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Not Just Plug and Play: Integrating Professional Skills Development into Undergraduate Experiential Learning Courses

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Not Just Plug and Play: Integrating Professional Skills Development into Undergraduate Experiential Learning Courses

Abstract

This study evaluated the effectiveness of the FUSION Skill Development Curriculum in maximizing students' self-assessment of professional skills when integrated as a graded component in capstone internship courses. The course instructors were co-investigators in a scholarship of teaching and learning (SoTL) project that used measures embedded in the curriculum to study student learning outcomes. An essential benefit of the curriculum was identified as the potential for life-long learning through metacognition. A data-driven approach to curriculum integration triggered changes in teaching practices associated with motivational design principles. These changes included allocating time for peer discussion of professional skills, scaffolding feedback aligned with internship learning, and taking a holistic view of skill development throughout an academic program. Overall, the study explored the nexus between skill development and internship/experiential learning and generated practical insights for scaling up the FUSION initiative, as well as a proposed model of curriculum renewal for professional skills development.

Cette étude a évalué l'efficacité du programme de développement des compétences FUSION pour maximiser l'auto-évaluation des compétences professionnelles par les étudiants et les étudiantes lorsqu'il est intégré en tant que composante notée dans les cours de stage fondamentaux. Les instructeurs et les instructrices du cours étaient des co-chercheurs et des co-chercheuses dans un projet d'avancement des connaissances en enseignement et en apprentissage (ACEA) qui a utilisé des mesures intégrées dans le programme pour étudier les résultats de l'apprentissage des étudiants et des étudiantes. L'un des avantages essentiels du programme a été identifié comme étant le potentiel d'apprentissage tout au long de la vie grâce à la métacognition. Une approche de l'intégration du programme d'études fondée sur les données a entraîné des changements dans les pratiques d'enseignement associées aux principes de conception motivationnelle. Ces changements consistaient notamment à consacrer du temps à la discussion entre pairs sur les compétences professionnelles, à étayer le retour d'information aligné sur l'apprentissage en stage et à adopter une vision holistique du développement des compétences tout au long d'un programme académique. Dans l'ensemble, l'étude a exploré le lien entre le développement des compétences et l'apprentissage en stage/l'apprentissage expérientiel et a généré des idées pratiques pour l'extension de l'initiative FUSION, ainsi qu'une proposition de modèle de renouvellement du programme d'études pour le développement des compétences professionnelles.

Keywords
professional skill development, experiential learning, internship course design, scholarship of teaching and learning, ORID Focused Conversation Method; développement des compétences professionnelles, apprentissage par l'expérience, conception des stages, avancement des connaissances en enseignement et en apprentissage, méthode de conversation ciblée ORID

Cover Page Footnote
Research reported in this article was funded by the Future Skills Centre (FSC), a centre for innovation and applied research that funds and partners with different groups to lead innovation projects across Canada.

Preparing the next generation of students requires addressing the mismatch between the skills and competencies taught in undergraduate programs and those needed by the labour market (Halabieh et al., 2022). While a university education has the potential to enhance employability, an undergraduate degree is no longer proving sufficient to meet employer and learner needs (deLaski, 2019). Research on high performers further suggests that success in today's workforce depends as much on personal and interpersonal skills as content-specific knowledge and technical know-how (Frazer, 2019). Employers are looking to build diverse, successful teams with individuals who can demonstrate a people-skills mindset that involves being a good communicator, an imaginative problem-solver, and a continuous and highly resilient learner (Frazer, 2019, cited in Morgan, 2022).

The premise of a people-skills mindset is that everyone has the potential to fine-tune their skills, and when combined with a positive approach to learning, they can succeed and grow into leadership positions (Dweck, 2017; Frazer, 2019). For this to become reality, however, requires students convincing potential employers they possess the right skills and are willing and excited about learning, instructors providing meaningful opportunities for skills development in their courses, and university leaders ensuring equitable access to such opportunities. An additional challenge is that professional skills (also known as transferable skills) cannot simply be learned through conventional teaching but need to be developed through experiential learning (EL), which means "through experience, reflection, and feedback that require students' self-motivation and active participation" (Chan et al., 2017, p. 5).

EL pedagogy is rooted in Dewey's philosophy of learning by doing and the seminal work of Lewin and Piaget and defined as "the process whereby knowledge is created through the transformation of experience" (Kolb, 1984, p. 41). EL opportunities offer the chance to enhance learning outcomes by extending education beyond traditional classroom settings (Vygotsky & Cole, 1978). However, it is not the EL opportunity alone that leads to knowledge creation. Students need preparation throughout their program of studies and opportunities to reflect on their skills in relation to theoretical aspects of a course (Chadha, 2006). Moreover, when working towards EL outcomes, it is essential to take a developmental perspective and to consider the motivation levels of students from different groups (Astin, 1984).

Originally associated solely with extra-curricular activities, EL opportunities now include a variety of teaching practices - such as capstone projects and internship courses - and studies have shown that such practices can enhance student learning outcomes (Kuh, 2008; Kuh & Kinzie, 2018). In the context of internship experiences, research also suggests that students differ in their perceived learning outcomes and need guidance in appreciating that employers value transferable skills and that a single internship does not guarantee skill development (Luk & Chan, 2022). Contributing to this work, the present study explores the connection between skill development, internship course design, and pedagogical principles.

More specifically, we evaluated the effectiveness of the FUSION Skill Development Curriculum in maximizing students' self-assessment of transferable skills when integrated as a graded component in capstone internship courses. FUSION is an acronym for the Future Skills Innovation Network, a pan-Canadian collaboration of six universities, spearheaded by Concordia University (our home university) and funded by the Canadian Future Skills Centre. The FUSION curriculum is a collaborative project among these universities designed to help scale effective approaches to skill development while contributing research data and methodologies to the network of collaborators. Two instructors at Concordia University volunteered to implement the curriculum in their capstone internship courses and simultaneously participated as co-investigators in a scholarship of teaching and learning (SoTL) project. Both courses were situated in the Applied Human Sciences (AHSC) department, which has a long history of EL pedagogy, establishing a theoretical link with the FUSION curriculum.

