

Program-Level Learning Outcomes

Development, Implementation, and Assessment in
Non-Professional Programs at Canadian Institutions

Academic Affairs Forum

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1) Executive Summary

Key Observations

Allow program-level leaders to customize learning outcome development and implementation processes to respond to program-specific needs. At all profiled institutions, programs leaders can tailor learning outcome development and implementation processes to align with their program's unique size, structure, or field of study. The freedom to customize these processes helps ensure that learning outcome use feels program-appropriate. To encourage customization, administrators at Institution B familiarize program leaders with different development and implementation options through the support of Centre for Teaching and Learning staff. Regardless of the exact process used by a specific program, contacts at all institutions agree that administrators should encourage program leaders to consider the right personnel to involve and the right responsibilities for those personnel, given the program's unique needs.

Support learning outcome development and implementation processes through a Centre for Teaching and Learning (CTL). All profiled institutions have a CTL that educates faculty members on the value of learning outcomes and that offers support throughout development and implementation processes. CTL staff provide especially valuable support due to their understanding of pedagogical and learning design best practices. CTL staff at Institution B and Institution E distribute informational documents to educate faculty on learning outcomes' meaning and value. At all profiled institutions, CTL staff offer customized ongoing support through either short-term or long-term consultations.

Engage faculty members in using program-level learning outcomes by fostering their feelings of ownership over outcome development and implementation. Contacts at all profiled institutions cite that faculty members often feel restricted by program-level learning outcomes, and thus do not fully implement learning outcomes in their courses. To mitigate these concerns among faculty members, administrators at all profiled institutions recommend building faculty members' sense of ownership over learning outcome creation and use. When faculty members feel more engaged in learning outcome processes, they may be more invested in learning outcome success and use. To increase faculty members' sense of ownership over learning outcomes, administrators at Institution A, Institution B, Institution D, and Institution E recommend delegating a leadership role to a faculty member. This faculty leader can help coordinate the learning outcome development and implementation process for their own program. Contacts at Institution B highlight that these leaders provide peer-level support for learning outcomes, which can prove more impactful than administrator-level support.

Across all profiled institutions, administrators struggle to properly assess program-level learning outcomes. Administrators at all profiled institutions find it difficult to assess how effectively learning outcomes reflect student learning. Assessment can present greater challenges in non-professional programs, as desired outcomes for students in these programs are less concrete than desired outcomes for students in pre-professional programs. While an external assessment process occurs every eight years for institutions in Ontario through the province's Quality Assurance Framework, contacts at the Institution B, Institution D, and Institution E do not use any more frequent assessment processes. However, contacts at Institution A, Institution B, Institution C, and Institution E note increasing stakeholder interest in course-level learning outcome assessment.

2) Development Processes

Encouraging Learning Outcome Development

Administrators Respond to Province-Level Requirements for Learning Outcome Development

Province-level regulations tend to shape profiled institutions' approach to learning outcome development. While Ontario's Quality Assurance Framework requires that all academic programs at institutions in the province submit program-level learning outcomes to the Quality Council, other Canadian provinces do not mandate this same process.¹

Administrators at Institution B, Institution D, and Institution E note that Ontario's Quality Assurance Framework drove the creation of program-specific learning outcomes in non-professional programs at their institutions. Contacts at the Institution E do not believe that program-level learning outcomes would have been implemented without this directive. Similarly, at Institution A, where non-professional programs do not have to use program-level learning outcomes, contacts do not suspect that widespread use of these outcomes will occur without an external requirement from the province.

Contacts at Institution B warn that learning outcomes can pose difficulties to curriculum development more generally. Since some faculty members may not understand the value of learning outcomes, they may advocate against incorporating learning outcomes into broader curriculum development efforts. Also, because learning outcome approval processes can be complex, program leaders may be hesitant to initiate the development of new learning outcomes, minimizing the ability for administrators to leverage up-to-date learning outcomes in the curriculum development process.

Encourage Learning Outcome Development through Programs Already Undergoing Change

Administrators at Institution A and Institution C note that even without governmental mandates to create program-level learning outcomes for non-professional programs, administrators can effectively advocate for learning outcome development in programs already undergoing curricular change. Contacts at these institutions explain that when program leaders are already engaged in broader conversations about program-level goals during a curricular review process, it could be relatively straightforward to add a step into the process where program leaders reframe these program goals as learning outcomes.

