Characterizing SoTL Across Canada

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Abstract
SoTL Canada recently conducted a survey to gain insight into the Scholarship of Teaching and Learning (SoTL) activities of faculty and staff at institutions of higher education across Canada. Questions were guided by several principles, including: (a) identifying who is doing SoTL (such as personal, institutional, geographical and professional characteristics); (b) characterizing how SoTL is being conducted, supported, and disseminated (such as collaborations with peers and students, the number of active projects), and (c) differentiating the levels at which SoTL activities are occurring and funded. While we likely did not fully capture the work being done, our inquiry nonetheless provides important data related to the current nature and scope of SoTL in Canada. We noted that the people doing SoTL show a wide diversity of characteristics including appointments and disciplinary affiliations although a majority of respondents were female, and that collaborations with both colleagues and students were commonplace. SoTL continues to be conducted primarily at the classroom level, and approximately 65% of respondents have received funding, mostly from the institutional level. We also found an increased amount of activity compared to the last Canadian survey conducted in 2012, in particular by staff from Centres for Teaching and Learning. Survey participants reported discussing their SoTL findings with their colleagues more often than with their students. A number of areas of future research are identified.

Keywords
SoTL, Canada, activity, collaborations, levels; ACEA, Canada, activité, collaborations, niveaux

Cover Page Footnote
The authors would like to thank Deborah Kiceniuk, Chris Ostrowski, and Andrea Webb for their insights into the conceptualization of this study. The authors would also like to thank Nicola Simmons and Ken N. Meadows for their help with survey development. And lastly, many thanks to all of the participants for their contributions.

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The Scholarship of Teaching and Learning (SoTL) involves post-secondary practitioners conducting inquiry into teaching and learning processes in higher education contexts and is the systematic study of teaching and/or learning and the public sharing of such work through presentations, performance, or publications (McKinney, 2006; Potter & Kustra, 2011). SoTL research and the results that come from it are intended to help to improve teaching and/or learning (McKinney, 2007). This can be applicable at the classroom, departmental, or institutional level, dependent on the aim and context of the study.

SoTL inquiry into the teaching and learning processes in higher education has gained significant interest over the past decade with many dedicated disciplinary and multidisciplinary conferences and journals. There are several reasons for the interest and need for change in teaching and learning. Firstly, there has been a “knowledge explosion” which is a greater understanding behind technology, medicine, communication, biology, the brain etc., that has generated interest in how students learn and how to best prepare them to live in this changing world (Cross, 2006). Secondly, there is more diversity in the students who attend post secondary education (Cross, 2006). Lastly, there is increased pressure from the government, parents, and general public to make changes in the educational system at all levels (Cross, 2006). The need for change and better understanding of teaching and learning in higher education has started a movement in which people from different disciplines and institutions, including researchers, teachers, and educational developers, are contributing to the advancement of SoTL (Schonwetter & Bateman, 2010). This has led to more people working on SoTL projects and increased the awareness of SoTL work in higher education (McKinney, 2007).

However, despite the significant advancements SoTL has made, the level of SoTL activity and awareness may vary by country, region, and institution. Research conducted at Canadian institutions has reported that, due to lack of recognition as well as time constraints, it can be hard for researchers involved in SoTL to create and maintain their projects (Marquis & Ahmad, 2016), to learn new approaches to research (Webb, 2016), and that some SoTL scholars feel they have to choose between SoTL and disciplinary research (Miller-Young et al., 2016). Also, the national level of support for SoTL work in Canada, including funding, is minimal due to teaching and learning being considered a provincial concern, which is different in other countries, such as the United Kingdom and Australia (Poole & Simmons, 2013). Therefore, although there is increasing interest and awareness of the value of SoTL work, barriers to SoTL and its impact in Canada are still present.

In 2012, The Society for Teaching and Learning in Higher Education (STLHE) surveyed its members in 2012 regarding their SoTL activity and impact on teaching, and how well they felt SoTL was supported at the individual level (e.g., career advancement), department, institution, and disciplinary/national/international levels (Wuetherick & Yu, 2016). Out of 140 responses, 93% of respondents involved in SoTL stated that it contributed to their excitement in teaching, 94% of respondents said that their students’ learning improved due to their involvement in SoTL, and most participants reported that the importance of SoTL was recognized at the departmental and institutional level. Also in 2012, SoTL Canada was founded; this was a new constituency of STLHE, with some of its goals being to contribute to “scholarship about teaching and learning in higher education” and to advocate “for the importance and value of SoTL in enhancing post-secondary student learning” (SoTL Canada, 2019). In 2017, the executive of SoTL Canada felt that to meet their goals, it would be useful to get updated information about the nature of SoTL activity across Canada and to cast a net more broadly. Additionally, since responses to the 2012 survey were only reported in aggregate, we were interested in examining SoTL activity by job
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Profile, institution, discipline, and more. Finally, our interests were about the levels and nature of SoTL activity across all institutions, disciplines, and job responsibilities, regardless of whether those involved were members of STLHE or SoTL Canada.

