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The Landscape of Learning Outcomes Assessment in Canada

Alexandra MacFarlane and Sarah Brumwell
HEQCO



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1 Yonge Street, Suite 2402
Toronto, ON Canada, M5E 1E5

Phone: (416) 212-3893
Fax: (416) 212-3899
Web: www.heqco.ca
E-mail: info@heqco.ca

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Executive Summary

By assessing what students know and can do (ie. learning outcomes), postsecondary institutions can document the quality, relevance and value of academic programs, and make evidence-based decisions to improve student outcomes. To understand learning outcomes assessment practices currently used in certificate, diploma and undergraduate degree programs, HEQCO surveyed the provosts and vice-presidents academic of public colleges and universities across Canada in the fall of 2015. This report summarizes the findings.

The Canadian Information Centre for International Credentials (CICIC) website was used to compile a list of public Canadian colleges and universities. Of the 124 colleges and 76 universities invited to participate, 53 colleges (43%) and 54 universities (71%) responded to the survey.

Fifty-eight percent of Canadian colleges and 43% of Canadian universities reported having institutional learning outcomes or outcomes that are common to all students at an institution (Figure 1 & 15). Canadian postsecondary institutions reported assessing learning outcomes for a variety of reasons and, as a result, assessment data are being collected and used in a variety of ways. Both colleges and universities identified program accreditation and the commitment to improve as the two most important factors driving learning outcomes assessment (Figure 3 & 17). Surveys were found to be used the most often to collect data on student learning, although colleges use employer surveys (Figure 8), while universities use national student surveys (Figure 21). Assessment data are being used at colleges and universities for the same purposes – program accreditation, curriculum modification, external accountability reporting requirements and program review (Figure 6 & 19). All postsecondary institutions in Canada recognized the importance of involving faculty in assessment initiatives and emphasized the need for adequate resources (Figure 13 & 25).

The results of this survey tell us a few things about the assessment practices occurring across Canada. First, there is a lot of variation in assessment practices. Multiple forces are driving assessment initiatives, a range of assessment tools are being used to measure student outcomes, and assessment data are being used in a variety of ways. Second, when institutions talk about using assessment data to modify the curriculum, they are often referring to curriculum mapping. Curriculum mapping is the process of aligning course outcomes, material taught and the content assessed, which is not the same as using data to improve how content is taught and skills are developed. More research is needed to determine how and to what extent assessment data are being used to make evidence-based decisions about teaching practices that effectively develop student skills. Third, there may be a bias towards using indirect assessment tools to assess learning outcomes. Given that indirect measures rely on peoples' opinions and attitudes (e.g., employer surveys and national student surveys), there is evidence these tools do not accurately reflect students' skills and abilities (Calderon, 2013). It is, therefore, important that a balance of direct and indirect assessment tools be used. Finally, despite the substantial difference between the Canadian university and college sectors, their thoughts and practices around learning outcomes assessment are similar.

This survey provides a snapshot of the current assessment practices in Canada. A follow up survey in a few years would shed light on how learning outcomes and, more specifically, assessment practices are evolving over time.

Table of Contents

Executive Summary	2
Table of Contents	3
List of Figures.....	4
Introduction.....	6
Methodology	7
Results	8
College results	8
1. How common are learning outcomes in Canadian colleges?	8
2. What is prompting Canadian colleges to assess student learning outcomes?	9
3. How are Canadian colleges using learning outcomes assessment data?	11
4. What tools are Canadian colleges using to assess learning outcomes?	13
5. How are assessment results being communicated within colleges and to the public?	16
6. What are Canadian colleges saying they need to further their learning outcomes assessment initiatives?	17
University results.....	19
1. How common are learning outcomes in Canadian universities?	19
2. What is prompting Canadian universities to assess student learning outcomes?	22
3. How are Canadian universities using learning outcomes assessment data?	22
4. What tools are Canadian universities using to assess learning outcomes?	25
5. How are assessment results being communicated within universities and to the public?	27
6. What are Canadian universities saying they need to further their learning outcomes assessment initiatives?	29
Discussion.....	30
The challenge of creating a common language	31
Balancing forces and factors driving outcomes and assessment.....	31
Outcomes assessment vs. outcome mapping.....	31
Direct vs. indirect assessment approaches	32
The state of learning outcomes assessment in Canadian colleges and universities.....	33
How do we compare to our neighbours in the US?	34

References.....35

List of Figures

Figure 1: The proportion of Canadian colleges that reported having institutional learning outcomes by region8

Figure 2: The percentage of college departments, programs, schools or majors that have adopted or developed learning outcomes and their alignment with institutional learning outcomes9

Figure 3: The importance of factors and forces motivating learning outcomes assessment in Canadian colleges 10

Figure 4: The importance of accreditation practices in motivating assessment in different colleges across 10

Figure 5: The extent to which Canadian colleges have made changes in policies, programs or practices based on assessment results 11

Figure 6: The extent to which college learning outcome assessment results are used in different regions of Canada 12

Figure 7: The extent to which student learning outcome assessment results are used in colleges different sizes across Canada 13

Figure 8: The different assessment approaches being used at the institution level in Canadian colleges. Percentage of Canadian colleges that use the assessment method 14

Figure 9: Percentage of Canadian colleges that use different institutional-level assessment methods by small and large Canadian colleges 15

Figure 10: The different assessment approaches being used at the institution level by colleges in different regions of Canada. Respondents were instructed to select all of the assessment approaches that applied to their college 15

Figure 11: The most effective methods for sharing assessment results used by Canadian colleges. 16

Figure 12: The public availability of assessment documents, plans, resources and results in Canadian colleges 17

Figure 13: The extent to which institutional structures, resources and features support assessment activities in Canadian colleges 18

Figure 14: The extent to which institutional organization and governance structure support assessment of student learning in Canadian colleges 19

Figure 15: The proportion of Canadian universities that reported having institutional learning outcomes by region 20

Figure 16: The percentage of university departments, programs, schools or majors that have adopted or developed learning outcomes and their alignment with institutional learning outcomes 21

Figure 17: The importance of factors and forces motivating learning outcomes assessment in Canadian universities 22

Figure 18: The extent to which Canadian universities have made changes in policies, programs or practices based on assessment results.....	23
Figure 19: The extent to which university learning outcome assessment results are used in different regions of Canada.	24
Figure 20: The extent to which student learning outcome assessment results are used in universities of different sizes across Canada	25
Figure 21: Percentage of Canadian universities that use different institutional-level assessment methods .	26
Figure 22: The different assessment approaches being used at the institution level by universities in different regions of Canada. Respondents were instructed to select all of the assessment approaches that applied to their university.	27
Figure 23: Canadian universities indicated the most effective methods for sharing assessment results.....	28
Figure 24: The public availability of assessment documents, plans, resources and results in Canadian universities.....	28
Figure 25: The extent to which institutional structures, resources and features support assessment activities	29
Figure 26: The extent to which institutional organization and governance structure support assessment of student learning in Canadian universities.....	30

Introduction

Learning outcomes are statements that describe the knowledge, skills and competencies students should possess upon graduating from an institution (Kenny, 2011). They provide postsecondary institutions, faculty, students and employers with a common way of articulating skills and knowledge. While the development and implementation of learning outcome statements is an important first step, the full power of learning outcomes is realized when outcomes are assessed (Weingarten, 2013). With reliable and valid instruments for measuring student learning, there can be a shift from crediting hours of study to crediting knowledge, skill and competency achievement (Deller, Brumwell & MacFarlane, 2015). Moreover, learning outcomes shift conversations about postsecondary quality away from prestige and research funding and onto the question of what students know and are able to do once finished with their studies (Weingarten, 2013; Weingarten, 2014).

This study aims to describe the learning outcomes assessment landscape in certificate, diploma and undergraduate degree programs in public colleges and universities in Canada. To gain an understanding of current learning outcomes assessment practices used at the institutional level, a survey developed by the National Institute for Learning Outcomes Assessment (NILOA) was adapted to the Canadian context. This survey was selected to allow for comparisons to be made between Canada and the US. The survey was sent to a provost or VP academic at each public college and university in Canada. The data presented here do not rank or identify individual institutions, but rather describe current assessment practices and identify common challenges. The survey was designed to shed light on the following questions:

1. How common are learning outcomes in Canadian postsecondary institutions?
2. What is prompting Canadian colleges and universities to assess student learning?
3. How are Canadian postsecondary institutions using learning outcomes assessment data?
4. What tools are Canadian postsecondary institutions using to assess learning outcomes?
5. How are assessment results being communicated within institutions and to the public?
6. What supports learning outcomes assessment initiatives at Canadian colleges and universities?

Following a brief description of the survey methodology is a presentation of the results. The college and university results are presented separately because of the many differences between the two systems. The report then discusses the challenges associated with outcomes assessment. The lack of a common learning-outcomes language is one challenge that will be discussed, but should be kept in mind as you read this report. There appears to be some confusion around the definition of institutional-level learning outcomes. There is evidence that colleges and universities used different definitions of institutional-level learning outcomes and in some cases referred to course-, program-, department- or school-level learning outcomes interchangeably. In addition to discussing the challenges of outcomes assessment, this report identifies some key similarities and differences between the learning outcomes assessment practices in the American and Canadian postsecondary systems. Finally, the report concludes with some strategies for improving assessment practices in Canadian colleges and universities.

Methodology

A survey created by the National Institute for Learning Outcomes Assessment (NILOA) was distributed to a provost or VP academic (or a designate) in all public colleges (including CEGEPs and polytechnics) and universities across Canada (n=200) in the fall of 2015. The 2013 version of NILOA's survey was adapted by HEQCO to the Canadian context and used in this study. None of the survey questions were changed however, terminology such as "state" or "regional accreditation" was modified to fit the Canadian context. The adapted survey used here consisted of 18 questions — five open-response and 13 closed-response questions. The open-response questions focused on the hopes and concerns of respondents, the benefits of using learning outcomes and areas in which respondents wanted support or assistance. Most of the closed-response questions used a four-point Likert-type scale. A full copy of the survey can be found in Appendix A.

A list of Canadian colleges and universities was compiled using the website of the Canadian Information Centre for International Credentials (CICIC), a unit of the Council of Ministers of Education, Canada (CMEC). The survey was administered by R. A. Malatest & Associates over a 12-week period, from August 10 to November 6, 2015. One individual from each college or university — either the provost, VP academic or a designate — was invited to participate in the study. Administrators were initially contacted by mail using a letter that explained the study and provided them with a unique identifier code to access the survey online. If respondents had not completed the survey within two weeks after the letter was sent, they received two follow-up emails to solicit their participation. If respondents still had not completed the survey, they were contacted by phone. All respondents who completed the survey did so online. The survey and all invitations were provided in both French and English, and no incentive was offered for completing the survey. Of the 124 colleges and 76 universities invited to participate, 53 colleges (43%) and 54 universities (71%) responded.

To determine how location and size affect assessment practices, addresses and enrollment data were collected for each college and university. Four regions were used to explore differences in assessment practices across the country and were selected to maintain the anonymity of the institutions that responded to the survey. The four regions are the West-Prairie region (Yukon, British Columbia, Alberta, Saskatchewan and Manitoba), Ontario, Quebec (including CEGEPs), and the Atlantic region (New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador). To determine the impact institution size has on assessment practices, institutions were classified as small, medium or large. These classifications were determined by looking at the overall distribution of enrolment numbers and dividing them into three roughly equal groups. Colleges with less than 3,000 students were classified as small, colleges with 3,000 to 8,000 students were classified as medium, and colleges with more than 8,000 students were classified as large. Similarly, universities with less than 5,000 students were classified as small, universities with 5,000 to 15,000 students were classified as medium, and universities with more than 15,000 students were classified as large. Where there were significant differences between institution size and location, they are noted in the results below.