However, research suggests that learning outcomes present value for both instructors and students. With learning outcomes, students and instructors both gain a clearer picture of the goals of a course or program, helping each group set accurate expectations for their involvement in the program.² Defining learning outcomes may prove particularly useful for non-professional programs where desired student outcomes can be less concrete than desired outcomes for students in pre-professional programs. With these benefits in mind, administrators may elect to pursue development and implementation of learning outcomes for non-professional programs, regardless of governmental regulations instructing them to do so.

¹ "Quality Assurance Framework." Ontario Universities Council on Quality Assurance. Accessed February 27, 2020. <https://oucqa.ca/resources-publications/quality-assurance-framework/>.

² Mahajan, Mrunal, and Manvinder Kaur Sarjit Singh. "Importance and Benefits of Learning Outcomes." *IOSR Journal of Humanities and Social Science* 22, no. 01 (2017): 65-67. <https://doi.org/10.9790/0837-2203056567>.

To craft effective development and implementation processes for learning outcomes in non-professional programs, contacts at all profiled institutions recommend that administrators provide program leaders with the option to customize processes to align with their program's unique needs. They also recommend that Centre for Teaching and Learning (CTL) staff provide support to program leaders and that administrators encourage faculty member engagement in learning outcome use.

Allow Individual Programs to Craft Unique Development Processes to Better Respond to Program-Specific Needs

At all profiled institutions, staff and faculty members in non-professional programs have the freedom to craft their own program-level learning outcome development processes. Contacts at all profiled institutions highlight the importance of flexibility in process design to ensure successful development of program-level learning outcomes. This freedom encourages program-level stakeholders to create processes that reflect unique factors related to program size, structure, and focus.

Regardless of the exact process used by a specific program, contacts at Institution C emphasize that administrators should encourage thoughtful consideration of the right personnel to involve and the right responsibilities for those personnel, given the program's unique needs.

Centre for Teaching and Learning (CTL) staff at Institution C, Institution D, and Institution E often support curriculum committees through general process guidance or by having a CTL staff member serve as a committee member.

Although exact processes may differ between programs, administrators at Institution D and Institution E highlight that many programs use curriculum committees to drive learning outcome development processes. Broadly, curriculum committees assess and craft recommendations for curriculum or course changes within a program.³ The use of dedicated committees for learning outcome development ensures a clear point of accountability for these initiatives in non-professional programs. The committee structure also allows for the formal incorporation of a large set of perspectives into key decision-making processes.

Committee makeup varies depending on program size, but committees typically include four to eight faculty members as well as program leaders. Committees can also include student representatives. In small programs, nearly all department members may be involved, while larger programs often focus participation on teaching faculty.

Administrators at Institution D highlight that committees should include a representative group of program stakeholders to convene voices that speak to all aspects of a program. They also recommend that committees prioritize more permanent program members over visiting faculty members, since permanent staff will be the ones ultimately responsible for long-term learning outcome implementation.

After committee members approve program-level learning outcomes at Institution E, the faculty senate must also approve them before administrators publish them online.

These committees often meet on a regular basis (e.g., four to five times per semester) about curricular issues more generally, but these meetings include discussions of learning outcomes as needed. Contacts at Institution D emphasize that meetings focus on open dialogue rather than structured decision-making. These contacts emphasize the value of informal meeting structures for these committees, as this allows committee members to converse freely and not feel pushed into any particular approach to learning outcome development.

³ Institution C Websites.

Administrators at Institution B, Institution C, and Institution E note generally positive responses from students about program-level learning outcomes, as they help students gain a better understanding of the program.

Further, although programs customize specific aspects of the learning outcome development process, administrators at all profiled institutions note some degree of student participation in learning outcome development for non-professional programs. Contacts at Institution C describe that both students and program leaders benefit from student involvement in development. According to these contacts, when students contribute to learning outcome development processes, they gain insight into outcomes' value, which may encourage support for outcome use. In addition, student involvement gives faculty members a chance to compare their desired perception of learning outcomes with student perceptions.

Administrators at Institution C involve students in learning outcome development through student participation on curriculum committees.

Overview of Student Participation on Curriculum Committees at Institution C

Selection	Role
 Students can join curriculum committees in three ways: • By participating in the program's student group • By responding to a notice sent to all students in the program asking for volunteers • Through election by other students in the program	 Programs can benefit from student involvement with committees because students offer unique perspectives: • Ability to see course content overlap and inadequate preparation between courses • Insights into real experiences with course learning • Insights into effectiveness of communication about learning outcomes

While the intricacies of each program's learning outcome development process differ, contacts at Institution B describe two major process trends – programs tend to begin learning outcome development with either program leaders or at the faculty member level.

