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The Intersection of Student Assessment and Faculty Learning

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Abstract: The primary aim of institutional learning outcomes assessment is the creation of a culture of assessment where faculty use evidence-based data to validate and improve teaching and learning for the benefit of students. Faculty are key to these processes and yet, they are often woefully disengaged from them. This paper presents findings from an action research project that utilized a collaborative self-study approach to engage faculty in the strategic assessment of institutional learning (SAIL). SAIL is an immersive professional development opportunity that bridged quality assurance with meaningful improvements in the classroom. Findings indicated that cross-disciplinary dialogue about assessment increased faculty awareness of the (mis)alignment between course, program, and institutional learning aims while also identifying and informing potential gaps in curriculum and program design. SAIL is an excellent mechanism to engage faculty in an immersive assessment of student achievement that may then lead to meaningful improvement in teaching and learning.

Keywords: *assessment, institutional learning outcomes, higher education, collaborative self-study, community of practice, faculty engagement*

Introduction

Research suggests that faculty do not want to engage in institutional-level assessment of student achievement as it is far removed from what takes place in the classroom (Canner et al., 2020; Emil & Cress, 2014; Hutchings, 2010). And yet, the primary aim of institutional learning outcomes assessment is the continuous improvement of teaching and learning. Faculty resistance is often attributed to mistrust of the process, general wariness towards new initiatives, and previous experiences of false starts and unfinished projects (Beauchman & Waldenberger, 2017). Further, assessment practices driven by accountability requirements often lead to faculty skepticism and resentment due to a perceived reductionist approach that undervalues faculty work (Colson et al., 2017).

Faculty are overworked and disengaged in institutional assessment processes. Yet, they are pivotal to the establishment and success of these processes aimed at enhancing student learning while also meeting internal and external accountability requirements. Weiner (2009) underscored the necessity of engaging faculty in all stages of assessment, asserting that without faculty ownership, the process is likely to fail. Ebersole (2009) advocated for a culture of assessment by actively involving faculty in setting outcome objectives, utilizing data for decision-making, and communicating results. A culture of assessment is an environment of trust between administrators and faculty that promotes faculty-led assessment of student learning and the use of assessment data to improve practices in the classroom in an ongoing and continuous quality improvement feedback loop (Verzinski et al., 2019). This culture needs to fit the unique environment of a given institution, and it needs to be a faculty-driven assessment if it is to be effective (Banta et al., 2009). A coordinated approach that balances faculty autonomy with institutional support could be the antidote to limitations associated with decentralized approaches to assessment where the overall understanding of assessment and links to program improvement remain limited among faculty and administrators (Lindauer & Coward, 2021).

The primary aim of institutional learning outcomes assessment is creating a conducive assessment environment for faculty to utilize evidence-based data to validate and improve curriculum and educational environments that increase student learning outcomes (Shapiro, 2021). An improvement orientation to assessment calls for the use of authentic assessment methods where students are motivated to do their best work, and faculty are engaged “in substantive conversations about teaching and learning and provid[ed] actionable data for continuous improvement” (Dickson & Trembl, 2019, p. 5).

The literature offers some solutions for engaging faculty meaningfully in institutional learning outcomes assessment; for example, assessment structures that facilitate trust and collaboration between faculty and administration can nurture a culture of assessment (Fisher et al, 2023; Verzinski et al., 2019). Involving faculty and university staff in the creation of assessment measures aligned with course learning outcomes can support the achievement of a quality culture (Martin & Mahat, 2017). Recent research on faculty communities of practice demonstrated that faculty were inspired by one another’s assessment practices, and the process of collaborative self-study and reflection offered a rare opportunity to learn across disciplines (Hoessler et al., 2023).

Assessment practices that foster dialogue between faculty and build community can help produce usable results for program improvement (Canner et al., 2020). Beauchman and Waldenberger’s (2017) approach to learning outcomes assessment intentionally embedded opportunities to facilitate discussions within committees and departments. Furthermore, Canner et al. (2020) suggested that providing faculty with professional development on research-informed approaches to learning outcomes assessment and implicit bias training, and using course embedded assignments could enhance faculty engagement in institutional learning outcomes assessment. Notably, creating a culture of assessment takes time. At one institution in the United States of America, the process took almost two decades to develop and improve structures, procedures, and uses of assessment and the researchers noted the process is still ongoing (Dickson & Trembl, 2019). Institutions aiming to develop an assessment culture and institution-wide plan for curricular review should be cautious of moving too

quickly. To quote Laozi (1972): "Nature does not hurry, yet everything is accomplished". This is a gentle reminder that cultural change, like natural processes, tends to unfold over extended periods; despite this gradual pace, significant transformations can occur.

