



Tracking Online and Distance Education in Canadian Universities and Colleges: 2018

CANADIAN NATIONAL SURVEY OF ONLINE AND DISTANCE EDUCATION

PUBLIC REPORT

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PUBLISHED
JANUARY 2019

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ACKNOWLEDGMENTS

As in 2017, the major part of the funding for the 2018 survey was provided by various provincial government organizations mandated to support online learning, plus lesser but significant contributions from the private sector. For 2018 the primary funding agencies were:

- eCampusOntario
- BCcampus
- Campus Manitoba
- Contact North
- OCAS
- Pearson Canada
- Government of Québec
- D2L

Also, in order to provide greater transparency in the management of funds, the survey team established itself in 2018 as a federally registered Canadian Not-for-Profit Corporation called the Canadian Digital Learning Research Association/ Association canadienne de recherche sur la formation en ligne (CDLRA/ACRFL).

Once again, the 2018 survey depended heavily on support from other organisations, including:

- Colleges and Institutes Canada (CICAN)
- Universities Canada
- Canadian Virtual University

Above all, though, this is a voluntary survey for institutions to complete. As in 2017, this year's survey required a good deal of work from many different people within the institutions to provide all the information requested. We are truly indebted to everyone who participated in the survey.

The 2018 Canadian National Online and Digital Education Survey is operated by the Canadian Digital Learning Research Association (CDLRA)/Association Canadienne de Recherche sur la Formation en Ligne (ACRFL), a federally incorporated not-for-profit organization. CDLRA/ACRFL was established to engage in research and publish information regarding online and digital learning in the Canadian education system. Dr. Tricia Donovan serves as the Executive Director, and Dr. Tony Bates and Dr. Denis Mayer serve as Directors of the Board.

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EXECUTIVE SUMMARY

The first comprehensive survey of online and distance learning in Canadian public post-secondary institutions, covering all types of institution and every province and territory, was conducted in 2017. This research indicated that online learning was alive and well in Canadian post-secondary institutions, with 85% of responding institutions offering at least some online learning for credit in 2016, and with courses offered in almost all subject areas in one institution or another. Two-thirds of responding institutions stated that online learning was considered 'very' or 'extremely' important for their long-term future.

The 2018 study builds on the prior year's results, with an expanded roster of institutions, a modified questionnaire with more detailed questions, and refined definitions and enrolment questions. The responding institutions covered 92% of all students in post-secondary education in Canada.

Definitions

The 2017 survey showed a lack of agreement on definitions of the terms used to describe courses that are offered as 'distance education', 'online' or 'blended/hybrid'. For 2018, institutions were asked to identify if they had a definition at their institution and if so, did it match the one presented in the survey.

Between a half and two-thirds of the respondents reported that their internal definition matched that provided in the survey. There was more agreement on the definition of online courses and less on the definition of distance education. Perhaps more significantly, between a fifth to a quarter of the institutions have no definitions of these terms.

Distance and Online Course Offerings

In 2018, 83% of responding institutions offered distance education courses for credit, the same percentage as in 2017, and 83% offered online courses for credit, also the same proportion as in 2017.

Size of institution is very much a determining factor for online offerings. Over half of the institutions with fewer than 1,000 students (52%) did not offer online courses, while almost every institution with more than 10,000 students did.

The private subsidised colleges and CEGEPs in Québec were least likely to offer online courses. Universities (including in Québec), and colleges outside Québec, were the most likely.

The 2018 findings show a significant increase in the number of institutions offering online courses between 2010 and 2011 (from 68% in 2010 to 76% in 2011), and then a more gradual increase between 2011 and 2016 (from 76% in 2011 to 79% in 2016).

The main growth has come from the very small institutions. In 2008, only 14 responding institutions with fewer than 2,000 students were offering online programs, but by 2016 this had grown to 26, almost doubling in numbers.

As was first noted in the 2017 study, Canadian post-secondary education appears to be a mature market for online learning. Many have been offering online courses for 15 years or more.

Online Course Enrolments

In 2016-2017, 18% of all Canadian post-secondary students were taking at least one online course for credit, 19% in universities, and 21% in colleges outside Québec.

Of all credit course enrolments, about 8% were fully online, representing 1,357,000 online course registrations. If the online course enrolments are converted to full time equivalents, this would be equal to about four universities of 27,500 each, four colleges of 10,000 each, and a CEGEP of 3,500.

The average course load for students taking online courses was between 3 to 4 online courses a year. Overall course loads ranged from 7-8 courses a year in universities to around 10 courses a year in colleges.

There has been a steady growth in online enrolments between 2015-2016 and 2016-2017, with almost two thirds of institutions showing growth in online enrolments from last year, and fewer than a quarter showing a decline. The expectations for next year are even higher, with three-quarters reporting likely growth and only 3% expecting a decline in enrolments.

Blended/hybrid Learning

Blended/hybrid learning courses are offered by 78% of the reporting institutions, a rate that varies considerable by type of institution:

- 87%: universities
- 84%: colleges outside Québec
- 58%: CEGEPs
- 43%: private subsidised colleges in Québec

The 2018 findings reinforce the conclusion from the 2017 survey that more than three quarters of Canadian institutions are now integrating online with classroom teaching, but no more than one in five have a significant number of courses in this format.

Open Educational Resources, Practices and Open Textbooks

A substantial number of Canadian post-secondary institutions (just over half) are using open textbooks and a further fifth are exploring their use. Universities and larger institutions are most likely to adopt open textbooks. The highest proportions of institutions using open textbooks were in British Columbia (90%) and Alberta (78%) Open textbooks are being used in all modes of delivery, but mostly in face-to-face courses. Only a small number of institutions are offering training to instructors in the use of OER.

Continuing Education

Continuing education is offered by 93% of both Anglophone and Francophone responding institutions. Continuing education is offered both for-credit and not-for-credit, and institutions take advantage of face-to-face, online and blended/hybrid delivery methods. Face-to-face, not-for-credit courses were the choice most selected by responding institutions (87%).

Technologies

Learning Management Systems (LMS) continue to be the backbone technology used by institutions for their online and blended/hybrid courses. Nearly all institutions are combining various web-based technologies to augment the LMS and support increased interaction and engagement in their courses.

MOOCs

There is relatively little MOOC activity in Canadian institutions, with only 18% having offered MOOCs in the previous year, with most offering between one to five MOOCs in the last 12 months. Most institutions either have no interest in offering MOOCs in the future (36%) or are unsure of their future plans for MOOCs (40%). Only 13% reported that they were willing to support the increased use of MOOCs in future, with the remaining 11% leaving it to individual faculty to decide without necessarily providing institutional support.

Policies and Practices

Online learning is 'very' or 'extremely' important for the institution's long-term strategic or academic plan in 68% of responding institutions. Most institutions recognize the importance of having a plan or strategy for e-learning:

- 65% either had a plan or were developing one;
- Just under a third (30%) did not have a plan, but reported that they needed one;
- Only 5% reported that a plan or strategy was not needed.

Institutions reported that faculty on balance accepted the value and legitimacy of online learning and a clear majority of responding institutions (61%) reported that students were at least as satisfied with online courses as with face-to-face courses. There was also general agreement among the institutions that students need more discipline to succeed in online courses;

Online course learning outcomes are considered by most institutions to be the same as for face-to-face courses, although a few institutions (11%) thought online were inferior. Likewise, most institutions considered blended/hybrid learning outcomes to be of the same quality as face-to-face courses, although a few institutions (19%) thought blended/hybrid were superior.

Institutions reported that the most important strategic reason for online learning was to increase student access, with 95% of institutions rating it as either important (23%) or very important (72%); similarly, online learning was considered important for accessing students from outside the regular catchment area (88% reported this as important or very important).

The most significant barrier to online learning was identified as the additional faculty effort required to develop or deliver online courses (85%), followed closely by inadequate training/pedagogical knowledge available for faculty in online learning (73%), then lack of acceptance of online instruction by faculty (62%).

Comparisons with the USA

Distance education is more firmly established in the United States than it is in Canada, with 33% of U.S. higher education students taking at least one distance course as of fall 2017, compared with approximately 18% in Canada.

Leaders in the U.S. appear to be further along in actually implementing their strategic plan with a larger proportion of those in the U.S. reporting that they are now implementing a plan (38% compared to only 21% in Canada), while more Canadian institutions report that they need a plan, but they have not yet begun working on it (30% in Canada compared to 13% in the U.S.)

Academic leaders in the United States have a more positive view of the relative learning outcomes for blended/hybrid courses, with 30% thinking they were superior to those of face-to-face instruction, compared to only 19% in Canada.

In all other areas measured, Canadian leaders have a much more positive view of online education than do the leaders in the United States. Only 21% of the U.S. respondents believe that online credentials have the same level of respect as face-to-face credentials, compared to over one-half (54%) of the Canadian respondents. Likewise, Canadian academic leaders are twice as likely to report that students are at least as satisfied with an online course as they are with a face-to-face course (50% compared to only 27% among U.S. leaders).

There is a big difference between Canada and the USA between those who believe learning outcomes in online courses to be inferior - only 6% of the Canadian respondents reported this, while over a quarter (26%) of U.S. leaders thought that this was true.

Future Directions

The evidence suggests that online and increasingly, blended and hybrid learning are not only a small but important part of Canadian post-secondary education, but they are likely to continue to expand and grow. In particular, most institutions recognize that online learning is critical for their future, and have ensured that it is of generally high quality.

The challenge for institutions is to make sure they are properly prepared for these developments, and especially for the impact of scaling up online and digital learning activities. We hope this report will be of help and assistance to institutions as they increasingly maneuver into digital learning environments.

INTRODUCTION

This report represents the second annual effort at tracking distance and digital learning among publicly funded post-secondary institutions in Canada. This effort began with the construction of a comprehensive roster of all publicly funded post-secondary institutions, which for 2018 includes¹:

- 82 universities and Francophone colleges affiliated with Anglophone universities
- 80 colleges outside Québec
- 51 CEGEPs
- 21 private subsidised colleges in Québec

The resulting roster includes 152 colleges and 82 universities for a total of 234 institutions.

A questionnaire was developed, building on prior work of the Babson Survey Research Group in the U.S. and the prior year's Canadian survey and report. All institutions on the roster were invited to participate, with invitations going to the Provost/VP Academic or Vice-President Education or Directeur général at each institution, with copies to other institutional contacts.

Responses were initially submitted online using a unique link for each institution, and later also using a shareable PDF. Members of the project team actively followed up with institutions to address their questions and encourage them to participate.

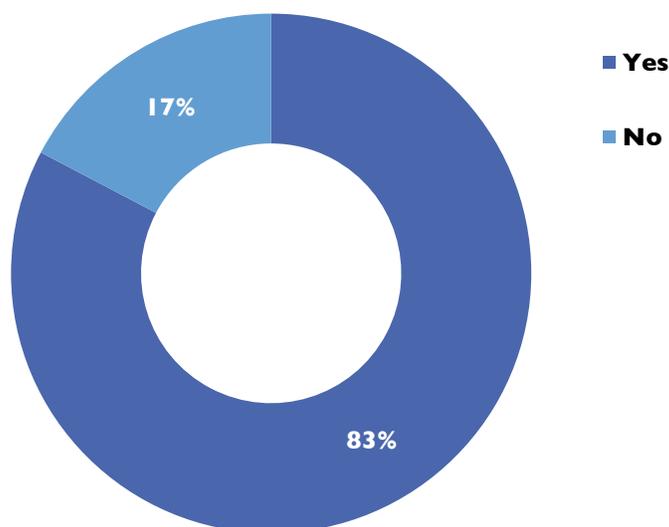
Overall, the responses provide an excellent, representative sample of colleges and universities across all provinces, and across all sizes of institution, representing 80% of all institutions and 92% of all students studying for institutional credit at Canadian public post-secondary institutions.

¹ A full listing of the roster is provided at the end of this report, and specific details on how it was developed and differs from that used in 2017 are provided in the methodology section of the report.

DISTANCE EDUCATION

A total of 83% of the responding institutions reported that they offer distance education courses for credit. This was the same percentage as in 2017, when 83% answered 'yes'. Nearly all responding institutions with more than 7,500 enrolments (94%) offered distance education courses for credit.

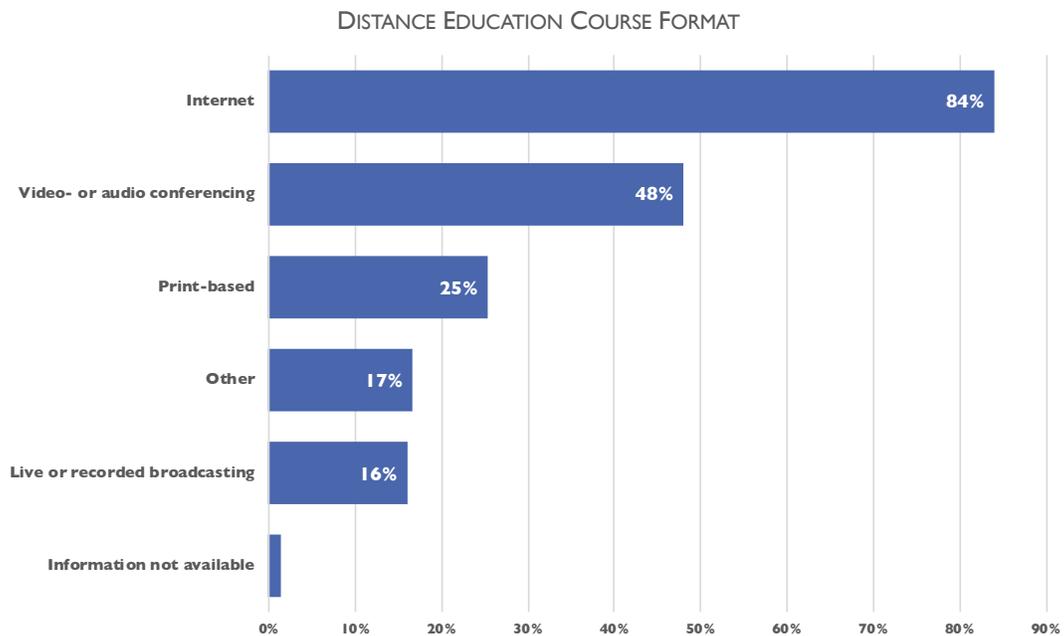
DOES YOUR INSTITUTION CURRENTLY OFFER ANY DISTANCE EDUCATION COURSES FOR CREDIT?



Small institutions (fewer than 1,000 students) and CEGEPs and private subsidised colleges in Québec, were least likely to offer distance education courses. Of the 32 institutions that reported that they did not:

- 20 (63%) were CEGEPs or private subsidised colleges in Québec,
- 6 (19%) were colleges outside Québec, and
- 6 (19%) were universities.

The great majority of Canadian institutions offering distance education courses and programs are using the Internet as the main delivery technology, but this is often supplemented with other technologies, especially conferencing and print. Of those institutions offering distance education courses, 84% used the Internet.



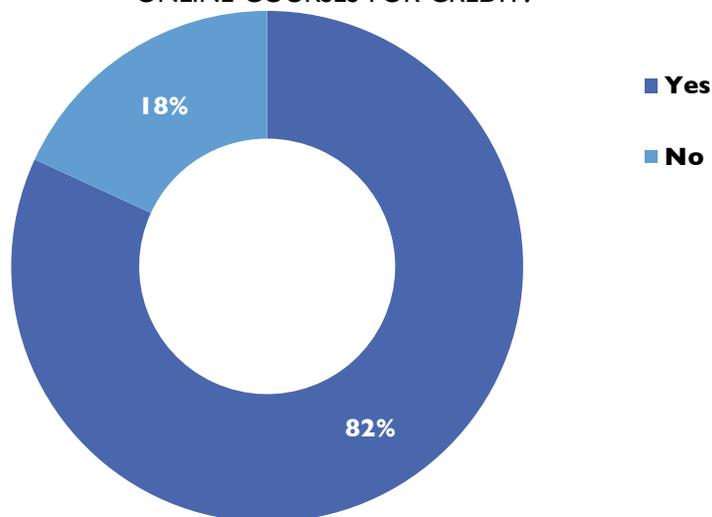
Although the Internet is clearly the main technology used for distance education, this is a lower proportion than in the 2017 survey, where all but two of the institutions offering distance education used the Internet as their primary delivery format. This difference between the two years could be due to the number of small institutions added to the roster in 2018, since institutions with fewer than 1,000 students were less likely to use the Internet for distance delivery.

The use of conferencing was up slightly from 2017, with 48% in 2018 compared to 44% in 2017. Print is still being used for distance education courses in about a quarter of the responding institutions, similar to 2017. TV or radio is used in a minority of institutions (16%). CEGEPs and the private subsidised colleges in Québec were the highest users (around 25% of institutions).

