Offering Collaborative Opportunities as a Pathway to Scholarship of Teaching & Learning Research Participation

Brendan Wehby-Malicki[a], Siobhan Williams, PhD[a], M Redwan Zinan Siddiqui, MBA[b],
Erin Gray, MA[a], Francesca Discenza, MA[a], Ajay Rampersad, MSc[a], Noreen R. Santilli, MA[a],
Truc Le, EdD[a], Kayla Charbonneau[c]

[a]Humber Polytechnic, [b]University of Waterloo, [c]University of Guelph-Humber

*Innovation Spotlights extremely brief contributions that highlight an innovative teaching practice, approach, or tool, and provide accompanying evidence that speaks to the effectiveness of the innovation.

Abstract
The Scholarship of Teaching and Learning (SoTL) is the systematic study of teaching and learning and the public dissemination of findings. Despite the numerous benefits of SoTL at multiple levels, there are significant challenges to participation, particularly within the Canadian college and polytechnic context. Common barriers that contribute to lower SoTL participation in the Canadian college and polytechnic context include a lack of faculty time for scholarly activities, institutional culture and support for scholarly activities, and limited research experience among faculty members. Through a brief introduction to the literature on this topic and our own experience running a group SoTL project, we aim to shine a light on how offering collaborative opportunities can improve scholarly participation at multiple levels of engagement as well as contribute to the formation of a SoTL community of practice. By embracing a collective approach to SoTL, educators can not only develop professionally but also foster a scholarly community that encourages innovation and improves learning outcomes across diverse educational contexts.

Introduction

The Scholarship of Teaching and Learning (SoTL) is the systematic study of teaching and learning and the public dissemination of findings. The goal of SoTL research is to improve our understanding of learning and effective teaching practices. SoTL is also an important form of professional development, allowing educators to grow both as teachers and scholars (Fanghanel, 2013; Hamilton & Simmons, 2021).

Boyer (1990) argued that teaching is a scholarly activity that requires a deep understanding of pedagogy and the learning process. For Boyer, teaching means "not only transmitting knowledge, but transforming and extending it as well" (Boyer, 1990, p. 24). SoTL allows educators to engage in reflective inquiry, using teaching to inform their research and research to inform their teaching. While traditionally, teaching and research have been seen as separate pursuits, SoTL scholars view them as interconnected roles that simultaneously enrich one another. As Draeger (2013) summarizes, "SoTL embodies a spirit of pedagogical innovation that

enlivens the quest for learning and reminds us why it is worth pursuing" (p. 12).

SoTL can take place at multiple levels, both within the institutional context and beyond. When considering the impact of their research, SoTL scholars often refer to the "4M" model of micro, meso, macro and mega sublevels as a useful framework for analyzing the ways in which their work spans across different contexts (Friberg 2016; Simmons, 2020). It is important to emphasize that these levels of impact are layered and can take place simultaneously on a continuum (Frake-Mistak, Friberg, & Hamilton, 2023).

At the micro level, SoTL can benefit individuals by encouraging inquiry and reflection. Through systematically investigating and reflecting on their teaching practices, SoTL provides educators with a formal framework for this exploration process (Miller-Young & Yeo, 2015). By engaging in SoTL, educators can continuously evolve as both teachers and scholars, supporting their ongoing professional development (Fanghanel, 2013; Hamilton & Simmons, 2021). Additionally, a key component of SoTL is that it is conducted in partnership with students, ensuring that learners are appropriately engaged in this process (Felten, 2013). Even at the micro level, SoTL requires scholars to "go public" with this knowledge through the dissemination of their findings so that others can both critique and learn from their work (Felten, 2013, p. 123).

From the meso level, SoTL can extend out of the classroom environment to engage with wider programs, faculties, and departments. Hutchings and Shulman (1999) encouraged SoTL scholars with the goal of "not only to improving their own classroom but to advancing practice beyond it." (p. 13). The meso level focuses on fostering collaboration within and across an institution, creating opportunities for broader collaborative engagement. By integrating SoTL work at these meso levels, educators can improve the quality and adaptability of curricula across various disciplinary contexts (Hubball, Pearson & Clarke, 2013).