Assessing Student Achievement of Institutional Learning Outcomes

Institutional learning outcomes are differently defined across the educational landscape, and there is a pressing need for a common language to ensure that institutions can benefit from each other's approaches to the assessment of student learning (MacFarlane & Brumwell, 2016). Institutional learning outcomes are also known as core curriculum, graduate attributes, general education, or essential education. Underlying all of these conceptualizations is the assumption that a core set of knowledge and skills is fundamental for university graduates to "earn a good living and live a good life" (O'Banion, 2016, p. 333).

One of the first comprehensive assessments of institutional learning outcomes took place in the late 1920s in the United States (Penn, 2011); however, concerted attention to assessment did not occur in North America until the mid-1980s (Pham & Nguyen, 2021). Since that time, postsecondary institutions across the globe have seen increasing demands from external regulators for accountability and transparency. Yet, some studies have shown that assessment has largely focused on the disciplinary level, and often subject-level outcomes do not align substantially with course or institutional level outcomes (Martin & Mahat, 2017).

A broad consensus in the literature suggests that one needs to understand the meaning of assessment before selecting appropriate methods. Scholars have argued that learning outcomes assessment is one of the most important practices for ensuring that students are acquiring the skills and attributes of a course or program (Alyasin et al., 2023). Learning outcomes assessment can support future institutional success and strategic priorities (Bruce, 2018; Verzinski et al., 2019) by "creating a roadmap for the academic direction of the institution" (Bruce, 2018, p. 74). Furthermore, assessment practices can facilitate course alignment in the context of program goals (Pham & Nguyen, 2021).

There is no consensus or commonly defined regulatory practice that sets out a timeframe for a cycle of assessment nor ideal assessment measure. Scholars offer a range of assessment cycles from two to seven-years (Alyasin et al., 2023; Bruce, 2018; Fisher et al., 2023; Pham & Nguyen, 2021). Al-Lail and Oudghiri (2016) recommended that institutions triangulate multiple assessment measures of student achievement, including direct (e.g., rubric-based course-embedded assessments) and indirect measures (e.g., perceptions-based employer and student surveys, institutional reputation surveys). Indirect measures are the dominant form of assessment employed by most postsecondary institutions in North America (MacFarlane & Brumwell, 2016).

There appears to be no consensus as to who should be responsible for institutional learning outcomes assessment. Some scholars have reported practices where department chairs are designated, or academic directors are elected to engage in third-party assessment of students' assignments (Bruce, 2018). Alternatively, research has shown that a faculty-driven approach which recognizes faculty expertise and centrality in student learning is key to institutional learning outcomes assessment

(Canner et al., 2020; Curcio, 2018; Verzinski et al., 2019). An important, and at times overlooked aspect within the literature, is the role of students in the assessment of institutional learning outcomes.

About This Study: Strategic Assessment of Institutional Learning

This paper presents findings from the Strategic Assessment of Institutional Learning (SAIL): a cyclical action research project that relied on the direct cross-disciplinary assessment of student artifacts using faculty co-created rubrics to measure achievement of institutional learning outcomes at the baccalaureate degree level (Hoessler et al., 2023). The study was undertaken at a medium-sized regional university in Western Canada that offers a diverse range of programming, spanning vocational trades training to graduate degrees. The university places a strong emphasis on providing students with both breadth and depth of knowledge through highly flexible learning pathways. It is one of a handful of research universities in Canada with an explicit open access mandate.

Utilizing a multi-methods design, SAIL considered quantitative assessor ratings alongside more nuanced qualitative assessor descriptions of student achievement of institutional learning outcomes. Drawing from the diverse perspectives of a wide range of disciplines, SAIL engaged faculty reflexively in the co-development of institutional rubrics and the assessment of student artifacts to develop an understanding of student learning that was then applied to ongoing course and program level improvements (Hoessler, et al., 2023).

SAIL was designed to inform the creation of a university-wide, ongoing process for assessment of institutional learning with the potential to promote continuous quality improvement in curriculum design. SAIL was driven by faculty members' desire to further their students' learning and an institutional aspiration to engage faculty and students in ongoing formative assessment.

Faculty are continually called upon to collect, reflect on, and act as appropriate on meaningful data regarding student learning and student achievement of core competencies. SAIL provides one potential method for quality assurance that leverages the scholarship of teaching and learning (SoTL). As Openo et al. (2017) posited, "SoTL may enable a shift from thinking of quality as something imposed from outside towards something that emerges from within" (p. 4). SAIL investigated methods for assessment of student learning grounded in ethical SoTL research guidelines to help faculty (and institutions) better adapt to the current and changing needs of learners, while honoring disciplinary diversity and faculty autonomy over teaching and learning. In addition to its central purpose, SAIL created opportunities for faculty to engage in evidence-based, ongoing critical reflection of assessment methods leading to improvements in teaching and learning. The initiative was faculty-driven, and adopted a learner mindset and a community of practice approach that offered faculty the opportunity to engage in professional development and to share best practices.