The survey responses were analyzed and summarized using descriptive statistics and content analysis. NVivo 11 Pro was used to analyze the open-response questions. A directed content analysis method was used to analyze the open responses (Hsieh & Shannon, 2005). A primary coder coded all open responses and two secondary coders analyzed 50% of each open response question. Cohen's Kappa was used to calculate the

inter-observer reliability and it was found to range between 84% and 99% for all five questions, indicating good reliability (Krippendorff, 1980).

Results

The survey results presented below are structured around the six research questions outlined in the introduction. College and university results are reported separately.

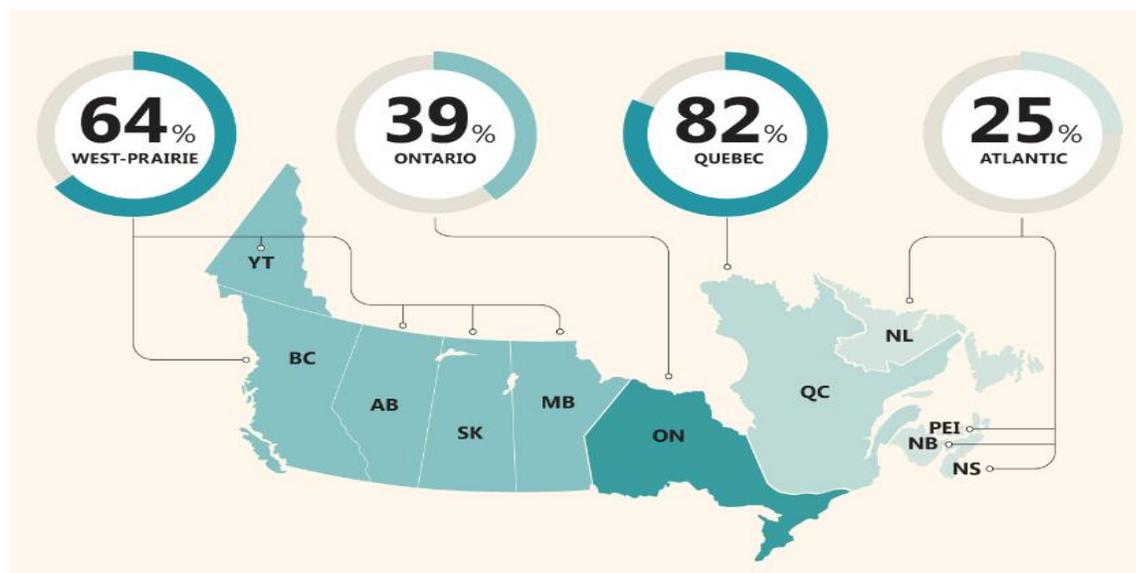
College results

1. How common are learning outcomes in Canadian colleges?

Institutional learning outcomes (learning outcomes that are common to all students at an institution) were reported in more than half of Canadian colleges. Fifty-eight percent of colleges said they have adopted or developed an explicit set of student learning outcomes common to all students enrolled in certificate, diploma and undergraduate degree programs.

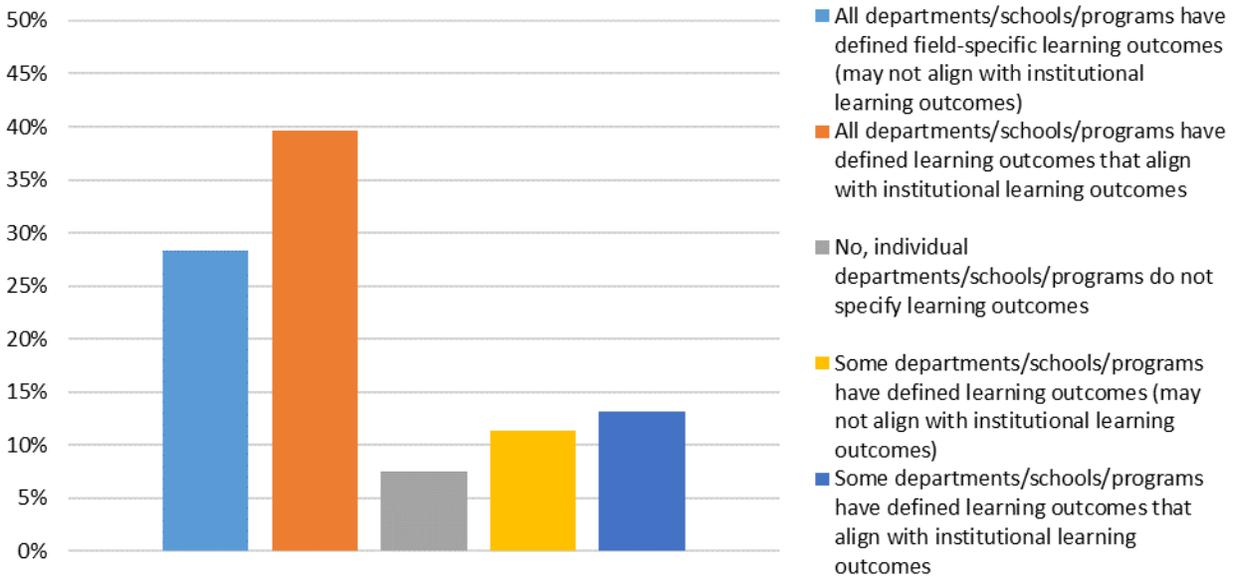
The adoption and development of institutional learning outcomes is not evenly distributed across Canadian colleges. Institutional learning outcomes were shown to be most common in colleges in Quebec (82%) and the West-Prairie region (64%), and less common in Ontario (39%) and the Atlantic provinces (25%) (Figure 1).

Figure 1: The proportion of Canadian colleges that reported having institutional learning outcomes by region



Learning outcomes at the department, school and program levels are common across Canada. Ninety percent of colleges reported having some department-, school- and/or program-level learning outcomes. Sixty-eight percent of the colleges surveyed indicated that they have formal learning outcomes in all departments, schools and programs, and 58% of these respondents stated that they aligned their institutional outcomes with their department, school and program learning outcomes (Figure 2).

Figure 2: The percentage of college departments, programs, schools or majors that have adopted or developed learning outcomes and their alignment with institutional learning outcomes



2. What is prompting Canadian colleges to assess student learning outcomes?

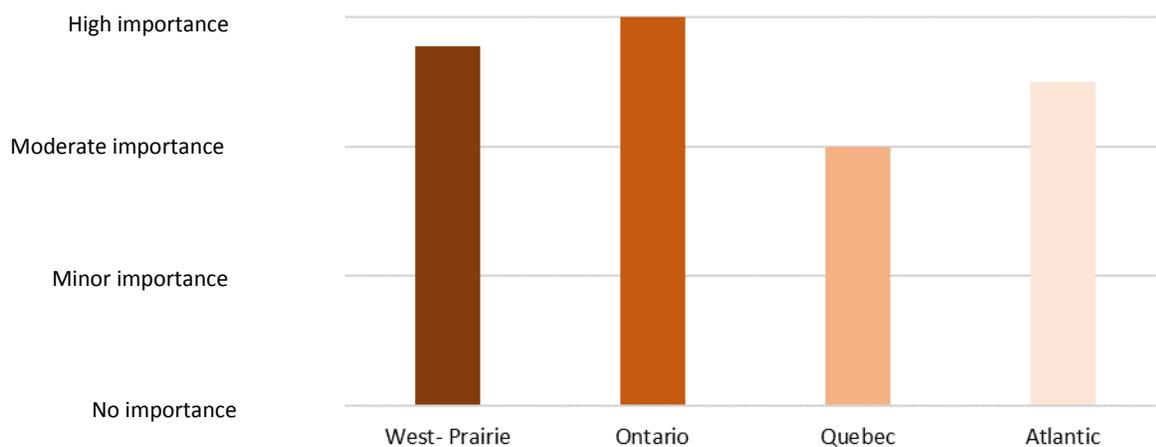
Multiple forces motivate Canadian colleges to assess student learning. College respondents identified institutional commitment to improve and program accreditation among the most significant motivations for learning outcomes assessment (Figure 3). Faculty and staff interest, as well as institutional leadership, also ranked highly (Figure 3).

Figure 3: The importance of factors and forces motivating learning outcomes assessment in Canadian colleges



Program accreditation is an important factor motivating learning outcomes assessment. Variation in accreditation practices between Canadian provinces and territories influences the motivations behind conducting learning outcomes assessment. For example, in Ontario, where all programs are approved by the Ministry of Advanced Education and Skills Development, program accreditation is the most important factor driving learning outcomes assessment. Program accreditation is less of a driver in Quebec (Figure 4).

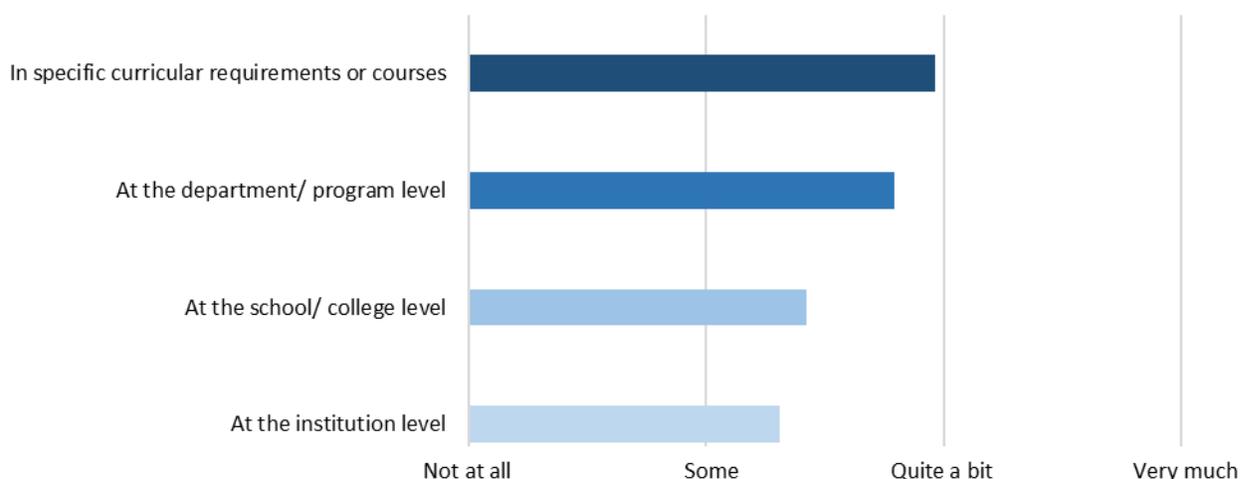
Figure 4: The importance of accreditation practices in motivating assessment in different colleges across



3. How are Canadian colleges using learning outcomes assessment data?

Colleges reported using assessment results to change practices at the course level more than at the institutional level. Provosts and VPs academic indicated that changes to policies, programs and practices based on assessment results occur “quite a bit” at the course and program level, compared to “somewhat” at the institutional level (Figure 5).