Broadening out to the macro level, SoTL begins to inform broader structures and policies at an institutional scale. By supporting and encouraging SoTL participation, institutions can send a clear message that they value both teaching excellence and scholarly output (Schroeder, 2007). In this way, a top-down approach can set a mandate for a culture

of evidence-based teaching and continuous learning across the institution. By establishing structures of support, allocating resources, and creating incentives for SoTL engagement, institutions (macro) can foster an environment where individual members (micro) and programs (meso) feel empowered to incorporate scholarly practice into their curricula. When institutions actively support SoTL work, they encourage the integration of teaching and scholarship, thereby reinforcing its legitimacy within the academic community.

Finally, at the mega level, SoTL can extend beyond institutional boundaries, contributing to the development of large-scale discipline and multi-disciplinary research. At this level, SoTL initiatives can foster collaboration across institutions, creating a broad network of scholars who share knowledge and best practices (Mackenzie and Meyers, 2012; Kensington-Miller et al., 2022). These collaborations also contribute to the diversity and varieties of SoTL practices across geographical, social, and cultural contexts (Chng, Mårtensson, & Leibowitz, 2020).

Barriers to SoTL in the Canadian College and Polytechnic Context

Although participation in SoTL offers benefits at many levels, as outlined above, there are still significant obstacles that limit engagement. This is especially true in the Canadian college and polytechnic context, where participation in SoTL faces a unique set of structural challenges. Common barriers that contribute to lower SoTL participation in the Canadian college and polytechnic context include a lack of faculty time for scholarly activities, institutional culture and support for scholarly activities, and limited research experience among faculty members. Understanding these challenges is crucial for developing effective strategies to develop and improve engagement with SoTL activity in the Canadian college and polytechnic context.

One of the primary barriers to research participation among faculty in the Canadian college and polytechnic context is the heavy focus on teaching responsibilities. Unlike Canadian universities, where disciplinary research is often a core component of faculty roles, Canadian colleges and polytechnics predominantly emphasize teaching as the primary responsibility of faculty members (Rosenkrantz, 2013; Marsh and De Courcy, 2024). As a result, faculty members in these institutions face heavy teaching loads,

leaving limited or no time for research and scholarship activities of any kind. Additionally, the lack of opportunity to receive course release or research time built into their role can further restrict faculty members' ability to engage in scholarly activities. Those who choose to pursue research activities often do so in their own time on top of their regular responsibilities (Rosenkrantz, 2013).

Institutional and program culture towards research activities also plays a significant role in scholarly participation among faculty. With Canadian colleges and polytechnics primarily funded as teaching institutions, there are often inherent tensions in providing support for research activity (Fisher, 2009; Rosenkrantz, 2013). In some Canadian colleges and polytechnics, there may be a lack of institutional (macro) and program (meso) level support for scholarly activities, with no formalized reward structure for faculty members who engage in research. The absence of scholarly activities within strategic planning can further contribute to low engagement as faculty assume it to be incongruent with both their individual roles as well as the wider organizational goals. This leads to a culture where scholarship is not prioritized, deterring faculty members from investing time and energy into these activities.

Finally, there is often a lack of research experience and confidence among faculty members in Canadian colleges and polytechnics. It is common for faculty at these institutions to have extensive industry expertise in their field, but many often do not have formal research experience (Hoekstra, Dushenko, & Frandsen, 2010; Marsh and De Courcy, 2024). For those new to scholarly work, this transition can lead to the feeling that research is intimidating and can manifest in imposter syndrome for those who are beginning to reshape their professional identity (Webb, 2019; Marsh and De Courcy, 2024). Establishing structured mentorship programs and robust support networks for individuals new to SoTL can play a fundamental role in facilitating their development into this practice (Webb, 2019).

It is also important to emphasize that these barriers do not exist in isolation but are interrelated and feed into one another. For example, a lack of time for research often stems from institutional priorities that emphasize heavy teaching loads over the production of scholarship, which, in turn, results in limited support and opportunities for faculty to develop their research skills. Thus, in the same way that we

see the impact of SoTL at multiple levels (4M model of micro, meso, macro and mega), barriers to participation also exist at various levels and interact across these dimensions. Truly addressing these challenges requires a holistic approach that considers various institutional structures and provides support at multiple levels for SoTL activities.