Common Program-Level Learning Outcome Development Processes Used at Institution B

Method	Benefits
 Top-Down: Program leaders craft program-level learning outcomes and then direct faculty members operate within the parameters of those learning outcomes.	Large programs may benefit from limiting the number of decision-making stakeholders and the ability to communicate a unified vision across many people.
 Bottom-Up: Faculty members meet to write course-level learning outcomes, which program leaders use to develop program-level learning outcomes.	Small programs may best engage faculty members by providing them with the opportunity to actively engage in the development process.

Leverage Learning Outcome Development Conversations to Engage Stakeholders in Holistic Strategic Thinking

Administrators at Institution B, Institution D, and Institution E note that learning outcome development conversations inspire important larger-scale conversations about program identity. Learning outcome development conversations encourage stakeholders to think about program value, student needs, and opportunities for change. Program leaders can thus use learning outcome development conversations to drive larger strategic planning conversations for the program.

Support Learning Outcome Development Through a Centre for Teaching and Learning

Regardless of the exact learning outcome development approach used on the program level, all profiled institutions have some version of a Centre for Teaching and Learning (CTL) that supports learning outcome development and implementation processes for non-professional programs. CTL staff provide especially beneficial support because of their expertise in pedagogy and course design. To support learning outcome development, CTL staff educate faculty members on the value of learning outcomes, meet with individual program leaders, and facilitate program-wide workshops to guide learning outcome development.

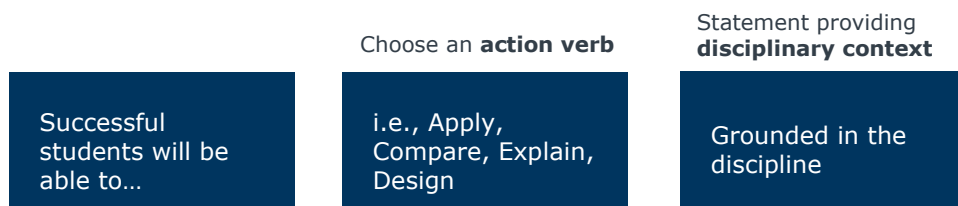
To explain the value of learning outcomes, CTL staff members at Institution B and Institution E distribute informational documents to faculty members. These official CTL documents also inform program staff about how to develop program-level learning outcomes.⁴

⁴Institution B Websites.; Institution E Websites.

Adaption of a Guide to Program-Level Learning Outcome Development Used at *Institution B*⁵

Writing Effective Learning Outcomes

Learning outcomes describe learning that is both necessary and lasting; learning that encompasses what students need to know in the long term, after they've forgotten the details of the course. A learning outcome often starts with: "Successful students will be able to" plus an action verb indicating the type of learning plus a statement describing what the learner will ultimately be able to do.



For example: Students will be able to apply interdisciplinary perspectives to examine ways in which culture is formed, practiced, and constituted.

Most often, assessment plans use between 5 and 10 learning outcomes to clearly indicate what learners will be able to demonstrate at the end of a course/program.

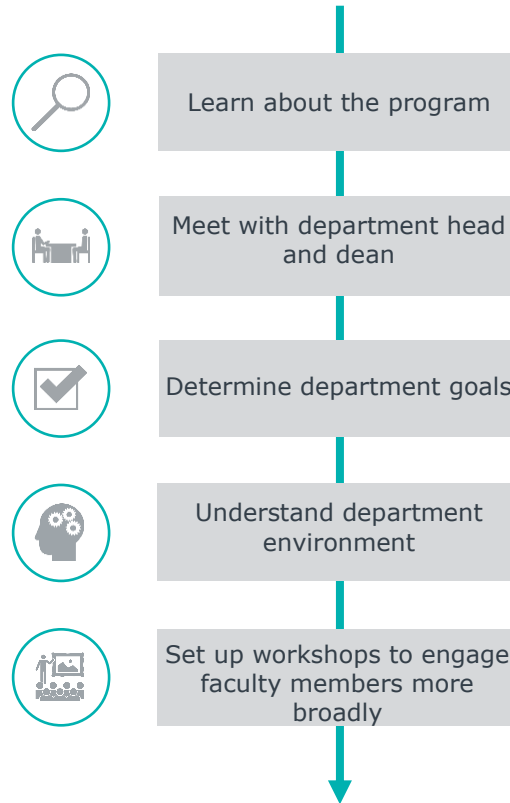
Contacts at Institution A find it particularly useful for CTL staff to support programs by providing examples of other programs' outcomes.