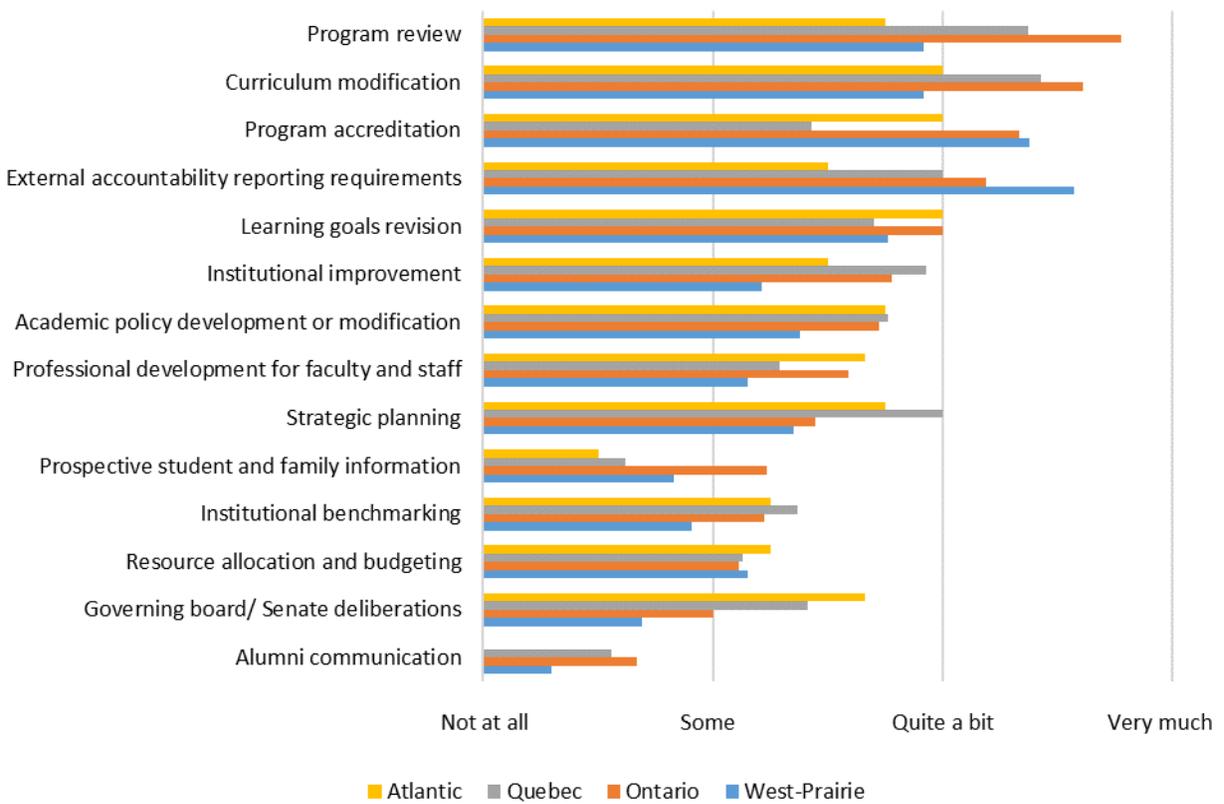
Figure 5: The extent to which Canadian colleges have made changes in policies, programs or practices based on assessment results



Assessment results are most commonly used in program review exercises (Figure 6). Seventy-seven percent of colleges stated that they use assessment results in the review of all programs, and 21% said that they use assessment results in the review of some programs. As one respondent commented, there is a “strong focus on quality through program review activities.” Colleges in Ontario were found to use assessment results during the review of programs more than colleges located in the Atlantic and West-Prairie regions.

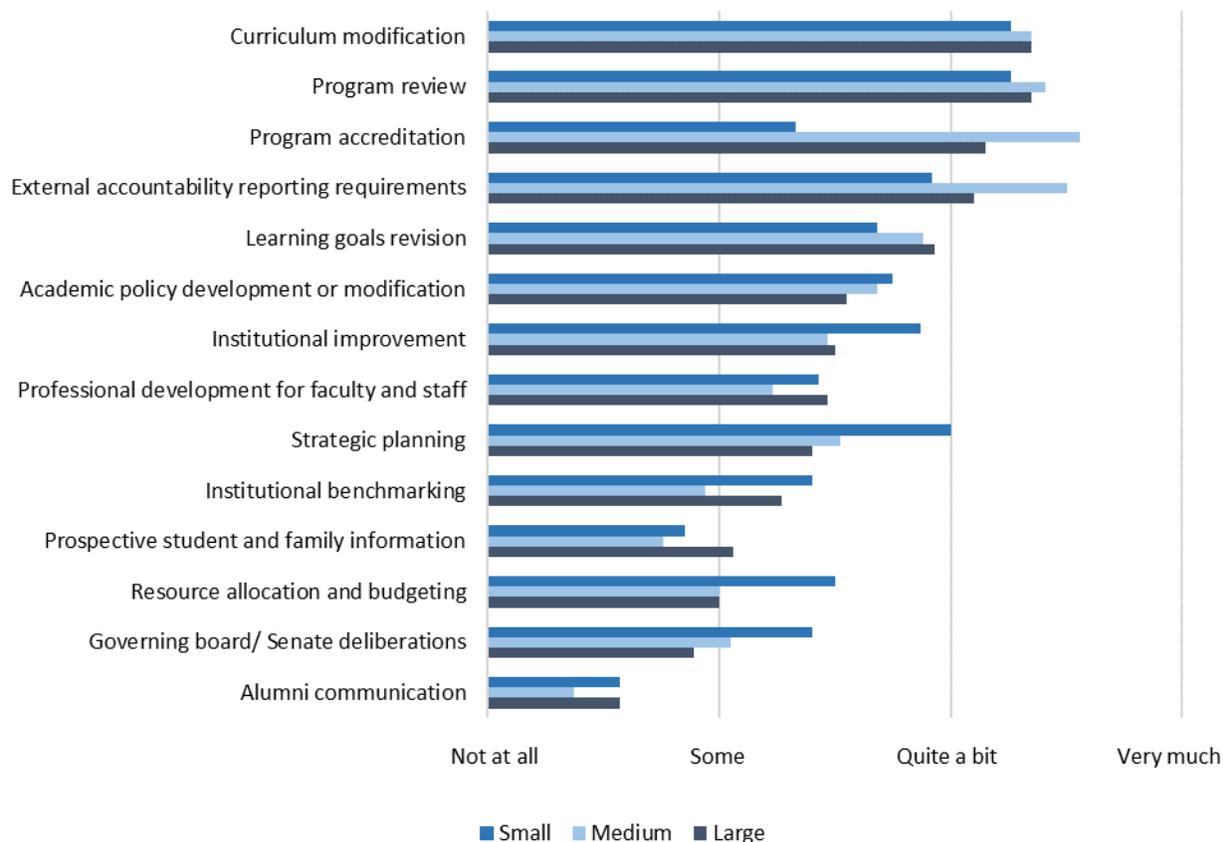
Learning outcomes assessment results are also being used “quite a bit” for program accreditation and external accountability reporting requirements (Figure 6). In particular, colleges in the West-Prairie region use assessment results for external accountability purposes more often than other regions of Canada (Figure 6) and larger colleges tend to use assessment data for program accreditation more often than smaller colleges (Figure 7).

Figure 6: The extent to which college learning outcome assessment results are used in different regions of Canada



Note: The sample sizes. Atlantic n=4; Quebec n=17; Ontario n=18; and West-Prairie n=14

Figure 7: The extent to which student learning outcome assessment results are used in colleges of different sizes across Canada



Note: The sample sizes. Small n=16; Medium n=17; Large n=20

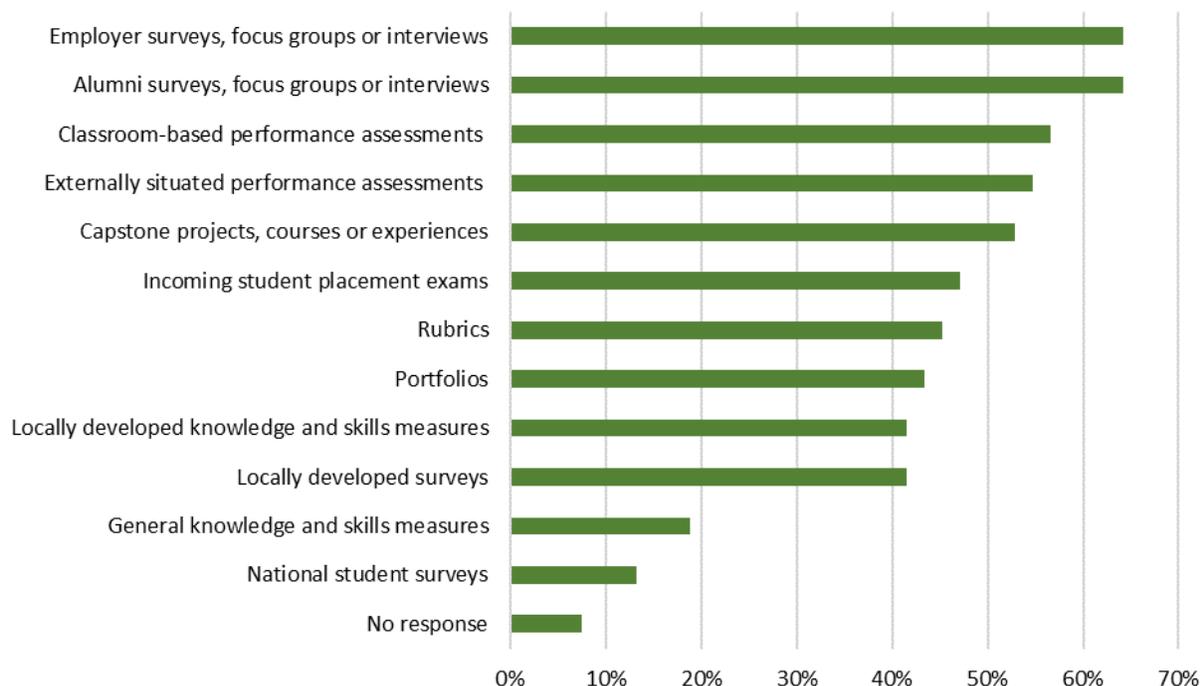
4. What tools are Canadian colleges using to assess learning outcomes?

A variety of approaches is being used in colleges to assess student learning at the institutional level.

Employer and alumni surveys, focus groups and interviews were the most common assessment approaches used in Canadian colleges, followed closely by classroom-based assessments such as simulations and comprehensive exams (Figure 8).

When asked to list the three most valuable or important assessment approaches at the institutional level, college provosts and VPs academic most frequently cited exams, surveys/focus groups and externally situated performance assessments (e.g., internships or community-based projects). A deeper analysis of the respondents who listed exams as the most valuable assessment approach reveals that many respondents are talking specifically about placement exams.