Communities of practice are grounded in an approach that prioritizes co-creation of knowledge through the development of agency, authenticity, community, and trust (Wenger et al., 2002). A learner mindset involves the belief that through intentional engagement with novel experiences, one will grow and develop. Adopting this mindset and an interdisciplinary community of practice approach

have proven instrumental in capturing faculty interest and commitment to engage in the action research process.

SAIL has completed three action research cycles, the first two of which are described in *Faculty in Action: Researching a Community of Practice Approach to Institutional Learning Outcomes Assessment* (Hoessler et al., 2023). The project received the university's Research Ethics Board approval in February 2021 (file 102637). Ethics approval was renewed, and research questions were amended slightly to fit the developing purpose of each iteration of SAIL. Each cycle of SAIL involved a plan-act-evaluate-reflect cycle involving eight steps: 1) planning, preparation, and recruitment of faculty co-investigators; 2) development or refinement of shared institutional rubrics; 3) identification of student assignments and student consent; 4) assessor training; 5) assessment of student assignments; 6) collaborative debrief; 7) findings and recommendations; and 8) course and program redesign deliberations. This paper documents some of the results from the third action research cycle, which attempted to address the limitations of earlier cycles. Specifically, modifications were aimed at improving inter-rater reliability between assessors with frequent checks and consensus-building opportunities, reducing co-investigators' time commitment by collapsing several steps into a two-day Assessment Institute, and selecting more appropriate evidence of student learning where students had the opportunity to demonstrate the institutional learning outcomes in capstone courses (as opposed to first, second, or third-year courses where students are still developing competency).

SAIL 3.0: Capstone

SAIL 3.0 brought together faculty from four distinct disciplines: education, natural resource science, social work, and tourism management to investigate student achievement of critical thinking and communication skills in capstone courses. Capstone courses are locally defined as "a culminating course in a program ... [that] consolidates prior academic experience as the student synthesizes, integrates, demonstrates, and expands upon knowledge developed at Thompson Rivers University within their program of study" (Thompson Rivers University, 2020). For a course to qualify as a capstone course, it must demonstrate the integration of both program and institutional learning outcomes. Capstone courses must also be taken in the final 30 credits of degree completion, making them an ideal course to measure student achievement. An open call for faculty to participate as co-researchers in a SoTL project was distributed to each academic division; additionally, faculty teaching courses designated as meeting the university's capstone criteria were contacted directly via email and invited to attend an information session about the project. Owing to the recent introduction of capstone courses at the university and to the time commitments involved in the SAIL process, only four faculty opted into the third cycle of SAIL.

SAIL 3.0 again adopted a multi-methods design through the application of institutional rubrics to course-embedded capstone assignments. The use of these assignments to assess student achievement of institutional learning outcomes is consistent with best practices (Drezek McConnell et al., 2019). It additionally offers a promising approach to improve the practice of teaching and learning. Ingleton and Fricker (2021) argued that "rubric-scored, curriculum-embedded assessment promotes active reflection on skills assessment at every level of the curriculum" (p. 14). Ample opportunity for this reflection was provided through the frequent checks and consensus-building opportunities that were

implemented in SAIL 3.0 in an attempt to increase inter-rater reliability. A two-day assessment institute approach was also trialed in this third iteration to reduce faculty time commitment by condensing several steps over several days and weeks into two full days. The structure of SAIL 3.0 is detailed in Table 1.

Table 1. Third SAIL Pilot Structure

Component	Description
Unit of analysis	Fourth-year capstone courses delivered in Winter 2023 semester
Participants	Fourth year capstone students in a science program and a professional program. The research followed an opt-out consent protocol by placing the consent notice in the course syllabus.
Data	Final capstone research paper 20 randomly selected assignments (10 science students; 10 professional program students)
Planning cycle steps and timeline	1. Fall 2022: planning, preparation, and recruitment of faculty co-investigators. 2. Winter 2023: training, development, and refinement of shared institutional rubrics. 3. Winter 2023: identification of student assignments and student consent. 4. Fall 2023: Two-day Assessment Institute: a) assessor training – Day 1; b) assessment of student assignments – Day 1; c) collaborative debrief – Day 1 and 2, d) findings and recommendations – Day 2; and, e) course and program redesign deliberations – Day 2.
Institutional Learning Outcomes assessed	Communication Critical Thinking and Investigation
Assessors	Two faculty peers assess each student assignment, compare results, deliberate, negotiate findings, and come to consensus on ratings.

Methodology

The purpose of SAIL was to inform a broader development of an ongoing university-wide process for assessment of institutional learning outcomes that leads to improvement in curriculum design. Three overarching questions guided the collaborative inquiry:

1. What is the efficacy of institutional rubrics for assessing and demonstrating the degree of student achievement of institutional learning outcomes in fourth-year capstone courses?
2. To what degree can the assessment results be used to inform learning support planning and practices to continuously improve student learning outcomes?