ONLINE LEARNING

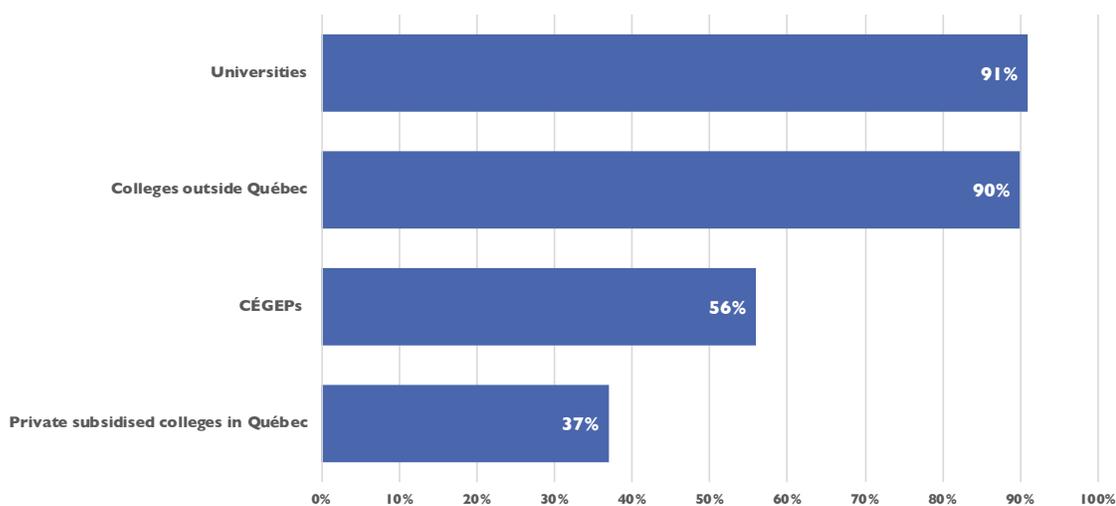
The proportion of institutions reporting that they offer online courses for credit was the same (82%) in 2018 as was reported for 2017. Size of institution is very much a determining factor for online course offerings. Over half the institutions with fewer than 1,000 (52%) did not offer online courses, while almost every institution with more than 10,000 students did (only one did not).

DOES YOUR INSTITUTION CURRENTLY OFFER ANY ONLINE COURSES FOR CREDIT?

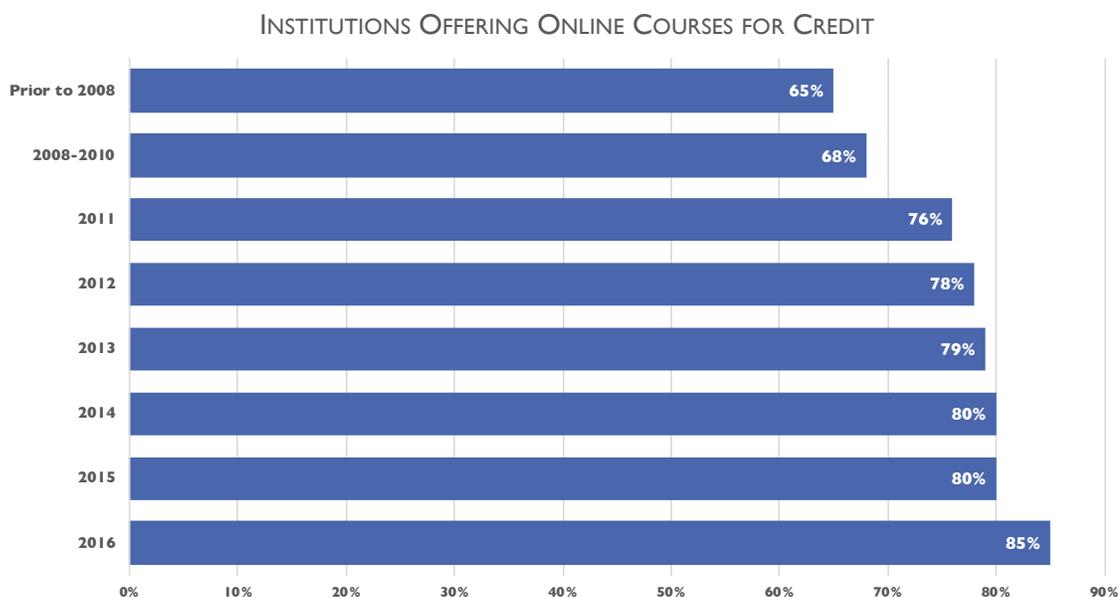


The private subsidised colleges in Québec and CÉGEPs were least likely to offer online courses, while the universities and colleges outside Québec were the most likely. The following illustrates the differences between institutions in offering online courses:

DOES YOUR INSTITUTION CURRENTLY OFFER ONLINE COURSES FOR CREDIT?



Respondents were asked if their institution offered online courses for credit in any of the years from 2008 to 2016. The results show a significant increase in institutions offering online courses after 2010 (from 68% in 2010 to 76% in 2011), and then a more gradual increase between 2011 and 2015 (from 76% in 2011 to 80% in 2015).



The main growth has come from the very small institutions. In 2008, only 14 responding institutions with fewer than 2,000 students were offering online programs, but by 2016 this had grown to 26, almost doubling in numbers. Canadian post-secondary education appears to be a relatively mature and growing market for online learning, with many institutions offering online courses for 15 years or more.

ONLINE COURSE ENROLMENTS

The lack of consistent definitions and national reporting standards makes estimating the number of online course enrolments a daunting task. As noted in our 2017 report, obtaining accurate and reliable online student and course enrolment figures is a major challenge as many institutions do not track enrollments separately for online and distance, while others use different means of defining students and enrolments, making comparisons difficult.

We used a two-step process for 2018 to build reliable enrolment estimates. The first step was an outreach to all institutions on our roster asking them for feedback on the definitions to be used in the survey and what enrolment data they were best able to provide. The second step was to use the revised definitions to collect the enrolment numbers that institutions told us they could reliably report and use these results to build a set of national estimates.

Based on a careful analysis of the reported enrolment results we conclude that:

- For 2016-2017 17% of Canadian post-secondary students were taking at least one online course for credit; 18% in universities, and 19% in colleges outside Québec.
- Of all credit course enrolments, about 8% were fully online, representing 1.36 million online course registrations.
- The average course load for students taking online courses was between 3 to 4 online courses a year. Overall course loads ranged from 7-8 courses a year in universities to around 10 courses a year in colleges.
- 1.36 million online course registrations in terms of full-time equivalent students are equal to four universities each of 27,500 students, four colleges of 12,000 students and one CEGEP of 3,500 students.

There are just over 2 million total students (2,072,368) enrolled across the 234 institutions on our roster, with the bulk of these (1,309,185 or 63% of the total) studying at a Canadian university. Our estimate of the total number of these students that took at least one online course is 354,302, or 17% of all enrolled students.

Two-thirds of the online students are at a university (236,917 or 67% of the online student base of 354,302), with most of the remaining at colleges outside of Québec. Only 2% of the online students are at a CEGEP or private subsidised college in Québec.

NUMBER AND PERCENTAGE OF STUDENTS TAKING AT LEAST ONE ONLINE COURSE FOR ALL CANADIAN POST-SECONDARY INSTITUTIONS BY TYPE OF INSTITUTION

	Students taking at least one online course	All students	Percent of all students
Universities	236,917	1,309,185	18%
Colleges outside Québec	110,447	566,691	19%
CEGEPs	6,261	173,081	4%
Private subsidised colleges in Québec	677	23,411	3%
Total	354,302	2,072,368	17%

The 2,072,368 total students represent 17,953,599 total course registrations, with universities again responsible for the majority of these (10,261,104 or 57% of the total). Online courses represent 1,357,225 of the 17,953,599 total course registrations (8%). Online course enrollments at universities and colleges outside of Québec each represented 8% of their total course enrollments, with CEGEPs and private subsidised colleges in Québec reporting much lower proportions of online course enrolments.

NUMBER AND PERCENTAGE OF ONLINE COURSE REGISTRATIONS FOR ALL CANADIAN POST-SECONDARY INSTITUTIONS BY TYPE OF INSTITUTION

	Online course registrations	All course registrations	Percent of all course registrations
Universities	839,673	10,261,104	8%
Colleges outside Quebec	476,232	5,661,687	8%
CEGEPs	34,364	1,798,790	2%
Private subsidised colleges in Québec	6,956	232,018	3%
Total	1,357,225	17,953,599	8%

The Yukon, Newfoundland and Alberta are the provinces with the highest proportion of online learning. The Arctic regions of Nunavut and the North West Territories appear to have almost no online learning, perhaps related to the lack of high-speed Internet in the far north.

Estimation Method

The process that produced these numbers is worth examination in some detail, both to show the multiple checks that were built into the process and to highlight the problems inherent in trying to build reliable national results from incomplete data.²

The first step was to identify which institutions did not offer any online courses. This information is combined from:

- institutions that returned the questionnaire and reported that they did not have any online offerings, and
- a web search of non-responding institutions' web sites that did not list any online courses, supplemented by personal knowledge of institutions by members of the research team.

A total of 74 of the 234 institutions (or 32%) of our roster had no online enrolments. While institutions with no online enrolments represent almost one third of our roster, they tend to have lower overall student enrolments, and represent only 10% of all students in Canadian post-secondary institutions.

Next, a multi-step process was used to calculate the number of students taking at least one online course and the number of total online course registrations. A few guiding principles were used to direct this effort:

1. Whenever possible use information reported by the institution in the 2018 survey.
2. Where a specific 2018 survey data element was missing, then use other data reported by the institution (e.g. use data for fall 2017 to estimate the 2016-2017 value).
3. Where no 2018 data exists, use data reported in the 2017 survey.
4. And finally, where there was no 2017 or 2018 data, provide an estimate using information from institutions that are most similar (e.g. type, province, and size).

One way to measure the proportion of teaching that is online is to calculate the total number of student online course registrations as a proportion of all course registrations (online and on campus). Institutions were asked the total number of student course registrations for their online courses and for all of their courses (online and on campus). This data was asked of both the most recent Fall term (Fall of 2017) and for the previous full academic year (2016-2017).

Not all institutions were able to provide all the data requested. In total, 132 institutions (82% of all institutions known to be offering online courses) provided data on online course registrations for the full year 2016-2017. A somewhat smaller number, 127, provided fall 2017 online course registrations.

² The data collection and estimate process is fully detailed in the accompanying technical report, the following is a brief overview to allow the reader to better understand the reported results.

Using data from the institutions that provided both online and total course registrations allows the proportion of students studying online in terms of course registrations, to be calculated. These figures suggest that approximately 9%-10% of all courses in Canadian post-secondary education are fully online.

Institutions were also asked to provide data on the number of individual students who took at least one online course for credit (based on individual student records) for Fall 2017 as an optional question. Just over half (52%) of the institutions with online courses provided the number of students taking at least one online course.

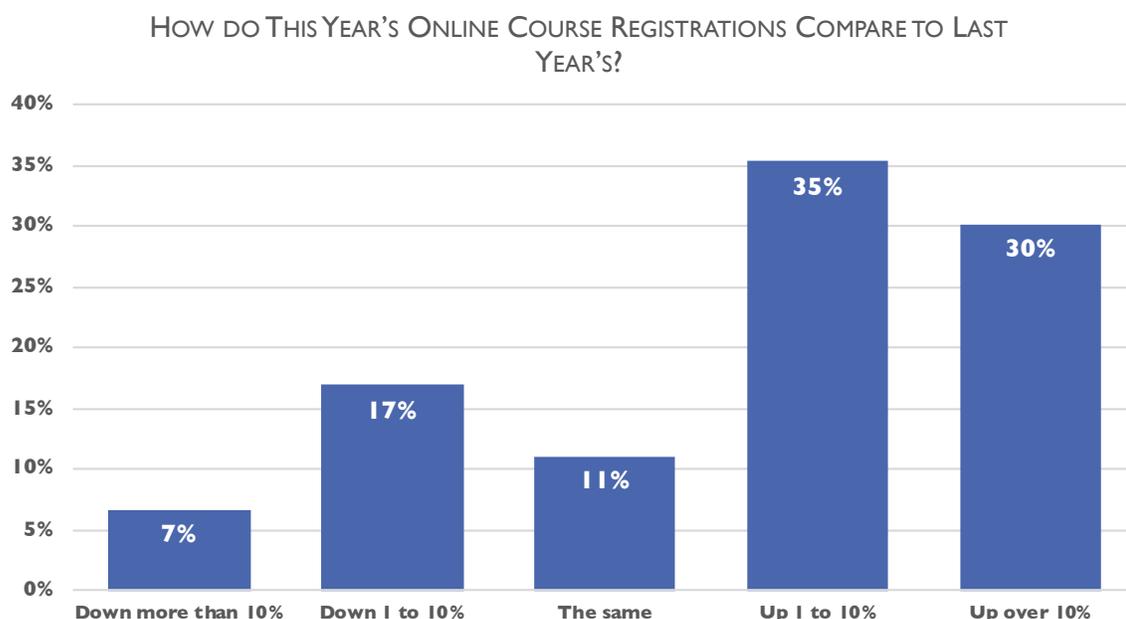
Using data from only those institutions that reported the number of unique online students shows that there is a minimum of 255,473 students in 83 Canadian post-secondary institutions taking at least one online course (12% of the total student population). There are a further 89 institutions that offer online courses that did not respond to this question.

Under the assumption that students in similar institutions will take a similar course load, it is possible to estimate the number of students taking at least one online course by dividing the number of online course registrations by the average online course load for that type of institution. This estimate increases the number of students taking at least one course online from 255,473 to 354,302. This constitutes 17% of the total number of post-secondary students in Canada (2,072,368).

A small number of institutions with online offerings (18%) did not provide online course enrolment data. To estimate their likely online course enrolments, calculations were made by identifying course loads. In this case, the ratio of online registrations to all course registrations was calculated for those institutions where data were available, segmented by province and type of institution, and used to estimate the missing data for similar institutions.

EXPECTATIONS FOR ONLINE ENROLMENTS

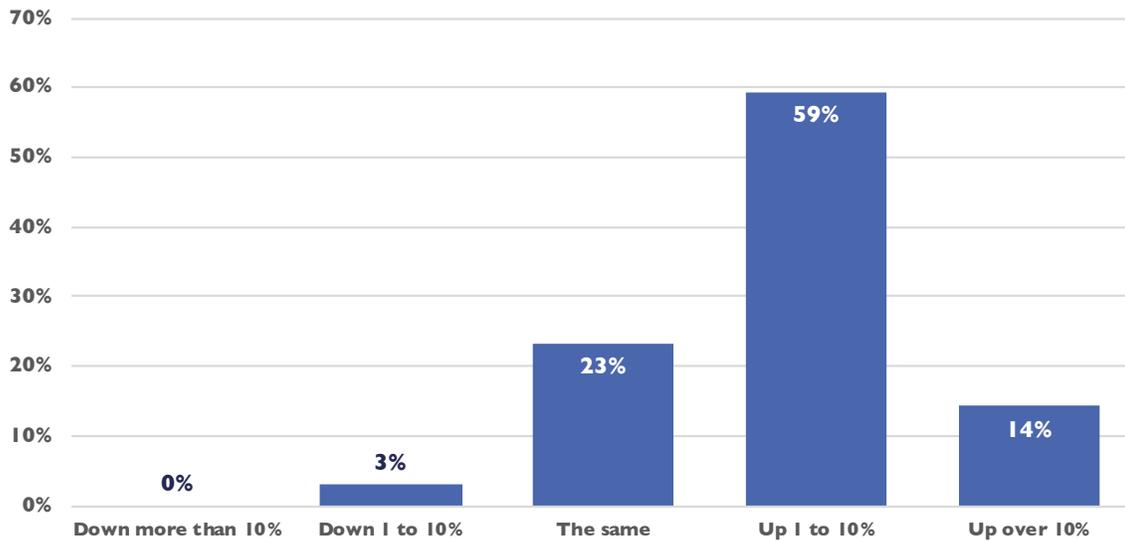
Institutions with online offerings were asked to compare their current enrolment level to that of the previous year, and to predict what change, if any, they would expect in those levels for the next year. These results indicate a steady growth in online enrolments, with almost two thirds of institutions reporting a growth in online enrolments from 2015-2016 to 2016-2017 with less than a quarter reporting a decline. Just over a third reported modest growth (up between 1-10%) and almost a third reported fast growth (more than 10% from last year).



In British Columbia, eight out of 19 institutions reported a decline in online enrolments in 2017 (although another seven reported an increase). In Ontario and Alberta, though, over 70% of the institutions reported an increase, and in Québec and Saskatchewan a majority of the institutions also reported increases in enrolments from the previous year.

The expectations of the change in online enrolments for next year were even higher, with three-quarters reporting likely growth and only 3% expecting a decline in enrolments. Most of the institutions in a majority of provinces expected online enrolments to increase, while in British Columbia four institutions anticipated a decline in online enrolments, the only province where this occurred.

HOW DO YOU EXPECT NEXT YEAR'S ONLINE COURSE REGISTRATIONS TO COMPARE TO THIS YEAR'S?



The smallest institutions (those with fewer than 1,000 students) in general reported lower enrolments in 2016 than the previous year, but were more optimistic about an increase in online enrolments next year. Overall, francophone institutions were slightly more optimistic than anglophone institutions about increased enrolments next year, 76% compared to 68%.

BLENDED AND HYBRID LEARNING

Blended/Hybrid courses are designed to combine both online and face-to-face teaching (in any combination). The same definition was used in 2018 as in 2017, counting courses where some, but not all, of the face-to-face teaching has been replaced by online study.

The 2018 responses indicate that all types of institutions are experimenting with blended/hybrid learning in ways that suit the content, student, instructor, geography, discipline, pedagogy and more. In essence, institutions are adapting and adopting the affordance of the technologies available on campus to support a blend of online, face-to-face and learning at a distance.

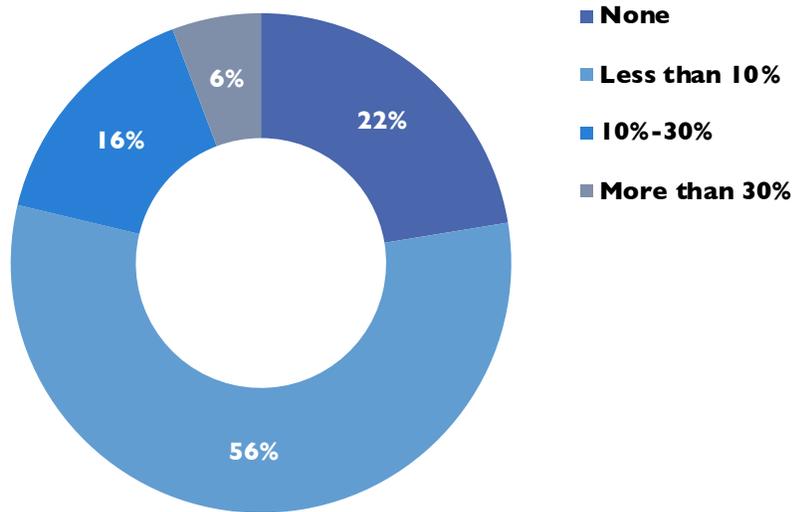
- Approximately one in five institutions have significant activity in blended/hybrid course offerings
- Over 80% of universities and colleges outside of Québec have integrated blended/hybrid technologies in their offerings
- Between 43-58% of CEGEPs and private subsidized colleges in Québec report some use of blended/hybrid activity
- A number of institutions are using quality assurance models and support their faculty in preparing to teach in blended/hybrid courses.