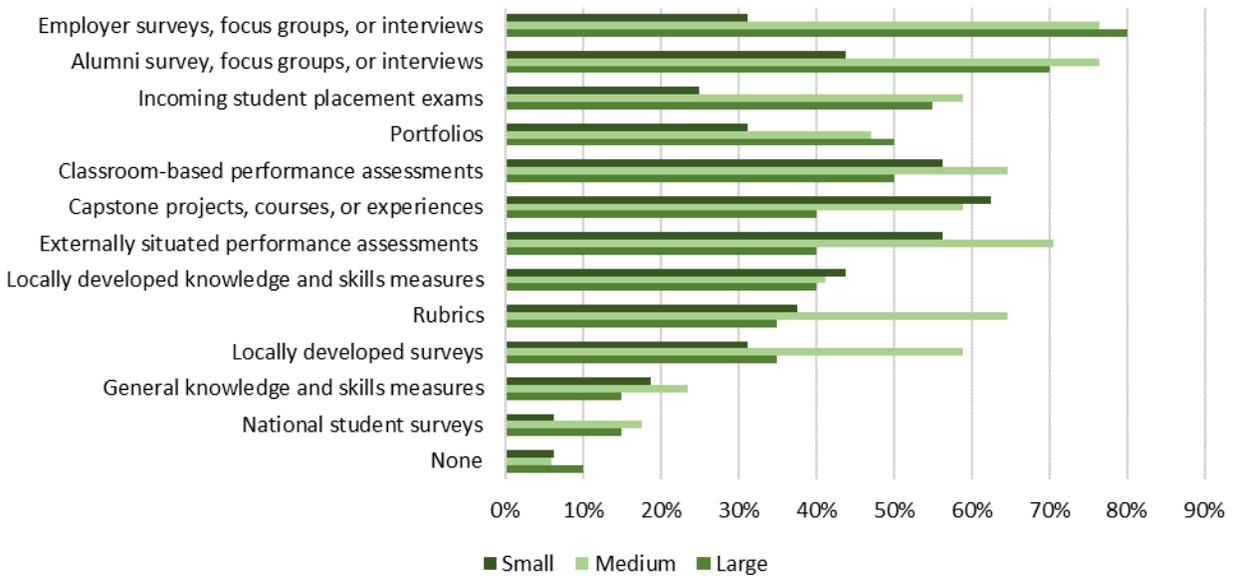
Figure 8: The different assessment approaches being used at the institution level in Canadian colleges. Percentage of Canadian colleges that use the assessment method



The institution-wide assessment approaches colleges use vary across Canada and by size of institution.

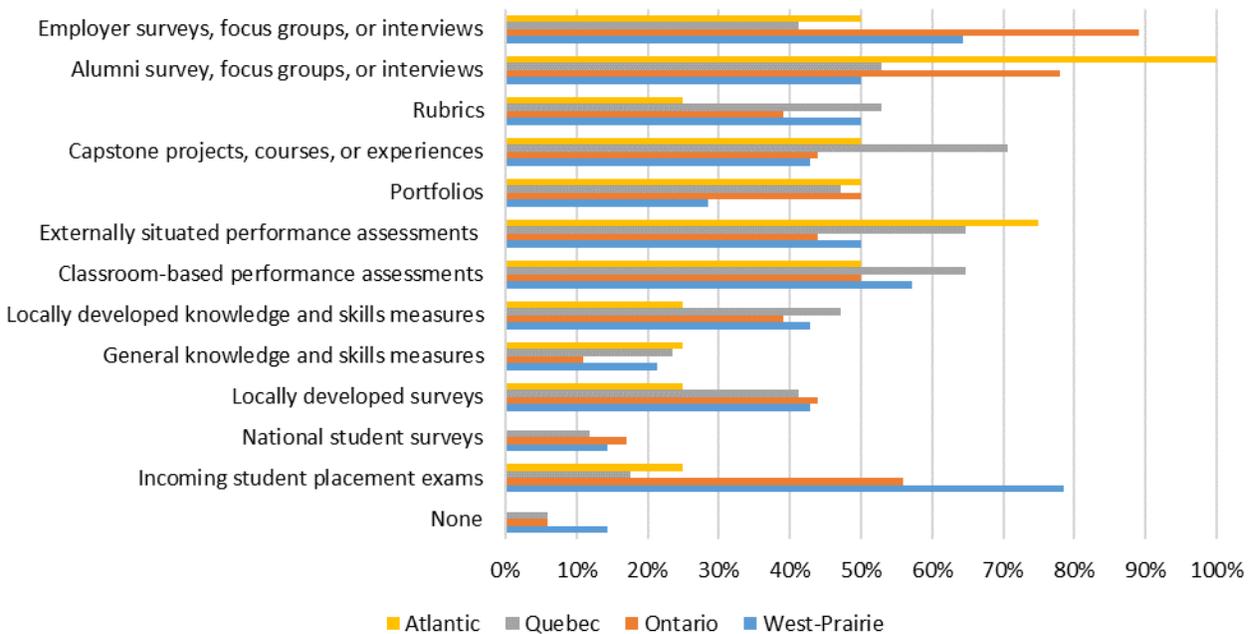
Capstone projects and externally situated performance assessments were found to be more common at smaller colleges (Figure 9). Larger institutions tend to use employer and alumni surveys, focus groups and interviews, incoming student placement exams and portfolios more often than do small colleges (Figure 9). In addition, there are some noticeable differences by region. Seventy-one percent of Quebec colleges use capstone projects, courses or experiences to assess student learning, making capstone projects much more common in Quebec than in the rest of the country (Figure 10). The most commonly used assessment tool in the West-Prairie region is incoming student placement exams (Figure 10) and Ontario and Atlantic colleges use employer and alumni surveys, focus groups and interviews to assess student learning the most (Figure 10). Consequently, when Ontario is excluded from the analysis of the data presented in Figure 8, externally situated performance assessments such as internships and community-based assessments become the most frequently used assessment tools across Canadian colleges.

Figure 9: Percentage of Canadian colleges that use different institutional-level assessment methods by small and large Canadian colleges



Note: The sample sizes. Small n=16; Medium n=17; Large n=20

Figure 10: The different assessment approaches being used at the institution level by colleges in different regions of Canada. Respondents were instructed to select all of the assessment approaches that applied to their college.

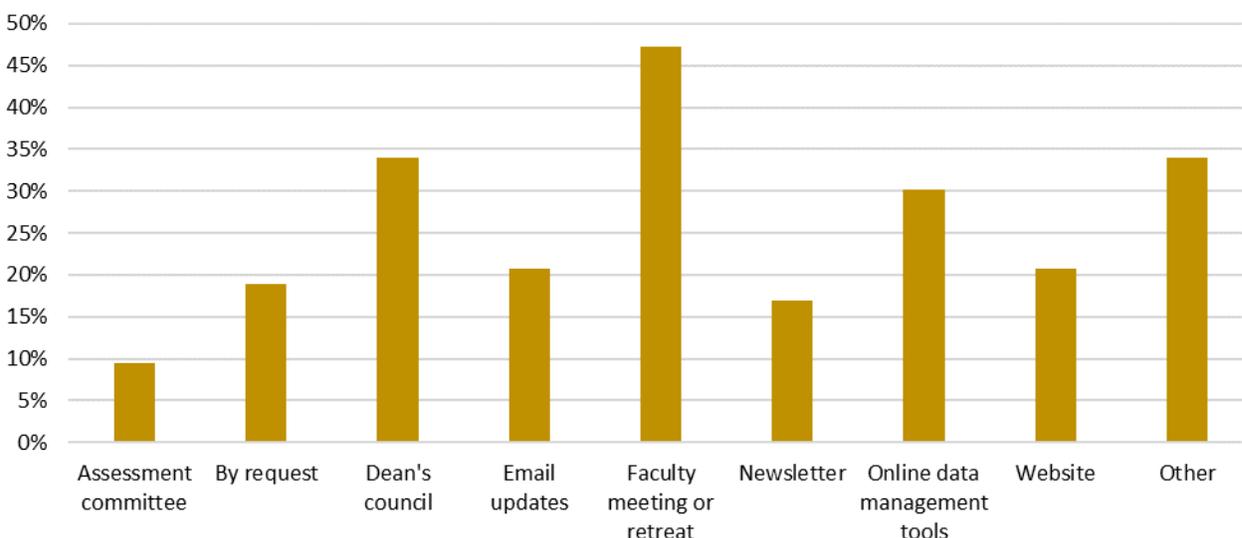


Note: The sample sizes. Atlantic n=4; Quebec n=17; Ontario n=18; and West-Prairie n=14

5. How are assessment results being communicated within colleges and to the public?

Canadian colleges are using a variety of methods to communicate their assessment results within institutions and across units and levels (Figure 11). The most popular method of communicating assessment results within colleges are faculty meetings or retreats (47%), followed by sharing results at deans’ councils (34%). Respondents also suggested that assessment committees are an effective way to share assessment results. A range of other methods for sharing assessment results were reported in ‘other,’ including various councils and reports.

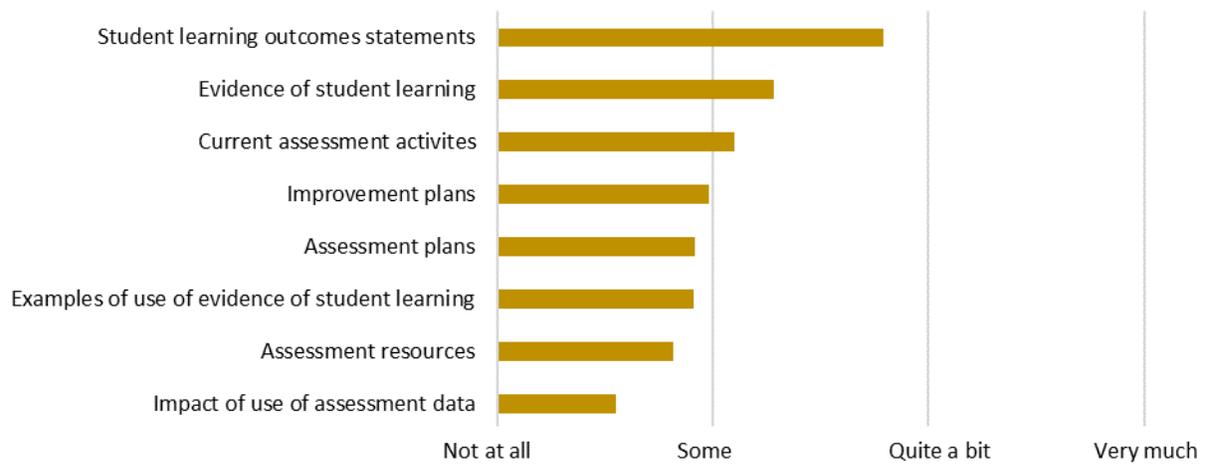
Figure 11: The most effective methods for sharing assessment results used by Canadian colleges.



Note: Respondents could choose up to three options

Canadian colleges are sharing assessment information internally in a variety of ways, but very little information is being shared publicly. Learning outcomes statements were shown to be the most likely documents to be made public, and they are only available “some” to “quite a bit” of the time. Respondents suggested that some colleges make evidence of student learning, current assessment activities and improvement plans publicly available. Reports and data on the “impact of use of assessment data” are rarely available to the public (Figure 12).

Figure 12: The public availability of assessment documents, plans, resources and results in Canadian colleges



6. What are Canadian colleges saying they need to further their learning outcomes assessment initiatives?

Faculty involvement is crucial to the assessment of student learning. Respondents indicated that significant involvement of faculty supports assessment activities the most (Figure 13) and they repeatedly emphasized in the open responses the importance and need to “make assessing student learning part of the institution’s culture.” They said that additional staff resources and more professional development opportunities for faculty would be most helpful. Centres of teaching and learning and institutional policies were also suggested to support assessment activities (Figure 13). Provosts and VPs academic in Ontario and the West-Prairie region especially thought that centres for teaching and learning support assessment initiatives.

Figure 13: The extent to which institutional structures, resources and features support assessment activities in Canadian colleges

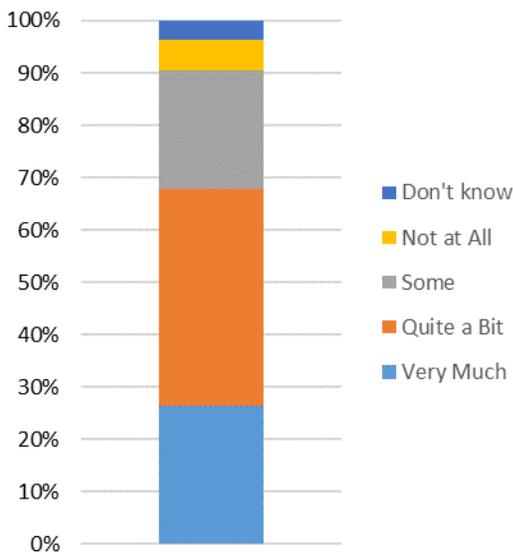


It is unclear if financial resources would support assessment activities. Funds targeted to outcomes assessment were reported to “not at all” or “somewhat” support assessment activities in colleges (Figure 13), and only 26% of provosts and VPs academic indicated that external funding would be on their list of the top five most helpful resources/activities that promote assessment. At the same time, 72% of the colleges reported that additional financial and staff resources would be helpful, and when colleges were asked what their main concerns were regarding assessing student learning, additional financial and staff resources were mentioned the most frequently.