3. What level of student achievement of an institutional learning outcome is apparent in course-embedded capstone assignments?

This paper presents findings related to the first two research questions. A more detailed analysis in response to the third research question appears in a forthcoming paper (Hoare et al., 2024). To briefly summarize those results, findings suggested that fourth year baccalaureate degree students were approaching or meeting expectations for both the communication and critical thinking institutional learning outcomes; however, attention needs to be given to developing students' ability to explore and critique multiple perspectives on a particular topic.

Collaborative Self-Study

The researchers' approach to the study of institutional learning outcomes assessment emerged at the intersection of self-study and collaborative inquiry methodologies. Collaborative self-study (Whitehead, 1993) is a qualitative methodology commonly used in educational research where a team of researchers engage in a shared process of self-exploration, reflection, and learning. Self-study research has been described as "a mode of scholarly inquiry in which teachers examine their beliefs and actions within the context of their work as educators and explore pedagogical questions" (Louie et al., 2016, p. 150). The methodology combines elements of self-study research, collaborative inquiry, and individual reflection, which fits well with SAIL's community of practice and action research approach.

During the year-long study, the four co-investigators worked together, sharing their experience with the process, their perspectives on its utility and effectiveness, and insights on the practice of learning outcomes assessment, assignment design, and evidence of students' communication and critical thinking skills (see Table 1). The self-study process encouraged the researchers to examine their assumptions, disciplinary biases, and personal growth throughout the duration of the research, which was fundamental to the SAIL approach, where faculty development was prioritized. Self-study data were drawn from group meeting notes, focus group debrief notes, individual and collaborative reflections on these notes, and collaborative writing of two manuscripts.

Like action research, collaborative self-study is an iterative process, involving ongoing refinement of methods and interpretation of the data. The collaborative nature of the research allowed for the integration of multiple disciplinary perspectives, thereby enriching the depth and breadth of the study. The co-investigators assert that their subjectivity was an analytic resource (Braun & Clarke, 2006). Using collaborative self-study empowered the researchers with a sense of agency and ownership over the research process, which led to a deeper understanding of the subject matter and personal development; they saw this as a necessary approach to address faculty concerns over agency, autonomy, and collegial governance which are often in conflict with quality assurance processes (Openo et al., 2017). Finally, collaborative self-study allowed the co-investigators to contextualize the findings by reflecting on the nuances and complexities of learning outcomes assessment within the context of their institution, the programs under study, the capstone courses, the capstone assignments, and individual students' situations.

Multi-Methods Design

Assessment of student learning occurred during a two-day Assessment Institute (see Table 1). Prior to the Assessment Institute, the co-investigators worked collaboratively to create a transdisciplinary rubric (rating sheet) to assess student achievement of the university-defined communication institutional learning outcome (ILO). They additionally reviewed the rubric created in SAIL 1.0 to assess the critical thinking ILO and adopted it for use in SAIL 3.0. The rubrics did not focus on student achievement in the program or course learning outcomes. Each rubric consisted of six foci associated with an institutional learning outcome (note: rubrics are available upon request) as well as a 4-point scale (1-beginning, 2-approaching, 3-meeting, 4-exceeding) to assess student achievement of the foci. The rubrics additionally had space for the assessors to identify both an area of strength and an area for growth related to each criterion (e.g., “diversity of sources referenced, quality and currency of sources could be improved”). During the institute, the co-investigators divided into pairs to conduct their assessment of students’ capstone assignments. Capstone research papers ranged in length from 17 to 25 pages and followed a typical research paper structure, including description of a topic or problem and research questions, literature review, research methods, results, discussion, recommendations, and references. The first pair assessed 10 randomly selected capstone assignments from fourth-year students in a professional baccalaureate degree program. The second pair assessed 10 randomly selected capstone assignments from fourth-year students in a science baccalaureate degree program. Assignment samples were drawn from all capstone courses within the professional and science degree programs. Faculty did not review their own course assignments as faculty co-researchers were assigned to the pair assessing assignments from their peer’s capstone course.

An important aspect of the process was the incorporation of multiple mechanisms for confirming inter-rater reliability between raters within each pair to ensure consistency between raters’ scores of student performance on communication and critical thinking skills. This process was accomplished through the co-design and collaborative review of the data analysis tools as well as through assessor training to ensure that each rater had a clear understanding of the criteria for assessment. Regular check-ins were also built into the process with each assessor in a pair independently evaluating the data and then connecting with their co-assessor to compare results, negotiate and deliberate, and come to consensus on the quantitative ratings. Table 2 details the first day of the Assessment Institute, which followed a prescribed schedule designed to increase inter-rater reliability among teams of assessors.

