learner attitudes" (Erdogane, 2008) This requirement is even more observable in our assessment of General Education students at Mohawk, where 76.7% of respondents indicated that they strongly disagreed with the assertion that a reduction in face-to-face instruction would enhance their learning of complex course material. In fact, the questionnaire further revealed that students either disagreed or strongly

disagreed that they would be more likely to learn course material if it were delivered as a hybrid course, or offered completely online. In the forum, students further expressed that “they should be paying less for online courses, and that they feel ‘conned’ when they expect face to face and are registered in an online course instead”.

Our own data seem to correlate with wider studies done in the area of student perceptions, which found that:

Even students in e-resource intensive classes are overwhelmingly likely to say that courses which are conducted *entirely* without e-learning resources are superior to blended courses in terms of quality of instructors and quality of overall education (Kaznowska, 2011).

Indeed, student perceptions about the value of online learning are not in sync with the view of College administration. “Only 29% of the public says online courses offer an equal value compared with courses taken in a classroom. Half (51%) of the college presidents surveyed say online courses provide the same value” (Parker, 2011). This disparity is of major concern, and must be given priority by any educational institution attempting to make a transition to online delivery.

Students are further unprepared for the shift in how they would engage with an online classroom, where the demand for active, learner-driven commitment is exponentially greater. Mohawk students are aware of these extra demands, and believe that, “online [delivery] works well for mature, motivated and organized students, [but] younger and low socio-economic status (SES) students may lack the self-management skills needed to succeed online”. This claim is further supported by the responses given to question 10 of the student feedback questionnaire, where students overwhelmingly asserted (79.16%) that they should have choice about the style of delivery for the courses they take. To date, no study has been conducted as to whether or not Mohawk College students can, or wish to meet the demanding essential requirements for successful online learners.

## Implementation

Faculty and students at Mohawk College can appreciate the benefits of online delivery for some course curriculum, and value access to some of the online tools made available such as the Gradebook and testing applications. Nevertheless, faculty still feel that they have been left out of the decision making process for delivery in their own areas of expertise. Lack of clarity about the contribution of online or blended learning to our overall strategic vision is a great impediment to faculty accepting this new form of teaching. Even the research in private industry recognizes that “An effective e-learning system begins with a sound, thorough planning process that establishes a vision, determines objectives, and includes all key constituencies—learners, managers, IT partners, and e-learning providers” (Weaver 2006). The theoretical studies about making this transition take this idea even further, suggesting that,

Hierarchical structures within HE [higher education] institutions cannot embed effectively new learning technologies without major organizational change. Online education is an alternative paradigm to traditional delivery, and as such it requires new management models, appropriate for the emerging information society (Souleles, 2004).

Success in implementing such a dramatic shift necessitates greater communication and involvement from all the involved stakeholders, and “the need for greater clarity in institutions dedicated to the values and practice of open learning need to have an open management style” (Souleles, 2004). The forum results indicate that faculty at Mohawk College do not perceive a shift in management’s approach to implementing change, which negatively impacts on faculty’s level of acceptance and compliance. In fact, this lack of transparency seems to give way to concerns about administrative motives in introducing online delivery, such as using this technology as a means of reducing the number of full-time faculty. Without greater transparency into the administrative intentions behind this decision, this suspicion is likely to only increase.

### Access to Education

An understanding of access to education and a commitment to ensuring access are essential for all stakeholders involved in the development, delivery and use of blended and online courses. This is particularly true of the College, guided by the principle that “Students and learning are at the heart of all we do” [Mohawk College Multi-Year Strategic Plan]. The lived realities and learning needs of at-risk students point to the obstacles online education can create for this particular group of stakeholders. Parker (2011) notes that “access barriers to online education may arise if the courses are not carefully constructed or the right adaptive technology is not available for persons with disabilities”. Careful planning must occur to ensure that the College continues to meet a high standard of commitment to differently-abled or at-risk students.

Researchers have identified the most common characteristics associated with at-risk learners, including “single-head of household, low socioeconomic status, minority group status, limited English proficiency, low educational attainment of parents, disabilities, mobility, psychosocial factors, and gender”(Southwest Educational Development Laboratory, 1994). According to Hamilton’s Roundtable for Poverty Reduction (HRPR), “some groups in our community experience disproportionately high levels of poverty”, including women, single-mothers, disabled persons, visible minorities, aboriginals, and new immigrants [HRPR]. This should concern all online education stakeholders as the key requirements for online learning may conflict with the realities of at-risk learners who are socio-economically disadvantaged. The forum participants identified the costs associated with online education, including up-to-date computers and software, high-speed Internet service, and printing materials (a must for some learners), as impediments

to access to education. It is also important to consider the move to digital textbooks, and the impact this may have on these learners (Park, 2011).