Involving student affairs and rewarding faculty and staff involvement in assessment activities is believed to “somewhat” to “not at all” support assessment activities. Recognizing and/or rewarding faculty and staff involved in assessment activities was found to support assessment activities the least (Figure 13), and no respondent said that it would be helpful if student affairs staff were involved in assessing student learning.

The governance structure and organization of colleges support the assessment of student learning in Canadian colleges. Sixty-eight percent of provosts and VPs academic indicated that the institutional organization and governance structure at their college support the assessment of student learning “quite a bit” to “very much” (Figure 14).

Figure 14: The extent to which institutional organization and governance structure support assessment of student learning in Canadian colleges



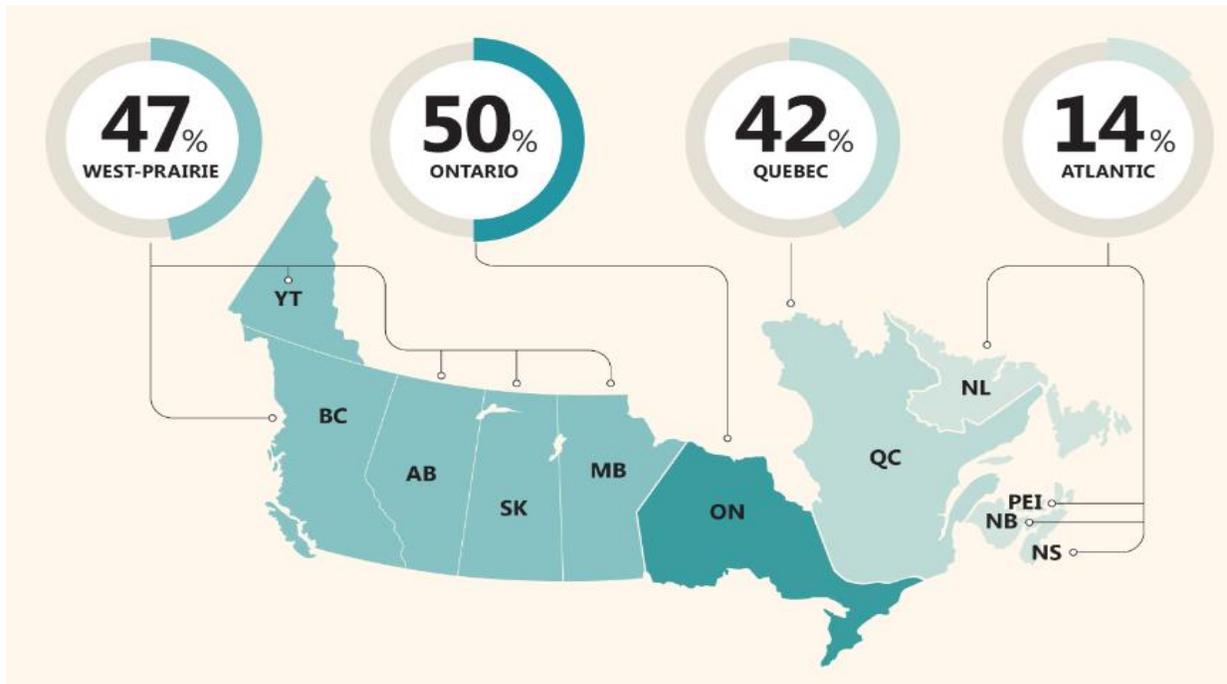
University results

1. How common are learning outcomes in Canadian universities?

Institutional learning outcomes (learning outcomes that are common to all students at an institution) were reported in almost half of Canadian universities. Forty-three percent of Canadian universities said that they have adopted or developed an explicit set of student learning outcomes common to all students enrolled in undergraduate degree programs.

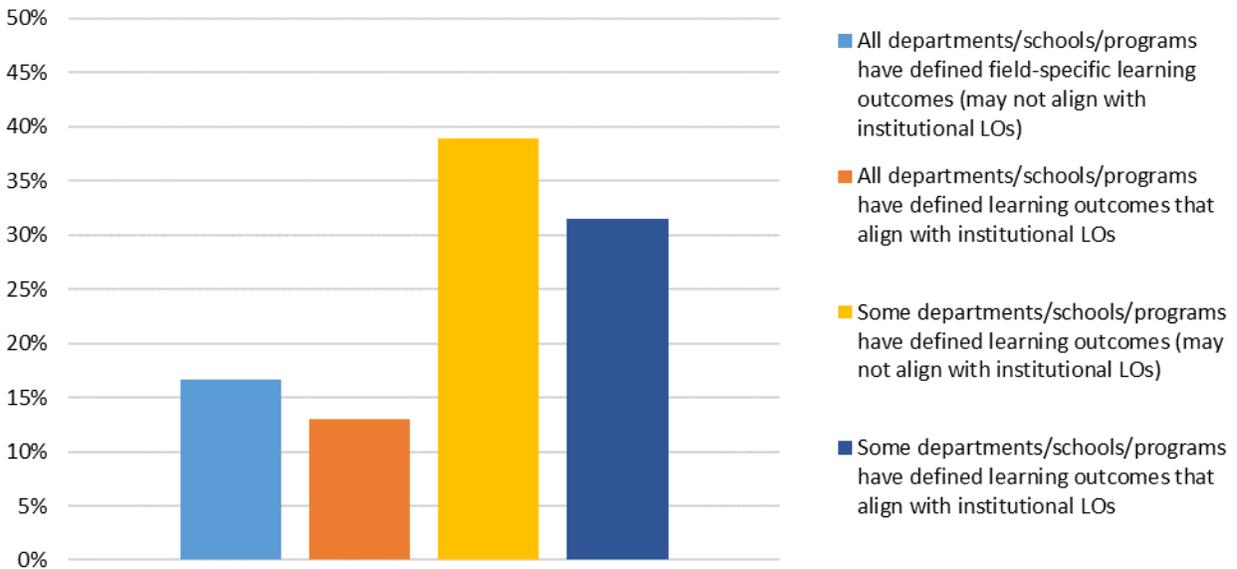
The adoption and development of institutional learning outcomes is not evenly distributed across Canadian universities. Institutional learning outcomes were shown to be most common in universities in Ontario (50%), the West-Prairie region (47%) and Quebec (42%), and less common in the Atlantic provinces (14%) (Figure 15).

Figure 15: The proportion of Canadian universities that reported having institutional learning outcomes by region



Learning outcomes at the department, school and program levels are common across Canada (Figure 16). All Canadian universities said that they have some department-, school- and/or program-level learning outcomes. Thirty percent of the universities surveyed indicated that they have formal learning outcomes in all departments, schools and programs, and 44% of these respondents stated that they aligned their institutional outcomes with their department, school and program learning outcomes.

Figure 16: The percentage of university departments, programs, schools or majors that have adopted or developed learning outcomes and their alignment with institutional learning outcomes



Note: No university departments, schools or programs indicated that they do not specify learning outcomes.

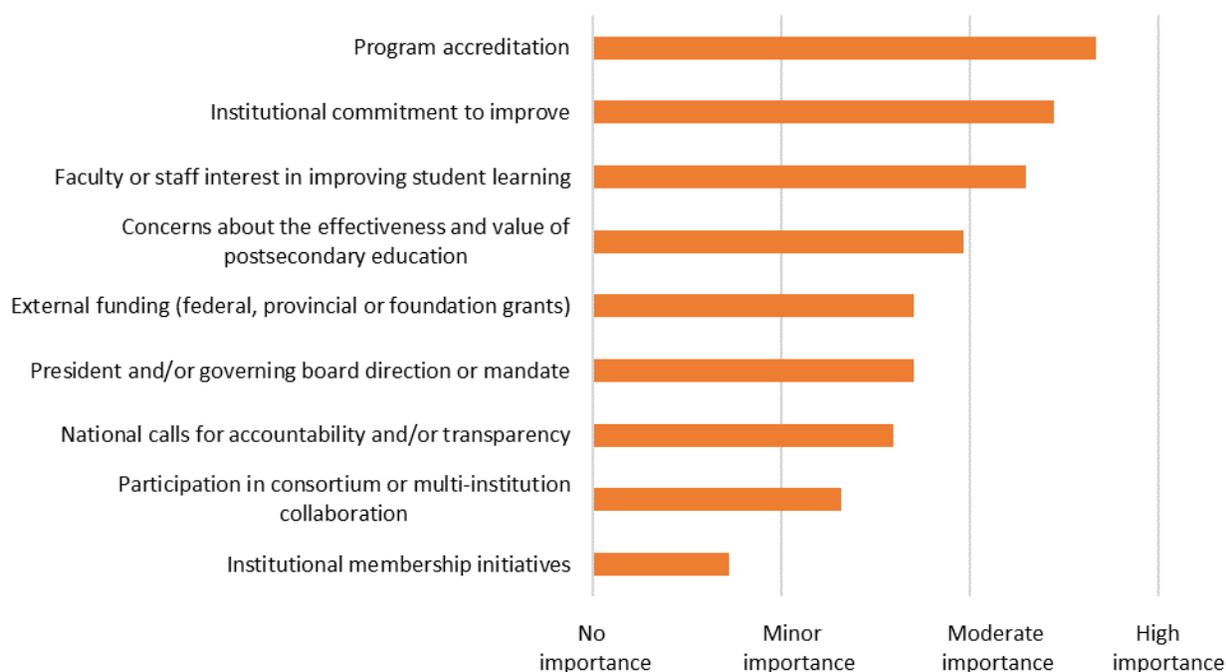
Universities with professional programs¹ are more likely to have institutional learning outcomes. Forty-seven percent of universities that offer professional programs have institutional learning outcomes, while 36% of universities with no professional programs have institutional learning outcomes. One provost highlighted the positive impact professional programs can have on the rest of the university: “We have a number of professionalization programs that require the acquisition and assessment of competencies demanded by professional associations. This practice has a good influence on other programs that are not governed by a professional association.”

¹ Universities with law, medicine and/or engineering professional programs

2. What is prompting Canadian universities to assess student learning outcomes?

Multiple forces and factors motivate Canadian universities to assess student learning. Program accreditation, institutional commitment to improve, and faculty and staff interest in improving student learning were reported to be the leading forces prompting assessment (Figure 17).