Assessors separately rated student assignments, then conducted frequent reliability comparisons with their peer assessor at intervals of one, two, and three assessments. Pairs of assessors discussed any discrepancies in ratings, calibrated responses, and updated their rating sheets, as appropriate. Collaborative coding is common in qualitative research (Braun & Clarke, 2006; Nowell et al., 2017) and provides significant opportunities for reflecting on one’s own assessment practice. While educational researchers often advocate for collaborative coding, frequent individual coding and subsequent negotiation, calibration, and consensus-building can prevent potential dominant voice or drift (Hoare et al., 2024). Peer assessors sought to achieve a Cohen’s Kappa index of agreement of 0.8. Reviewing by Kappa can contribute to collective sense-making as discrepancies and misalignment between assessors informed the conversations; for example, peer assessors exploring student achievement of

critical thinking in the professional program achieved a Cohen’s Kappa of approximately 0.876, which indicated a high degree of agreement between raters (Coleman et al, 2024). Slight adjustments were needed to bring ratings into consensus, and this occurred through faculty sharing their rationale for each rating when there was divergence. This communicative process additionally acted as professional development for faculty as they discussed complex concepts across disciplines.

Table 2 Day 1: Assessment Institute

Activity	Description
Assessor training	Assessor training incorporated one student assignment from each program and involved three assessors from outside the discipline and one assessor from within the discipline.
Assessment of student artifacts	Assessment of the nine remaining student assignments in two-person teams with assessors from outside the discipline following a prescribed schedule of individual and team assessment: • Individual assessment of one student assignment • Reliability check in pairs • Individual assessment two assignments • Reliability check • Individual assessment three assignments • Reliability check • Individual assessment three assignments • Reliability check

Note that the first student assignment for both the professional and science programs was incorporated into the assessor training, so raters had an opportunity to calibrate amongst the four co-investigators before breaking off into pairs.

Day 2: Assessment Institute

Activity	Description
Creation of Assessor Reports	Each individual assessor prepared a summary report of their quantitative ratings (averages and number of students “meeting” or “exceeding” expectations) for each category and summarized the qualitative descriptions for each category.
Collaborative Debrief and Course Redesign Deliberations	The co-investigators debriefed their reports in pairs, before overall results were discussed as a group. Findings were contextualized as the group discussed potential course and program revisions. The SAIL process was then debriefed utilizing a semi-structured focus group protocol guided by pre-determined open-ended questions (Appendix A) that linked to the overarching research questions.

Once the pairs completed their assessment of student outcomes, they prepared summary reports of the quantitative ratings (averages and number of students “meeting” or “exceeding” expectations) for

each category and summarized the qualitative descriptions for each category. The co-investigators then debriefed the results as a group to contextualize the findings and discuss potential course and program revisions. Finally, the researchers debriefed the SAIL process in its entirety, following a semi-structured focus group protocol guided by pre-determined open-ended questions (Appendix A) that linked to the overarching research questions. This acted as the primary and culminating dataset for the collaborative self-study. Below, is a reflective narrative on the themes that surfaced during that focus group.

Results

Several interesting themes emerged from the co-investigators' shared process of self-exploration, reflection, and application to learning. As the process was debriefed collaboratively, all four faculty spoke about the themes organized into the following three categories:

1. Efficacy of institutional rubrics for assessing and demonstrating the degree of student achievement of institutional learning outcomes in capstone courses.
2. Utility of the process for informing curriculum and learning planning and practice to continuously improve student learning.
3. Fundamental involvement of faculty to ensure a connection between assessment of student achievement and improvement of teaching and learning practices within the classroom.

Theme 1: Efficacy of Institutional Rubrics for Assessment

Results of the collaborative self-study indicated that in course design and delivery, course learning outcomes will always trump institutional learning outcomes signifying a need for early alignment between the two aims. This was mentioned during the collaborative debrief on the second day of the Assessment Institute:

ILOs are secondary to course outcomes. They are not the focus of instruction and course design. Some faculty aren't aware that a course is designated as meeting an ILO. It's happenstance more than intentional meeting of ILOs. (Discussion note, 2024)

In SAIL 3.0, one institutional rubric was created to assess communication skills, and one pre-existing rubric designed in SAIL 1.0 by a different group of faculty was used to assess critical thinking. In congruence with the findings of SAIL 2.0 (Hoessler et al., 2023), the co-investigators found it more difficult to interpret and apply the pre-existing rubric to already existing assignments. They also experienced difficulties applying both the pre-existing and the collaboratively generated rubrics to disciplines they were not familiar with (e.g., a historian assessing a chemist and vice versa). The institutional learning outcomes were generally perceived as applicable across disciplines; however, some of the knowledge areas (foci) defined within the overarching outcome were found to be discipline specific. Results indicated that different disciplines interpreted the values inherent in a specific institutional learning outcome differently, and some foci noted within the rubrics were not considered relevant within different disciplines. Faculty discussed the value of the rubrics during the collaborative debrief on the second day of the Assessment Institute:

The rubrics provide valuable general guidelines to follow to ensure some consistency across departments; however, ILOs are secondary to course learning outcomes; not the focus of instruction and course design. (Discussion note, 2024)

However, the researchers felt the institutional rubrics were effective at providing a general guideline to follow in order to ensure consistency in assessing student achievement of institutional level learning across disciplines.