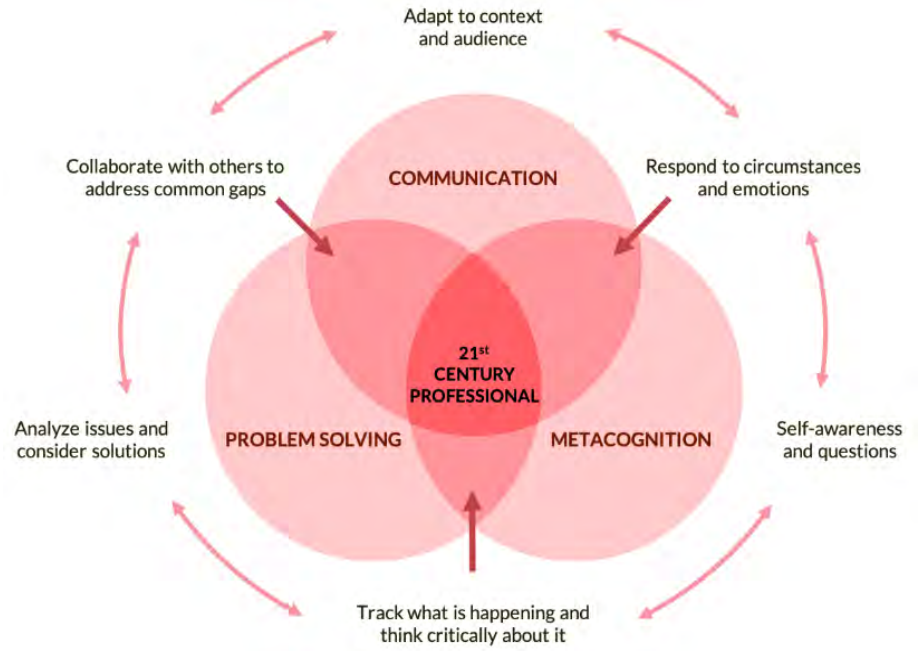
The SoTL project focused on two questions: What is the impact of the FUSION curriculum on student learning outcomes when implemented as a graded component in internship courses? What is the instructor's role in supporting skill development? Considerations for scaling up initiatives like the FUSION curriculum were also of interest. Before elaborating on our methodology, findings and lessons learned, we provide an overview of the FUSION curriculum and situate our study within the skill development literature.

The FUSION Skill Development Curriculum

Launched in 2020, the FUSION Skill Development Curriculum aims to broaden student development in skills critical for 21st century success. The curriculum originally comprised self-directed learning modules on three skills: metacognition (the ability to regulate cognitive processes and to take ownership of one's learning), communication (the ability to construct and convey a message through an appropriate medium for the purpose and audience at hand), and complex problem solving (using cognitive processes and action to move a problem from its actual state to its goal state). The learning of each skill proceeds through three phases: the *Explore* phase introduces the topic, the *Apply* phase is an opportunity to practice the skill, and the *Reflect* phase is a time to consider one's learning. At the time of this study, the modules were packaged as one unit comprising approximately 10 hours of self-directed learning aimed at specific outcomes (Figure 1). The curriculum has since been separated into stand-alone modules and expanded to include topics on adaptability, AI literacy, collaboration, digital literacy, inclusivity, and self-management.

Figure 1

FUSION Curriculum Outcomes from the Fusion Skill Development Curriculum



Note. FUSION Curriculum Outcomes graphic. Copyright 2020 by the Future Skills Innovation Network (funded by the Future Skills Centre). Reprinted with permission.

In 2020, five of the six FUSION universities delivered the FUSION curriculum with positive feedback from students. In 2021, mid-way through the COVID-19 pandemic,

internship coordinators at Concordia University were invited to integrate the FUSION curriculum into their courses. A senior full-time instructor and experienced part-time instructor from the AHSC department expressed interest. They taught courses in different specialization majors: *Capstone Internship in* Leisure Studies (AHSC 437) and *Capstone Internship in* Human Relations (AHSC 439). Both courses aimed to build students' self-confidence in preparation for their transition from university to workforce.

The Leisure Studies and Human Relations internship courses provide students with an opportunity to enhance their skills and knowledge in designing, implementing, and evaluating training curricula, facilitating groups, and establishing working relationships with site personnel. Students select an internship that aligns with their interests and learn to self-assess their work through fieldwork, internship seminar sessions, and supervisory team meetings. After finding a potential site, the internship focus is defined in consultation with the instructor. Students are very involved in the process and have ownership over their internship experience.

Scheduled in their final year, the FUSION curriculum was intended to enhance students' skill development within their internship. To facilitate this, FUSION funding supported a SoTL team comprising the two instructors, Concordia's FUSION project lead, an education research consultant, and a doctoral student research partner. Upon completion of the FUSION curriculum in both courses across two iterations (i.e., in 2021 and 2022), the SoTL team analyzed data generated alongside implementation successes and challenges and relevant literature.

Literature Review

A review of 56 studies on challenges in the development and implementation of generic competencies in higher education identified a series of unresolved issues concerning institutional and curricular support, operational challenges, and teacher and student perceptions (Chan et al., 2017). Given the inclusion of the three FUSION skills in this review, these issues have provided structure and substance to our exploration of literature pertinent to this inquiry.