Even though there is an obvious increase in the use of and dependence on information technology in courses, this increase has not been matched with an increase in the number of public access computers at the College. This problem of access to technology at the College – something essential to online education - is highlighted by the responses to question 5 of the student feedback questionnaire. Only thirty percent (29.7%) of students agreed that “The College provides enough public access computers to enable students to do online work.” Without a comprehensive plan to provide them with the necessary resources, socio-economically disadvantaged students who wish to or must take blended or online courses may be faced with barriers to their success. Indeed, what makes learners “at risk” must be understood by “distance education institutions” so that their learners can be appropriately accommodated and supported (Funk, 2005).

Further concerns arise when considering other factors that may increase a student’s risk of struggling with course work, failing to meet learning outcomes, or dropping out. Research shows that a successful online student must: “Be self-motivated and self-disciplined, be willing to speak up if problems arise, be willing and able to commit 4 to 5 hours per week per course, accept critical thinking and decision making as part of the learning process, [and] have practically unlimited access to a computer and Internet Service” (University of Illinois Online Network, 2011). However, these characteristics are at odds with those of at-risk students. An at-risk learner “receives intermittent and inconsistent reinforcement of personal accomplishment”, “demonstrate[s] lower degrees of persistence”, “show[s] signs of low esteem”, has “life circumstances that can prevent success”, including children and full or part-time jobs. (Funk, 2005). The forum results reinforce the difficulties created for some students in online courses, especially if they are young, low SES, lacking in self-management skills or from educationally non-supportive environments.

### Technical Issues for Students and Faculty

Online courses present a series of technical challenges for both students and faculty. From the forum results the perception emerges that there is insufficient training in online courses for both groups. Three key concerns expressed by forum participants are that “faculty are not taught how to develop and deliver online courses”, that “students aren’t taught how to take online courses” and that “we are assuming a level of computer knowledge in our students that not all of them have.” According to EDUCAUSE (2003, p.44), “E-learning’s success rests on the fundamental requirement that instructors and students possess adequate technical skills to use e-learning tools effectively”. This knowledge can be assumed by both administrators and professors, who often confuse students’ display of “tech-savvy” with full computer literacy. (2003, p.43)

## Conclusion

---

### What have we learned?

When considering the results of the Forum on Online Learning, the student feedback questionnaire and the existing research literature, the role of online education in today's post-secondary institutions is clearly equivocal. The selective integration of online elements, consistent with the College's definition of "web-facilitated" delivery, seems to be a strategy that is supported by research and by faculty and student experience at Mohawk. A student's ability to access some course content online, coupled with instructor utilization of videos and other media in class, is an approach currently utilized by most college professors in face-to-face delivery, and elicits little concern. However, blended and fully online delivery presents a quantitatively different learning strategy that raises serious questions.

With both blended and fully on-line course delivery, technology moves from a facilitator of the classroom experience to an alternative to that experience. Because content is only available online, issues of technological access and training emerge as immediate barriers to all but the most mature, motivated and financially able students. In addition, the decreased learning effectiveness of online vs. face-to-face instruction means that students are at risk of receiving a sub-par educational experience. The impact of this could then be reflected in lower student satisfaction, lower course completion rates and lower student retention – all concerns raised in the existing literature.

A problematic aspect of Mohawk's elearn strategy to date is that students have not been consulted or surveyed regarding their opinions on or experience of online education. Given the results of this report and the clear student concern expressed in the research literature and in our College survey, this lack of consultation is troubling. If students were clamoring for less face to face instruction and were faring much better in blended and online courses, there would be little reason to write this report. However, the reality is starkly different and can be readily ascertained by actually reading existing studies or speaking with students. Given the competitive post-secondary environment today, it would seem of critical importance to understand these student concerns and factor them into institutional decision-making.

Another cause for concern regarding the College's elearn strategy relates to the unilateral imposition of blended or online delivery by management. This strategy has seen decision-making around which courses are suitable for blended or online delivery taken completely out of the hands of faculty, who are the experts in their respective fields. At Mohawk, faculty experience so far has been that management completely dismisses concerns regarding which courses are suitable for blending. Furthermore, there is little consideration of which courses instead rely heavily on the interactive and context-rich delivery environment of face-to-face instruction.