Benefits of Collaborative Scholarly Opportunities and Developing a Community of Practice

While significant structural barriers to SoTL participation remain a challenge, there is a growing body of research on developing opportunities to engage with SoTL through collective initiatives such as collaborative-based work and the development of communities of practice (Hubbel, Clarke and Poole, 2010; Marquis et al., 2017; Wilson-Mah et al., 2022). While not a perfect solution to the challenges mentioned above, both collaborative scholarship and fostering a community of practice among educators can provide a critical foundation for ongoing support and mutual learning that is essential to effective engagement (Happel and Song, 2020).

Collaborative scholarship offers benefits at multiple levels, ranging from the individual (micro) all the way up to the broader academic community (mega). On a micro scale, collaborative SoTL project opportunities give individuals a chance to develop and contribute to a project while not being overwhelmed by the considerable learning curve of being a principal or lead investigator. This can be a significant motivator for those who may otherwise be deterred by the prospects of independent research (Jiao, Kumar, Billot, & Smith, 2011). For example, when addressing the issue of time, collaboration among members on a project helps allocate the workload throughout the research process, making this commitment more manageable alongside heavy teaching loads. By distributing responsibilities, group members can alleviate some of the burden of managing a project and conducting research on their own. This collaborative approach can also extend beyond an individual project and be facilitated at an institute or program level (Rehrey, Siering, & Hostetter, 2014; Marquis, 2015).

Through encouraging collaboration, we can see the emergence of an informal community of practice among scholars. A community of practice is a group of individuals who share a concern or passion for a specific domain and

learn how to improve through regular interaction (Wenger, 2011). Wenger (2011) defines three essential characteristics of a community of practice: the domain, the community, and the practice. The first characteristic, domain, is defined as the shared interest of the group that gives it identity and purpose (Wenger, 2011). For a SoTL community of practice, the domain is a shared interest in improving teaching and learning through scholarly inquiry. The second characteristic is the community, which is defined as members engaging in joint activities and interactions that build relationships to enable learning from one another (Wenger, 2011). A SoTL community of practice provides a platform for continuous relational learning where members can ask questions and receive feedback from others (Tierney et al., 2020). Within this community, faculty members with diverse backgrounds and experience can come together to engage in shared development. The third characteristic is the practice, which is defined as members being active practitioners developing and sharing resources through their experiences (Wenger, 2011). In the SoTL context, members in the community of practice engage in shared, ongoing inquiry into their scholarship. Members can share these resources with one another and support the development of broader frameworks based on their experiences. This shared practice not only improves individual teaching practices but also contributes to the broader scholarly knowledge within the community.

Collaborative Scholarship of Teaching and Learning Case Study

In the Fall 2022 semester, the Scholarship of Teaching and Learning team at Humber Polytechnic initiated a call to all faculty and staff at the institution to join a collaborative SoTL project. While there have been internal SoTL funds available at Humber Polytechnic for several years, barriers such as lack of time and low levels of comfort with engaging in research have persisted as significant hurdles to participation for some individuals.

"For those new to research, significant barriers include limited experience and knowledge in research methodologies and data analysis. The SoTL Collaborative research project addressed these barriers effectively by providing a well-defined process and substantial support, which alleviated much of the intimidation and stress associated with initiating research activities."

Quote from a member of the group in response to the question: "If you are new to research—what are some of the main barriers to getting started in research in your opinion?"

The SoTL team, who were also co-leading this project, often reflected on the individuals they were not able to reach with these traditional grant funding options. The objective of the collaborative SoTL project was to provide a more accessible way for anyone at the institution to participate and gain experience with SoTL research.

"I wanted to get experience with research despite not having the qualifications or time to start my own research project. I also wanted to make connections with my colleagues and learn from them about their interests and areas of expertise."

Quote from a member of the group in response to the question: "What appealed to you about the project?"

A total of 12 faculty and staff (not including the two SoTL team members facilitating the project) answered the initial call for participation, with seven members remaining as part of the working group throughout the duration of the project. These individuals came from across the institution, representing six different faculties and departments. Most of the group had some previous experience with scholarly activities; however, many identified as having low levels of comfort with research.