Contacts at all profiled institutions report that their CTL staff members can support programs in different ways, depending on unique program needs. At all profiled institutions, CTL staff offer consultations with program staff to discuss, guide, and provide outside perspective on learning outcome creation and implementation. Through these meetings, CTL staff assess the programmatic environment to help best tailor further support.

For example, at Institution B, to help non-professional programs begin the learning outcome development process, CTL staff host an orientation meeting that includes program staff, the Vice President of the CTL, and another CTL staff member. With these meetings, CTL staff aim to make program-level stakeholders feel supported as they begin program-level learning outcome development. Similarly, at Institution C, program leaders turn to CTL staff to begin their learning outcome development processes. Individual department-level leaders or deans initiate a meeting with CTL staff to customize CTL support for the duration of the learning outcome development process. Depending on the program, CTL staff continue involvement in different capacities (e.g., meeting with the program weekly, hosting a single workshop).

⁵Institution B Websites.

Typical Program Support Process Used by the Centre for Teaching and Learning at *Institution C*



CTL staff at Institution B, Institution C, and Institution E host workshops or retreats designed to more thoroughly guide non-professional programs through successful program-level outcome development and implementation. Program leaders at these institutions can request that all staff, curriculum committee members, or smaller groups of faculty members participate in these trainings. During these sessions, participants often consider program-related goals, hopes, concerns, and challenges. Contacts at Institution E note that “What is your ideal graduate?” and “What would you be embarrassed if students could not do?” serve as effective conversation starter questions. The same administrators recommend beginning conversations with these types of open-ended questions to accessibly build a valuable foundation for later learning outcome development discussions.

***Institution A* Evaluates Commitment to CTL-Based Learning Outcome Development Support Through Programs’ Financial Investments**

Administrators at Institution A request that program leaders pay for a portion of the support services provided by CTL staff. By asking program leaders to demonstrate their commitment to the learning outcome development process, CTL leaders can allocate scarce resources to programs who will likely be most invested in CTL support.

3) Implementation and Assessment

Implementation Processes

Encourage Program Leaders to Customize Implementation Practices to Foster Lasting Use of Learning Outcomes

Similar to guidance for program-level learning outcome development processes, administrators at all profiled institutions allow non-professional programs to individualize learning outcome implementation practices as well. Contacts at Institution D highlight that customization allows program leaders to implement learning outcomes in ways that respond to their program-specific environment.

Flexibility in implementation processes allows programs to better respond to a program's unique cultural needs. At Institution B, administrators note that program leaders pay special attention to ensure culturally relevant implementation of learning outcomes. For example, administrators note that Indigenous Studies programs adjust learning outcome implementation to account for differences between Indigenous and westernized educational philosophies. Specifically, program leaders first tailor learning outcome structures to align with Indigenous ways of teaching (e.g., "Contribute to building a consensus-based learning community that prioritizes laws of the group, trusting relationships, consistency, accountability, and respect."), and then choose how students can best interact with outcomes (e.g., written paper, hands-on activity) to maintain cultural relevance.⁶ Thus, program leaders have the freedom to shape students' daily learning outcome use around Indigenous teaching methods. By allowing program-level leaders to design their own program-specific learning outcome implementation processes, administrators can ensure that program-level leaders implement outcomes in ways that best align with their program's unique identity.

To ensure student-responsive implementation processes, program leaders use defined learning outcomes to inform accessible assessment design. At Institution E, administrators direct faculty members to leverage the relatively broad parameters of program-level learning outcomes to design assessments that students with different needs still find accessible.

Administrators can also encourage program leaders to customize processes used to revise previously implemented learning outcomes. Contacts at Institution B often use existing learning outcomes as a foundation for the revision of learning outcomes, while administrators at Institution D typically develop completely new outcomes when learning outcomes require revision. Program leaders can select between revision approaches such as these, depending on program-specific needs.

⁶ Institution B Websites.