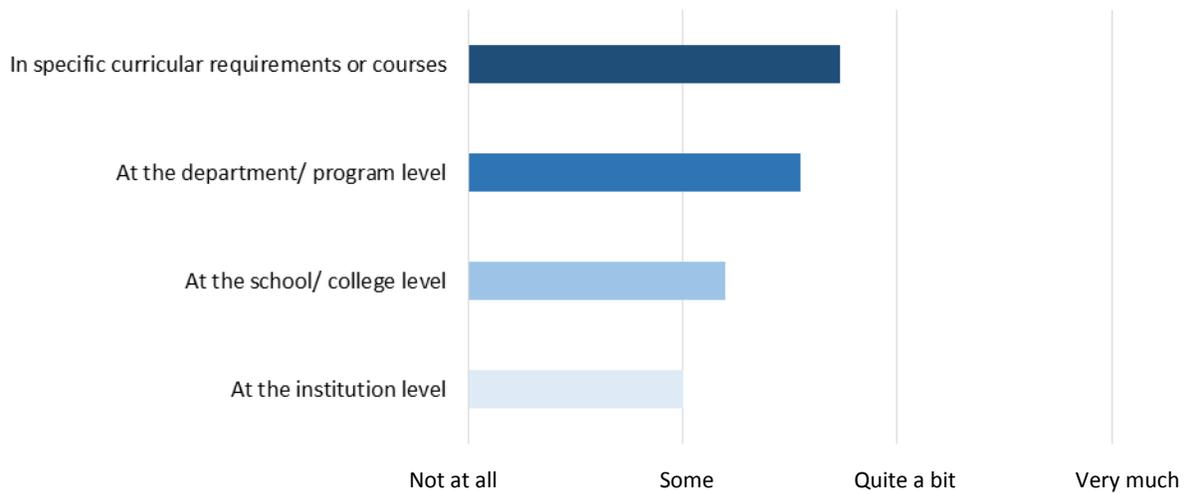
Figure 17: The importance of factors and forces motivating learning outcomes assessment in Canadian universities



3. How are Canadian universities using learning outcomes assessment data?

Universities reported using assessment results to change practices at the course level more than at the institutional level. Provosts and VPs academic indicated that changes to policies, programs and practices based on assessment results occur “quite a bit” at the course and program level, compared to “somewhat” at the institutional level. It should be noted that assessment results are not being used at any level in universities “very much” (Figure 18).

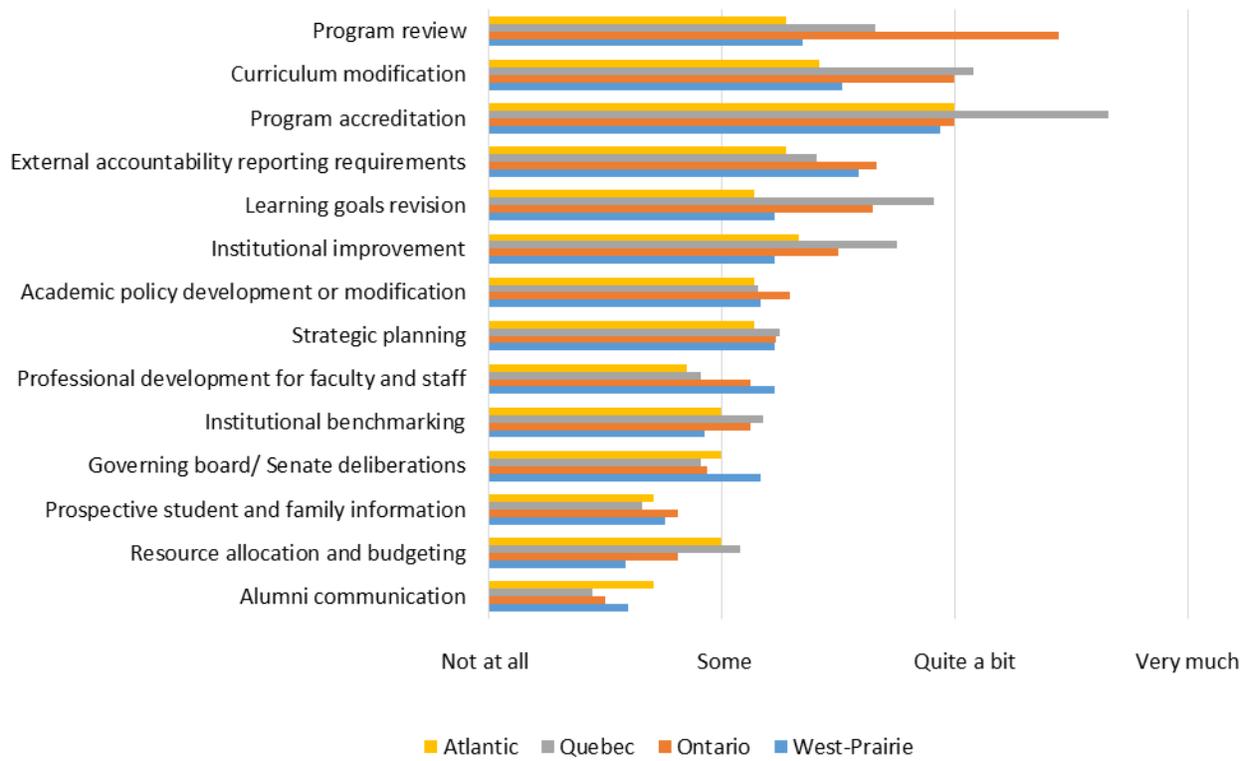
Figure 18: The extent to which Canadian universities have made changes in policies, programs or practices based on assessment results



Assessment results are most commonly used for program accreditation purposes, followed closely by curriculum modification (Figure 19). Universities located in Quebec in particular used assessment results for accreditation purposes (Figure 19). In addition to differences seen between the various regions of Canada, larger universities were found to use assessment results more often than small universities and, more specifically, larger universities use assessment data more often for program accreditation and external accountability reporting requirements (Figure 20).

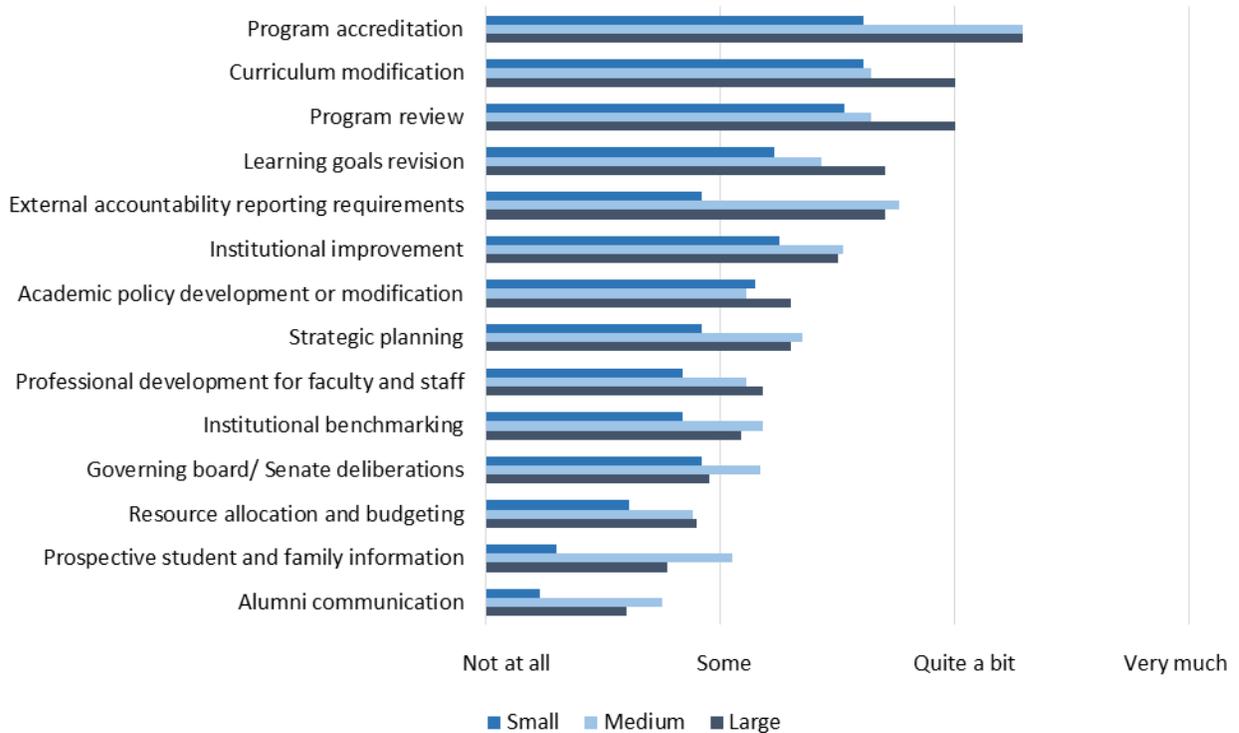
Learning outcomes assessment results are also being used “quite a bit” for program review (Figure 19). Forty-three percent of universities stated that they use assessment results in the review of all programs, and 44% said that they use assessment results in the review of some programs. Ontario uses assessment results notably more for program review purposes than does the rest of Canada (Figure 19).

Figure 19: The extent to which university learning outcome assessment results are used in different regions of Canada.



Note: The sample sizes. Atlantic n=7; Quebec n=12; Ontario n=18; and West-Prairie n=17

Figure 20: The extent to which student learning outcome assessment results are used in universities of different sizes across Canada