Institutional and Curricular Support

Regardless of context, issues impeding skill development at the institutional level include a lack of recognition of their importance, a lack of curriculum considerations and alignment, and a lack of professional development for academics (Chan et al., 2017). To promote more enthusiasm, it is suggested that university leaders are encouraged to communicate a clear and inspiring vision that frames skills development as a measure of both student success and the university's contribution to society towards a more equitable future (Bunney et al., 2015). The challenge faced is with professors who feel skill development is at odds with their mission as educators, or who are not sure how to implement transferable skills into their curriculum (Chan et al., 2017). Moreover, it is difficult to resolve this tension regardless of discipline and even when transferable skills are supported by accreditation bodies (Barrie, 2012).

Moving towards a solution, Chadha (2006) proposes a research-based curriculum model for transferable skills development that views students as moving from dependency to autonomous learning across an academic degree program. At level 1, skills are *embedded* in a course, for example by placing students in project teams, but without explicitly teaching how to work effectively in teams. At level 2, skills are *bolted-on* to a course, for example through peer observation and peer review, and explicitly taught but independent of disciplinary knowledge. At level 3, skills are *integrated* into a course and explicitly taught with equal emphasis in assessment on core disciplinary knowledge and transferable skills. Furthermore,

to increase chances of employment, students need to have an independent EL opportunity - such as a work-based internship - integrated into the curriculum prior to any expectation to critically evaluate and develop their skills.

The larger FUSION project frequently discussed how to build a curriculum that was generic enough to be useful across the disciplines, but not so generic as to have little utility. The group concluded that the FUSION curriculum needed to be supported by professional development interventions that allowed skills to be connected to the curriculum and disciplinary knowledge. This SoTL inquiry is an example of such an intervention.

Operational Challenges

Issues in the development of professional skills at the operational level relate to a lack of clarity about the conceptualization of skills, ineffective teaching pedagogy, and difficulties in assessment (Chan et al., 2017). First, confusion around the definition of skills can render any vision or policy statement open to interpretation, resulting in people pursuing different learning outcomes (Barrie, 2007). The interchangeable use of terms referring to the same skill set (e.g., 21st century skills, personal and interpersonal skills, generic competencies, employability skills, professional skills, and transferable skills) further compounds this confusion. The variety of frameworks to support skill development also muddy the water. In the context of our inquiry, these included the Référential québecois des compétences du futur (Commission des Partenaires du Marché du Travail, 2020) and the Skills for Success Framework (Government of Canada, 2023). Both define overlapping and distinct skills that include the FUSION aims.

Regardless, the consensus is that professional skills cannot simply be taught but require an experiential learning (EL) experience that enables learners to apply their knowledge and skills in real-world settings (Chan et al., 2017). Often associated with Kolb and Kolb's (2017) learning cycle, EL pedagogy is a recursive process whereby the student engages in a concrete experience, observes and reflects on that experience, learns from the experience by relating abstract concepts and generalizations to it, and then transfers what is learned to new situations while deepening self-awareness of their impact on the situation. From this perspective, reflection on skill development is conceived on a continuum whereby a surface approach represents superficial attempts at memorizing and reproducing ideas, and a deep approach represents meaningful attempts at linking and personalizing ideas (Moon, 2013).

A frequently quoted maxim associated with John Dewey's philosophy of learning by doing (Dewey, 1939) is that we do not learn from experience, we learn from reflecting on experience. Thus, it goes without saying that traditional assessment methods are insufficient for promoting skill development if they lack this aspect of reflection (Chan et al., 2017). Researchers have also concluded that versatile assessment methods are needed to promote both reflection and recognition of student's prior learning (Kember, et al., 2007). If the goal of internship learning is to develop autonomy, then students also need to be actively involved in negotiating their tasks and producing the criteria for evaluation (O'Toole, 2007). The self-directed learning aspect and *Explore*, *Apply* and *Reflect* design underpinning the FUSION modules aligns well with this kind of assessment.

Instructor and Student Perceptions

Instructors' scepticism about their role and unfavourable responses from students are two key stakeholder perceptions that impede skills development (Chan et al., 2017). Some instructors view the skill development agenda as an imposition and treat it as a compliance issue (Krause, 2014). The need for instructors to find time to engage in professional

development further compounds this issue, as do legitimate concerns about negative course evaluation ratings jeopardizing career advancement (Chan et al., 2017).

To help inform an understanding of instructor perceptions, Barrie (2007) proposes a framework that identifies three distinct approaches to skill development. At the first, *precursor* level, transferable skills are considered necessary for disciplinary knowledge but not essential for university learning. This leads to remedial learning outcomes, with skills taught didactically and supplementary to disciplinary content. At the second, *complement* level, transferable skills are viewed as useful for rounding out disciplinary learning, leading to more transformative learning outcomes, with skills integrated into the curriculum but still taught in a teacher-focused way. The third, *translation/enabling* level provides students with the opportunity to apply disciplinary knowledge to transferable skills. These skills are integrated and taught in a learner-focused way with the goal of transforming the individual. Barrie's (2007) research found the first level to be the most prevalent among instructors and the third level necessary to promote an integrated and learner-focused method of skill development. Overlaying this framework onto Chadha's (2006) curriculum model highlights the ad hoc nature of skill development. An instructor's perception of teaching transferable skills is fundamental to success, but it is difficult to change these views without institutional support.

While instructors focus broadly on elements of teaching, student perceptions are more narrowly focused on the emotional dynamics of learning that can vary across levels of undergraduate study (Chan et al., 2017). For example, research suggests that younger students fail to appreciate the importance of transferable skills and that those more advanced in their disciplinary learning perceive them as time-consuming and irrelevant (Murdoch-Eaton & Whittle, 2012). However, this is not always the case. During consultations with students on Concordia University's teaching and learning strategy, many students voiced an eagerness for greater connection between skill development and disciplinary training. When taken seriously and related to issues of equity and student success, skill development is not simply a supplementary aspect of learning but a crucial component that requires authentic engagement from everyone involved (Carew & Therese, 2007).