Common Processes Used to Revise Learning Outcomes

	Method	Benefits
	Leverage Existing Outcomes: Most program leaders at Institution B leverage existing learning outcomes when building new outcomes.	Relatively stable programs (e.g., literature) may choose to work from existing outcomes to maintain continuity over time.
	Create New Outcomes: Administrators at Institution D often do not incorporate existing learning outcomes into the development of new outcomes. They develop completely new learning outcomes as needed instead.	Programs with content that changes often (e.g., sociology) may choose to write new outcomes when revising learning outcomes to best incorporate new content. Program leaders can focus on current circumstances, rather than past work based on potentially outdated programmatic contexts, to revise learning outcomes.

Use Clearly Defined Program-Level Outcomes to Drive Curriculum Mapping Processes

Curriculum maps aim to address curricular gaps, redundancies, and sequencing issues by identifying what courses teach and when.⁷ Program leaders can leverage the implementation of program-level learning outcomes to drive the implementation of comprehensive curriculum maps, as learning outcomes provide a framework for map development. Profiled institutions vary in their commitment to curriculum mapping, but those that use this practice (i.e., Institution B, Institution D, and Institution E) do not cite any specific challenges associated with incorporation of learning outcomes into curriculum mapping. Instead, administrators at Institution B, Institution D, and Institution E note the value in using learning outcomes to guide curriculum development generally, and mapping specifically.

Researchers note that during curriculum mapping processes, program leaders use learning outcomes to identify gaps and overlaps between courses, and ultimately to determine if a program achieves what it intends to accomplish.⁸ Therefore, clearly defined program-level learning outcomes drive more informed curriculum mapping conversations.

Administrators at Institution B detail that a successful curriculum map should indicate an incremental development of learning outcomes as a student moves through the program.

⁷ "What Is Curriculum Mapping?" Warrego Public Schools. Accessed March 6, 2020. <https://www.usd320.com/vimages/shared/vnews/stories/5a1448f5d101a/What%20is%20curriculum%20mapping%20article.pdf>;

"Curriculum Mapping." Educational Effectiveness Assessment. Rochester Institute of Technology, June 6, 2018.

<https://www.rit.edu/academicaffairs/outcomes/curriculum-mapping>.

⁸ Jankowski, Natasha. "Mapping Learning Outcomes: What You Map Is What You See." National Institute for Learning Outcomes Assessment, September 12, 2014. <https://www.learningoutcomeassessment.org/Presentations/Mapping.pdf>

Adapted Learning Outcome-Based Curriculum Map for an Environmental Policy Program⁹

Program-level learning outcomes listed across the top of the map

Program courses listed down the side of the map

Level of desired student understanding indicated for each course/outcome combination clarified below the map

	Manage Information	Analyze Issues	Communicate	Investigate Sustainability	Interpret Data
Intro to Environmental Issues	I	I	I	I	-
Sustainability and Policy	R	I	R	R	I
Ecological Economics	R	R	R	R	I
Policy & Globalization	R	R	-	R	-
Policy Assessment & Development	M	M	M	M	R
Environmental Decision-Making	M	M	M	-	M
Policy Internship	M	M	M	M	M

I = Introduction, R = Reinforcement, M = Mastery

Leverage External Tools to Encourage More Frequent Use of Program-Level Learning Outcomes

Administrators at Institution E require instructors to list course-level outcomes in the syllabus, and many instructors also choose to list course-level outcomes on major exams and projects.

External tools can help ease faculty member and staff member engagement with program-level learning outcomes. Specifically, contacts at Institution B, Institution D, and Institution E indicate that externally sourced software tools support communication about learning outcomes and the incorporation of learning outcomes within broader curriculum mapping processes.

For example, at Institution B, the institution's learning management system, [Brightspace](#), includes a pre-installed template that prompts instructors to input learning outcomes when developing course pages. Not only does this feature remind instructors to use learning outcomes in their courses, but it also displays outcomes to students on the main course webpage.

Additionally, contacts at Institution B, Institution D, and Institution E leverage external tools to encourage successful incorporation of learning outcomes into curriculum mapping processes.

At Institution E, program leaders use an online curriculum mapping aid, [CuMA](#), developed by their CTL and IT teams. The software catalogues all submitted curriculum maps, providing program leaders with opportunities to use existing curriculum maps, and the learning outcomes included within maps, as models to enhance learning outcomes and maps for their own programs.

⁹ "Curriculum Mapping." Assessing Learning Outcomes. Champlain College. Accessed March 12, 2020. <https://champlain.instructure.com/courses/200147/pages/curriculum-mapping>.