Findings additionally indicated that some of the levels of achievement required to meet the different foci within the rubrics (available upon request) were too advanced for baccalaureate level students and were perhaps more suited to students at the graduate or post-graduate level. For example: requirements that students make novel discoveries or apply knowledge in ways that solve broader disciplinary dilemmas. This observation was noted during the collaborative debrief on the second day of the Assessment Institute that:

The level of the rubric was too advanced for baccalaureate students, and for many of the categories...Some categories had wording in which the general area was appropriate but the criteria for meeting is discipline-specific, for example: critical reflection and positionality. There were challenges with not being a subject-matter expert in assessing student work. (Discussion note, 2024)

The rubrics were also identified as being too convoluted to share with students and too focused on the institutional learning outcome to adopt for course-level assessment. The researchers concluded that institutional learning outcomes should be integrated into course learning outcomes and not the other way around.

Findings of this study supported the use of the rubrics to assess student achievement of institutional-level learning. The co-investigators found the rubrics to be purposeful and holistic in design, and they appreciated the cross-disciplinary reflection and discussion involved in creating or adopting them. The rubrics facilitated revisiting expectations around student achievement and connection to institutional requirements. They also served as an important reminder to consider how assessment aligns (or not) with course learning, program learning, and institutional-level learning. The rubrics were a useful tool to identify and inform potential gaps in curriculum and program design. This reflection was noted during the Assessment Institute:

The opportunity to go back to see what students are required to achieve and whether they align with the ILOs is a good reminder to think about how assessments align with course learning outcomes, and how assessments align with institutional learning outcomes. (Discussion note, 2024)

However, the researchers noted that the rubrics are only effective within the context of specific types of capstone courses (research and essay based) and would not work within the context of practice-

based programs that assess overall student achievement in an experiential practicum-based setting (e.g., social work or nursing).

Theme 2: Utility of the Process

Even though SAIL 3.0 was redesigned and condensed into a two-day Assessment Institute, it remained challenging given the length of assignments in the capstone courses, the workload capacity of the co-investigators, and other constraints. The project was targeted to be completed in August and instead wrapped up four months later. Even with amendments to reduce time commitment and adopt an Assessment Institute model, results indicated that the process is time-consuming suggesting that it is better fit for immersive professional development as opposed to broadly scalable and adopted for reporting purposes. Despite the time commitment, faculty co-researchers agreed that it offered (for better or worse) a “Forced commitment to intentional assessment” and allowed for “Learning something you wouldn’t otherwise learn.”

The researchers found that the SAIL process was well spent. It provided opportunities to connect and reflect on the institutional learning requirements and their relationship to course and program delivery and design. Peer assessors noted that “Continuous debriefing within each pod facilitated generative discussions between peer raters” and “Frequent member checking was an asset” (Discussion notes, 2024). Without this intentional reflection, the co-investigators noted that institutional learning outcomes may be met in only a happenstance way without planning and intent. They observed that some faculty are not aware that their course is designated as meeting an institutional learning outcome, and therefore, they are not assessing student achievement of it.

SAIL supported faculty reflection on program alignment and course congruency with overall program goals. SAIL also allowed for identifying potential gaps in program and institutional-level learning outcomes. The co-investigators noted that the realization of gaps and areas to improve comes through dialogue over the results of student achievement and would not be achieved through quality assurance reporting of student achievement alone. Faculty co-researchers commented that they all intended to “bring findings back to department meeting and/or retreat, curriculum committee, other faculty who teach the capstone course and debrief the SAIL findings” (Discussion note, 2024) to support program alignment.

While the SAIL process itself was highly valued, the researchers cautioned against attempting to use it for high stakes reporting or accountability at the institutional level as that would comprise its efficacy and lead to faculty distrust and disengagement. In terms of ongoing cyclical improvement, researchers were concerned about the misuse of quantitative data as a summative evaluation of student achievement. During the collaborative debrief, faculty co-researchers passionately noted that:

The process is great for self-reflection, but not for accountability, similar to student course evaluations, the data should not be used for high stakes accountability reporting. It is not feasible as an institutional assessment process broadscale. It is more professional- and program-oriented, more iterative and generative. It could be a tool that a program could adopt to engage in program improvement and review. (Discussion note, 2024)

Instead, they found SAIL valuable for ongoing course and program improvement if it remains faculty led, collaborative, and focused on professional development rather than summative evaluation.