Methodology

Previous evaluation efforts among the FUSION institutions recognized the curriculum as an effective tool for skill development in a co-curricular context. Our research built on this experience but, by contrast, focused on the impact of the curriculum when implemented in for-credit experiential learning courses. For this reason, we relied upon authentic assessments embedded in the curriculum without controlling for other variables (e.g., prior knowledge). We also used two methodologies: one for collecting data on students' engagement with the curriculum and another for documenting the process instructors engaged in when integrating the curriculum into their courses.

In the case of student data, we aimed for the first three levels of the Kirkpatrick evaluation model: reactions, learning, and behaviour (Kirkpatrick & Kirkpatrick, 2016). A major advantage of the FUSION curriculum was that it functioned within Moodle, the University's learning management system, providing access to multiple sources of data. The FUSION tasks students completed, and their ratings on a program evaluation survey embedded at the end of the curriculum, were captured automatically and used as measures of student reactions to the innovation. Pre- and post- self-assessment surveys embedded throughout the curriculum on each skill set and on the overall FUSION outcomes represented a proxy for measuring students' learning outcomes. Although relying heavily on self-report data—which is criticized for response bias in a traditional research context—self-assessment provides an

indispensable lens on student emotions, motivation, strategy use, and metacognition during the more nuanced evaluation of professional skills development (Pekrun, 2020).

To gain deeper insight into the impact of FUSION on students' subsequent behaviour (e.g., in the workplace), the final FUSION workbook submissions were downloaded for qualitative analysis. After the first iteration only, students in both courses were also invited to a 30-minute interview and offered an honorarium of a $20 gift card for their participation. The graduate student research partner conducted these interviews, which were also recorded, through Zoom. Interviewees were asked the same set of questions about their experience, but were prompted differently depending on whether or not they had completed FUSION.

Following University ethics approval, students were invited to participate in the research with due diligence given to elicit their consent. All statistical data were generated in Excel and the student research partner conducted a thematic analysis (Braun & Clarke, 2006) on all written and oral responses in collaboration with the FUSION project lead and education research consultant. Instructors only viewed anonymized student data after completing their grading.

To strive for the elusive fourth level of the Kirkpatrick model (i.e., results), we also documented anticipated longer-term outcomes of our approach to curriculum integration in a higher education context (Paull et al., 2016). We triggered evidence of change in teaching practices using a structured approach to data interpretation and decision-making known as the ORID Focused Conversation Method (FCM). ORID is an acronym for four levels of thinking: objective, reflective, interpretive, and decisional. Developed in the 1990s by the Canadian Institute of Cultural Affairs and used originally as a teaching method, the ORID FCM is a dialogue methodology rooted in phenomenology that seeks to help people gain a deeper understanding of the ways in which they interpret and make sense of their world (Nelson & Nelson, 2017). An essential premise of this methodology is that enduring change hinges on eliciting and recognizing emotional reactions to the phenomenon being analyzed before interpreting the data or making decisions.

The FUSION project lead, who is a trained ORID FCM facilitator, conducted a 90-minute data discussion after each implementation of the FUSION curriculum (i.e., in 2021 and 2022) with different questions asked of instructors at each level of the ORID cycle. Having been recorded from Zoom for later analysis, these conversations played a key role in engaging the research team and solidifying our findings and lessons learned. We further based our approach to curriculum integration on Felten's (2013) five principles of good practice in SoTL: inquiry into student learning, grounded in context, conducted in partnership with students, methodologically sound, and disseminated appropriately. The latter has involved sharing research findings with department colleagues and contributing to the scholarly conversation on skill development at academic conferences.

Findings & Discussion

This section provides a sense of how the ORID discussions, informed by the research questions, permitted reflection on changes in student outcomes and teaching practices following each iteration of the FUSION curriculum.

What is the Impact of the FUSION Curriculum on Student Learning Outcomes?

The first and second steps in the ORID framework involved presenting the data collected from students and eliciting initial reflections from the instructors. As mentioned, data sources included completion and program evaluation data, pre- and post- self-assessments, written reflections, and interviews. Note that participation in the FUSION curriculum was a

course requirement and students completed the modules in parallel to their internship in the Leisure Studies course and in preparation for their internship in the Human Relations course. Given the small sample size in each course and similarities in department culture and program design, we considered students in both courses as one cohort in our analysis.

Completion and Program Evaluation Data

In 2021, out of 25 students registered in the Leisure Studies and Human Relations courses combined, 14 consented to participate in the research, and of these, 12 (48%) completed the FUSION curriculum. In 2022, out of 26 students, 19 consented, and of these 15 (58%) completed the curriculum. The instructors observed that more attention to student motivation to complete FUSION was needed.

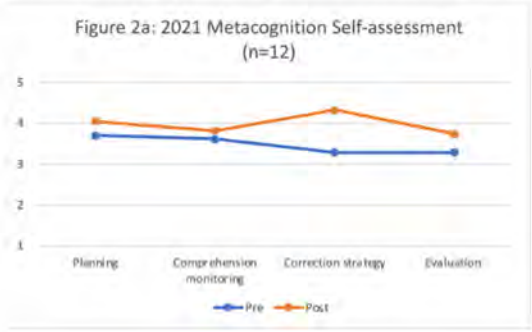
The FUSION Network prompted for an additional consent in the curriculum to access students' program evaluation data, resulting in a smaller sample of students providing these ratings. In total, 13 students across both iterations rated their FUSION learning experience as either extremely positive (69%) or somewhat positive (31%). When prompted, the majority (85%) identified they would recommend FUSION to a friend. These ratings pleasantly surprised the instructors as they counteracted the grumblings the professors had heard from students in their classes. The high number of students consenting to be part of the research also suggested an interest in making the courses better and was considered a valuable outcome. Overall, the instructors felt that the completion and program evaluation data combined indicated students were both capable of engaging with skill development and exhibiting self-discipline. The increase in student completion from one iteration to the next meant that changes in teaching practices (to be discussed later) had the desired effect, albeit a small one.