In the 2017 report, we noted:

- Tracking blended/hybrid counts is difficult. Most institutions do not track classes with reduced face-to-face time, although some are beginning to.
- There are many institutions, but few courses. Almost three quarters of the responding institutions in 2017 reported that this type of teaching was occurring in their institution. However, three quarters of the institutions reported that fewer than 10% of courses are in this format.
- Only a few institutions have a substantial number of courses in this format.

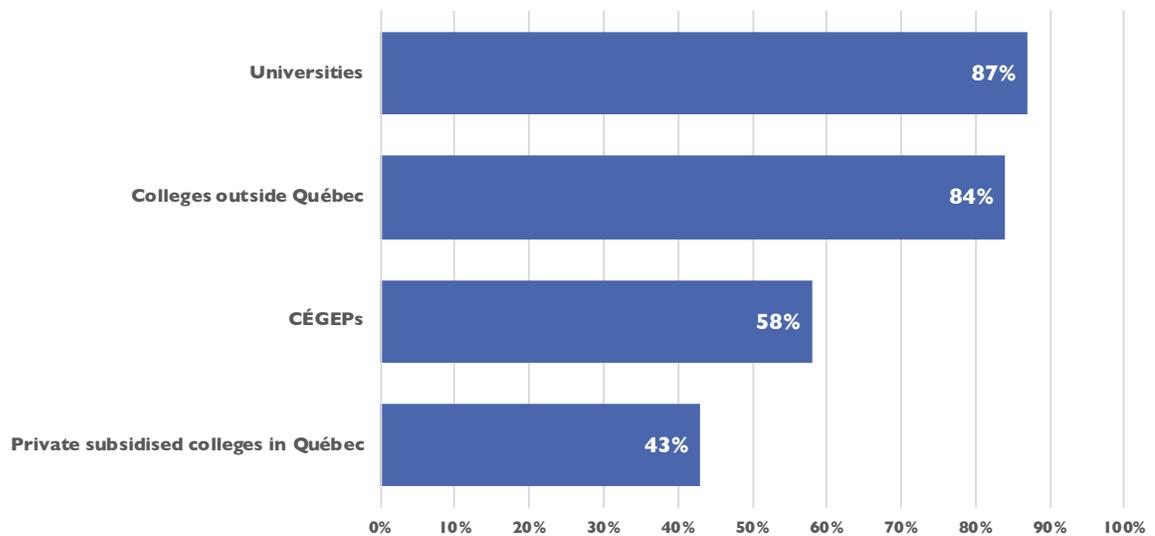
The 2018 results reinforce the conclusions from the 2017 report that more than three quarters of Canadian institutions are now integrating online with classroom teaching, but no more than one in five have a significant number of courses in this format. In other words, blended/hybrid learning is wide but not deep.

PROPORTION OF COURSES TAUGHT AS BLENDED/HYBRID



There is considerable variation in the level of adoption of blended/hybrid learning by type of institution. The overall rate 78% across all institutions is composed of higher rates at universities and colleges outside Québec, and lower rates for CÉGEPs and private subsidised colleges in Québec.

BLENDED/HYBRID OFFERING RATES



DEFINITIONS

A critical finding from the 2017 report was the level of disagreement on definitions of the terms used to describe courses that are offered as ‘distance education’, ‘online’ or ‘blended/hybrid’. Clearly, it is difficult to collect data, conduct research, create effective policies, or have meaningful comparison if the terms used differ in meaning depending on each institution’s or department’s interpretation.

Because of this issue, the 2018 data collection approach was modified to include a pre-survey to get feedback on the ability of institutions to map their internal definitions to those we could use in the survey, and included a refinement of the survey definitions to more broadly capture the variety of activities that may be labeled in another way locally, but do not differ in how the course is conducted.

As a further test of the reliability of the questionnaire definitions, institutions were specifically asked to compare their internal definitions of distance education, online courses, and blended/hybrid courses to those presented in the survey. Institutions were then requested to share their definition if it didn’t match the one provided.

For each of the definitions provided: distance education, online and blended/hybrid, a majority of institutions indicated that their institution definitions match. That is a positive sign as institutions across the provinces tend to be classifying the activities in much the same, or at least a comparable way. However, that still leaves disagreement in the terms by a significant minority, showing the need for more work to foster further agreement.

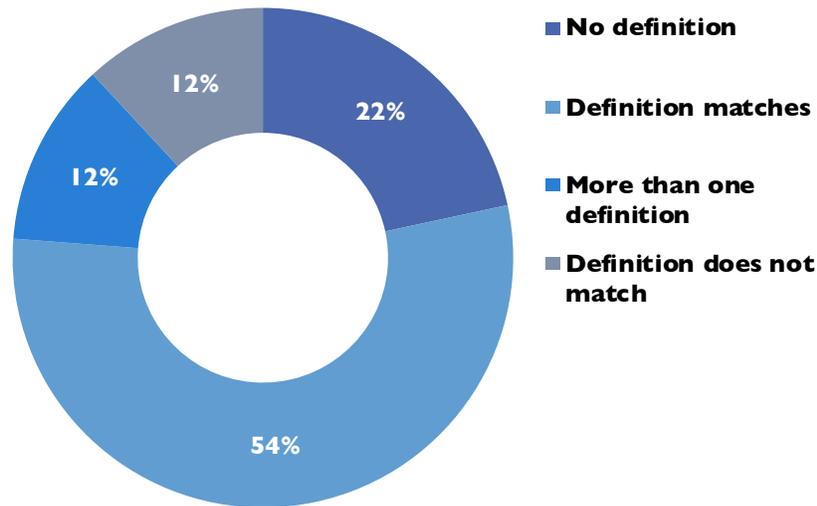
Defining Distance Education

Institutions were asked if their internal definition for a distance education course matched the one presented in the survey, where they were presented with the following definition:

Distance education courses are those where no classes are held on campus – all instruction is conducted at a distance.

Slightly more than half (54%) of the respondents found that the survey definition matched their institutional definition. Just under a quarter of responding institutions (22%) indicated they have no definition of a distance education course. A small group (12% of responders) reported that they have more than one definition at their institution, which could be an issue especially for larger institutions. An additional 12% reported that the survey and institutional definitions do not match.

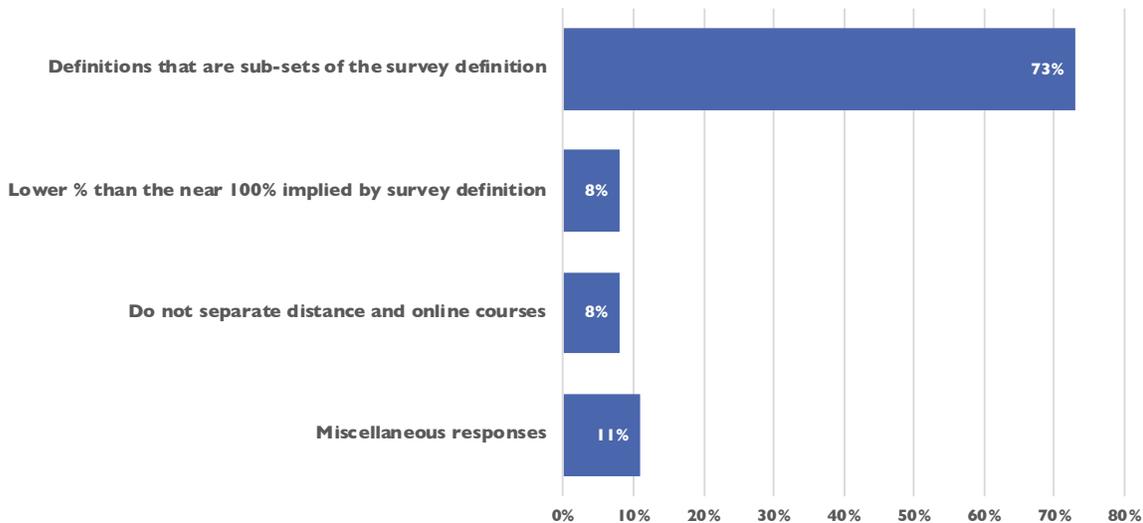
DOES THE INSTITUTION'S DISTANCE EDUCATION DEFINITION MATCH THE ONE IN THE SURVEY



The lowest rate for the definition matching was among Quebec private subsidized institutions and the CEGEPs at just 45%. Given that several of them are just now developing their own distance courses, they may be catching up with the other institutional sectors on this issue.

Institutions with a different definition than the survey definition were given the opportunity to provide their definition(s) or to explain their answer. Many institutions provided detailed descriptions of exactly what is offered by the institution. For the most part, the open-ended responses were essentially a subset of the distance education definition provided in the survey.

HOW DISTANCE EDUCATION DEFINITION DIFFERS FROM THE SURVEY DEFINITION



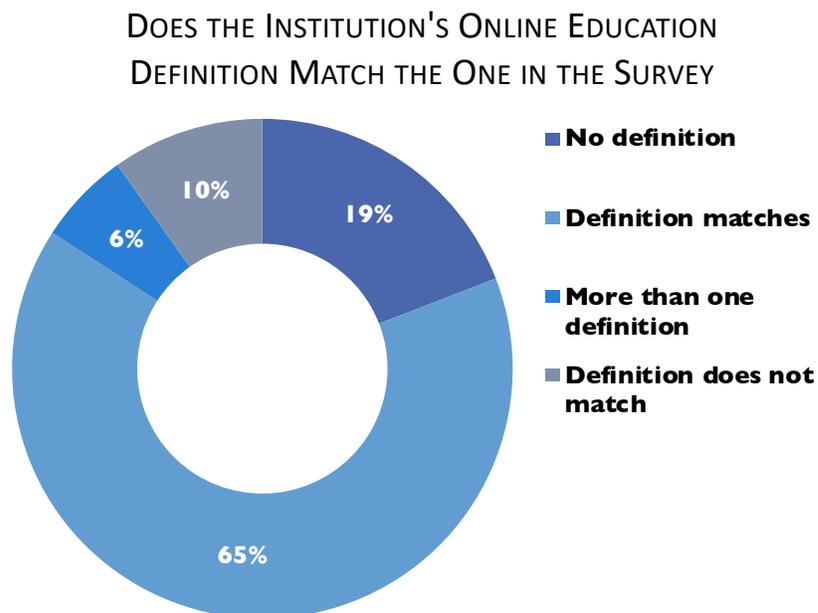
Whereas the survey definition focuses on what activity is taking place, the text submitted often did not substantially differ in concept. Instead, it provided more details on how distance education is provided, such as listing different modalities. Taking that view, an additional 10-15% of the respondents were generally in agreement with the survey definition.

Defining Online Learning

Institutions were asked if their internal definition for an online course matched the one provided in the questionnaire:

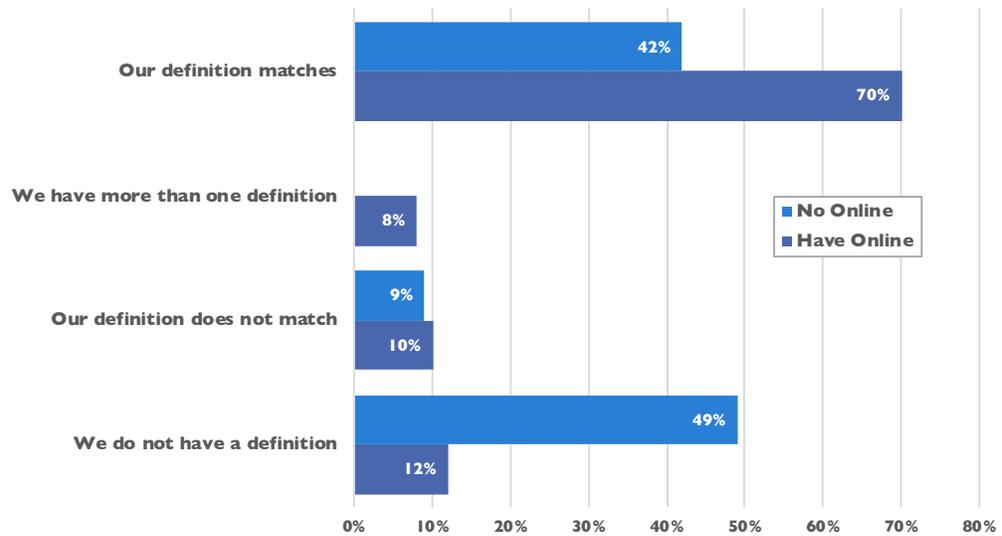
A form of distance education where the primary delivery mechanism is via the Internet. These could be delivered synchronously or asynchronously. All instruction is conducted at a distance.

Nearly two-thirds of the responding institutions (65%) used the same definition as the one provided. A further 6% used more than one definition, 19% had no definition and 10% had a different definition from the one provided.



There was a greater level of agreement with this definition than with the one provided for distance education. Among institutions with online course offerings, agreement was even higher at 70%.

HOW ONLINE LEARNING DEFINITION DIFFERS FROM THE SURVEY DEFINITION



Colleges have a remarkably high level of agreement (79%), while fewer than half of CEGEPs have a definition that matches.

Almost one-in-five institutions (19%) have no definition of an online education course with this percentage being much higher for CEGEPs and the private subsidized colleges. As mentioned previously, CEGEPs are just beginning to offer or are greatly expanding their online offerings. Meanwhile, colleges outside of Québec have a very high (79%) match rate on this definition. Relatively few (6%) of institutions reported having more than one definition for an online course.

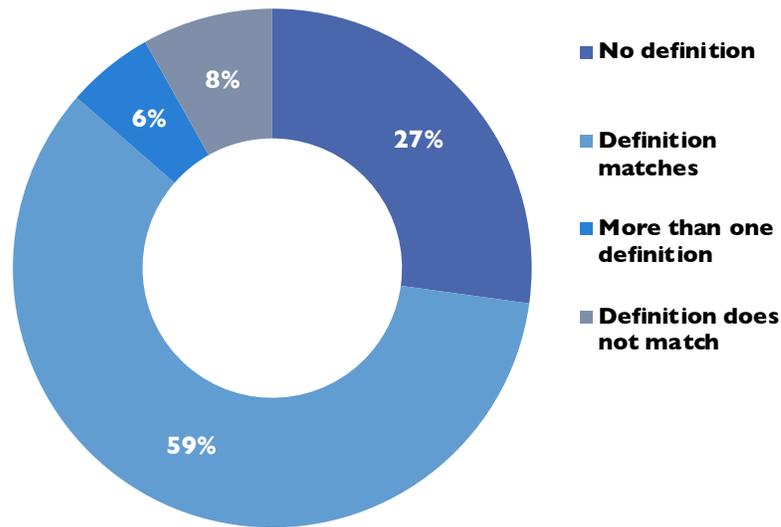
The survey provided the opportunity for respondents to provide their definition(s) or to explain their answer. Whereas the survey definition focuses on what activity is taking place, similar to the results for the distance education definition, the text submitted typically did not substantially differ in concept. Instead, it provided more details on how online education is provided, such as listing different modalities.

Defining Blended/hybrid Learning

The term blended/hybrid has been around for a very long time, yet there is still either confusion or disagreement on what is or is not included. The definition, as provided by the survey:

A blended/hybrid course is: designed to combine both online and face-to-face teaching in any combination. For the purposes of this questionnaire, we are interested in those courses where some, but not all, of the face-to-face teaching has been replaced by online study.

DOES YOUR INSTITUTION'S BLENDED/HYBRID DEFINITION MATCH THE ONE IN THE SURVEY



More respondents agreed (59%) with the blended/hybrid definition than was found with the distance definition, but not quite as many as found a match with the online definition. A quarter (25%) of all reporting institutions do not have a definition, which may be due to this variation of distance education being the most recent.

For CEGEPs, there are more respondents who say this definition matches the one they use than is found for either the distance or online definitions. This model may be a better match for the students they serve. The college sector again has the highest rate of agreement with the survey definition.

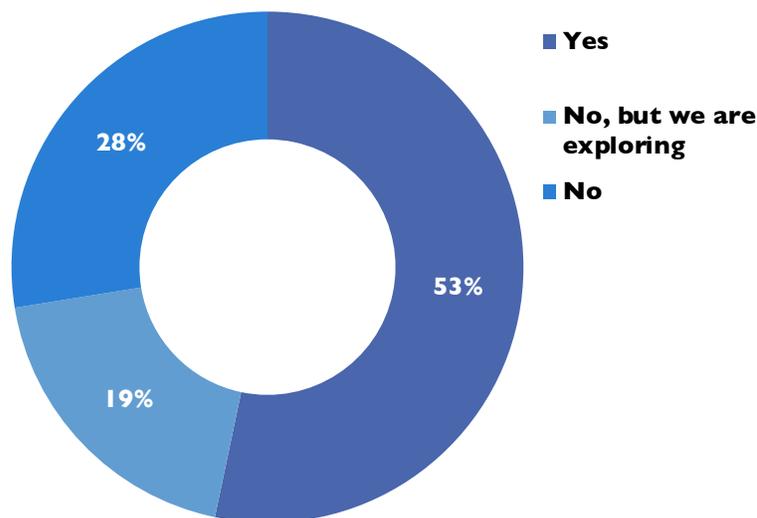
Open-ended comments on this definition show that there is a great variation among those not in agreement. The variance may be higher due to the fact that the survey had combined both blended and hybrid in defining this activity. Some use one term, some use the other, some use both interchangeably, and others use different terms.