Knowing what is currently happening (or not) in terms of activity and support is important for studying the field and informing advocacy efforts. The present study builds on the evidence collected from STLHE members in 2012 (Wuetherick & Yu, 2016) with a focus on characterizing the nature and scope of SoTL activities across Canada. Specifically, we wanted to know (a) Who is doing SoTL?, (b) How is it conducted, supported, and disseminated?, and (c) At what levels is it occurring? Two past members of the SoTL Canada executive are authors of this study and received input from other members.

Method

This national study consisted of an online survey that invited participation via a snowball sampling technique, as well as listserv and blog announcements. A concurrent analysis approach was taken, in which quantitative and qualitative data were analyzed separately and then compared to determine how much the corroborate each other; this consisted of descriptive statistics on the closed-ended multiple-choice questions and a one-stage thematic analysis of the open-ended questions. Open-ended questions were analysed using a process of categorizing to identify broader themes as outlined in Braun and Clarke’s (2006) step-by-step guide for interpreting qualitative research data. This study was approved by the Research Ethics Board at the University of Alberta.

Survey

The survey was hosted online and consisted of 20 multiple-choice questions and included several open-ended options allowing respondents to expand on their responses. Survey questions were developed by members of the SoTL Canada executive and input on the survey design and questions was sought from several respected SoTL scholars. Questions were guided by several principles, including: (a) identifying who is doing SoTL (such as personal, institutional, geographical and professional characteristics); (b) characterizing how SoTL is being conducted, supported and disseminated (such as collaborations with peers and students, the number of active projects, research funding, and dissemination strategies), and (c) differentiating the levels at which SoTL activities are occurring. It should be noted that only respondents who answered that they “engage in SoTL myself” were exposed to all survey questions; skip logic was used so that not all respondents answered all questions. As well, respondents were able to skip any questions that they did not wish to answer. Survey questions are provided in Appendix A.

Recruitment

This study used three strategies to recruit participants. For the first strategy, we used snowball sampling starting with SoTL Canada’s recently compiled list of “SoTL Liaisons,” who were individuals who had agreed to serve as institutional communicators for SoTL Canada. In snowball sampling, current study subjects recruit acquaintances as future subjects; this is considered a non-probability sampling technique in which the sample group “grow[s] like a rolling snowball”, and is particularly useful in hidden populations (Goodman, 1961). As there is no common or mandatory platform for individual SoTL practitioners in Canada, this was deemed to
be an efficient strategy with which to recruit subjects. We had attempted to have a liaison at every
post-secondary institution but were unable identify any in the Northwest Territories, Nunavut, or
the Yukon (see Appendix B for number of Universities, colleges, and liaisons by province and
territory). All 84 SoTL Liaisons were contacted by email in late October 2017 and were asked to
disseminate the link to the online survey to all individuals who they knew, or suspected, were
involved in SoTL at their institution. A reminder email to the Liaisons to distribute the survey
before the deadline was sent in early December 2017 and liaisons from provinces with poor
representation were contacted again in mid-January 2018. For the second strategy, a description
of the project with a link to the survey was posted on the SoTL Canada blog on two separate
occasions. And in the third strategy, an email with a survey link was sent to members of the STLHE
listservs inviting them to participate. In the recruitment letter, we explicitly defined SoTL activities
broadly, ranging from actively being engaged in SoTL research projects to attending SoTL
presentations and reading SoTL literature. We also mentioned that SoTL may be referred to by
other names, such as educational inquiry and teaching-based research, but that fundamentally,
SoTL investigates teaching and learning in post-secondary education. The survey was hosted by
Survey Monkey and was open from October 29th, 2017 to February 5th, 2018. Graduate students
were not included in the present study.