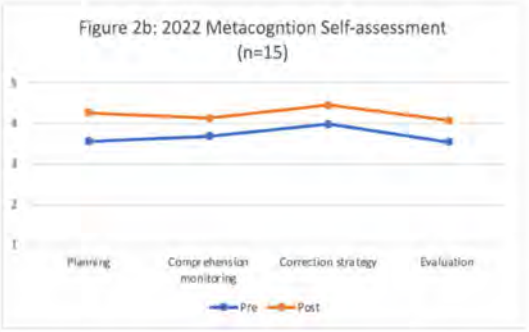
Pre- and Post-self-assessments

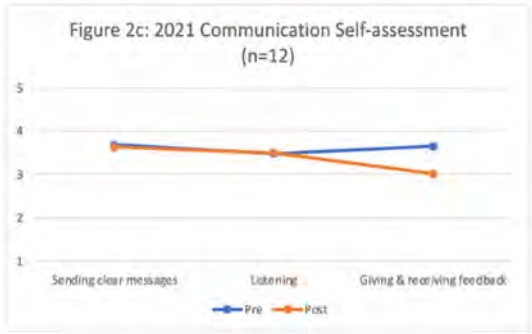
Students assessed their level of competency on each of the three FUSION skills at the beginning and end of each module (using a five-point Likert-scale), and their level of mastery on the overall FUSION learning outcomes at the beginning and end of the entire curriculum (using a rubric with three criteria: beginning, developing, and mastering). A comparison was made between student cohort data both within each iteration and from one iteration of the curriculum to the next (Figures 2a-2h).

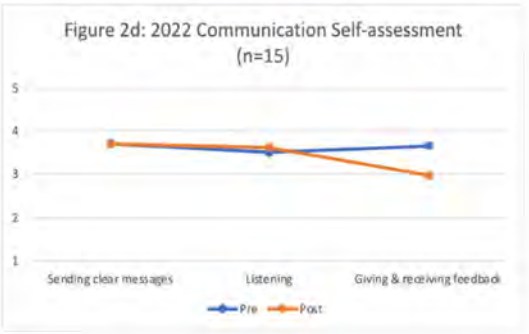
The instructors were pleased with the high pre-assessment ratings which were attributed to the content being a review for their students who were advanced in their respective programs. The positive trends from one iteration to the next in metacognition (Figures 2a and 2b) and problem-solving skills (Figures 2e and 2f) were also promising. The consistent plateau and decrease in communication skills across both iterations (Figures 2c and 2d) was attributed to over-confidence in this skill at the start of the curriculum. Encouragingly, students showed signs of moving closer to mastery across all the overall FUSION outcomes (Figures 2g and 2h), which included the ability to identify how to adjust their communication skills. These findings were more positive than the research team anticipated, and both instructors felt motivated to further adapt their courses to increase student learning outcomes.

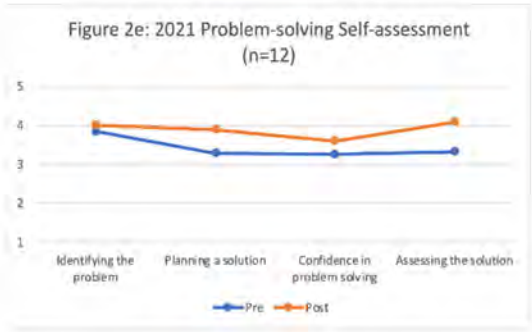
Figure 2a-2h:
Student cohort pre- and post-assessment data

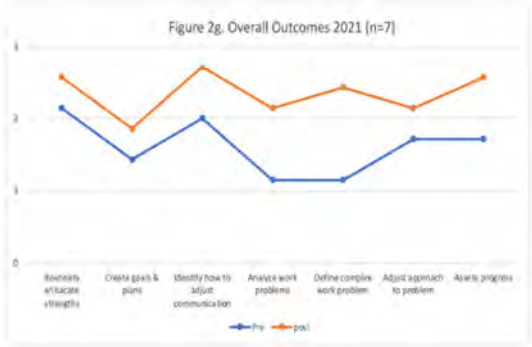


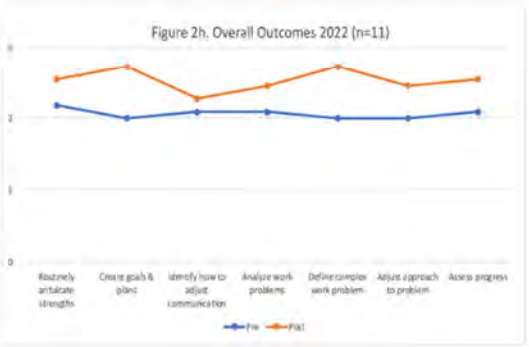












Written Reflections

The final FUSION workbook submission prompted students to reflect on their learning from their internship and/or FUSION experience. Analysis of 27 written reflections submitted over both iterations revealed commonalities in how students had consolidated their learnings in relation to five interconnected themes.

1. *Self-awareness and personal growth.* Many student responses mentioned the importance of reflection and evaluation in the learning process. Students reflected on their personal journey of understanding themselves better, including their strengths and weaknesses as learners and communicators.
2. *Importance of skill development.* Students identified all three FUSION skills (metacognition, communication, and problem-solving) as essential for success in both personal and professional contexts. They also learned the importance of assessing their approaches to tasks and being open to new strategies.
3. *Confidence and goal setting:* Students credited the problem-solving section of the curriculum as the most helpful in building their confidence in taking risks and continuing to problem solve without getting discouraged. Students also highlighted the importance of planning and setting goals for tasks.
4. *Feedback and self-improvement.* Students reflected on the importance of receiving feedback and using it to improve their skills and performance. They also learned how to listen more effectively and receive feedback without taking it personally.
5. *Diversity and its role in communication.* Students gained awareness of how diversity can impact the delivery of messages and stimulate alternative problem-solving techniques. This knowledge enabled them to be mindful of emotions and the impact of their words and to better connect with individuals from different backgrounds.