"The SoTL collaborative project was particularly appealing as it offered a structured means to participate in academic research and contribute valuable insights to our institution despite having minimal research experience."

Quote from a member of the group in response to the question: "What appealed to you about the project?"

In the first group meeting, members introduced themselves, as most had never met prior to the session. The group began with a collaborative brainstorming exercise, where all members came together to discuss potential research topics. It was important that the topic of the project was decided collectively by the group and that everyone had a chance to provide input to encourage a sense of shared ownership

of the project. Each member was given the opportunity to share their own interests in potential research topics. The two general research areas that were most popular among the group were artificial intelligence and personalized learning. With the emergence of large-language models such as ChatGPT, many members were interested in experimenting with these tools in their classrooms. Collectively, the group decided to explore the research question: What are students' and instructors' perceptions of using ChatGPT to personalize course assessments?

Once the topic was established, the group began defining individual roles and responsibilities for the project. Some faculty members began reviewing literature and working on how they would incorporate the research topic into their course, while others started on the Research Ethics Board (REB) application. This division of tasks allowed members to contribute and gain experience in the areas they were most interested in. Having members take on different responsibilities also saved a considerable amount of time, as not everyone needed to contribute to every aspect of the project.

Mentorship played a key role in the project, with more experienced members encouraging the development of research skills and capacity while still meeting less experienced members where they were. While some group members were hesitant to spearhead initiatives like the research ethics proposal, they were eager to support and learn from other, more experienced members.

> *"As an academic and support staff member, advancing my research skills and experience is a priority. Collaborating on a SoTL project provided an excellent opportunity to engage in research despite my limited prior experience. The support, guidance, and resources offered by the SoTL team were instrumental in enabling our group to successfully conduct and complete the research project."*
>
> *Quote from a member of the group on their experience.*

The three courses that were included as part of this project were: an introductory media studies course, an introductory reading and writing skills for English for Speakers of Other Languages (ESOL) course, and an introductory supply chain management course. Each of these courses was taught

by a member of the research team. Faculty members were given the freedom to adapt the research intervention to fit their specific classroom. This flexibility was important, as it allowed for faculty to maintain their individual teaching philosophies and course requirements while simultaneously adapting to students' needs. The goal was to encourage members to reflect on their teaching approach and encourage them to make changes in a way that made sense for their particular context.

Anonymous online survey data was collected from students at the beginning and end of each course, exploring their perceptions and experience with artificial intelligence tools in the classroom. The surveys were also used to investigate students' perceptions and experiences with personalized learning in the classroom. While our survey sample was small, faculty appreciated the opportunity to gain insights from their students regarding what worked well, what didn't work as well and considerations for the future.

The faculty members who took part in this project also participated in a focus group session at the end of their courses. The focus group session was moderated by two of the non-faculty staff members in the group. The purpose of this focus group session was to provide another form of data collection and to give faculty instructors a chance to reflect on their course experience. Members appreciated this opportunity for reflection and dialogue with other instructors as it provided a space to share insights and challenges. This reflective process not only deepened their understanding of their teaching practices but also allowed them to consider how their experiences might inform future iterations of their courses.

The research story of the project was presented at Humber Polytechnic's annual teaching and learning showcase event. Group members had a chance to share their experience working on the project and present some of the lessons learned based on data collected as well as personal reflections.

> *"Participation in the SoTL Collaborative research was profoundly rewarding, as it facilitated the development of research skills, fostered engagement with colleagues, and enabled contributions to meaningful discourse on teaching and learning."*

Quote from a group member in response to the question: "What did you find most rewarding about participating in this project?"

Conclusion

The potential for the Scholarship of Teaching and Learning to enhance educational practices in Canadian colleges and polytechnics is substantial; yet there are significant barriers to participation that remain. Our exploration highlights that offering collaborative-based scholarship opportunities can serve as a potential strategy for managing these challenges and promoting greater SoTL engagement, especially among individuals with lower confidence in their research skills. The result of this collaboration is the formation of a SoTL community of practice in which individuals can develop professionally while also cultivating a broader institutional culture where educational innovation can thrive.