Theme 3: Meaningful Assessment Practices Necessitate Faculty Engagement

Overall, findings suggested that SAIL is an excellent mechanism to engage faculty in an immersive assessment of student achievement of institutional learning outcomes and the use of such assessment can inform course and program redesign. There is great value in the SAIL process for professional development and improvement in teaching and learning, and this value is realized through dialogue. The researchers underscored the importance of interdisciplinary collaboration and discussion of assessment and its implications for future teaching and learning practices. During the collaborative debrief on the second day of the Assessment Institute, faculty co-researchers commented “The process and the interdisciplinary collaboration developed connections across disciplines; we need more of this” (Discussion note, 2024). They found SAIL to be growth and learning-oriented, particularly in terms of faculty development, and they noted that they “Didn’t feel like it was an assessment of faculty or that they were being judged by their colleagues; it was not intimidating” (Discussion note, 2024).

The faculty who joined as co-investigators were lured to participate despite the heavy time commitment as SAIL promised significant and valuable professional development and afforded them the opportunity to engage in the scholarship of teaching and learning. The researchers observed that they created a culture of assessment and program improvement through engagement and dialogue about the transdisciplinary meanings and qualities of institutional learning outcomes. They explained: “The process and discussion, the collaborative self-study is the most valuable” (Discussion note, 2024). They further noted that a culture of assessment was built on trust and a desire to understand and improve student learning. Maintaining a focus on course and program improvement through this collaborative self-study approach was key to ensuring the co-investigators did not feel they were being judged or assessed by their colleagues. Ensuring groups of assessors remained relatively small and being transparent that SAIL is not a critique of teaching was also considered key to the success of the process.

Researchers additionally felt increased consultation with students would further benefit the process. Finally, the co-investigators found SAIL to be a reflexive approach to learning that compelled faculty to engage and explore intentional assessment while learning from one another in an interdisciplinary environment.

A detailed analysis of the level of student achievement of the communication and critical thinking institutional learning outcomes (ILOs) appears in a forthcoming paper (Hoare et al., 2024). To briefly summarize, findings suggested that fourth-year baccalaureate degree students were approaching or meeting expectations for both ILOs; however, attention needs to be given to developing students’ ability to explore and critique multiple perspectives on a particular issue or topic.

Discussion

Research demonstrates the vital role of faculty in both the assessment of student achievement of institutional learning outcomes and the use of assessment data to inform curricula and program development as well as improvements in teaching and learning practices (Ebersole, 2009; Lindauer & Coward, 2021; Weiner, 2009). SAIL 3.0 underscored the vital role faculty play in ensuring the assessment of student achievement of learning outcomes is accurate, contextualized, meaningful, and actionable. Without faculty involvement, an insurmountable divide remains between quality assurance (QA) processes and quality improvement processes that enhance teaching and learning and improve student outcomes. As Openo et al. (2017) noted “a QA report is not the end result of an assurance process. It is the beginning of a change process that is intended to lead to improvement in the student learning experience” (p. i). Faculty must be involved for change to be realized at the course and program delivery level.

SAIL’s co-investigators noted that without the ability to reflect and dialogue with one another about their course’s connection to institutional learning outcomes, these outcomes would be met only by chance, without planning or intent, and without any assessment of their achievement. Additionally, the researchers acknowledged that without faculty involvement, the data would be meaningless and would not be used to inform ongoing curricular and program improvements. For example, in all three iterations of SAIL, faculty took feedback from the process back to the classroom, and with inspiration and knowledge of what was happening in other classrooms, they adjusted assessments and classroom-level rubrics to better meet student learning needs (Hoessler et al, 2023). This finding underscores that assessment of student achievement of institutional learning cannot occur externally, and that for it to have efficacy, faculty must be involved.

Research also demonstrates that faculty are resistant to engage in the assessment of student achievement of outcomes beyond the confines of their own course (Beauchman & Waldenberger, 2017; Canner et al.; 2020; Colson et al., 2017) and that they require incentives to do so (Openo et al., 2017). SAIL provided one such incentive by bridging quality assurance with the scholarship of teaching and learning (SoTL). Faculty who participated in SAIL shared that they were motivated by the opportunity to engage in SoTL and develop their teaching and assessment skills in a trusting, collaborative, self-study environment geared towards professional development rather than external reporting requirements. This finding was the case in SAIL 3.0 and also in the two earlier iterations of SAIL (Hoessler et al, 2023).

The professional development aspect of SAIL, its ability to improve course design and delivery, and the opportunity to engage across disciplines were noted as primary incentives by faculty in all three iterations. Keeping SAIL within the realm of faculty professional development facilitated its use within existing governance structures to inform program improvement, while moving outside this realm into accountability would be outside of those parameters and would lead faculty to disengage.