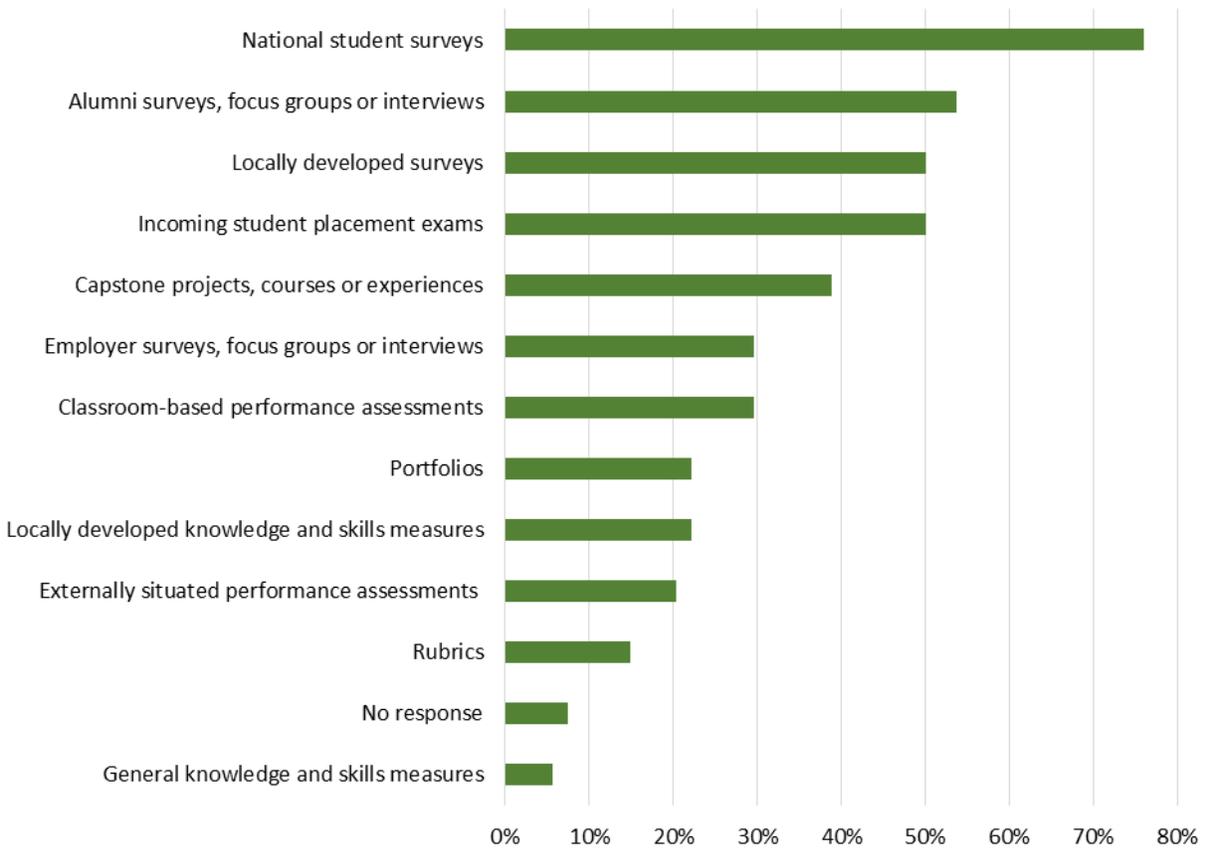


Note: The sample sizes. Small n=13; Medium n=17; Large n=24

4. What tools are Canadian universities using to assess learning outcomes?

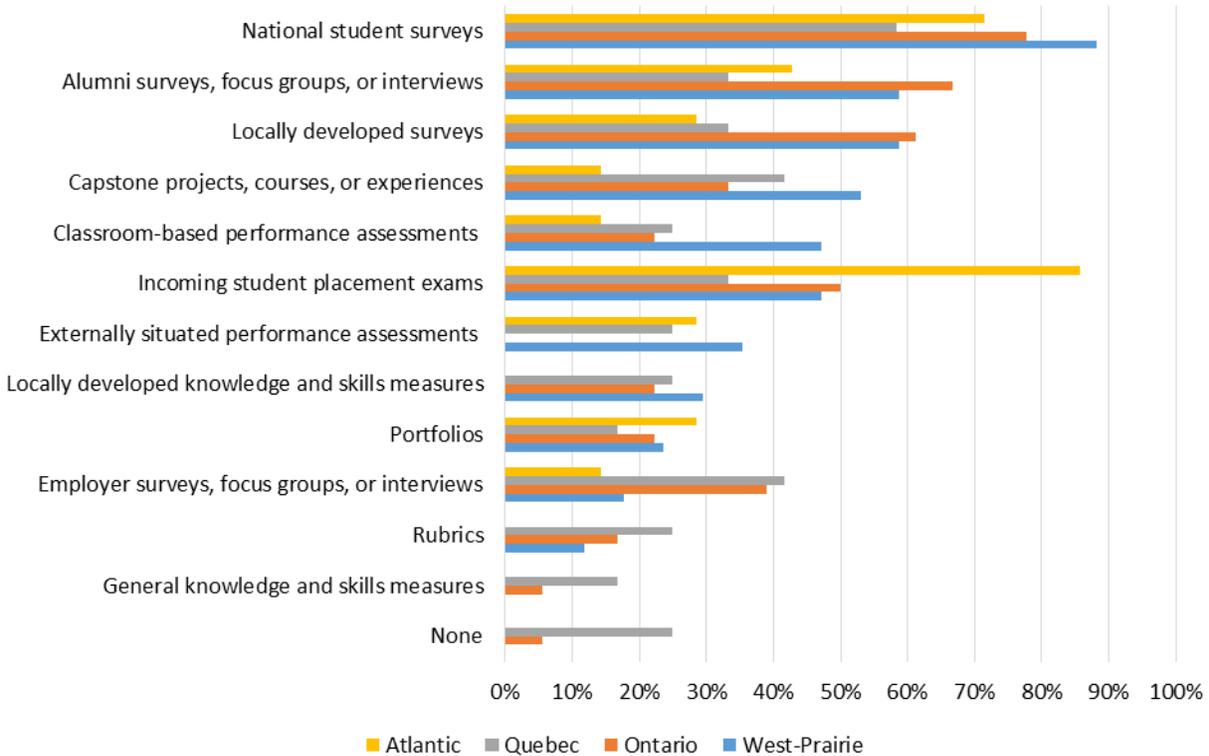
A variety of approaches is being used in universities to assess student learning at the institutional level. National student surveys were reported to be the most common assessment approach used in Canadian universities, followed by alumni surveys, focus groups and interviews. When respondents were asked to list the three most valuable or important assessment approaches at the institution level, university provosts and VPs academic most frequently cited surveys/focus groups and exams (Figure 21).

Figure 21: Percentage of Canadian universities that use different institutional-level assessment methods



The institution-wide assessment approaches universities use vary across Canada. Surveys are more commonly used in the West-Prairie region and Ontario than in Quebec and the Atlantic provinces. The most commonly used assessment tool in the Atlantic provinces is incoming student placement exams, while national student surveys are most popular in the rest of Canada. Eighty-six percent of universities in the Atlantic provinces use incoming student placement exams, compared to 50% of universities in Ontario, 47% of universities in the West-Prairie region and 33% of universities in Quebec. Lastly, capstone projects, courses or experiences are more commonly used to assess student learning outcomes in the West-Prairie region (53%) than in the rest of Canada (Figure 22).

Figure 22: The different assessment approaches being used at the institution level by universities in different regions of Canada. Respondents were instructed to select all of the assessment approaches that applied to their university.

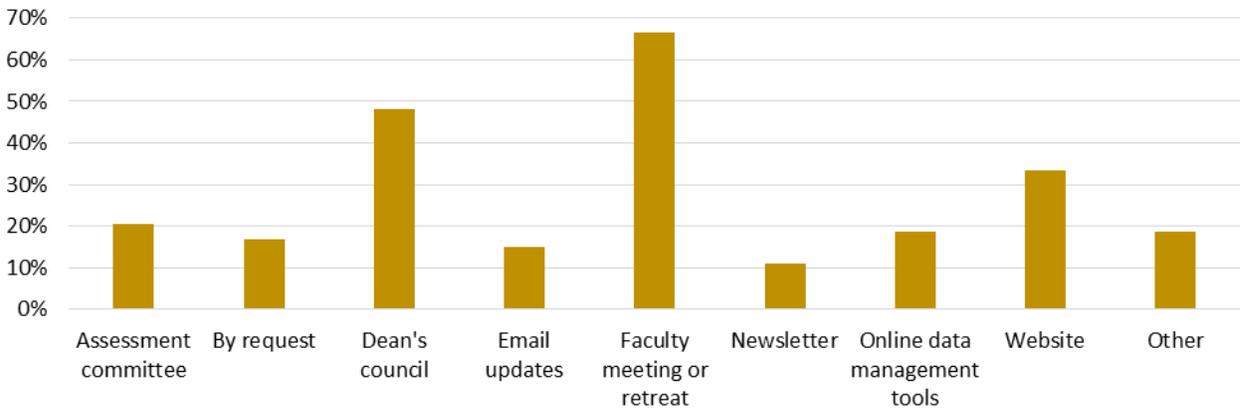


Note: The sample sizes. Atlantic n=7; Quebec n=12; Ontario n=18; and West-Prairie n=17

5. How are assessment results being communicated within universities and to the public?

Canadian universities are using a variety of methods to communicate their assessment results within institutions and across units and levels (Figure 23). The most popular method of communicating assessment results within universities are faculty meetings or retreats (67%), followed by sharing results at deans’ councils (48%). A range of other methods for sharing assessment results were reported in ‘other,’ including various councils and reports.

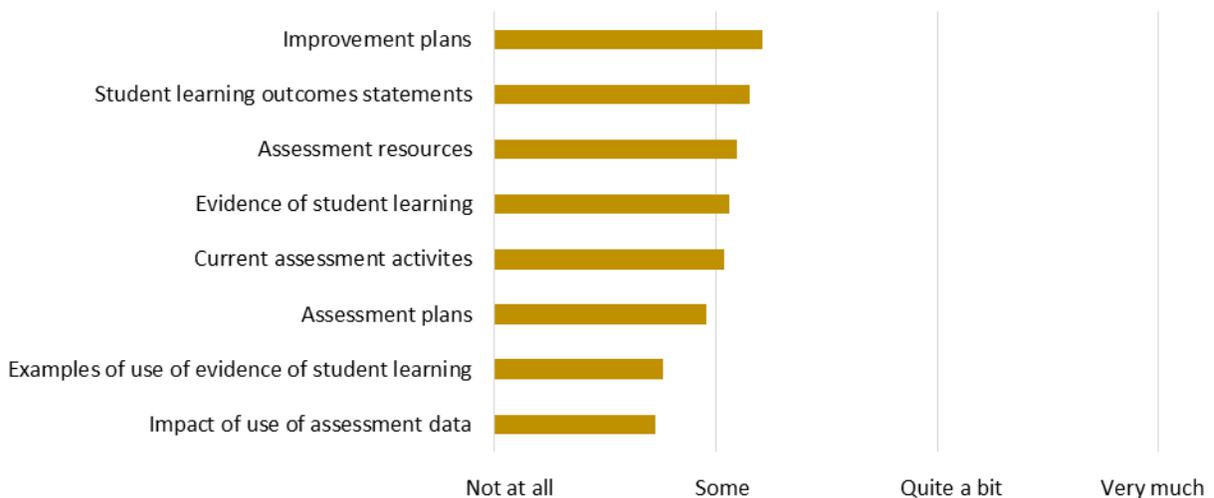
Figure 23: Canadian universities indicated the most effective methods for sharing assessment results.



Note: Respondents could choose up to three options

Canadian universities are sharing assessment information internally in a variety of ways, but very little information is being shared publicly (Figure 24). Improvement plans were shown to be the most likely documents to be made public, and they are only available “some” of the time. Respondents suggested that some universities make student learning outcome statements, assessment resources and evidence of student learning publicly available. Reports and data on the “impact of use of assessment data” are rarely available to the public.

Figure 24: The public availability of assessment documents, plans, resources and results in Canadian universities



6. What are Canadian universities saying they need to further their learning outcomes assessment initiatives?

Faculty involvement is crucial to the assessment of student learning. Significant involvement of faculty in assessment and centres for teaching and learning were reported to support assessment activities the most (Figure 25). Provosts and VPs academic repeatedly emphasized in the open-response questions that “learning outcomes requires a change in mindset/culture.”

Figure 25: The extent to which institutional structures, resources and features support assessment activities



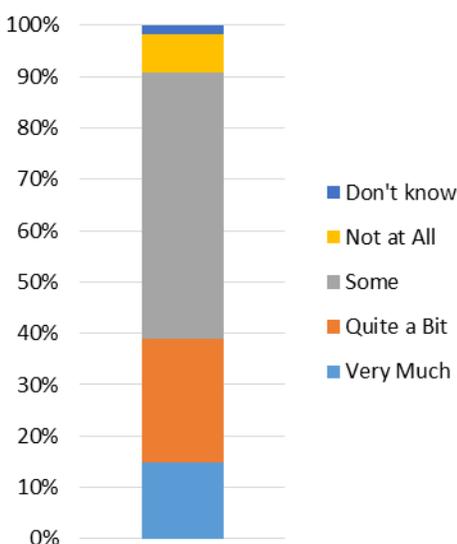
In addition to faculty involvement, policies and centres for teaching and learning support assessment initiatives “quite a bit” (Figure 25). Large universities especially feel that centres for teaching and learning support assessment activities, and provosts and VPs academic from Ontario and Quebec in particular said that institutional policies/statements related to assessment support assessment initiatives.

It is unclear if financial resources would support assessment activities. Mixed messages were received regarding the need for financial support for learning outcomes assessment. Funds targeted to outcomes assessment were reported to “somewhat” support assessment activities in universities (Figure 25), and only 22% of provosts and VPs academic indicated that external funding would be helpful. At the same time, 56% of the universities reported that additional financial and staff resources would be helpful, and when universities were asked what their main concerns were regarding assessing student learning, additional financial and staff resources were mentioned the second most frequently in the open response questions.

Involving student affairs, assessment management systems and software, and rewarding faculty and staff involvement in assessment activities are believed to “somewhat” to “not at all” support assessment activities (Figure 25). Recognizing and/or rewarding faculty and staff involved in assessment activities was found to support assessment activities the least, and only 2% of respondents said that it would be helpful if student affairs staff were involved in assessing student learning.