The instructors were pleased to see from these written reflections that students who fully participated in the curriculum learned valuable lessons, particularly in how the FUSION skills impacted one another. The potential for life-long learning through metacognition was identified as an essential benefit of the curriculum. The written reflections also provided evidence of the potential for meaningful attempts at linking and personalizing ideas, suggesting the capacity for deep learning (Moon, 1999). The instructors were also intrigued to note that students' reflections demonstrated comparable outcomes across both courses, suggesting that the FUSION curriculum is generalizable across different academic paths. These findings also suggest that the curriculum helps to clarify the skills we want students to reflect on and develop as they progress through their programs, and that one internship experience can be sufficient to see learning gains, albeit self-reported ones.

Interview Data

One-on-one interviews helped glean further insight into variation in students' learning experiences. Students were asked for their honest reactions to the FUSION curriculum. In total, four interviews were conducted, representing both courses. Verbatim extracts were organized into four student profiles that showed variation in student motivation and engagement (Table 1). Thematic analysis of the complete interview dataset identified four challenges in implementing the FUSION curriculum.

Table 1
Variation in Students' FUSION Learning Experiences

Profile	Extract from Student Interview Data
Completed & highly motivated	"A lot of information was already touched on before but taking a deep dive into it was very interesting. I liked the personal application questions the most. … It allowed me to take time to really reflect on issues, such as micromanaging, and try and find a solution."
Completed & moderately motivated	"I learned a few new things. I feel like it is good to use those skills for my internship, but also for doing my schoolwork, because I also have a lot of team projects. I liked the detailed steps to solve a problem the most. … I didn't get any feedback or learn from other students' experiences."
Completed about 45% & found it boring	"I remember at the beginning being very skeptical. It wasn't important information for me to know for my career. I didn't feel that I was learning anything new in that [communication skills] section. It was also like watching a lecture. I prefer to have some level of student relation some banter with a professor. There was also no set schedule. I think that's the reason that I fell behind and then didn't finish. …The FUSION content is relevant to working in general, but it felt too broad. I had difficulty realizing how it would apply to my situation. I didn't feel like I needed it."
Completed less than 20% & felt over-whelmed	"I was already doing the internship, putting a lot of hours into it, I just didn't have the energy or the time to type up a whole summary. …This was my first experience in self-directed learning. Maybe more of a push from our professor, more encouragement, then I would have been more willing to put the effort in. I think it was well done. It was really a failure on my part not to complete."

The first challenge related to issues around student motivation. Self-motivated students who felt positive towards the curriculum completed it, whereas those who were negatively inclined or who faced difficulties with self-directed learning did not. Negativity towards skill development from students close to graduation was expected (Murdoch-Eaton & Whittle, 2012), but the number of students disregarding the FUSION participation grade was concerning. Both instructors agreed that the curriculum could be better integrated to help more students benefit fully from the experience.

The second challenge had to do with the FUSION skills needing to be more present in class discussions and peer-to-peer learning. Specifically, students expressed the desire to discuss what the FUSION curriculum meant for them in the context of their internship experience and to generate examples for how the skills could support them in solving problems. While the realities of learning online during COVID-19 in the first iteration of FUSION would have impacted these findings, the instructors recognized that an element of social learning would be beneficial for all students.

A third challenge had to do with the impact on student motivation from feedback and grading on workbook submissions. In 2021, deadlines for assignments in the Leisure Studies internship were based on internship hours completed and the professor and teaching assistant (who was also this project's graduate student partner) gave feedback alongside the EL experience in a learning journal. In contrast, the Human Relations internship had set deadlines based on completion of each skill development phase, and the instructor shared feedback with

students after each phase in response to their FUSION workbook submissions and in preparation for their internship in the second semester. This latter approach of scaffolded formative feedback was deemed more effective in focusing student attention on the skills employers value.

Finally, the instructors raised the issue of workload during the ORID discussions in relation to student motivation. The Leisure Studies internship is a 6-credit course concentrated into one semester, whereas the Human Relations internship, also a 6-credit course, is scheduled across two semesters. Students in the Leisure Studies internship were thus expected to put the same amount of time and effort into the FUSION curriculum when they were likely naturally inclined to focus more on their internship work. Both instructors noted that this was a program-level scheduling issue. They also agreed with students that more timely feedback and peer interaction, especially at the beginning, could help support skill development with FUSION.

What is the Instructors' Role in Supporting Skill Development?

The third and fourth levels of the ORID framework invited instructors to interpret the above student data while thinking about the value of FUSION for their courses and their role in supporting skill development. At an insightful moment in this discussion, changes in teaching practice were infused with Linnenbrink-Garcia et al.'s (2016) instructional design principles for supporting student motivation and positive emotions in the learning process. This section elaborates on how each of these five principles can inform the integration of the FUSION curriculum in EL courses.

Ensure Relevance

As revealed during the interviews (Table 1) and supported in the literature, students need to perceive that transferable skills are personally relevant to them, and that the FUSION online module content is interesting and engaging. They also need help in making connections between their EL experience and the course material that includes the FUSION skills. In the second course iteration, both instructors revised their course syllabus to include a new learning outcome: to appreciate the value of and gain confidence in professional skills (e.g., metacognition, communication, and complex problem-solving) and raised the FUSION participation grade to 35% to emphasize that significant learning was expected. They also discussed the new modular format of the FUSION curriculum enabling students to choose the skills most relevant to them.