Note on Contributors

Brendan Wehby-Malicki—Acting Program Manager, Internal Funding, Innovative Learning, Humber Polytechnic. Toronto, Ontario, Canada. Brendan.Wehby-Malicki@humber.ca

Siobhan Williams, PhD—Program Manager, Internal Funding, Innovative Learning, Humber Polytechnic. Toronto, Ontario, Canada. Siobhan.Williams@humber.ca

M Redwan Zinan Siddiqui, MBA—Professor, Supply Chain Management; PhD in Management Sciences Student, University of Waterloo, Ontario, Canada. MRedwanZinan.Siddiqui@humber.ca

Erin Gray, MA—Associate Dean, Program Delivery, Education and Training Solutions, Humber Polytechnic, Toronto, Ontario, Canada Erin.Gray@humber.ca

Francesca Discenza, MA—Placement Advisor, Work Integrated Learning Department, Faculty of Applied Science and Technology, Humber Polytechnic. Toronto, Ontario, Canada. francesca.discenza2@humber.ca

Noreen Santilli, MA—Professor, Faculty of Media & Creative Arts, Humber Polytechnic. Toronto, Ontario, Canada. noreen.santilli@humber.ca

Ajay Rampersad, MSc—Program Coordinator, Competency-based Education, Faculty of Health Sciences and Wellness, Humber Polytechnic. Toronto, Ontario, Canada. ajay.rampersad@humber.ca

Truc Le, EdD—Professor, Faculty of Liberal Arts and Sciences, Humber Polytechnic. Toronto, Ontario, Canada. thithanhtruc.le@humber.ca

Kayla Charbonneau—Registrarial Services Associate, University of Guelph-Humber. Toronto, Ontario, Canada. kayla.charbonneau@guelphhumber.ca

References

Arrington, N. M., & Cohen, A. L. (2015). Enhancing scholarship of teaching and learning through micro-level collaboration across two disciplines. *International Journal of Teaching and Learning in Higher Education, 27*(2), 194.

Billot, J., Jiao, X., Kumar, R., & Smith, R. (2011). Developing research skills and capability in higher education: Combining collaborative research with mentoring. *Journal of Educational Leadership, Policy and Practice, 26*(1), 42-55.

Boyer, E. L. (1990). Scholarship Reconsidered: Priorities of the Professoriate. Princeton, New Jersey: Princeton University Press, The Carnegie Foundation for the Advancement of Teaching.

Chng, H. H., Mårtensson, K., & Leibowitz, B. (2020). Leading change from different shores: The challenges of contextualizing the scholarship of teaching and learning. *Teaching and Learning Inquiry, 8*(1), 24-41.

Draeger, J. (2013). Why Bother with the Scholarship of Teaching and Learning? *Insight: A Journal of Scholarly Teaching*, 8, 12-19.

Fanghanel, J. (2013). Going public with pedagogical inquiries: SoTL as a methodology for faculty professional development. *Teaching and Learning Inquiry, 1*(1), 59-70.

Felten, P. (2013). Principles of good practice in SoTL. *Teaching and Learning Inquiry, 1*(1), 121-125.

Fisher, R. (2009). A Framework for Research at Canadian Colleges. *College Quarterly, 12*(4).

Frake-Mistak, M., Friberg, J., & Hamilton, M. (2023). Reimagining the 4M Framework in educational development for SoTL. *Teaching and Learning Inquiry, 11*.

Friberg, J. (2016). Might the 4M framework support SoTL advocacy. *The SoTL Advocate*.

Hamilton, M., & Simmons, N. (2021). How educational developers can re-engage mid-career faculty using SoTL. *Imagining SoTL, 1*, 58-76.

Happel, C. A. C., & Song, X. (2020). Facilitators and Barriers to Engagement and Effective SoTL Research Collaborations in Faculty Learning Communities. *Teaching & Learning Inquiry, 8*(2), 53-72.

Hoekstra, A., Dushenko, W. T., & Frandsen, E. J. (2010). Fostering a culture of scholarship of teaching and learning (SoTL) at a polytechnic institution. *Transformative Dialogues: Teaching and Learning Journal, 4*(1).