For the distance and online definitions, comments often tended to be lists of specifics that actually were detailed subsets of the survey definition. This was less the case for blended/hybrid. A few institutions use the blended and/or hybrid terms to describe activities that do not reduce face-to-face instruction, such as “flipped” classrooms, where students are expected to view lectures outside face-to-face time and the in-class experience is more interactive. The others used the term for videoconference classes in which students are synchronously participating in a course via voice and video, but in different locations.

OPEN EDUCATIONAL RESOURCES

Open educational resources (OER) are freely accessible, openly licensed text, media, and other assets that are useful for teaching and learning. Several Canadian provincial governments are supporting the development and use of locally produced OER. Open textbooks, a specific form of open educational resources, are licensed under an open copyright license and made available online to be freely used by students, teachers and members of the public. Government agencies in British Columbia, Alberta, Saskatchewan, and Ontario currently have projects to support the use of open textbooks.

OPEN TEXTBOOKS USED AT INSTITUTION?

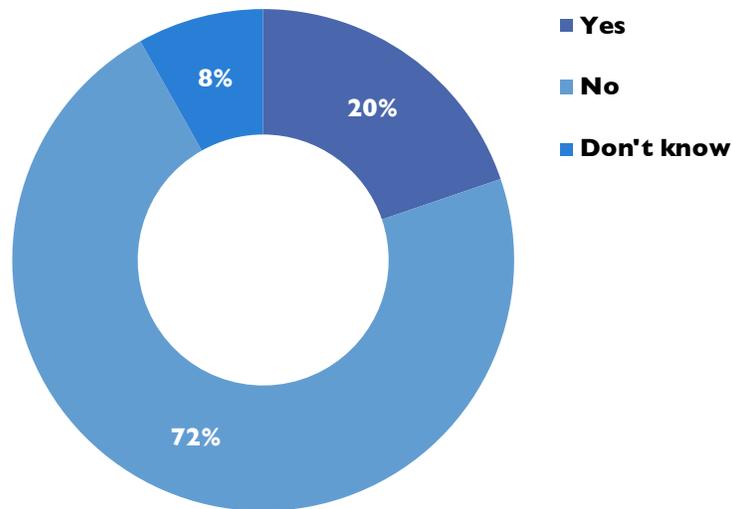


A substantial number of Canadian post-secondary institutions (just over half) are using open textbooks and a further fifth are exploring their use. Approximately 60% of universities use them, while colleges in Québec have a lower rate of utilization (just over a third of institutions). A further 19% of institutions are exploring their use, particularly in colleges outside Québec (27%).

The highest proportions of institutions using open textbooks were in British Columbia (90%) and Alberta (78%), which reflects the impact of the BC Open Textbook project that has now been running for five years. The provinces with the lowest reported use were New Brunswick (none), and Saskatchewan and Québec (33%). Smaller institutions were much less likely to use open textbooks than larger ones.

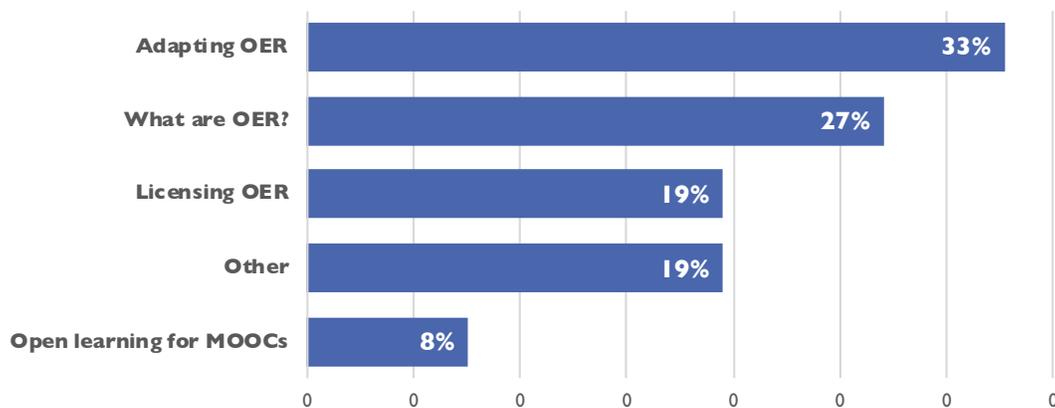
A very small percentage (20%) of institutions using open educational resources report that they track the savings from adopting OER materials.

TRACK SAVINGS FOR STUDENTS FROM SWITCHING FROM COMMERCIAL TO OPEN



A number of institutions are offering different forms of training for instructors regarding the use of OER, but these still represent a relatively small proportion of all institutions.

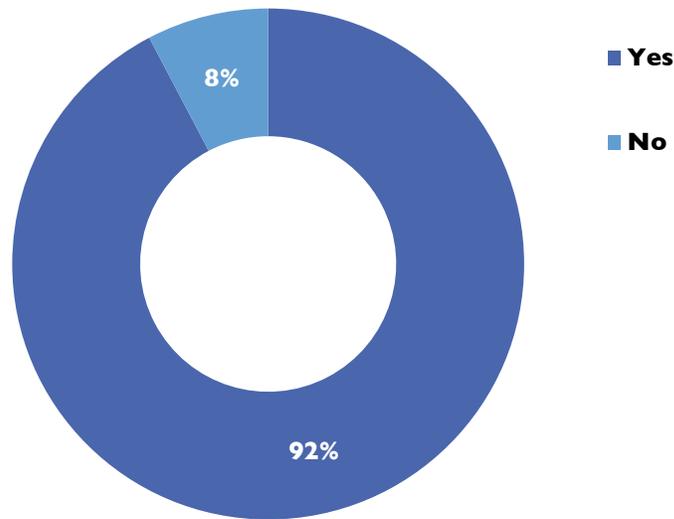
OER TRAINING



CONTINUING EDUCATION

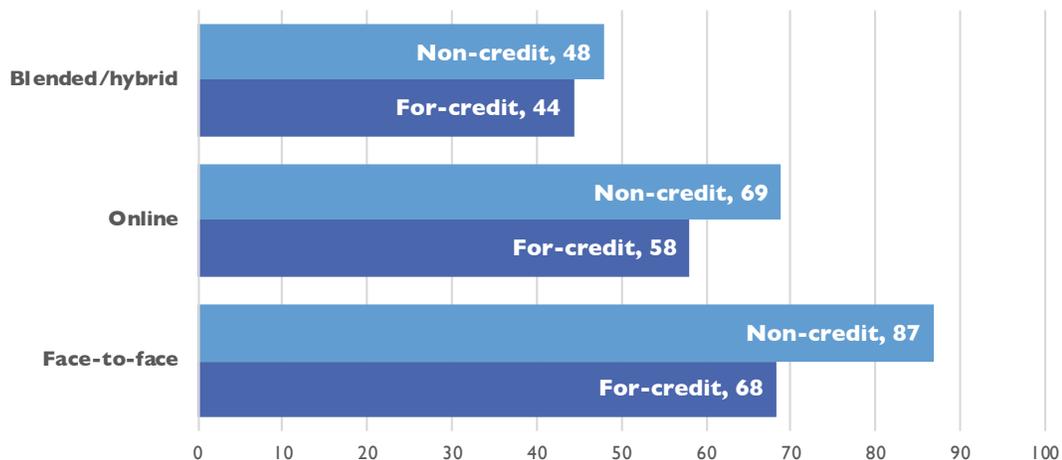
Continuing education is offered by the vast majority of institutions in each sector and in every province and territory that responded. Continuing education courses were offered by 93% of the Anglophone institutions and by 92% of the Francophone institutions. A higher percentage of Colleges and CEGEPs offer continuing education than universities, but all types of institutions offer continuing education courses.

OFFER CONTINUING EDUCATION COURSES



Continuing education is offered as both for-credit and not-for-credit, and institutions take advantage of face-to-face, online and blended/hybrid delivery methods. Face-to-face, not-for-credit courses were the most common offering of the responding institutions (87%). Less than half of the institutions use blended/hybrid delivery for their continuing education and the response for not-for-credit delivery was higher for both face-to-face and online delivery. Not-for-credit courses were offered by slightly more institutions than for-credit courses, but the majority of responding institutions offer courses both for-credit and not-for-credit.

CONTINUING EDUCATION COURSES

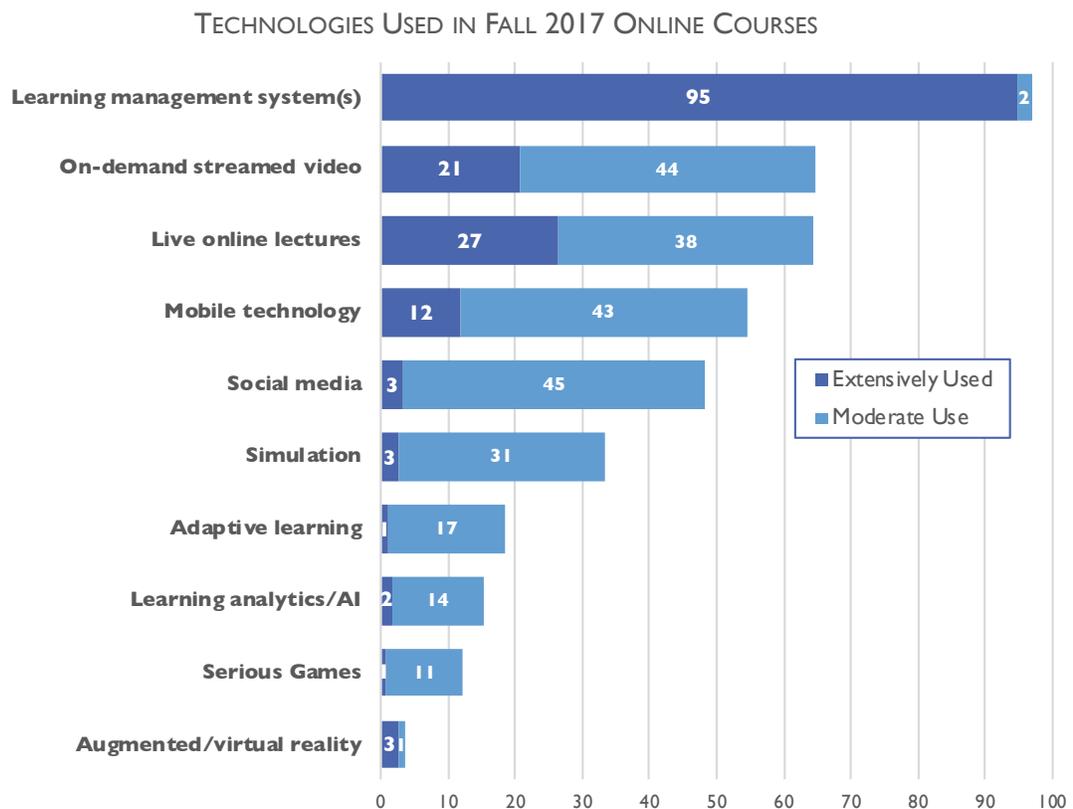


TECHNOLOGIES

Learning Management Systems (LMS) continue to be the backbone technology used by institutions for their online and blended/hybrid courses. Nearly all institutions are combining various web-based video technologies to augment the LMS and support increased interaction and engagement in their courses. Many are increasing the use of video, lecture capture and video-conferencing and some are developing 360-degree photos and videos to support student engagement.

The 2018 survey included select technologies used in the 2017 survey (LMS, video streaming, social media) and expanded the choices to include emerging innovative technologies such as virtual and augmented reality, learning analytics/ artificial intelligence and simulations.

As in 2017, the responses indicate that nearly all of the responding institutions use the Internet for their online and blended/hybrid delivery. Of the institutions that responded to this question, (95%) indicated that they use a LMS extensively, an increase from 87% in 2017.

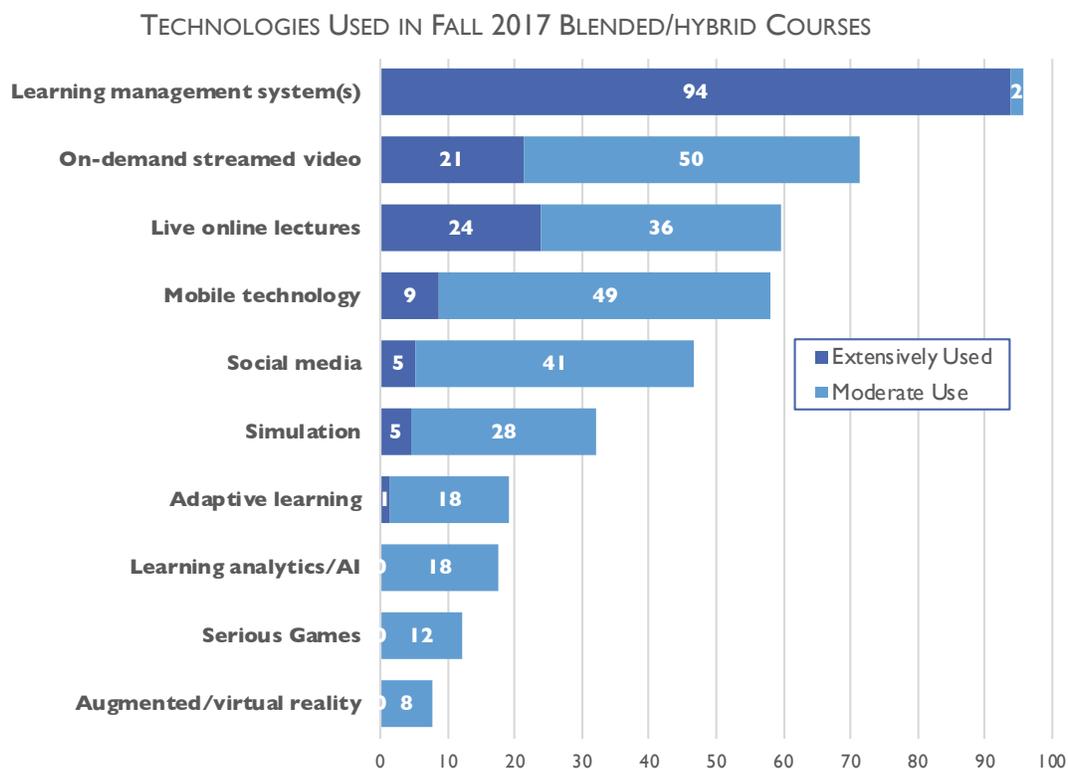


A majority of institutions (65%) report moderate to extensive use of on-demand streamed video and also live online lectures. This is consistent with the 2017 result of 62% indicating moderate to extensive use.

The addition of the questions on innovative technologies in higher education illustrate that just over half of institutions report moderate use of mobile technology (55%), and social media such as blogs and wikis are being used in about half the responding institutions. Simulations are being used in about one third of the responding institutions.

There is also some experimentation being done with emerging innovative technologies such as adaptive learning (20%), learning analytics (16%) and serious games (12%). However, very few responding institutions are using augmented and virtual reality (less than 5%).

Similar questions were asked about the use of technologies in blended/hybrid courses. There are few differences between the use of technologies for blended/hybrid learning courses and for fully online courses, the main difference being a slightly higher percentage of institutions using streamed video for blended/hybrid courses (71%) than for fully online courses (65%).



As we speculated in 2017, it may be that some of the more experimental applications of technologies by individual faculty members are not known by the institutional respondent(s). It may be even more difficult for institutions to know what technologies are being used for blended/hybrid learning, as illustrated by a comment from one anglophone university:

Blended courses utilize a wide array of technologies often chosen (and managed) by the instructors due to personal preference, familiarity and a perceived limitation of campus tools. There are a variety of tools out there in use by instructors that we may or may not be aware of centrally.

Future Directions

We invited institutions to share further thoughts on the technologies being considered for the future, and 56 institutions provided open-ended responses.

Technology	Mentions
Virtual, Augmented Reality	10
Adding/improving video/audio conferencing	7
More extensive use of video and lecture capture	5
Data Analytics	4
Mobile	3
ePortfolios	3
Adaptive Learning	2
e-Textbooks/OERs	2
Makerspace	1
Grading tools	1
Tools for collaboration	1

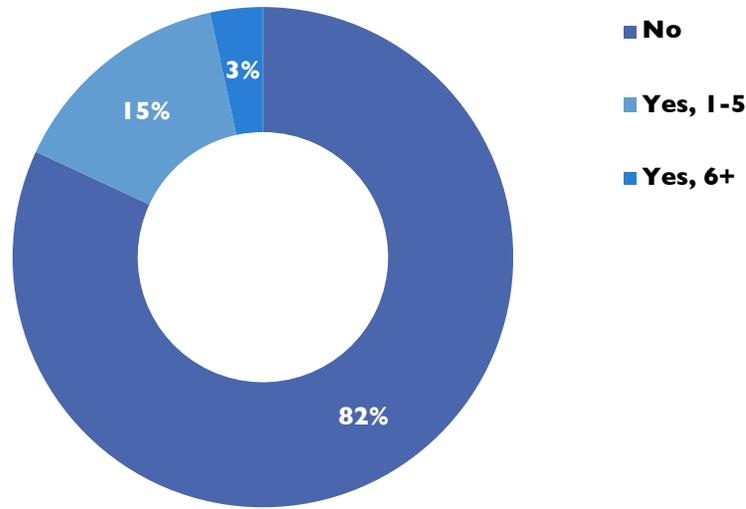
While the reported usage of adaptive learning, augmented reality and virtual reality was low, responses in the open-ended comments illustrate experimentation in courses using virtual reality simulation and augmented reality. Others respondents identified using e-portfolios, 3D printing, 360-degree videos, and drone technologies as well as virtual learning through game-based simulations. A number of the comments indicate that experimentation is occurring in face-to-face classes as well as in online and blended/hybrid courses.