Emphasize Learning

Students' self-assessment of learning outcomes (Figures 2a-2h) showed that even with a high level of prior learning, AHSC students who engaged in the curriculum could still benefit from the structured review and opportunities to critically reflect on the skills FUSION provided. Both instructors also believed the current format of the Leisure Studies internship (i.e., taking place over one semester) posed an issue that unintentionally and mistakenly disadvantaged some students, as well as the instructor. Ideally, FUSION would be sequenced before the internship began so that students could more effectively explore their personal learning goals before focusing on their internship (and the competition for future jobs). The authors agreed that this would support the recommendation by Chadha (2006) and others to take a holistic view of skill development throughout an academic program.

Encourage Belonging

Both the completion data and student interview data (Table 1) highlighted that some students had trouble engaging with the FUSION curriculum. The instructors recognized that this will probably always be an issue. Not only is inclusion an issue in online learning, but students generally think better when learning with their peers (Zhang et al., 2017). To encourage a feeling of belonging during the second iteration, instructors allocated class time for peer discussion of the FUSION skills so that students could hear each other's insights on how to move through the curriculum. Students also had due dates for assignments consistent with each module to eliminate barriers to attending class and discussing their skill development.

Support Competence

To a certain degree, the FUSION curriculum meets the ideal of supporting competence through well-designed and challenging learning activities. However, student interview data (Table 1) supports the call for individualized feedback on skill development from the instructors (Chan et al. 2017). Presently, a midterm evaluation is scheduled with each student and their on-site internship supervisor in each course, and the FUSION skills regularly come up for discussion in that evaluation. An idea for the future would be to focus on designing an internship evaluation rubric for employers aligned with the FUSION outcomes (while being cognizant of not asking too much of community partners). The instructors expressed excitement about this idea of expanding students' self-assessment of FUSION outcomes to bring in the employer's perspective.

Enhance Autonomy

The completion data showed how students strategically disregarded the FUSION participation grade. There may be any number of reasons for this that have nothing to do with the efficacy of the FUSION curriculum and how it is implemented. Although acknowledging the value of the curriculum on multiple fronts, both instructors recognized that not all students enjoyed their experience; the instructors believe this is partly due to the fact that FUSION was one of the final learning tasks standing between them and graduation. Encouraging students to set their own goals in relation to the evaluation rubric discussed above would help to enhance their autonomy and direct the internship experience more toward their personal learning needs (Luk & Chan, 2022). Now that the FUSION curriculum is designed as independent modules, students can select the skills important to them and their future work. It is inherent in the instructor's role in supporting skill development, however, to set the scene so that students are in the driving seat with personalized help close by when needed.

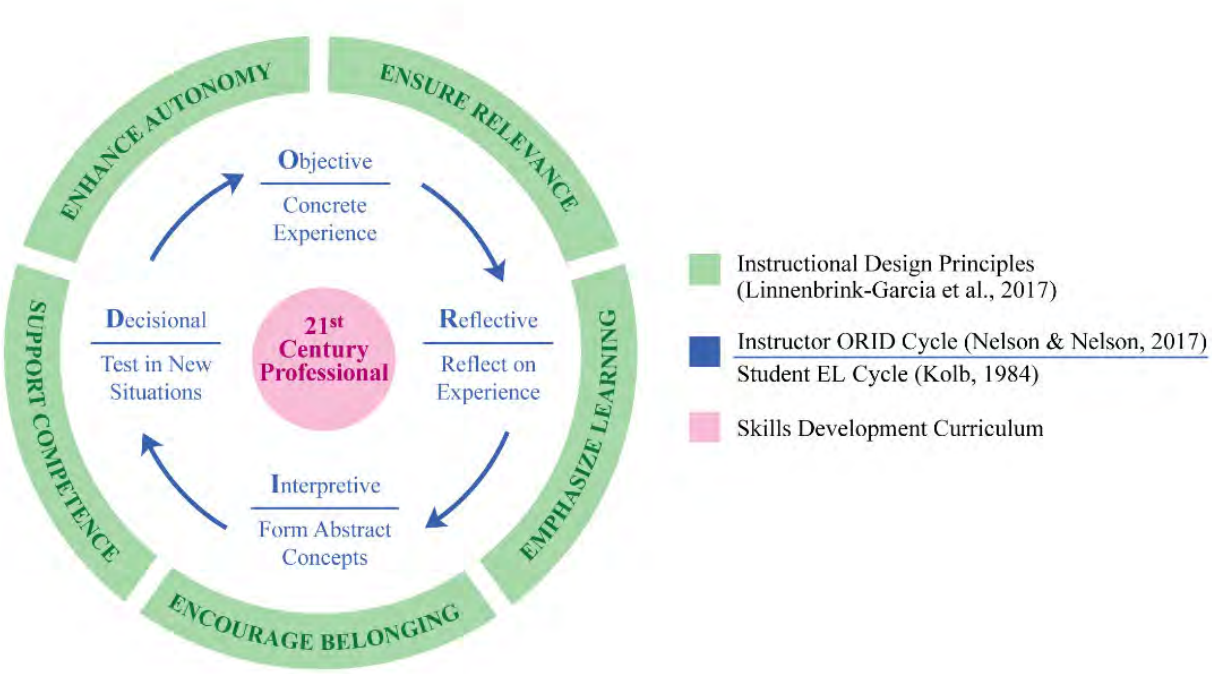
Considerations for Scaling up the FUSION Initiative

Additional supports identified by the instructors to help integrate FUSION into EL courses include an instructor handbook with an overview of the content, assessment rubrics, and ideas for implementation; one-on-one support to discuss ways of integrating the curriculum with course content; and instructions on how to download the FUSION statistics for reflection and inclusion in activity reports and teaching dossiers. We further propose a model of curriculum renewal for 21st century skill development (Figure 3) guided by Linnenbrink-Garcia et al.'s (2016) motivational principles that involves redesigning internship courses (or any high impact EL opportunity) so that students explicitly engage with transferable skills in tandem

with Kolb's (1984) experiential learning cycle. Similarly, instructors engage with the ORID FCM cycle to reflect and learn from student outcomes.