Hubball, H., Clarke, A., & Poole, G. (2010). Ten-year reflections on mentoring SoTL research in a research-intensive university. *International Journal for Academic Development, 15*(2), 117-129.

Hubball, H., Pearson, M. L., & Clarke, A. (2013). SoTL inquiry in broader curricular and institutional contexts: Theoretical underpinnings and emerging trends. *Teaching and Learning Inquiry, 1*(1), 41-57.

Hutchings, P., & Shulman, L. S. (1999). The scholarship of teaching: New elaborations, new developments. *Change: The Magazine of Higher Learning, 31*(5), 10-15.

Jiao, X., Kumar, R., Billot, J., & Smith, R. (2011). Developing research skills and capability in higher education: Combining collaborative research with mentoring. *Journal of Educational Leadership, Policy and Practice, 26*(1), 42-55.

Kensington-Miller, B., Webb, A. S., Maheux-Pelletier, G., Gansemer-Topf, A., Lewis, H., Hofmann, A., & Luu, J. (2022). Our international SoTL journey: brokering across academic hierarchies and boundaries. *Teaching in Higher Education*, 1-18.

Lawrie, G., Marquis, E., Fuller, E., Newman, T., Qiu, M., Nomikoudis, M., Roelofs, F., & Van Dam, L. (2017). Moving towards inclusive learning and teaching: A synthesis of recent literature. *Teaching and Learning Inquiry, 5*(1), 9-21.

MacKenzie, J., & Meyers, A. (2012). International collaboration in SoTL: Current status and future direction. *International Journal for the Scholarship of Teaching and Learning, 6*(1), 4.

Marquis, E. (2015). Developing SoTL through organized scholarship institutes. *Teaching and Learning Inquiry, 3*(2), 19-36.

Marquis, E., Holmes, T., Apostolou, K., Centea, D., Cockcroft, R., Knorr, K., Maclachlan, J. C., Monteiro, S. D., & Karamanis, T. (2017). SoTL research fellows: Collaborative pathfinding through uncertain terrain. *The Canadian Journal for the Scholarship of Teaching and Learning, 8*(3).

Marsh, H. L., & De Courcy, E. (2024). From industry to SoTL: Making the case for taking the leap. In J. Miller-Young & N. L. Chick (Eds.), *Becoming a SoTL scholar* (pp. 157-173). Elon University Center for Engaged Learning.

Miller-Young, J., & Yeo, M. (2015). Conceptualizing and communicating SoTL: A framework for the field. *Teaching and Learning Inquiry, 3*(2), 37-53.

Rehrey, G., Siering, G., & Hostetter, C. (2014). SoTL principles and program collaboration in the age of integration. *International Journal for the Scholarship of Teaching and Learning, 8*(1), 2.

Rosenkrantz, O. (2013). The Challenge of Finding Faculty Time for Applied Research Activities in Ontario Colleges. *College Quarterly, 16*(3).

Schroeder, C. (2007). Countering SoTL marginalization: A model for integrating SoTL with institutional initiatives. *International Journal for the Scholarship of Teaching and Learning, 1*(1), 15.

Simmons, N. (2020). The 4M Framework as Analytic Lens for SoTL's Impact: A Study of Seven Scholars. *Teaching & Learning Inquiry, 8*(1), 76-90.

Tierney, A. M., Aidulis, D., Park, J., & Clark, K. (2020). Supporting SoTL Development through Communities of Practice. *Teaching & Learning Inquiry, 8*(2), 32-52.

Webb, A. S. (2019). Navigating the lows to gain new heights: constraints to SOTL engagement. *The Canadian Journal for the Scholarship of Teaching and Learning, 10*(2), 1-16.

Wenger, E. (2011). Communities of practice: A brief introduction. *National Science Foundation (U.S.)*

Wilson-Mah, R., Axe, J., Childs, E., Hamilton, D., & Palahicky, S. (2022). A Collaborative Self-Study: Reflections on Convening a SoTL Community of Practice. *International Journal for the Scholarship of Teaching and Learning, 16*(2), 4.