Results

The summarized survey results are organized by respondents’ academic and institutional
profiles, the nature of their SoTL activities, and their funding for SoTL activities. Where there
were notable differences by profile, institution size, or activity level (individual, department,
institution), these results are also reported. There were no differences in patterns of responses
according to gender, and we did not compare Universities to Colleges due to a low response rate
from college instructors.

Participants and Profiles

We received 351 responses from faculty and staff at institutions of higher learning (both
universities and colleges) across Canada. Participants were either currently involved in SoTL or
had been involved in SoTL in the past. The survey did not require subjects to answer every
question; therefore, a variable number of responses is reported per question, below. Graduate
students were not included in the present study.

Participants’ were surveyed about their individual profiles, including gender, age, and
province or territory. The majority (63%) of respondents were female, 32% were male, and 5%
identified as “other.” The majority (40%) of respondents were between the ages of 40 and 50 years,
27% were between 30 and 40 years, 19% were between 50 and 60 years, 10% were over 60 years,
and 4% were between 20 and 30 years. There was a considerable discrepancy between
representation of SoTL practitioners from across Canada, with almost 60% of respondents residing
in Ontario and another 30% from Western Canada, including Alberta and British Columbia. There
were no participants from either the Northwest Territories, Quebec, Nunavut, or the Yukon, and
only 3% were from Nova Scotia, 3% from New Brunswick, 1.6% from Saskatchewan, 1% from
Manitoba, 0.8% from Newfoundland and Labrador, and 0.8% Prince Edward Island. The smaller
numbers likely represent not only lesser participation in the survey but also smaller populations of
instructors. Appendix B shows the number of publicly funded universities and colleges in each
province and territory; these appear to be directly related to the province’s response rate, with the exception of Quebec.

Academic profiles of the respondents, including type of institution and approximate student enrollment, as well as academic rank, title, or position, number of years in current position, and primary faculty/unit affiliation are presented in Table 1. The vast majority (92%) of respondents were at a university while a small minority were at a college; “other” institutions included polytechnic and technical institutes. Half (50%) of respondents came from institutions with greater than 20,000 students enrolled. Participants came from all categories of academic rank; “other” positions included instructor/lecturers, lab coordinators, administrative staff, and managers/directors. There was wide variety in the number of years at the current position, as well as primary faculty/unit affiliation. The largest group of participants were from science, technology, engineering, and math (STEM), followed by staff from centres for teaching and learning (CTLs), Social Sciences, and Arts and Humanities; “other” affiliations included Business, Health Sciences (nursing, medicine, pharmacy etc.) and Education.