The institutions responding to the survey are at varying levels of maturity in the adoption of technologies for teaching and learning. For some, planning of integration of faculty video and/or video-conferencing is on the horizon, while others are experimenting with virtual reality, simulation, serious games and adaptive learning.

MOOCs

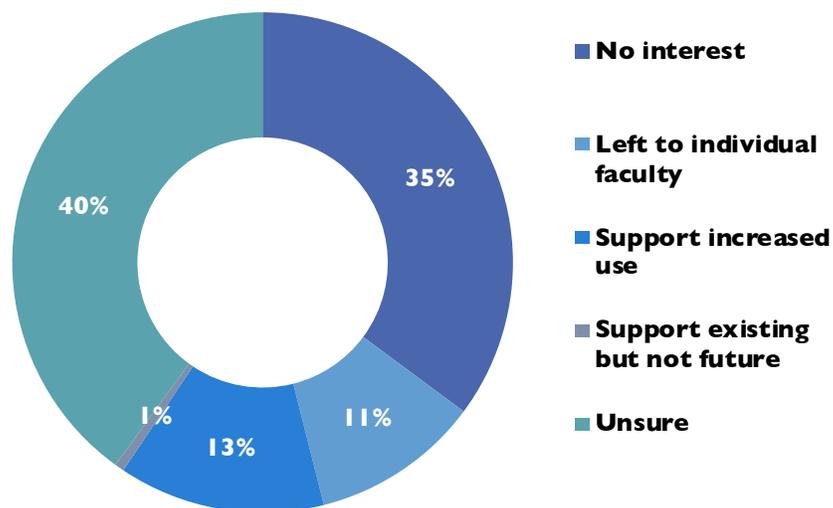
Only a few post-secondary institutions in Canada (18%) offered MOOCs in the previous year. Of the institutions responding to this question, 14% indicated they offered between one and five MOOCs; while 3% indicated they offered six or more MOOCs in the last year. Universities (29%) were more likely to offer MOOCs than colleges outside Québec (13%) or CEGEPs (7%).

OFFERED ANY MOOCs IN THE LAST 12 MONTHS?



There appears to be little future interest in offering MOOCs with 40% unsure of their future plans for MOOCs, and 36% indicating they have no interest in offering MOOCs in the future. The remaining 25% were split, with 13% willing to support the increased use of MOOCs in future, and 11% leaving it to individual faculty to decide without necessarily providing institutional support.

INSTITUTION'S PLANS FOR MOOCs IN THE FUTURE



STRATEGIES AND PLANS

Online learning is very or extremely important for the institution's long-term strategic or academic plan in 68% of responding institutions. Most responding institutions recognize the importance of having a plan or strategy for e-learning:

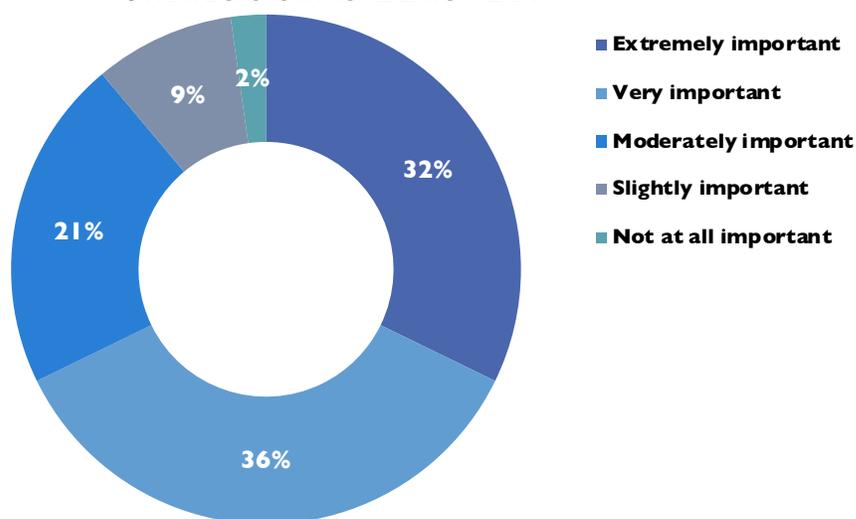
- 65% either had a plan or were developing one;
- Just under a third (30%) did not have a plan, but reported that they needed one;
- Only 5% reported that a plan or strategy was not needed;

Institutions cited the ability to increase student access as the most important reason for implementing online learning, with 95% of institutions rating it as either important (23%) or very important (72%); second in importance was accessing students from outside the regular catchment area (88% reported this as important or very important). The most significant barrier was identified as the additional faculty effort required to develop or deliver online courses (85%), followed closely by inadequate training/pedagogical knowledge available for faculty in online learning (73%), then the lack of acceptance of online instruction by faculty (62%).

The Importance of Online Learning for the Future of the Institution

Over two-thirds (68%) of responding institutions reported that online learning was very or extremely important for their long-term strategic or academic plan (compared to 66% in the 2017 survey). Larger institutions placed more importance on online, with 81% of those with 10,000 or more students reporting online learning very or extremely important for their future, compared with 56% of the institutions with fewer than 1,000 students.

IMPORTANCE OF ONLINE LEARNING FOR LONG-TERM STRATEGIC OR ACADEMIC PLAN



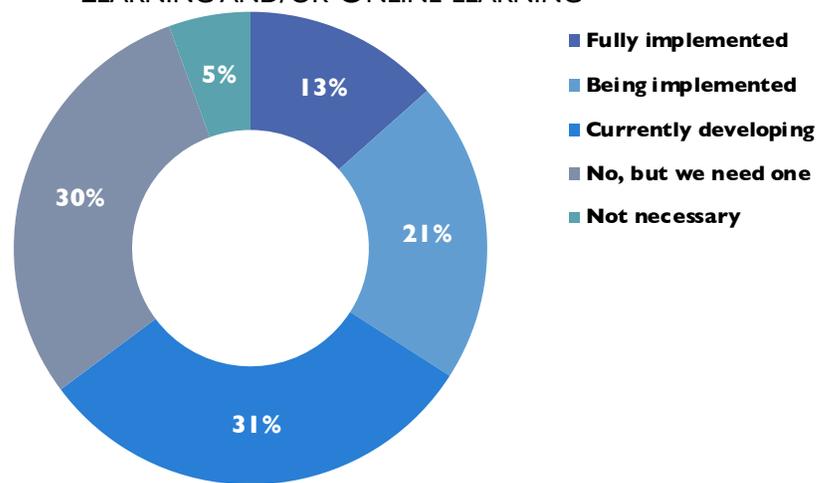
In particular, 81% of colleges outside Québec, and 68% of universities, reported that it was very or extremely important. Somewhat surprisingly, given that there is a central service for online learning for CEGEPs, 50% agreed. Less than 12% of all responding institutions reported that it was slightly or not at all important.

Ontario had the highest percentage (80%) of institutions that considered online learning strategically important for their future, although British Columbia and Alberta were close behind at 76% and 75% respectively. The prairie provinces of Manitoba (37%) and Saskatchewan (50%) were the area with the lowest numbers in terms of strategic importance of online learning.

Strategic Plans for Online Learning

Most responding institutions recognize the importance of having a plan for e-learning. Only 5% reported that a plan or strategy was not needed, and almost two thirds either had a plan or were developing one. Just under a third (30%) did not have a plan, but reported that they needed one.

STATUS OF STRATEGIC PLAN FOR E-LEARNING, HYBRID LEARNING AND/OR ONLINE LEARNING

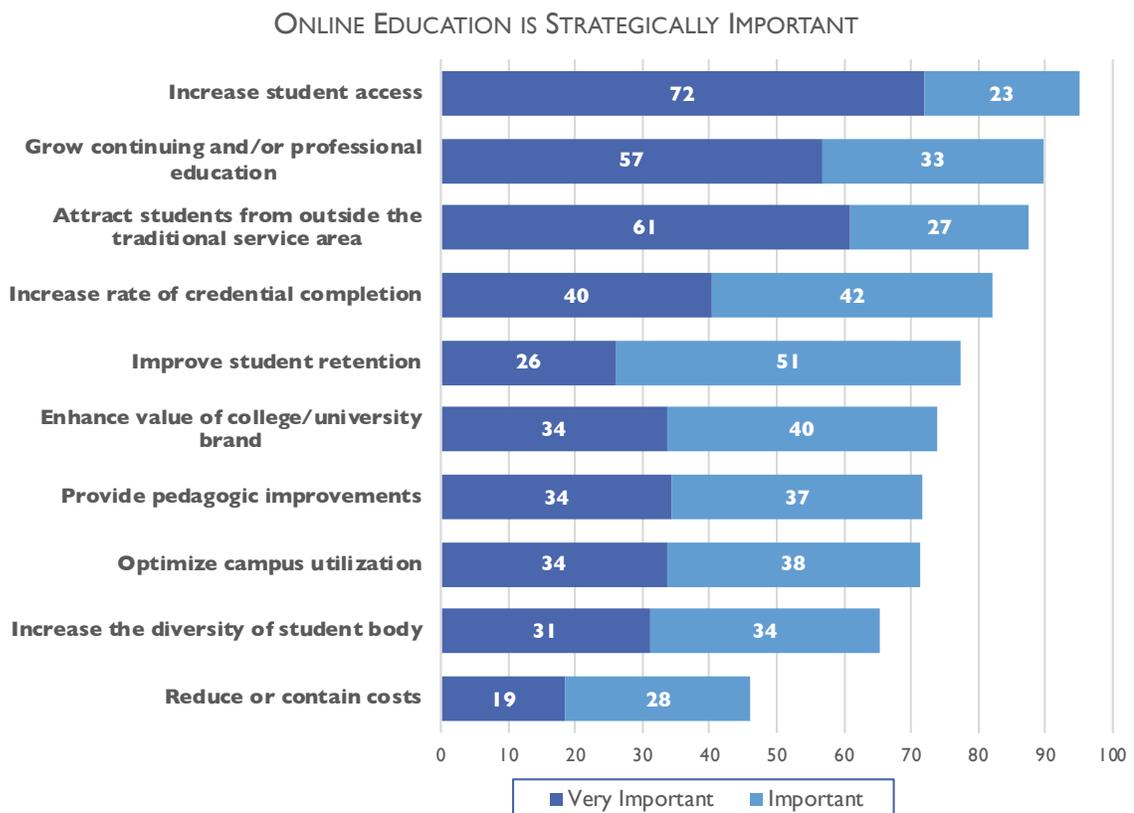


Nearly half (45%) of the institutions in the size range of 1,000-4,000 did not have a plan but reported that they needed one. Very small institutions (fewer than 1,000 students) were most likely to report that they did not need a strategy.

The Strategic Importance of Online Learning for Institutions

Institutions were queried about the reasons why they considered online learning strategically important. The most important reason for online learning for most institutions was to increase student access, with 95% of institutions rating it as either important (23%) or very important (72%).

Closely linked in second place was the opportunity to access students from outside the regular catchment area. For 61% of institutions, this was very important and for another 27%, it was important. This was particularly so for institutions in the Maritime provinces, where almost two thirds of the institutions rated this as important or very important. For 57% of institutions online learning was very important for growing continuing/professional education.

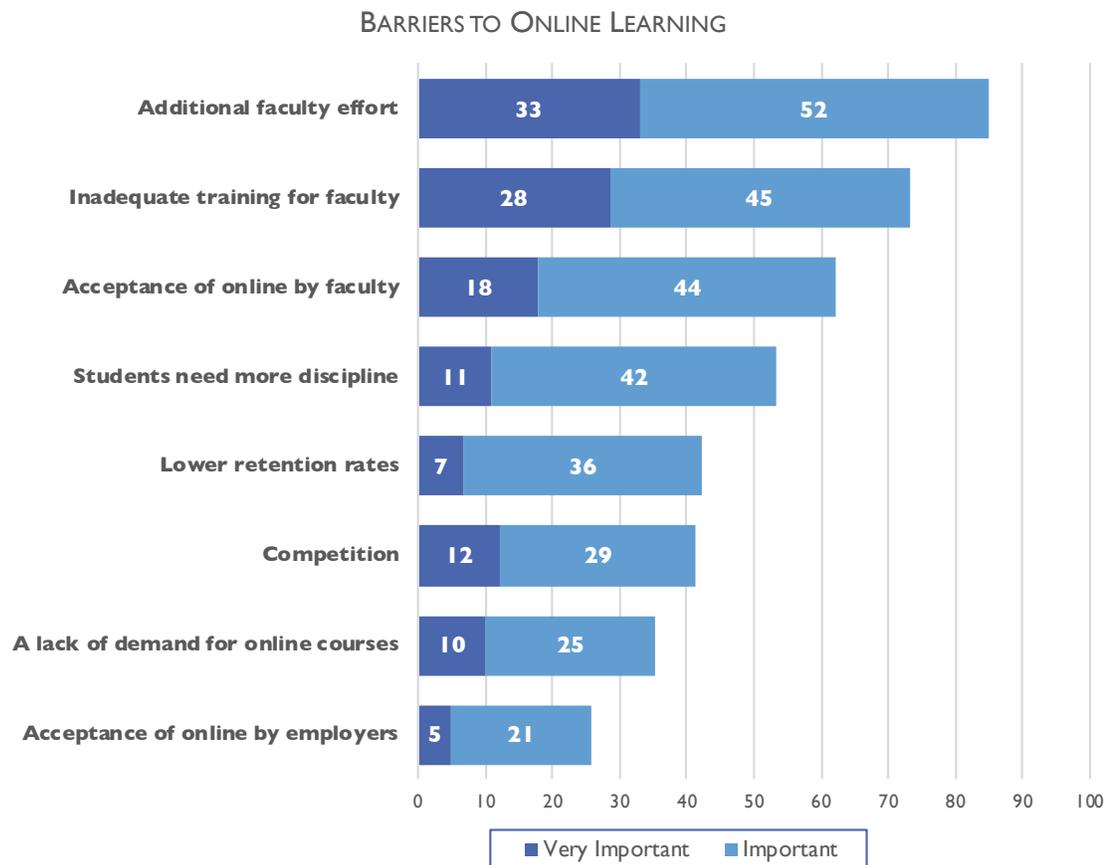


For most institutions, using online education to contain or reduce costs was not considered as important as the other reasons, with only 19% rating it as very important.

In general, universities and colleges were similar in their rating of each of these reasons for importance, except that universities and CEGEPs both rated it more important for pedagogical improvement than colleges outside Québec. Colleges outside Québec were also more inclined to rate the importance of online learning higher for reducing/containing costs and for optimizing campus utilization. CEGEPs also rated the importance of online learning for increasing student diversity.

Barriers to the Adoption of Online Learning

Institutions reported that the most significant barrier to the adoption of online learning was the additional faculty effort required to develop or deliver online courses. This was considered important or very important by 85% of responding institutions. This was followed closely by inadequate training/pedagogical knowledge available for faculty in online learning, rated important or very important by 73% of institutions. The third most significant barrier was also related, lack of acceptance of online instruction by faculty (62% of institutions).



The least significant barriers identified were lack of acceptance of online learning by employers (59% did not think this was an important reason) and lack of demand for online courses (54%).

Future Developments

As in 2017, institutions were invited to share their insight into areas they were considering for future developments., by responding to the question:

Are there any comments you would like to share on likely future developments regarding e-learning, hybrid learning and/or online learning?

All types of institutions provided responses to this question, with a total of 59 comments received. A selection of comments is presented below, grouped into two areas:

- Increasing support for hybrid learning;
- Areas that are underway or planned for the near future.

A couple of institutions highlighted their thoughts on how hybrid learning was the way of the future:

In our opinion, the future lies in hybrid learning. If we cannot predict future technological changes in the next 25 years, we can say with certainty that human beings will always need to meet. Therefore, classrooms must continue to exist. Experiments and research show that hybrid training needs to be valued. Québec University

The pattern of increased demand for online and hybrid courses is likely to continue. Currently interest in hybrid learning is on the rise. Anglophone University

Hybrid learning will be growing strongly in the coming years. This growth will not be at the expense of online training but the detriment of training in the classroom. Within a few years, 100% classroom lessons from start to finish without having an online / hybrid component will be rare. Québec University

The college is emphasizing competency-based education. Tech and online learning is vital for this success. Lots of potential in hybrid learning. Each medium has strengths and weaknesses. Anglophone College

Some institutions shared areas they were currently engaged in:

Continuous improvements including simulations; virtual and augmented reality; access to emerging technology. Anglophone College

Our College is engaging in a project to transform its educational offerings to incorporate 21st century learning models, including flexible learning options like blended and online learning, better space utilization through these models, incorporation of College-wide learning outcomes in programming, modelling the use of technology in its academic programs, incorporating e-portfolio opportunities for students and programs, and deepening the use of the LMS for analytics purposes. Anglophone College

Improvement of the learning experience (personalized, playful, social). Elaboration of immersive environments. CEGEP

More focus on open source materials would be an interesting accompaniment. This will grow into the future. In the future we will be faced with understanding the appropriate mix for blended/hybrid learning – and recognize that this may also vary by substantive areas of course offerings. Anglophone University

The use of technology enabled learning at our institution continues to grow at a steady pace. We offer a variety of workshops to assist faculty who are interested in integrating technology into their teaching practice. We have recently formed a technology-enabled learning working group who are involved in the evaluation of new technologies and learning environments. We are actively evaluating the use of a synchronous online learning platform that will enable us to reach our learners from wherever convenient to them. Ways in which we can integrate and effectively use simulation and virtual reality are also under consideration. Anglophone University

PERCEPTIONS OF ONLINE LEARNING

Canadian public post-secondary institutions generally hold positive views on online learning:

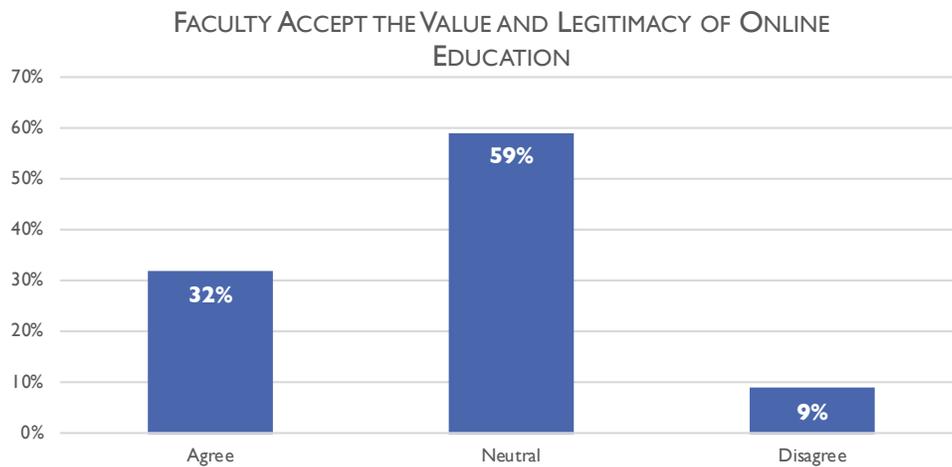
- Institutions reported that faculty on balance accepted the value and legitimacy of online learning; acceptance was greatest in the colleges outside Québec, then in universities, but less in the CEGEPs, tending towards rejection.
- Online credentials are as respected as face-to-face credentials;
- A clear majority of responding institutions (61%) reported that students were at least as satisfied with online courses as with face-to-face courses;
- Online course learning outcomes are considered by most institutions to be the same as for face-to-face courses, although a few institutions (11%) thought online were inferior
- Blended/hybrid learning outcomes are considered by most institutions to be the same as for face-to-face courses, although a few institutions (19%) thought blended/hybrid were superior
- Respondents share a belief that online, blended/hybrid learning can lead to and influence innovative teaching practices.