Stakeholder Engagement

Alternatively, at Institution D, CTL staff support the use of digital surveys to guide the implementation of learning outcome-based curriculum maps. Program leaders complete a detailed survey through [SurveyMonkey](#) about the learning outcomes their program covers, and how they use and assess outcomes. A CTL analyst then compiles the answers and completes a curriculum map for the program based upon defined learning outcomes.

Encourage Faculty Ownership Over Learning Outcome Development and Implementation to Drive Learning Outcome Use

Contacts at all profiled institutions cite stakeholder concerns about academic freedom as a primary challenge to learning outcome implementation in non-professional programs. Faculty members at Institution B and Institution E cite feeling restricted by learning outcomes, as they feel that learning outcomes limit their ability to write original curricula and adapt curricula to align with the needs of rapidly changing fields of study.

To drive faculty engagement in program-level learning outcome development and implementation, contacts at all profiled institutions highlight the need to foster feelings of faculty member ownership over learning outcome development and implementation processes. Contacts at Institution D describe that when faculty members feel empowered to direct the development and implementation of learning outcomes, they may feel more responsible for ensuring their effective use.

To assuage faculty member concerns early in the development process, contacts at Institution B, Institution C, and Institution E suggest educating faculty members on the value of learning outcomes.

Administrators at Institution C highlight that faculty members' feelings of constriction could be attributed to a misunderstanding about the value and function of learning outcomes. For example, faculty members may believe that learning outcomes create static parameters for course content, rather than adaptable guidance for defining student success. Contacts at Institution C indicate that administrators can clarify the role of learning outcomes through documents, workshops, and consultations.

Emphasize Professional Development Benefits of Learning Outcome Creation to Further Engage Faculty Members

Administrators at Institution B further engage faculty members by highlighting professional development-related benefits of learning outcome development. As these administrators explain to faculty members, through the learning outcome development process, faculty members may gain additional experience writing outcomes. This, in turn, can make them more successful in other key areas of their professional work (e.g., textbook writing, grant writing).

Additionally, administrators at all profiled institutions highlight the potential to inspire faculty ownership over learning outcomes by encouraging active faculty member participation in learning outcome development and implementation processes. Once faculty members feel that they have control over key processes, it encourages them to invest in and care about process results (i.e., learning outcome use).

Furthermore, when faculty members drive conversations about learning outcomes, the process may feel more personal and relevant. Contacts at Institution A,

Administrators at Institution E encourage co-facilitation of retreats by a member of CTL and a faculty advocate.

Institution C, and Institution E suggest designing development and implementation processes that place faculty members in key decision-making roles. For example, contacts at Institution A and Institution C direct CTL staff to facilitate, rather than lead, conversations with faculty members throughout learning outcome implementation processes.

To achieve a similar level of faculty ownership over implementation processes, administrators at Institution A, Institution B, Institution D, and Institution E often rely on faculty member advocates within individual departments to drive learning outcome implementation among their peers. Other program faculty members often trust and respond more favorably to information provided by a peer, rather than an outsider (e.g., CTL staff).

Assessment

Administrators Struggle to Assess Program-Level Learning Outcomes

Contacts at all profiled institutions find it difficult to assess if program-level learning outcomes truly capture what students learn in the classroom. Often, program leaders develop broad program-level learning outcomes that make it hard to gauge specific student development in these areas.¹⁰ Even with precise program-level learning outcomes for non-professional programs, instructors and program leaders may find it difficult to connect student activity to learning outcomes. For these programs, thinking in terms of learning outcomes could be new and unfamiliar, as opposed to more concretely skills-driven pre-professional programs. Thus, program leaders may find it challenging to create and implement effective assessments while struggling to see less-obvious connections between learning outcomes and classroom activity.

While the external assessment process through Ontario's Quality Assurance Framework benefits institutions in Ontario, this process only occurs once every eight years. Currently, no internal, or more frequent, assessment processes supplement the Quality Assurance Framework at profiled institutions. Thus, no profiled institutions have yet developed comprehensive ways to assess the effectiveness of learning outcomes.

At Institution B, Institution D, and Institution E, program leaders assess learning outcomes through Ontario's Quality Assurance Framework. In this framework, every eight years, programs complete a self-evaluation and receive an evaluation from external reviewers, who assess the use of learning outcomes within the program.¹¹ However, contacts at Institution B, Institution D, and Institution E express that the eight years between assessments necessitate additional assessments that better track program changes over time.