The governance structure and organization of universities somewhat support the assessment of student learning. Thirty-nine percent of provosts and VPs academic indicated that the institutional organization and governance structure at their college support the assessment of student learning “quite a bit” to “very much” (Figure 26).

Figure 26: The extent to which institutional organization and governance structure support assessment of student learning in Canadian universities



Discussion

A learning outcomes approach has been adopted in many Canadian colleges and universities. More than half of Canadian colleges and just under half of Canadian universities indicated that they have institutional learning outcomes. In the open responses, universities and colleges said that they see the value of a learning outcomes approach and plan to continue adopting and improving their assessment practices. One provost emphasized this point by saying, “While the assessment of learning outcomes is still in its infancy at our institution, these processes will become pervasive, and units will begin to make improvements to program curriculum based on assessment data.” Developing and adopting learning outcomes is the first step, but assessing these outcomes is the leap that has the potential to revolutionize the postsecondary system (Weingarten, 2013). Based on the findings presented in this paper, there are a number of issues and challenges around assessing learning outcomes that we need to keep in mind as we move forward.

The challenge of creating a common language

The survey results point to the challenge of creating a common language around learning outcomes in Canada. Most Canadian postsecondary institutions continue to use similar but ultimately divergent sets of terms and acronyms to discuss learning outcomes. For example, the terms “indicators,” “objectives” and “outcomes” were often used interchangeably in survey responses. To complicate things further, key terms like “authentic assessment” are often used but never defined. The lack of a common language makes it difficult to understand the assessment practices that are currently in use. As one respondent commented, “Making progress requires a common understanding of what we mean.”

Despite providing a definition of institutional learning outcomes in the survey, there is evidence that colleges and universities were referring to course-, program-, department- or school-level learning outcomes interchangeably when they responded to survey questions about institutional learning outcomes. This confusion was caused in part by the survey design, but also by the lack of a common language for learning outcomes discussions. In addition, it is unclear what survey respondents identified as institutional learning outcomes. For example, some Ontario colleges may have reported having institutional learning outcomes because the Essential Employability Skills outlined by the Ministry of Advanced Education and Skills Development are common to all students in the college. At the same time, other colleges in Ontario may not have indicated that they have institutional learning outcomes because the Essential Employability Skills are mandated by the province rather than developed internally. Similar confusion might have arisen in other provincial contexts and in the university sector as well with respect to the Undergraduate Degree-Level Expectations (UDLEs). A follow-up to this survey could clarify what colleges and universities consider to be institutional learning outcomes and, in doing so, help to develop a common learning outcomes language.

Balancing forces and factors driving outcomes and assessment

The act of balancing the various forces and factors driving assessment presents significant challenges for the assessment of institutional learning outcomes. Even though accreditation requirements have been major factors in the development and assessment of institutional learning outcomes, it is encouraging that colleges and universities identified their commitments to improve as either the most or second most important motivation (Figure 3 and 17). It is essential to recognize that the forces and factors driving assessment are not mutually exclusive. Though one or two factors may kick-start or dominate outcomes assessment efforts at an institution or within a jurisdiction, outcomes assessment data can serve multiple purposes. For example, assessment data collected for accreditation purposes can also be used for internal improvement initiatives.

Outcomes assessment vs. outcome mapping

With multiple factors prompting learning outcomes assessment, it is not surprising that assessment data are being used in a variety of ways and to varying degrees (Figure 6 and 19). Across Canada assessment data are being used for both quality assurance and improvement practices. In the open-response questions, respondents indicated that they are hopeful that “the adoption of concrete strategies for assessment of student learning outcomes results in evidence-based improvement to academic programs.” In keeping with institutions’ desires to improve student learning, respondents indicated that assessment data are being used

in program review and renewal activities, i.e., to “complete degree-mapping plans,” “understand where there are gaps and duplications in programs” and to ensure “stronger alignment of assessments and learning outcomes.” When provosts and VPs academic referred to using learning outcomes assessment data to modify the curriculum, they often pointed to curriculum mapping. Curriculum mapping is the process of outlining objectives, learning activities, curriculum materials, assessment and learning outcomes to review and increase the transparency of the curriculum (Wang, 2015). Although curriculum mapping is an essential step in the learning outcomes approach, it is not the sole application of assessment data. Assessment data can and should be used to improve how content is taught and skills are developed. It can also be used formatively by students and instructors to help students articulate their skills and identify areas for improvement. More research is needed to determine how and to what extent assessment data are being used to make evidence-based decisions about teaching practices that effectively develop student skills.

Direct vs. indirect assessment approaches

Canadian colleges and universities are using a variety of assessment approaches to collect information about students’ skills (Figure 8 and 21). Provosts and VPs academic indicated that a mix of direct and indirect evidence of student learning is being used. Direct measures of student learning are tangible, visible, measurable and assess students’ mastery of content or skills (e.g., classroom-based performance assessments), while indirect evidence is composed of proxy signs of what students are probably learning since they depend on opinions or attitudes (e.g., employer surveys) (DePaul University, 2016; Price & Randall, 2008). Direct and indirect measures of student learning have both strengths and weaknesses. The assessment data collected by indirect measures has been criticized for not accurately reflecting students’ skills and abilities, but it has been found to contain important information about perceptions of learning (Calderon, 2013). Direct assessments of student skills provide a much better picture, however assessment tools that directly assess students’ skills, such as rubrics and performance assessments, can be subject to instructor bias. The results of this survey suggest a combination of direct and indirect assessment tools are being used, but the ratio of indirect to direct assessment is unknown. There may be a bias toward indirect assessments given that the two most popular assessment approaches identified by colleges and the three most popular assessment approaches identified by universities are indirect tools that rely on self-reported information. This could be problematic, given that perceptions of learning do not necessarily reflect skill or content mastery (Allen, 2004; Suskie, 2009).

Both college and university respondents indicated that they are worried about “establishing valid and reliable institution-level and program-level assessments” and “creating consistent standards and practices across programs and the institution.” To ensure the accuracy of assessment data, more research needs to be done to explore how direct and “authentic”² assessments can reliably and efficiently be used to measure institutional learning outcomes.

In addition to the challenge of selecting good assessment tools, universities and colleges also need to decide which skills and knowledge they want to assess. Although this survey did not ask provosts and VPs academic to identify the skills they are assessing, their responses about assessment approaches are illuminating. In an open-response question, exams were reported to be the most or second most important tool for assessing

² Authentic assessment is defined in this report as a form of assessment in which students are given problems or questions that demonstrate meaningful application of essential knowledge and skills (Mueller, 2014).

institutional learning outcomes in colleges and universities. This could indicate that institutions are more focused on subject- or discipline-specific learning outcomes than the essential or higher-order cognitive skills typically identified in institutional learning outcome statements. Though it is not unusual to embed essential or higher-order cognitive skills into discipline-specific learning outcomes, it can make it more difficult to tease out the assessment data relevant to institutional learning outcomes. As stakeholders are increasingly asking institutions to demonstrate that recent graduates possess skills such as critical thinking, communication, problem solving and teamwork, it is important for institutions to collect and communicate this information clearly.

The state of learning outcomes assessment in Canadian colleges and universities

Best practices should be shared not only within individual institutions and sectors, but also between colleges and universities. Despite the substantial difference between the Canadian university and college sectors, their thoughts and practices around learning outcomes assessment are surprisingly similar. Not only are both colleges and universities assessing student learning outcomes for the same reasons, they are using similar assessment tools, applying assessment data for the same purposes, communicating assessment results internally using the same methods, and they identified the same factors as supporting assessment initiatives.

The adoption and development of a learning outcomes approach has occurred to a greater extent in colleges than in universities. Fifty-eight percent of colleges (n=53) have institutional learning outcomes, compared to 43% of universities (n=54). A greater number of colleges also have learning outcomes in all departments, schools or programs than do universities.

Although colleges and universities appear to be at slightly different stages of adopting and developing learning outcomes, they are being driven to do so for the same reasons. Both colleges and universities identified program accreditation and the commitment to improve as the two most important reasons for doing learning outcomes assessment (Figure 3 & 17). Colleges and universities are also using the same tools to assess student learning. Surveys are the most frequently used assessment tool by colleges and universities. However, colleges are using employer surveys, while universities are using national student surveys (Figure 8 & 21). A sizable proportion of colleges (64%) and universities (54%) said that alumni surveys are used to collect evidence of student learning at the institutional level.

Once the assessment data are collected, both colleges and universities are using the results for the same top four reasons – program accreditation, curriculum modification, external accountability reporting requirements and program review (Figure 6 & 19). They also both share very little information about student outcomes publicly. In addition, the institutional structures, resources and features that support assessment were found to be alike. Significant faculty involvement in assessment, institutional policies and centres for teaching and learning are the three biggest supports of assessment at both colleges and universities (Figure 13 & 25). Interestingly, more colleges (68%) felt that the institutional organization and governance structure supported assessment of student learning than did universities (39%). This may be because colleges have been using a learning outcomes approach for a longer period of time.

How do we compare to our neighbours in the US?

A survey conducted in the spring of 2013 (Kuh, Jankowski, Ikenberry & Kinzie, 2014) and a more recent study conducted by Hart Research Associates in 2016 both show that postsecondary institutions in the United States are ahead of Canadian institutions in the process of adopting and developing institutional learning outcomes. Employing the same survey that was used in this study, NILOA found that 84% of regionally-accredited, undergraduate, degree-granting, two- and four-year public, private and for-profit institutions (n=1,202) had institutional learning outcomes (Kuh et al., 2014). In comparison, 58% of colleges and 43% of universities in Canada reported having institutional learning outcomes. The survey also highlighted differences in the use of assessment results and more notable differences in the assessment tools being utilized. Great differences in learning outcomes practices are seen between US institutions and Canadian universities and colleges.

In the United States, the primary driver of assessment is accrediting agencies, so institutions are using their results to satisfy regional accreditation, program accreditation and external accountability requirements respectively (Kuh et al., 2014). Although Canadian colleges and universities indicated that program accreditation was a moderately to very important force in prompting assessment, a commitment to improve was found to be a more important (Canadian colleges) or an equally important (Canadian universities) driver of assessment. In accordance with this, and despite no enforceable regulations regarding learning outcomes assessment, Canadian institutions reported using assessment results frequently to modify the curriculum, in addition to using results for accreditation and program review purposes.

Different assessment approaches are being used in US and Canadian institutions. In particular, differences in assessment approaches are seen between US institutions and Canadian colleges. The most commonly used assessment tool in the US was national student surveys (85%) (Kuh et al., 2014). This was the least commonly used assessment approach by Canadian colleges (13%), but the most commonly used assessment approach used by Canadian universities (76%). In Canadian colleges, employer surveys are most frequently used (64%), but only 46% of US institutions use this method of assessing student learning (Kuh et al., 2014). Another difference between Canadian and US institutions is the use of rubrics. Sixty-nine percent of US institutions use rubrics to assess student learning, compared to 45% of Canadian colleges and only 15% of Canadian universities.

Although there are many differences between the US and Canadian systems when it comes to assessing learning outcomes, there are also some similarities. Institutions in both Canada and the US indicated that institutional policies/statements related to assessment and significant involvements of faculty support assessment activities the most.

HEQCO conducted this survey to gain a better understanding of current assessment practices occurring across Canada. We learned that colleges and universities across Canada have implemented and are assessing learning outcomes, however the lack of a common learning outcome language makes it difficult to get a clear picture of the prevailing assessment practices. With the results of this survey only providing a snapshot of the assessment practices taking place in Canada, a follow up survey in a few years would shed light on how learning outcomes and more specifically assessment practices, are evolving over time.

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