However, institutions also indicated that:

- A majority of institutions (55%) agreed that retaining students is a greater problem than it is for face-to-face students; this feeling was strongest in CEGEPs, where 79% of CEGEPs agreed with the statement;
- There was general agreement that students need more discipline to succeed in online courses.

Faculty Acceptance of Online Learning

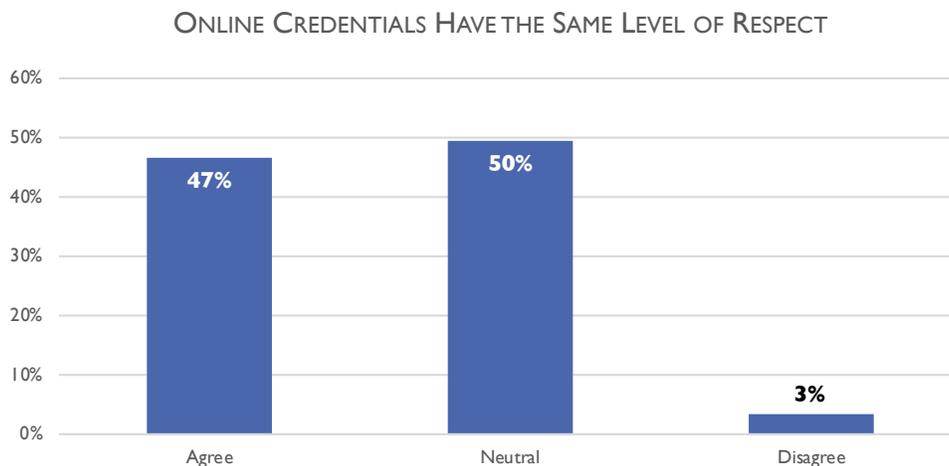
In general, institutions reported that faculty on balance accepted the value and legitimacy of online learning.



However, acceptance varied considerably between type of institution, and tended to cluster just above neutral (i.e. slightly more to acceptance). Acceptance was greatest in the colleges outside Québec, then in universities. Acceptance was less in the CEGEPs, tending towards rejection. The semi-private colleges in Québec were completely split, but the number of institutions responding was very low.

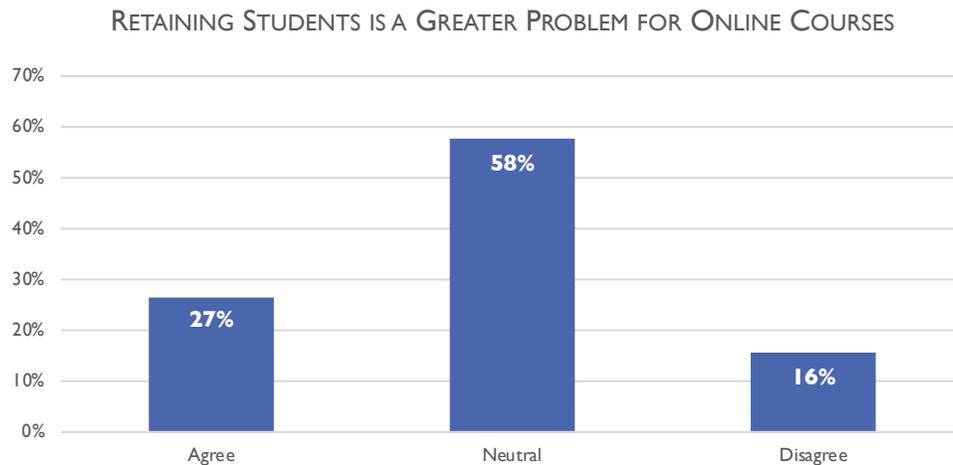
Online Credentials

Just under one-half of all institutions see online credentials as having the same level of respect as face-to-face credentials (47%), with most of the remaining being neutral on the issue.



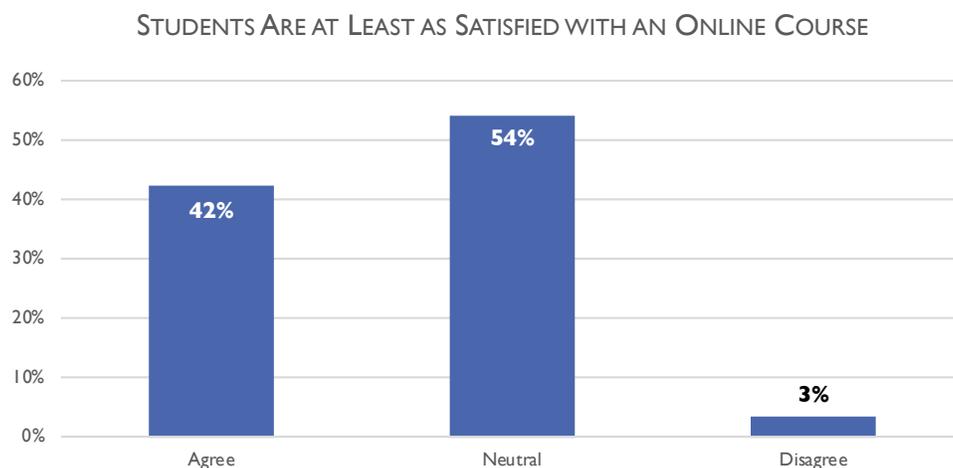
Retention Rates for Online Students

About one quarter of responding institutions (27%) agreed with the statement that retaining online students is a greater problem than it is for face-to-face students. This tendency was strongest in CEGEPs. However, it should be noted that CEGEPs in general have less experience with online courses than other post-secondary institutions in Canada.



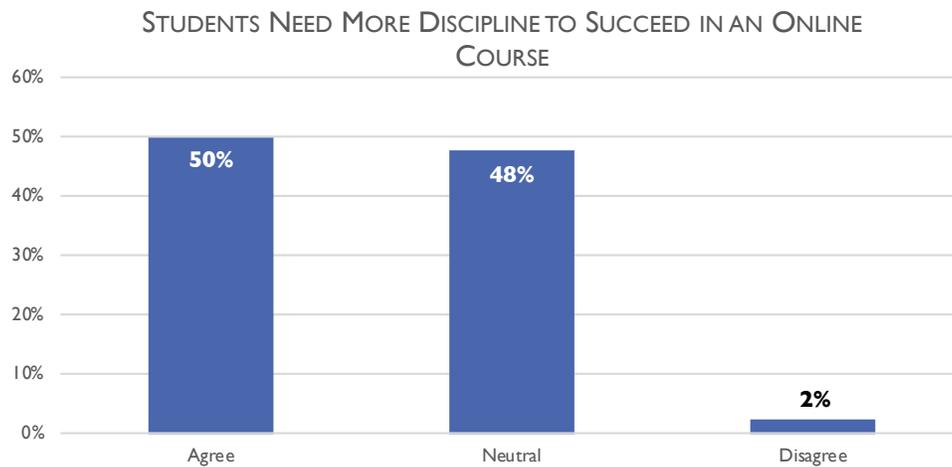
Student Satisfaction with Online Courses

First, it should be made clear that this question reflects institutional responses, not student responses, to the question of if students are at least as satisfied with an online course as they are with a face-to-face course. A majority of responding institutions (54%) were neutral on this issue, with 42% agreeing and only 3% that disagreed.



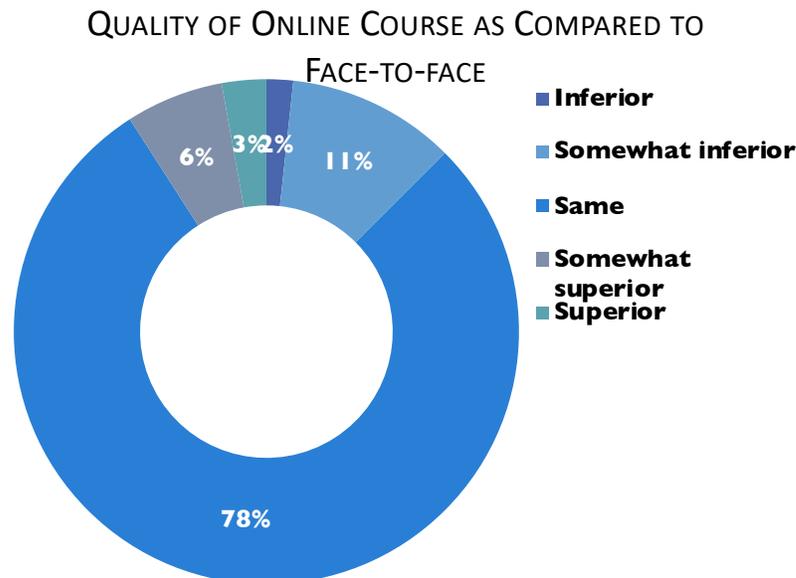
The Need for More Student Discipline in Online Courses

A majority of responding institutions agreed (50%) that students do need more discipline to succeed in online courses, with only 2% disagreeing.

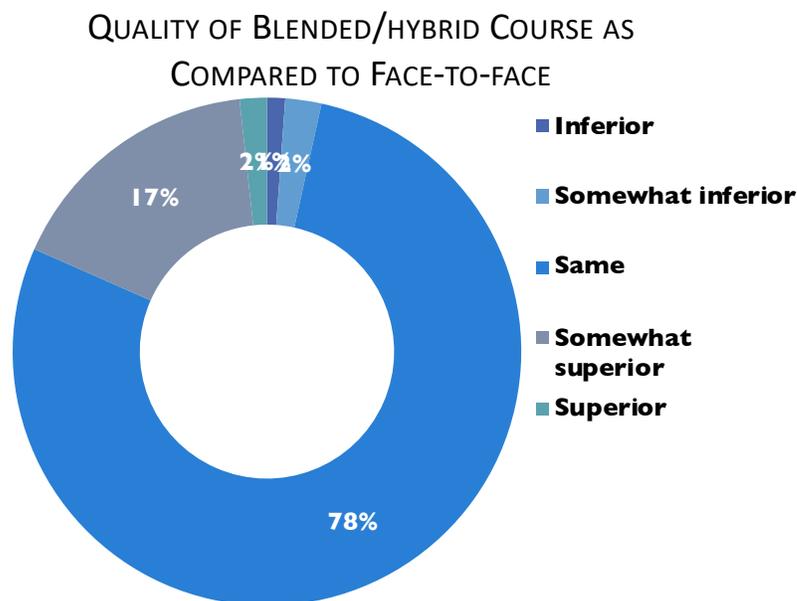


Learning Outcomes

Institutions were asked to compare the learning outcomes of online and blended/hybrid courses with those of face-to-face courses. Over three-quarters (78%) of the responding institutions considered the learning outcomes of online courses to be the same as those for face-to-face courses. Thirteen per cent ranked online courses inferior, but nine per cent ranked them superior. There was relatively little difference between CEGEPs, colleges outside Québec, and universities on this question.



A similar proportion (78%) of the responding institutions considered blended/hybrid learning outcomes to be the same as face-to-face learning outcomes. However, in the case of blended/hybrid, 19% considered their outcomes to be superior to face-to-face, while only 3% considered them to be inferior. Once again, there was relatively little difference between CEGEPs, colleges outside Québec, and universities on this question.



Online, Blended/hybrid Innovative Teaching Practice

We asked institutions the following question:

Do you believe that offering online or blended/hybrid courses can lead to more innovative teaching? Why or Why not?

Nearly all (103) responses to this question indicate a belief that that yes, online, blended/hybrid teaching can influence and lead to innovative teaching practice. The majority of responses included references to the importance of sound pedagogy, good planning and course design to support faculty. Some responses are shared below:

Yes, it can lead to more innovative teaching. Adopting any new strategies and adapting to changing the technologies can fuel innovation. Anglophone College

It can and has led to more innovative teaching on our campus. Primarily, because the process can provide instructors an opportunity to reimagine course content, delivery, assessment and pedagogy. Anglophone University

Yes. Online education offers many advantages in the application of technology for educational purposes, which promotes the acquisition of specific digital skills and organizational strategies for successful online learning. Québec College

Undeniably, because this development encourages the teacher to initiate a reflexive approach to his/her teaching objectives, the pedagogical methods to promote student learning. However, such an approach requires support by educational advisors, or by materials developed for this purpose, or by a peer group. Québec University

Exposure to new technologies and experimenting with new techniques and strategies was identified as catalyst for faculty to examine their teaching and course design:

Yes, because using new learning technologies require faculty members to think about different ways of teaching and learning. Anglophone University

Online technologies have the potential to make learning more engaging, flexible, collaborative, interactive, and responsive. Anglophone University

Online and hybrid courses afford opportunities to re-think the ways that teaching is delivered. Anglophone University

Yes. Offering courses in different formats affords faculty an opportunity to learn how to adapt their teaching style and think deeply about teaching methods that connect students with the learning material on a personal and real level using technology aids. By challenging faculty to teach differently and more thoughtfully, the result often shows improved teaching experience and an enhanced learning experience. Anglophone University

Some responses highlighted the advantages they believe inherent in moving to online education:

Yes. Online education offers many advantages in the application of technology for educational purposes, which promotes the acquisition of specific digital skills and organizational strategies for successful online learning. Québec College

Preparing an online course forces faculty to think carefully about course design and its connection to assessment that often lead to better in-person design as well. Digital affordances of online teaching have inspired greater interdisciplinarity, a wider range of perspectives in a course and more pedagogical innovation in regards to student contact. Anglophone University

Offering online and blended courses supports achievement of strategic priorities including a commitment to quality educational experience, a high-performing teaching culture, and providing flexible learning options for students. Adoption of innovative online technologies such as virtual reality, simulation, open source technologies and virtual collaboration engage our students in developing skills of the future. Anglophone College

The majority of the comments shared perspectives on how online and blended courses can support teaching growth and help faculty grow their practice with good designs and supports in place. Only four institutions indicated they did not think that online, blended/hybrid courses lead to innovations in teaching practice:

No – course delivery method does not lead to pedagogical improvements. Anglophone University

Innovation in teaching is not necessarily linked to technology and technological innovation does not necessarily lead to educational innovation. CEGEP

Not necessarily. The use of technological means such as video-conferencing or online teaching has many pitfalls... The material is not necessarily designed for this form of course delivery, requiring the instructor to use less powerful tools CEGEP

No, we can be as “innovative” in face-to-face as in hybrid or online. It depends on our perception of what is innovative. Quebec College

CANADA & US COMPARISON

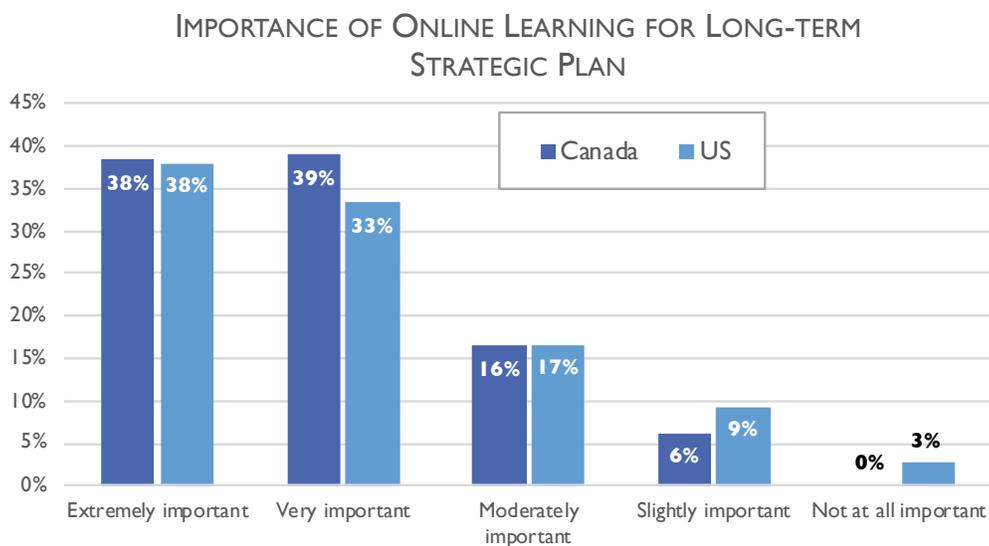
Distance education is more firmly established in the United States than it is in Canada. The latest data for U.S. higher education institutions shows that 33 percent of all students took at least one distance course as of fall 2017, a rate double that of Canada. Given this longer history and higher concentration of online activity, do the academic leaders in the U.S. and those in Canada share the same views about the role and success of distance education?