Contacts at Institution B do note their institution's prior participation in a redesign effort funded by their province. The project aimed to assess student development on learning outcomes related to critical thinking, problem-solving, and creative thinking. Evaluators helped instructors redesign rubrics to track this skill-building.¹² While administrators committed to learning outcome assessment through this project, CAR's funding expired, ending this evaluation effort.

¹⁰ "Examples of Learning Outcomes Statements." Student Learning Outcomes Assessment and Accreditation. The University of Rhode Island, June 3, 2013. <https://web.uri.edu/assessment/examples-of-learning-outcomes-statements/>.

¹¹ "Creating an Effective Self-Study for Program Reviews." Ontario Universities Council on Quality Assurance. Accessed March 2, 2020. <https://oucqa.ca/guide/creating-an-effective-self-study-for-program-reviews/>.

¹² Ibid.

Recognize the Potential for Course-Level Learning Outcomes to Inform Program-Level Learning Outcome Assessment

Contacts at Institution E do not see any progress across Canada toward gauging actual effectiveness of learning outcomes in program-specific curricula. While institutions have struggled to determine appropriate assessment of outcomes at the program level, contacts at Institution A, Institution B, Institution C, and Institution E note greater traction with assessment of course-level outcomes. Therefore, since administrators do not yet have effective evaluation methods for program-level learning outcomes, they most often define curricular success based upon students' ability to meet course-level learning outcomes.

Course-level learning outcomes may be easier to assess because instructors can use course-level assessments and projects for evaluation. In contrast, programs often lack program-level assessments and projects.

At Institution E, contacts detail efforts to assess course-level outcomes through in-classroom assessments and projects. Each in-classroom assessment may test a single outcome or multiple outcomes at once. Through these assessments, instructors track and determine if, or to what extent, students meet course-level outcomes.

Since course-level learning outcomes should align with larger program-level learning outcomes, course-level evaluations can provide preliminary insights into students' ability to meet program-level learning outcomes. Program leaders could potentially aggregate course-level assessment tracking across a program to begin evaluating the effectiveness of broader program-level outcomes.

4) Research Methodology

Project Challenge	Leadership at the partner institution approached the Forum with the following questions: • How do administrators at contact institutions develop learning outcomes for non-professional programs? • Who is responsible for the development of learning outcomes for non-professional programs at contact institutions? • How do administrators at contact institutions use learning outcomes as part of the broader curriculum development process for non-professional programs? • If a part of the curriculum development process, what do administrators at contact institutions see as the added value of using learning outcomes within the curriculum development process? • If a part of the curriculum development process, what do administrators at contact institutions cite as added challenges of using learning outcomes within the curriculum development process? • What process do administrators at contact institutions use to implement new learning outcomes for non-professional programs? • How do administrators at contact institutions engage stakeholders in the use of learning outcomes for non-professional programs? • How do administrators at contact institutions increase stakeholder awareness of learning outcomes for non-professional programs? • What do administrators at contact institutions see as the main challenges associated with the implementation of learning outcomes for non-professional programs? • How do stakeholders at contact institutions address challenges associated with the implementation of learning outcomes for non-professional programs? • How do administrators at contact institutions use learning outcomes within curriculum mapping processes? • How do administrators at contact institutions use defined learning outcomes to assess the effectiveness of program-specific curricula for non-professional programs? • How does the use of learning outcomes benefit ongoing curriculum analysis and curriculum mapping processes at contact institutions? • How does the use of learning outcomes present challenges for ongoing curriculum analysis and curriculum mapping processes at contact institutions and how do administrators navigate these challenges? • How do administrators at contact institutions define effectiveness of learning outcomes for non-professional programs? • How do administrators at contact institutions track progress toward these measures of effectiveness for learning outcomes in non-professional programs? • How do administrators at contact institutions revise existing learning outcomes in non-professional programs?
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Project Sources	• EAB's internal and online research libraries (eab.com) • Institutional Websites
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- Provincial Websites
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Research Parameters

The Forum interviewed administrators in Centres for Teaching and Learning at large research institutions in Canada.

A Guide to Institutions Profiled in this Brief

Institution	Location	Approximate Enrollment
Institution A	Quebec	40,200
Institution B	Ontario	25,300
Institution C	Manitoba	29,800
Institution D	Ontario	43,200
Institution E	Ontario	16,500