The co-investigators discovered some difficulties in applying standardized institutional learning outcome rubrics to existing courses and assessments that were not designed with institutional learning outcomes in mind. They observed that rather than forcing course learning outcomes to match with

institutional ones, adapting institutional learning outcome rubrics to meet the requirements of the discipline and course was more effective. This observation contradicts best practices associated with curriculum design, which typically follow a backwards mapping process requiring educators to work backwards from the overarching program objectives down to the course-level objectives when designing or revising educational programs. It has been argued that this method creates a set of connected outcomes known as a pathway for change (Kolomitrio, 2017). However, this creates problems when institutional learning outcomes and general education programming are introduced outside the regular curriculum development/mapping process and layered on top of existing programs and courses. Therefore, the researchers recommend embedding institutional learning outcomes into course and program (re)design moving forward, allowing for a more integrative approach to program design. This approach would facilitate the incorporation of elements of the ILOs into program and course learning outcomes, creating natural alignment between all three.

Additionally, the researchers experienced difficulties with rubrics that required the assessment of skills, such as making a novel contribution to one's discipline, not expected at the baccalaureate degree level of specific disciplines. The rubrics tended to privilege a single worldview by requiring students to demonstrate achievement in only written artifacts. For these reasons, the co-investigators caution that, in some cases, it may be inequitable to assess student achievement using standardized institutional rubrics without first discussing and adapting the rubric to fit the discipline and context. They recommend adapting rubrics prior to applying them to specific courses/program areas and experimenting with different rubrics to assess other types of assignments to better meet the needs of practice-based programs.

While SAIL places a significant demand upon faculty time, the co-researchers found it to be time well spent. Even with amendments to reduce time commitment and adopt an assessment institute model, results indicated that the process is best suited to the deep dive that occurs during a cyclical program review. This approach would support the generative and iterative nature of SAIL and solidify it as a program development process rather than a broad institutional quality assurance assessment. The co-investigators imagined this occurring both within and across departments in a process facilitated by an educational developer who was dedicated to the project. To succeed, the co-researchers suggested the process would require institutional funding to support the project lead and fund project events. They also suggested further incentivizing faculty and departmental participation by running SAIL as a course or micro-credential with a certificate of completion or professional development credits.

Limitations and Future Study

The collaborative self-study approach resulted in engaged faculty and improved teaching and learning; however, findings should be considered with caution given several limitations. SAIL 3.0 involved only a small group of four faculty and assessed student achievement in only two disciplines. Student assessments were reviewed, though students were not a part of designing assessment instruments or procedures. The process was immersive and demanded a considerable amount of faculty time, as well as project support from a quality assurance practitioner. There were limitations in applying a standardized rubric to diverse disciplinary capstone courses and courses created prior to the existence of institutional learning outcomes. Faculty did not start with a unified understanding of an institutional

learning outcome nor an appreciation for why student achievement of it should be assessed. Finally, the standardized rubrics would not be effective for assessing practicum-based capstone courses.

Future studies should seek to develop a common language of institutional learning outcomes to increase faculty and student knowledge of the importance of core competencies and the need to assess them. The assessment of capstone courses should be expanded to different disciplines, particularly those offering a practicum or experiential-based capstone course. In addition, we recommend that students be involved in the design and delivery of future SAIL projects. Finally, there is a need for researchers to systematically investigate the efficacy of embedding institutional learning outcomes assessment into a cyclical program review, as it was first proposed by Bresciani Ludvik (2019) but not yet studied.

Conclusion

This collaborative self-study sought to explore the efficacy of SAIL as a process to bridge the assessment of student achievement with course and program-level development to improve the student experience. It was further grounded in the belief that faculty involvement in institutional-level learning outcomes assessment is imperative. As posited by Black and Williams (2009) in their proposed theory of formative assessment, the faculty's agenda and goal for students learning is a critical component of the three spheres process. Findings indicated that the immersive nature of SAIL, while time-intensive, is valued by faculty and offers real potential to bridge quality assurance processes with meaningful improvements in the classroom. To be successful and actionable, the assessment of student achievement of institutional learning outcome requires processes to be faculty-led so that faculty benefit from reflection and dialogue across disciplines. This research contributes to the global conversations on learning outcomes assessment and offers an approach that may engage faculty in institutional efforts to improve student learning.

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Declarations

The study received Ethics approval by the institutional Research Ethics Board (file 102637; first approved in 2021 and amended prior to the initiation of each action research cycle). Students provided consent for their data (opt-out protocol), and the manuscript authors were co-researchers who engaged in the project from start to finish, as well as participated in the collaborative self-study. The authors have no competing interests to declare that are relevant to the content of this article.

Data Availability Statement

The data that support the findings of this study are not available in a public repository as the researchers received Research Ethics Board approval to analyze non-anonymized student artifacts.

However, the quantitative and qualitative assessor ratings are available from the authors upon reasonable request and with the permission of the university's Research Ethics Board.

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