To test this question, we administered the policy and practice portions of the 2018 Canadian survey to a representative sample of chief academic officers (the highest-ranking individual responsible for the academic programs, typical titles are provost, academic vice president, etc.) in the United States. The objective was to compare the experiences and opinions of those at institutions with for-credit distance course offering, so the responses from the 172 Canadian institutions that have for-credit online offerings were compared to a representative random sample of US academic leaders from 112 institutions with for-credit online offerings.

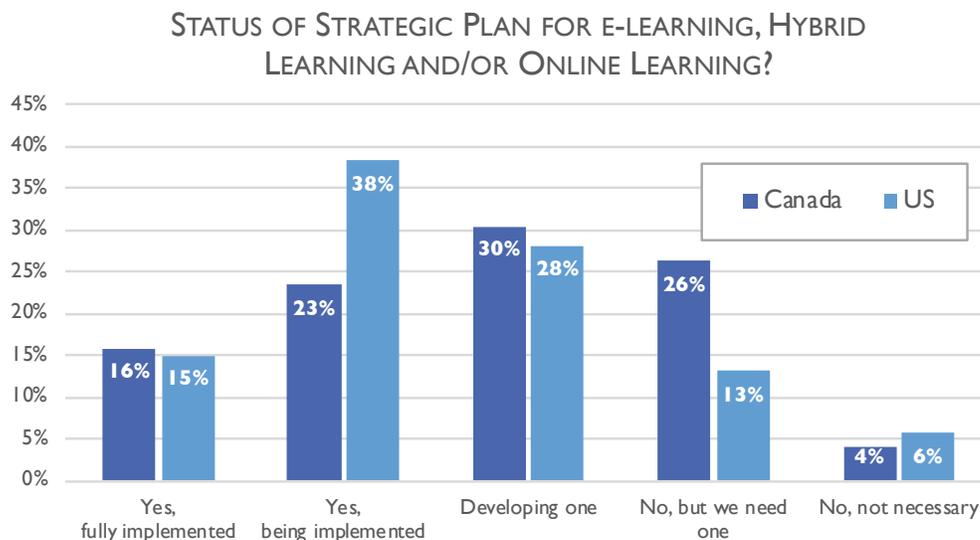
In general, the pattern of responses between the two countries is very similar, and where there are differences, it is the Canadian respondents that are the more positive towards online education.

Importance of Online Learning for Long-Term Strategic Plan

More than two-thirds of the respondents from both countries believe that online learning is either "Extremely" or "Very" important for their institution's long-term strategic plan (see Figure 14.1). Very few Canadian leaders believe that online education is only "Slightly" important (6% as compared to 9% for the U.S.), and no Canadian institutions reported the online was "Not at all important".

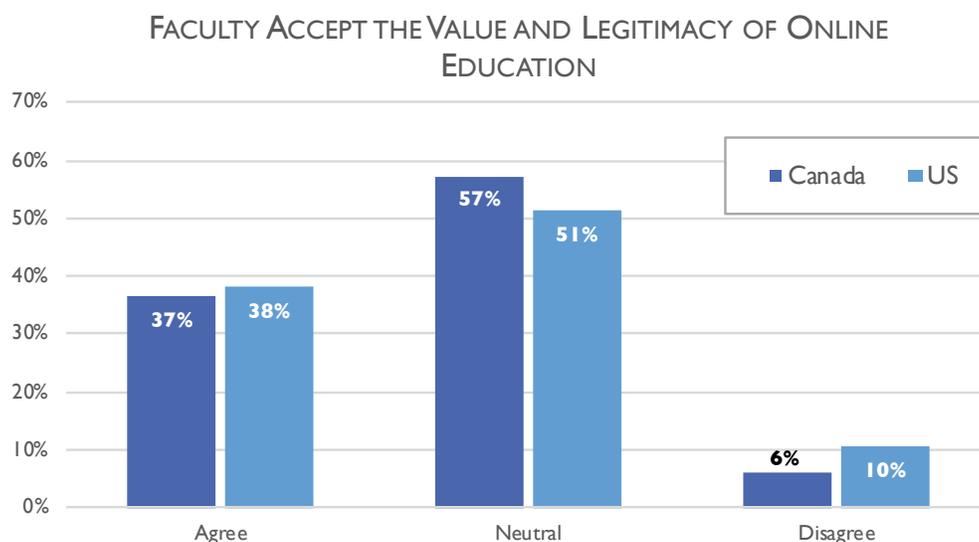


While Canadian academic leaders are slightly more likely to believe that online learning has a high degree of importance for their institution, leaders in the U.S. appear to be further along in actually implementing their strategic plan incorporating "e-learning, hybrid learning and/or online learning." Roughly 15 percent of the respondents from both countries report that these are part of the plan and that the plan is fully implemented.



However, a far larger proportion of those in the U.S. report that they are now implementing such a plan (38% compared to only 21% in Canada). Far more Canadian institutions report that they need a plan, but they have not yet begun working on it (30% in Canada compared to 13% in the U.S.).

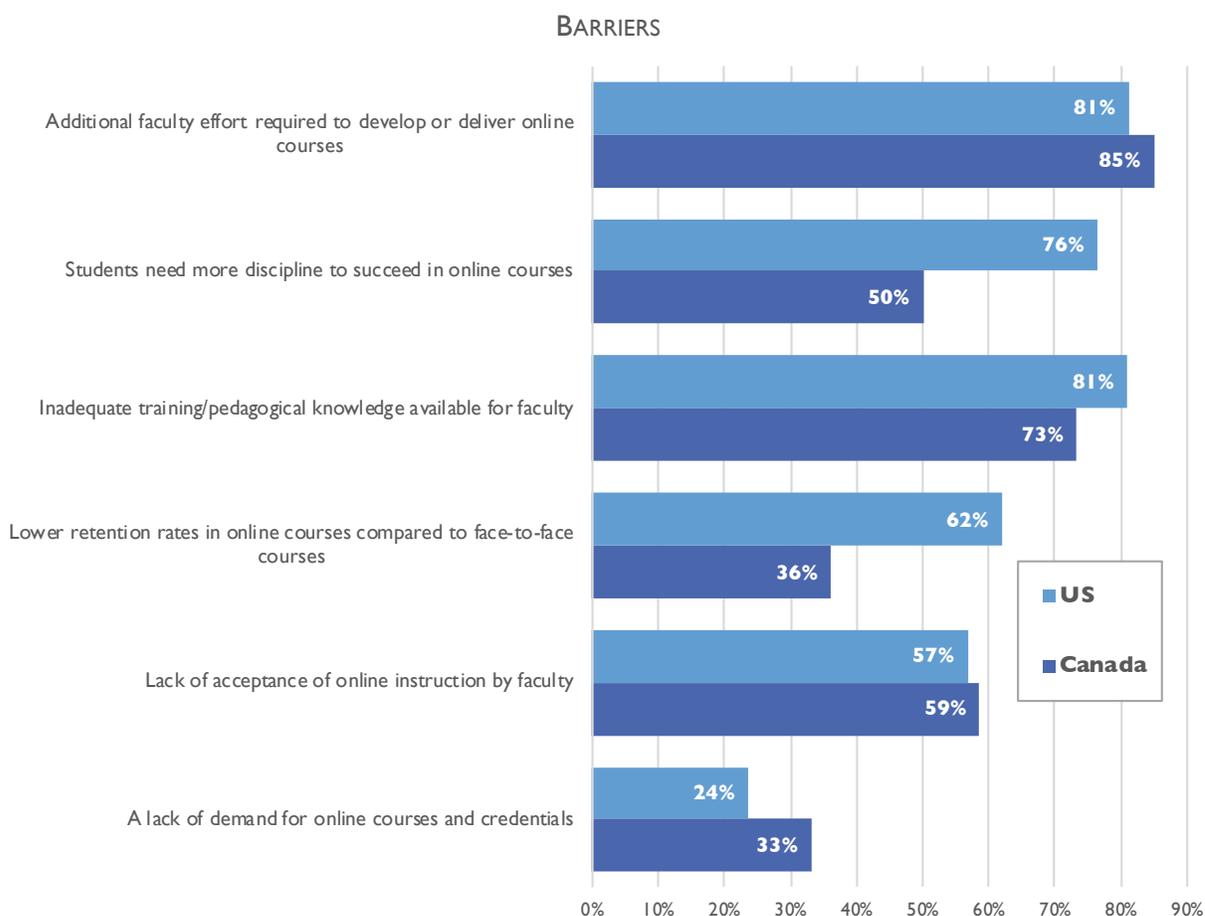
Another area of agreement is that slightly over one-third of the leaders in both countries think that faculty at their institution "accept the value and legitimacy of online education." The other two-thirds of both groups are either neutral or believe that their faculty do not accept online.



In all other areas measured, Canadian leaders have a much more positive view of online education than do the leaders in the United States. Only 21% of the U.S. respondents believe that online credentials have the same level of respect as face-to-face credentials, compared to over one-half (54%) of the Canadian respondents. Likewise, Canadian academic leaders are twice as likely to report that students are at least as satisfied with an online course as they are with a face-to-face course (50% compared to only 27% among U.S. leaders). U.S. leaders are more likely to believe that students need more discipline to succeed in an online course (65% compared to 52% for Canadian leaders) and that retaining students in online courses is harder (43% for the U.S., 25% for Canada).

Barriers to Growth in Online and Distance Education

Leaders in both countries agree that the most important barrier to the growth of online and distance education is the additional faculty time and effort required to deliver such courses (with 84.9% in Canada and 81.1% in the US reporting this to be either "Very important" or "Important"). They also both rank a lack of demand for online courses as the least important of their concerns (35% in Canada and only 24% in the US). Another area of agreement is in their concern about the lack of acceptance of online instruction by their faculty members, with 59% of Canadian institutions listing this as "Very important" or "Important" compared to 57% among the US academic leaders.

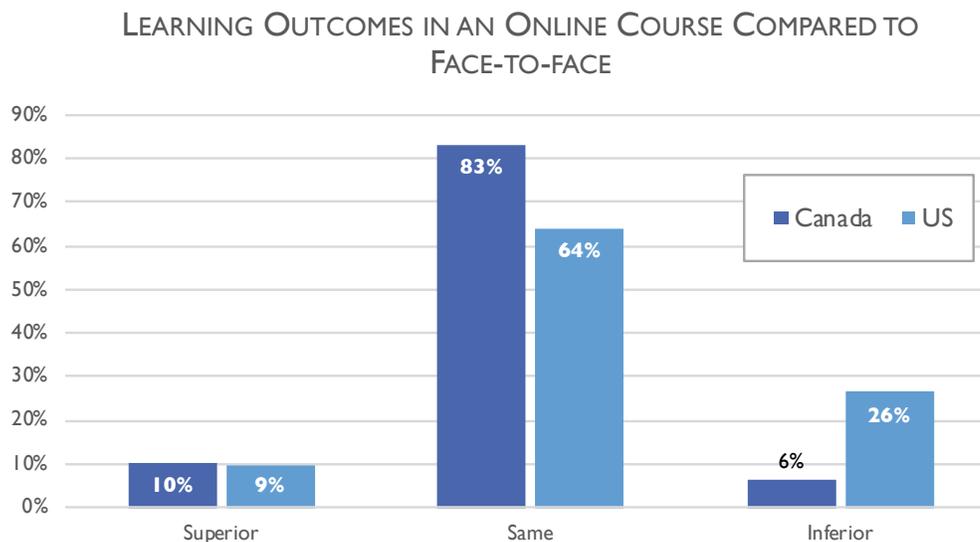


The leaders in the two countries have somewhat different views of the impact of inadequate training/pedagogical knowledge available for faculty, with those in the U.S. slightly more worried (81% compared to 73% for Canada). There are two areas, however, where the leaders show considerable differences, and in both cases the results in Canada are more positive for online learning than are the US responses. In the U.S. over three-quarters of the respondents report that the fact that students need more discipline to succeed in online courses is a "Very important" or "Important" barrier. Only one-half of Canadian leaders think that this is the case.

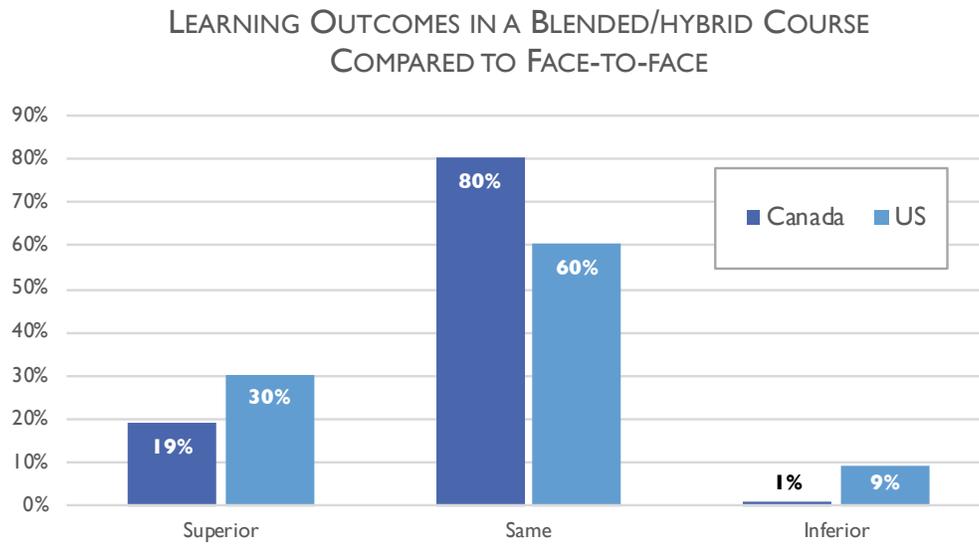
Leaders in the U.S. are also much more concerned with lower retention rates for online courses than are their Canadian counterparts, with fully 62% listing this as a barrier, while only 36% of the Canadian academic leaders saw it this way.

Online and Blended Course Quality

Similar proportions of leaders in both countries believe that the learning outcomes in an online course are superior to those in a face-to-face course (10% in Canada and 9% in the U.S.). However, there is a big difference in those who believe learning outcomes in online courses to be inferior - only 6% of the Canadian respondents reported this, while over a quarter (26%) of U.S. leaders thought that this was true.



Academic leaders in the United States, however, did have a more positive view of the relative learning outcomes for blended/hybrid courses, with 30% thinking they were superior to those of face-to-face instruction, compared to only 19% in Canada.



BACKGROUND TO THE 2018 SURVEY

In 2017, a team of independent researchers secured funding and developed a national survey of online learning and distance education in Canadian public post-secondary education. There had been isolated studies of parts of the Canadian system before, and similar studies had been done in the USA, originally by the Babson Survey Research Group (a partner in our study) and later by the United States Department of Education's Integrated Postsecondary Education System Data System (IPEDS). However, the 2017 Canadian survey was the first comprehensive survey of online learning in Canadian publicly funded universities and colleges.

Funding was raised primarily from provincial government agencies established to support online and digital learning, such as eCampus Ontario, BCcampus, Campus Manitoba and Contact North along with contributions from Pearson Canada, D2L and the Ministère de l'Éducation et de l'Enseignement supérieur (Quebec). A main report and several sub-reports, were published in the fall of 2017. Reports are available in English and French³.

Although the survey was both new and voluntary, there was an excellent institutional response, with 69% of institutions covering 82% of the student population responding. The 2017 survey indicated that online learning was alive and well in Canadian post-secondary institutions, with 85% of all responding institutions offering at least some online learning for credit in 2016, and with courses offered in almost all subject areas. Two-thirds of responding institutions stated that online learning was considered very or extremely important for their long-term future.

Goals of the 2018 Survey

Although the response rate in 2017 was good, there were still some significant institutions that did not respond. In 2018, a response rate goal was set at 75%, which was surpassed with a response rate of 80%, with 187 institutions out of 234 responding. Many of the non-responders probably did not have any online or distance education programs for credit. However, there were some non-responders that were known from other sources to have strong online programs.

In 2017, we learned that different questions usually required responses from a number of people within the same institution. Thus, we also invested time in 2018 in improving our database of contacts at each institution, ensuring that the questionnaire went to the right people in each institution.

³ See: <https://onlinelearningsurveycanada.ca/> for the English reports and <https://formationenligneCanada.ca/> for the French report.

The 2017 results also highlighted the inconsistent and unreliable reporting of online course enrolments. The main reason for this was the variety of definitions being used across the country. In many cases there was a mismatch between the definitions in our questionnaire, and the way institutions collected their data. Many institutions did not track online enrolments separately or tracking was decentralized across the institution and different definitions were being used.

Indeed, each province uses its own method to collect data and count overall post-secondary student enrolments. Some count only full-time students, some count full-time equivalents that include a fraction for each part-time student, others count all part-time students the same as full-time students. Some provinces exclude international students (since most are self-funding) while others include them.

There are good reasons for each of these practices within each province, and institutions are set up to give priority to data requested by the provincial government in the format requested. However, it causes major problems when trying to produce consistent national data across provinces and territories.

Actions taken to address the issue for the 2018 survey included:

- considerable feedback from multiple sources on how to improve the definitions,
- work from the entire research team to draft a revised approach to definitions,
- feedback from key players in Canadian higher education on the re-drafted definitions,
- conduct a preliminary survey where institutions were asked about the 'new' definitions, and what data they could reliably report.