Figure 3

A Proposed Model of Curriculum Renewal for 21st Century Professional Skill Development©



Finally, instructors in this study were keen to continue implementing the FUSION curriculum, participating in the SoTL project, and contributing to a larger conversation on transferable skill development. Both instructors expressed a desire to connect with their colleagues about whether FUSION may be better placed earlier in their program, as literature supports. A more effective flow may be to teach skills development more explicitly in introductory classes and then have students choose FUSION modules to review before their internship. Either way, based on this experience, we recommend instructors participate in a SoTL-based inquiry on professional skill development. With appropriate support, FUSION can help instructors beyond the AHSC department who teach internship courses, especially those teaching one for the first time.

Limitations and Future Directions

This study on skill development included several limitations that affect the reliability and transferability of the results. One limitation was the small sample size, which is not fully representative of the diversity and variability of the larger population of students, instructors, and departments who might benefit from the FUSION curriculum. Future studies would benefit from a larger sample and a cross-case analysis, for example, comparing FUSION implementation in different disciplines and university contexts using different kinds of EL opportunities. Another contextual factor influencing the results includes the instructors' access to resources, which may not be transferable to other departments or institutions.

A second limitation is the effect of prior knowledge on learning. The FUSION curriculum assumes prior knowledge is not detrimental to learning, however, Shapiro (2004) argues that existing knowledge can interfere with acquiring new knowledge and ideas. The students involved in this study had already explored communication and problem-solving skills in previous courses. As a result, the FUSION modules served as a practical recap of prior learning being applied in real-time situations when they were searching for and engaging in their internships. This said, there was no way of judging the accuracy of students' pre-assessments or the level of conceptual change provided by this authentic learning experience. In the future, Kember et al.'s (2007) Student Engagement Questionnaire is an example of how prior learning could be independently measured in relation to critical thinking, self-managed learning, adaptability, problem-solving, communication skills, interpersonal skills, and group work (questions 1-12). Validated instruments are also available on the specific concept of metacognition.

A third limitation of our study was reliance on self-reported data, which is known to be subject to biases and inaccuracies as students may over- or under-report their learning outcomes based on their perceptions or because of social desirability (Nederhof, 1985). Even though self-assessment is also, as previously mentioned, viewed as an appropriate measure of learning in the context of personal and professional skills development (Pekrun, 2020), we mitigated for this limitation by employing multiple sources of data and using both qualitative and quantitative techniques. In future iterations, we would further consider triangulating self-assessment with peer interaction and internship supervisor feedback.

Additional limitations to the present study included issues related to sampling bias (students self-selected to participate), attrition (a reasonably large percentage of students opted not to participate), and confounding variables (e.g., different internship learning experiences and varying levels of student participation) that can lead to inconsistent learning outcomes across a cohort. A larger representative sample and validated outcome measures independent of the FUSION curriculum would be interesting directions for future studies.

Conclusion

Overall, the present study demonstrated that the FUSION curriculum can provide a worthwhile structure and theoretical framework for skill development in capstone internship courses. There is evidence that FUSION can help students in their internship experience as well as in their daily lives, instilling confidence and equipping them to tackle challenges and accomplish their objectives. The data collected further supports Kolb's (1984) suggestion that learning does not happen immediately, but over time through both experience and reflection. This was as true for students as it was for the course instructors. Despite having different lenses, both reflected on the benefits and drawbacks of using the FUSION tool in tandem with an internship opportunity.

Complementing this SoTL project with the ORID FCM enabled instructors to contribute to the ongoing interpretation of FUSION data and reflect on what the data meant for their courses and teaching practices. The realization surfaced that students' learning and the benefits of EL require metacognition (intentionally reflecting on one's own learning), which might be more critical than choosing one kind of internship over another. It is also possible that mapping different conceptual modules onto the FUSION curriculum as represented in our proposed curriculum renewal model (Figure 3) can promote a SoTL-based approach to 21st century skills development regardless of the academic discipline.

The findings from this study further support what Silva et al. (2018) have also concluded: the more time a professor can spend explicitly articulating how skills are being developed in their degree and how those skills transfer in new contexts, especially in EL

experiences, the more students feel better prepared to act on and trust the outcomes from their degrees. We believe our findings can inform teaching and learning strategies beyond internship courses. Concordia University recently set a goal for all incoming undergraduate students to participate in at least two EL experiences by 2025 and a resource like the FUSION curriculum—with its contributions to skill development and workplace success—has the potential to support this goal. The curriculum is not forcibly *plug-and-play*, however. It needs to be accompanied by an intentional course re-design, and this would hold true for any skill development curriculum.

Institutional support for instructors in integrating transferable skills into their courses has the potential to enhance the economic mobility of not just a subset of students, but many, and thus create more equitable futures for all in line with the UN's sustainable development goals (UNESCO, UNPFA, & UNICEF, 2015). For this to happen, an extensive commitment to supporting instructors in seeing the value of embedding skill development and reflection processes within their curriculum is essential. The case presented here was exceptional in the support provided by the university in terms of funding two staff members and a graduate student research partner, as well as the willingness of instructors to follow their curiosity about student learning within an already busy workload. While many institutions look toward better preparing their students for life post-graduation, particularly with EL, this study demonstrates the value of giving greater overt attention to skill development relevant to degree outcomes. For this to become a reality, future study is needed on the motivational challenges facing instructors and students with what is often a novel teaching and learning approach.

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