Despite personal experience with the limitations of online instruction in teaching communication, interaction and other “soft” employment skills, coupled with negative student feedback, faculty calls for meaningful input into decision-making have been ignored. Despite significant evidence in the literature calling online learning’s effectiveness into question, critical faculty and student perspectives have been shut down and portrayed as technophobia or resistance to change.

In contrast to interpretations of faculty concern as malingering or intransigence, the reality is that since the elearn rollout in 2009, OPSEU 240 members have raised some very serious issues. They are deeply concerned with how an uncritical, undifferentiated and imposed online agenda will disadvantage ESL, learning disabled and low SES students. They are concerned with the problem, raised repeatedly by students, that access to sufficient technology at the College and at home is a significant barrier to participation in online learning. They are concerned by a troubling trend toward methods of course delivery being dictated to educators by administrators, some of whom have with little to no classroom experience. Finally, they are concerned about the amount of extra time it takes to prepare and facilitate online courses, along with a lack of adequate training and support.

A decision-making approach that denies faculty and student input, and glosses over well-documented issues in the research literature, is not conducive to the successful implementation of online learning at any post-secondary institution, including Mohawk College. The research literature is clear that online learning strategies have their place in post-secondary education. As well, providing students the choice of online instruction along with traditional face-to-face delivery, where pedagogically appropriate, appears to be widely endorsed. A differentiated approach to implementing online instruction seems to be the most appropriate model, and the one most likely to lead to faculty buy-in and student satisfaction and success. A collaborative and consultative process, not unilateral decree, is indicated.

In conclusion, given the lack of pedagogical justification for the College’s “one size fits all” approach to online learning, faculty and students can only be left to wonder what is driving the online agenda. A likely factor is the increasingly corporate environment in which education has been delivered in Ontario over the past 20 years, which has seen increasing resource constraints in the face of increasing demand. In this sense, the move toward online education can be seen as a cost-cutting strategy, whether through reducing classroom space or reducing faculty. These two options seem most likely, as labour cost savings in moving online are strongly contraindicated by experience – it takes longer to develop and deliver an online course than it does a comparable face-to-face one. As faculty members and educational professionals, Mohawk professors care deeply about student learning, about a respectful and collaborative work environment, and about the success of the College as a whole. For all of these reasons we hope that online learning will be intelligently utilized in the College system to enhance the educational experience, not to erode it in pursuit of cost-cutting.

## Recommendations

---

1. Adequate technological support is needed to address problems of access for students, and failure of the hardware used for the delivery of online courses. Faculty can better contribute to the success of online learning if they spend more time on curriculum development and delivery than on technical support.
2. Online learning should not be used as a method of reducing the number of faculty positions. Such a strategy is not conducive to a positive, collegial teaching/learning environment.
3. A comprehensive college-wide survey of students is needed, perhaps in collaboration with the MSA. The survey should address the issues raised by this report, and focus particularly on the impact of online delivery on at-risk learners.
4. The college system needs to do a thorough study of best practices concerning online learning at other institutions, looking at course and program completion rates, student satisfaction and success, and employment impacts.
5. As experts in their specific field and as educational professionals, faculty should have the final say as to which courses are good candidates for blending or online delivery, and how such courses are converted.
6. Students should have choice regarding how their courses are delivered – either face-to-face, blended or online.
7. Faculty need to be given sufficient training in blended and online course creation and delivery.
8. Faculty must be given sufficient credit on SWFs for the extra time involved in online course creation and delivery.
9. We invite the College to work together with faculty and students to address the issues identified in this report, and to ensure the best possible use of online technology at Mohawk.