The result was a revised and clearer set of definitions that hopefully would match those used by the majority of institutions in the country. Also, the survey asked only for the enrolment data that most institutions told us they could reliably provide.

To obtain a deeper understanding of the unique context of francophone institutions, particularly in Québec, a consultant from Québec was added to the research team. A decision was also made to treat the francophone colleges within anglophone institutions as separate, independent entities with their own francophone questionnaire. Private subsidised colleges in Québec that receive funding from the provincial government were added to the 2018 roster, thus widening the base of institutions in Québec.

Obtain New Information

The scope of the survey was widened, to include questions on:

- how online, hybrid and digital learning were being defined within institutions,
- more detailed questions on open education/open educational resources,
- emerging technologies such as learning analytics, simulations, virtual reality and artificial intelligence,
- online learning in continuing education/non-credit programming in preparation for a more detailed set of questions in 2019,
- a question about the perceived quality of online learning compared with conventional classroom teaching,
- the impact of benefits, and strategies to reduce barriers, to online learning.

Plans for the Future

The 2018 survey remains focused on online learning in provincially funded (public) institutions in Canada. However, we recognize that we will still need to include other areas that have not been covered, or not covered in depth, such as:

- digital learning in post-secondary institutions managed by First Nations;
- digital learning in non-credit programming;
- emerging pedagogies in digital learning;
- online learning in private post-secondary colleges;
- growth of digital learning;
- adoption of open educational practices;
- further exploration of the impact of benefits and solutions to minimize barriers.

To do this, we will need to reach out to more stakeholders in these areas, and find additional sources of funding, and these will be our priorities for 2019. This may also mean widening our research approach to include case studies and more qualitative research.

METHODOLOGY AND RESPONSE RATE

The universe of interest for this study is all publicly funded post-secondary institutions in Canada.

Almost all universities in Canada are provincially funded. As a result of feedback from Québec following the 2017 survey, three Québec institutions that were previously treated as constituent components of the Université de Montréal were added as independent institutions. Also, in 2018 the scope was expanded to include federally funded post-secondary institutions, adding The Royal Military College of Canada (which has university status) to the 2018 roster.

A further change from 2017 was the decision to treat francophone colleges within anglophone universities as a separate roster entry, as they offer separate academic programs and require a separate questionnaire in French. This resulted in an additional five university-type institutions compared to those included in the 2017 survey. Finally, one provincially funded institution changed its status from a college to a university between 2017 and 2018.

As a result, there are 82 universities listed in the 2018 roster, compared to 72 in 2017.

Canadian private for-profit universities, most of which are very small, are not included in either the 2017 or the 2018 rosters. Likewise, private, not-for-profit universities in Canada, mainly religious-based universities with provincial legal status are not included. Fully private career colleges and institutes are also not included.

Québec's college system, although publicly funded, is fundamentally different from the rest of Canada. Although CEGEPs (Collèges d'Enseignement Général et Professionnel) provide both academic programs that prepare students for university as well as vocational programs, the CEGEPs often offer a different mix of programs and age ranges than those found in colleges in other provinces.

Thus in 2017 a distinction was made between colleges (anglophone and francophone) outside Québec, and the CEGEPs. In 2017 we included 50 CEGEPs in our roster. Again, as a result of feedback from the 2017 study, we added two more fully funded provincial professional colleges to the 2018 CEGEPs roster, and reduced two separate CEGEP entities to one, as the distance education entity was part of the main institution, making a total of 51 for 2018.

Another difference from 2017 is the treatment of Québec 'private subsidized colleges are establishments recognized as a public interest and approved for subsidies by the Minister responsible for Higher Education' that are fully accredited within the province. Thus, for 2018 we added these 21 publicly subsidised colleges to the roster.

A number of aboriginal communities/First Nations also manage their own post-secondary technical colleges. In 2017 we included two First Nations' managed colleges in the roster, as they received provincial funding. There are several other colleges managed by First Nations with a variety of funding arrangements. These colleges are usually small and on reserves. However, we feel that we need to reach out to First Nations to learn more about these colleges, how they are managed and their interest or otherwise in online learning, but for 2018 we have excluded any colleges or

institutes managed by First Nations until we have a better understanding of their needs and interests. This is a priority for 2019.

By extending the scope to federally funded post-secondary institutions, we added the Canadian Coast Guard College to the 2018 roster. Also, a provincially funded specialist language college was added to the roster in 2018.

Thus the 2018 roster includes:

- 82 universities and Francophone colleges of Anglophone universities
- 80 colleges outside Québec
- 51 CEGEPs
- 21 private subsidised colleges in Québec

The resulting roster includes 152 colleges and 82 universities for a total of 234 institutions, compared with 203 in 2017.

Questionnaire Design and Distribution

The 2017 questionnaire design was initially based on the design of the Babson Surveys, but was modified to meet the Canadian context. For comparison purposes several key questions remain common to both the Canadian and U.S. surveys.

For 2018, a number of questions in the 2017 survey where the information was not likely to change significantly from year to year were dropped. As noted elsewhere in this report, definitions were revised to reflect feedback received after the 2017 study and a question was added to allow institutions to compare their definitions with those of the survey team.

Questions on enrolments in the 2018 survey were also modified to take account of the new definitions and the feedback received from institutions regarding the 2017 study.

New sections specifically on open educational resources, continuing education courses, and a comparison of the perceived quality of online, blended and face-to-face courses were also added.

The most important changes to the 2018 survey (the definitions and the enrolment questions) were tested in a pre-survey that went to all potential participating institutions for feedback and comment. This outreach was also used to update the contact information for each institution.

A survey invitation was sent to the Provost/VP Academic or Vice-President Education or Directeur général at each institution, with copies to the other institutional contacts in our roster. The questionnaire content was identical in both anglophone and francophone versions of the questionnaire.

The questionnaire itself was online and was accessed using a link unique for each participant institution. Members of the project team actively followed up with institutions to encourage them to participate. The project was also promoted through post-secondary educational networks or provincial organizations. The invitations began in late June, 2018 and continued until the end of July. In

response to requests from responding institutions in late summer, a pdf that allowed for responses to be entered was made available to requesting institutions, after which the majority of responses were submitted using the pdf. The eventual cut-off date for return of the questionnaire was set at August 31, although the survey team was able to accommodate additional responses on an exception basis after that date.

Comparing the Roster with Statistics Canada

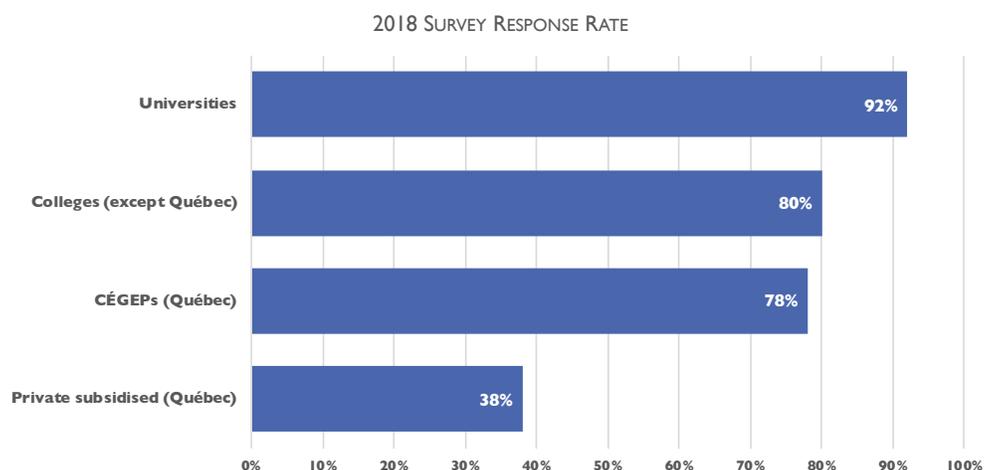
Statistics Canada (StatCan's) provides Canadian post-secondary student enrolments for the fall of the 2015/2016 academic year⁴. Comparing the population base of enrolment data from the questionnaires, supplemented where questionnaire data was missing or unreliable with estimates of an institution's enrolments, showed a high level of agreement with the number of students studying for institutional credit at Canadian public post-secondary institutions, as reported by StatCan for 2015-2016.

	Universities	Colleges/CEGEPs/S-P	Total
Survey (2017)	1,309,185	763,183	2,072,368
StatCan (2015)	1,307,277	727,680	2,034,957
Difference	1,908	35,503	37,411
% difference	0.15%	4.88%	1.84%

Institutional Response Rates

The overall institutional response rate was 80% for all types of institutions.

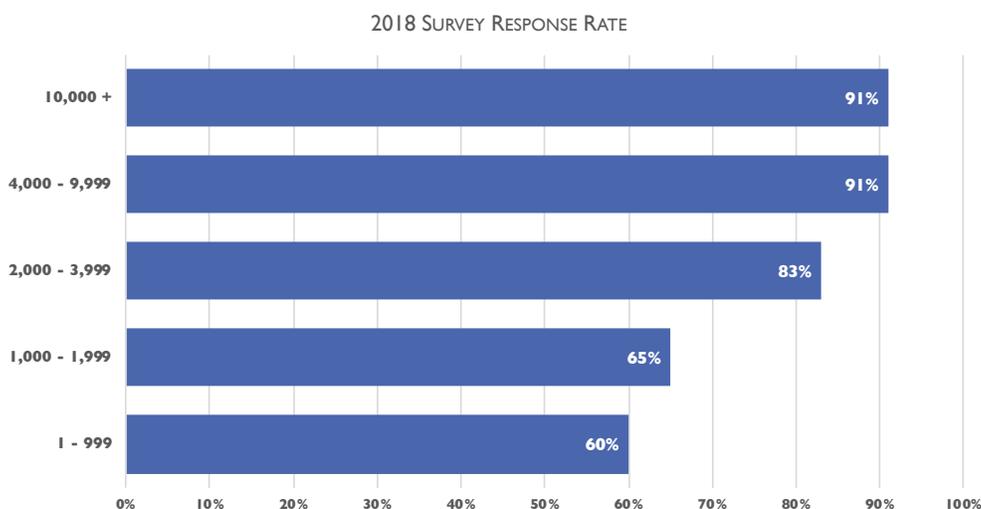
Responses were highest from universities (92%) and lowest from the 21 private subsidised colleges in Québec added to the roster this year (38%). If the 21 private subsidised colleges in Québec are excluded, the response rate is 84%, compared with 69% for last year's similar roster base.



⁴ <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3710001101>

The response from francophone institutions was higher in 2018 than the 2017 survey (73% compared with 65% in 2017). Even though the low response rate from the newly added private subsidized colleges (38%) pulled the overall francophone average down to 73% for 2018, this is still higher than the 65% in 2017. Without the private, subsidized colleges, the francophone response rate was 83%, almost identical to the anglophone response rate of 85%.

The response rate tended to be lower from the smaller institutions, nevertheless, well over half of even the smallest institutions responded. Since there was a higher response from the larger institutions, the questionnaire responders represent institutions with 92% of the student population base.



Overall, especially considering that this was a voluntary questionnaire, the responses provide an excellent, representative sample of colleges and universities across all provinces, and across all sizes of institution, representing 80% of all institutions and 92% of all students studying for institutional credit at Canadian public post-secondary institutions.

ROSTER

Universities

Alberta

Athabasca University
MacEwan University
Mount Royal University
University of Alberta
Campus Saint-Jean
University of Calgary
University of Lethbridge

British Columbia

Capilano University
Emily Carr University of Art + Design
Kwantlen Polytechnic University
Royal Roads University
Simon Fraser University
Thompson Rivers University
The University of British Columbia
University of Northern British Columbia
University of the Fraser Valley
University of Victoria
Vancouver Island University

Manitoba

Brandon University
Canadian Mennonite University
University College of the North
The University of Winnipeg
University of Manitoba
Université de Saint-Boniface

New Brunswick

Mount Allison University
St. Thomas University
Université de Moncton
University of New Brunswick
Collège Nordique francophone

Newfoundland

Memorial University of Newfoundland

Nova Scotia

Acadia University
Cape Breton University
Dalhousie University
Mount Saint Vincent University
NSCAD University
Saint Mary's University
St. Francis Xavier University
Université Sainte-Anne

Ontario

Algoma University
Brock University
Carleton University
Lakehead University
Laurentian University
Université de Hearst
McMaster University
Nipissing University
OCAD University
Queen's University
Ryerson University
The Royal Military College of Canada
Trent University
University of Guelph
University of Ontario Institute of Technology
University of Ottawa
University of Toronto
University of Waterloo
University of Windsor
Western University
Wilfrid Laurier University
York University

Prince Edward Island

University of Prince Edward Island

Québec

Bishop's University
Concordia University
École nationale d'administration publique
École Polytechnique de Montréal
École de technologie supérieure
HEC Montréal
Institut national de la recherche scientifique
McGill University
TÉLUQ
Université de Montréal
Université de Sherbrooke
Université du Québec à Chicoutimi
Université du Québec à Montréal
Université du Québec à Rimouski
Université du Québec à Trois-Rivières
Université du Québec en Abitibi-
Témiscamingue
Université du Québec en Outaouais
Université Laval

Saskatchewan

University of Regina
University of Saskatchewan

Colleges and CEGEPS

Alberta

Alberta College of Art & Design
Bow Valley College
Grande Prairie Regional College
Keyano College
Lakeland College
Lethbridge College
Medicine Hat College
Norquest College
Northern Alberta Institute of Technology
Northern Lakes College
Olds College
Portage College
Red Deer College
SAIT Polytechnic

British Columbia

British Columbia Institute of Technology
Camosun College
Collège Éducacentre
College of New Caledonia
College of the Rockies
Douglas College
Justice Institute of British Columbia
Langara College
Nicola Valley Institute of Technology
North Island College
Northern Lights College
Northwest Community College
Okanagan College
Selkirk College
Vancouver Community College

Manitoba

Assiniboine Community College
Manitoba Institute of Trades and Technology
Red River College

New Brunswick

Collège communautaire du Nouveau-Brunswick
Maritime College of Forest Technology
New Brunswick College of Craft + Design
New Brunswick Community College

Newfoundland

College of the North Atlantic

Nova Scotia

Nova Scotia Community College (NSCC)
Gaelic College
Nunavut
Nunavut Arctic College

Ontario

Algonquin College
Cambrian College
Canadore College
Centennial College
Collège Boréal
Conestoga College
Confederation College of Applied Arts and Technology
Durham College
Fanshawe College
Fleming College of Applied Arts and Technology
George Brown College of Applied Arts and Technology
Georgian College of Applied Arts and Technology
Glendon College
Humber College
La Cité
Lambton College
Loyalist College of Applied Arts and Technology
The Michener Institute of Education at UHN
Mohawk College
Niagara College
Northern College
Sault College
Seneca College
Sheridan College
St. Clair College
St. Lawrence College of Applied Arts and Technology

Prince Edward Island

Collège de l'Île-du-prince-Edouard
Holland College

Saskatchewan

Carlton Trail College
Collège Mathieu - Saskatchewan
Cumberland College
Great Plains College
North West Regional College
Northlands College
Parkland College
Saskatchewan Polytechnic

Québec: CEGEPS

CEGEP André-Laurendeau
CEGEP Beauce-Appalaches
CEGEP de Baie-Comeau
CEGEP de Chicoutimi
CEGEP de Drummondville
CEGEP de Granby Haute-Yamaska
CEGEP de Jonquièrre
CEGEP de l'Abitibi-Témiscamingue
CEGEP de l'Outaouais
CEGEP de la Gaspésie et des Îles
CEGEP de La Pocatière
CEGEP de Lévis-Lauzon
CEGEP de Matane
CEGEP de Rimouski
CEGEP de Rivière-du-Loup
CEGEP de Saint-Félicien
CEGEP de Saint-Hyacinthe
CEGEP de Saint-Jean-sur-Richelieu
CEGEP de Saint-Jérôme
CEGEP de Saint-Laurent
CEGEP de Sainte-Foy
CEGEP de Sept-Îles
CEGEP de Sorel-Tracy
CEGEP de Sherbrooke
CEGEP de Thetford
CEGEP de Trois-Rivières
CEGEP de Victoriaville
CEGEP du Vieux Montréal
CEGEP Édouard-Montpetit
CEGEP Garneau
CEGEP Heritage College
CEGEP John Abbott College
CEGEP Limoilou
CEGEP Marie-Victorin
CEGEP régional de Lanaudière
CEGEP Vanier College
CEGEP@distance
Champlain Regional College
Collège Ahuntsic
Collège d'Alma
Collège de Bois-de-Boulogne
Collège de Maisonneuve
College de Valleyfield
Collège Gérald-Godin
Collège Lionel-Groulx
Collège Montmorency
Collège Shawinigan
Dawson College
Institut de tourisme et d'hôtellerie du Québec
Centre Matapédien d'études collégiales
Institut de technologie agroalimentaire

Québec: Private subsidized colleges

Campus Notre-Dame-de-Foy
Collège André-Grasset
Collège Bart
Collège Centennial
Collège Ellis
Collège international des Marcellines
Collège international Marie de France
Collège Jean-de-Brébeuf
Collège Laflèche
Collège LaSalle
Collège Marianopolis
Collège Mérici
Collège O'Sullivan de Québec et Montréal
Collège Stanislas
Collège TAV
Collège Universel - Campus Gatineau
Collégial international Sainte-Anne
École de musique Vincent-d'Indy
École de sténographie judiciaire
École nationale de cirque
Séminaire de Sherbrooke

Yukon

Yukon College

Northwest Territories

Aurora College
Collège Nordique francophone

Federal

Canadian Coast Guard College

The Canadian National Survey would like to thank our Sponsors, without which this data capture of online and distance education would not be possible.

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