## References

- Aczel, J., Continat, O., Hardy, P., Iggulden, H., Komáromi, L., Maillet, K., Medina, S., et al. (2006). Identifying innovation in higher education elearning strategies. *Fourth EDEN Research Workshop Research into Online Distance Education and Learning Making the Difference*, 1-7. Retrieved July 16, 2011 from <http://www.eden-online.org/eden.php?menuId=306>
- EDUCAUSE Center for Applied Research. Supporting E-Learning in Higher Education. *Impact and challenges of e-learning*. (2003). 3, 39-47.
- Funk, J. (2005). *Best practices: Online learners: Reducing barriers to success*. Retrieved from <http://elearnmag.acm.org/featured.cfm?aid=1082221>
- Hamilton Roundtable for Poverty Reduction. (2001). *Tackling poverty in Hamilton: We can do it?* Retrieved from [http://www.hamiltonpoverty.ca/docs/poverty\\_facts/Poverty\\_Quick\\_Facts\\_sheet.pdf](http://www.hamiltonpoverty.ca/docs/poverty_facts/Poverty_Quick_Facts_sheet.pdf)
- Kapp, K. M. (2011). *Matching the right design strategy to the right content*. *T+D*, 65(7), 48-52.
- Levine, A. & Sun, J.C. (2003). Barriers to distance education. *Distributed Education: Summary of a Six- Part Series*. Retrieved January 31, 2007, from <http://www.acenet.edu/bookstore/pdf/distributed-learning/distributed-learning-06.pdf>
- Mac Keogh, K. & Fox, S. (2009). *Opening access to higher education to all?* Retrieved September 2011 from [www.edenonline.org/contents/conferences/research/paris/MacKeogh\\_Fox.pdf](http://www.edenonline.org/contents/conferences/research/paris/MacKeogh_Fox.pdf)
- Mohawk College 1 (n.d.). *Blended learning summary*. Retrieved August 12, 2011 from [https://elearn.mohawkcollege.ca/shared/Documents/InfoSheets/Blended\\_Summary.pdf](https://elearn.mohawkcollege.ca/shared/Documents/InfoSheets/Blended_Summary.pdf)
- Mohawk College 2 (n.d.). *Transition plan*. Retrieved August 12, 2011 from [https://elearn.mohawkcollege.ca/shared/Documents/AcTrans/TransitionPlan\\_ExecSummary.pdf](https://elearn.mohawkcollege.ca/shared/Documents/AcTrans/TransitionPlan_ExecSummary.pdf)
- Mohawk College 3 (n.d.). *Strategic plan*. Retrieved August 12, 2011 from <http://www.mohawkcollege.ca/Assets/Documents/Reports/strategicPlanMultiYear.pdf>
- Parker, K, Lenhart A. , & Moore, K. (2011). *The digital revolution and higher education*. Available at: <http://www.pewinternet.org/Reports/2011/College-presidents.aspx>

Rogers, J., Usher, A. & Kaznowska, E. (2011). *The state of e-learning in Canadian universities, 2011: If Students Are Digital Natives, Why Don't They Like E-Learning?* Higher Education Strategy Associates Intelligence Brief 4.

Tompkins, R. & Deloney, P. (1994). Rural Students at Risk.: Background characteristics. *Southwest Educational Development Laboratory*. Retrieved September 20, 2011 from <http://www.sedl.org/rural/atrisk/background.html>

University of Illinois Online Network. *What makes a successful online student?* Retrieved August, 2011 from <http://www.ion.uillinois.edu/resources/tutorials/pedagogy/StudentProfile.asp>

## Appendix 1 – Student Feedback Questionnaire

The College is beginning to move toward a new teaching model whereby half of all material in some courses will be delivered online. This is one form of what is called Blended Learning, and it will be implemented in this way for all General Education electives beginning this fall. For example, a two-hour per week Gen Ed course will be one hour in class, and one hour online.

Within this Blended Learning model, you will be responsible for accessing and learning new material that the professor has posted on e-learn. This material may not be presented in class. In the classroom component of the course, other new material will be presented.

Please respond to all of the following statements by filling in the appropriate bubbles on the scansheet using the following answer key:

A – Strongly Agree    B – Agree    C – Unsure / Undecided    D – Disagree    E – Strongly Disagree

Statements:

1. I would be more likely to learn this material successfully, if half of it were delivered only online.
2. A reduction in face-to-face instruction time (replaced by online time) would enhance my learning about complex problems, concepts or issues.
3. I would have no problem regularly and reliably accessing a computer to do required online work.
4. I would have no problem regularly and reliably accessing a sufficient internet connection to do online work.
5. The College provides enough public access computers to enable students to do online work.
6. I would be more motivated to complete course work if it were presented online rather than in a face-to-face classroom setting
7. I would like to have less classroom time and more online-learning time.
8. I would like to have a traditional instructor who teaches course material in a classroom (e.g. through powerpoint, videos, whiteboard, elearn, group work, discussion & other media).
9. The Blended Learning model would work well for this course.
10. There should be choice for students about the form of courses they must take (i.e. blended or in-class delivery).