Table 1
Participants’ Academic Profiles

<table>
<thead>
<tr>
<th>Type of Institution $n = 257$</th>
<th>% of Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>University $91.83$</td>
<td></td>
</tr>
<tr>
<td>College $7.00$</td>
<td></td>
</tr>
<tr>
<td>Other $1.17$</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Approximate student enrollment $n = 257$</th>
<th>% of Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater than 20,000 students $50.19$</td>
<td></td>
</tr>
<tr>
<td>5,000 to 10,000 students $12.06$</td>
<td></td>
</tr>
<tr>
<td>10,001 to 15,000 students $11.28$</td>
<td></td>
</tr>
<tr>
<td>5,001 to 10,000 students $8.95$</td>
<td></td>
</tr>
<tr>
<td>15,001 to 20,000 students $17.51$</td>
<td></td>
</tr>
</tbody>
</table>
Respondents were asked whether SoTL was included as part of their job descriptions or expectations; more than half (54%) of 217 respondents responded “no.” For those who responded “yes,” they were asked to “Please describe how SoTL is articulated in your job description and/or expectations” and were provided with an open text box for their response. Categories describing how SoTL is included in job descriptions for 46% of respondents who answered “yes” are presented in Table 2.
<table>
<thead>
<tr>
<th>Category</th>
<th>Example of Responses</th>
</tr>
</thead>
</table>
| Done as research                     | ● “I am a ‘teaching stream’ faculty member, in contrast to the typical ‘research stream’. I am expected to do research that is oriented to SoTL towards progression through the ranks”  
● “My position has expectations of ‘Practice of Professional Skills’ which comprises both professional practice and research into SoTL. Research is expected to be peer reviewed and published”  
● “Generally, to engage in research as the teaching and learning librarian”                                                                                                                                  |
| Faculty requirement/job description  | ● “SoTL fits under the broader category of ‘Scholarship’ in our contractual obligations. Faculty are responsible to teach for at least 60% of their workload and engage in scholarship and service for at least 10% each, with the remaining workload allocated to whichever category we prefer”  
● “Expected to engage in the scholarship related to teaching and learning”                                                                                                                                           
● “It is part of my scholarship portfolio and has been since the start of my career”                                                                                                                                 |
| Help and/or contribute to others involved in SoTL | ● “Contribute to and support related research on learner-centred educational technologies (e.g. conference presentation)”                                                                                            
● “Sets an example for others by actively trying to increase medical knowledge or enhance medical education by engaging in research and scholarly activities”                                                                  
● “Responsible for providing advice and guidance to faculty members and instructors in the completion of research applications related to teaching and learning projects. -Lead some of the Teaching and Learning Services SoTL projects. -Promote SoTL to faculty members and encourage them to engage in SoTL -Assist researchers and research teams in preparation and submission of funding applications - Assist with ethics applications, research instruments, literature reviews - Hire and supervise Research Assistants” |
| Director/Designer/Advisor             | ● “I am an instructional designer, coordinator of digital learning and adjunct professor in instructional design, instructional practices and media development”  
● “I am currently seconded to a Learning Designer position, so grounding pretty much all our activities in SoTL is the expectation”  
● “I advise professors in my university”                                                                                                                                                               |
| Meets requirements for scholarly teaching and leadership | “I am ATS (temporary) faculty. The expectation is that I do 10% scholarly activity as part of my contract otherwise I will be terminated”  
| | “It is one of a number of options for scholarly activity”  
| | "Expected to engage in the scholarship related to teaching and learning"  
| Administrative/Development | “As an Educational Developer, we are meant to stay informed regarding current research and conversations in the field of teaching and learning. We often rely on data and scholarship to inform program development and ongoing program improvement. This is often more of an implicit rather than explicit part of our role and not always formally written in our job descriptions”  
| | “As an Educational Developer, I support and engage in SoTL. It is one of my lead areas”  
| | “As an Educational Developer, SoTL research on aspects of my work is expected. In addition, partnering with, supporting, and/or mentoring faculty, staff and students in SoTL is a job requirement”  
| Involved in education, teaching and/or learning (so, engaged in SoTL because they are involved in teaching and learning, but it may not be a requirement) | “I work in a teaching centre which consults on SoTL research design and dissemination”  
| | “I am a staff member in the area of student academic support and I am expected to engage in professional development in my field of work. I am not specifically asked to engage in formal SoTL research projects”  
| Personal interest | “I have selected it as part of my work load”  
| | “Interest in learning qualitative and quantitative methods of linguistic analysis. Interested in the writing studies and the writing of First Nations scholars”  

### Activities

Figure 1 and 2 illustrate the ways in which respondents are involved in SoTL work, including the degree of involvement in SoTL and the number of projects being worked on in 2017/2018. The majority (77%) of respondents engage in SoTL themselves, with almost 50% providing informal support to others in SoTL. Only 7% of respondents were not currently involved in SoTL in any capacity, while 3% were involved in other ways, such as teaching or writing about SoTL. Close to half (49%) of respondents were currently working on multiple SoTL projects. It should be noted that while the question “I engage in SoTL myself” was intended to describe personal involvement in SoTL (either independently or in collaboration with others), there is the...
possibility that the question may have been misinterpreted to represent only independent involvement.

Figure 1. Degree of involvement in SoTL. Responses to the question “How are you involved with SoTL? Please select all that apply.” (n=315)

Figure 2. Number of projects. Responses to the question “How many SoTL projects are you working on during the 2017/2018 academic year?” (n=216)

Figure 3 depicts the frequency of collaborations by SoTL practitioners. Only 6% of respondents have never collaborated on SoTL research, with most respondents reporting collaboration with variable frequency. Figure 4 depicts with whom individuals collaborate on SoTL activities; that is, both independently and with colleagues (not including students). Multiple responses were allowed for this question. The majority of respondents report collaborating with colleagues both within and outside of the departments and units at their institutions, while fewer report collaborations with colleagues outside of their institutions. Respondents were also asked whether they ever supervised or partnered with students in their SoTL work; a small majority
(52%) of respondents report that they had collaborated with a student, either at the undergraduate or graduate level.

Figure 3. Frequency of collaborations. Responses to the question “How often do you collaborate on SoTL research?” (n= 217)

![Figure 3](image)

Figure 4. Independent and collaborative SoTL activities (with colleagues, not including students). Responses to the question “With whom do you engage in SoTL activities? Please select all options that apply.” (n = 217)

![Figure 4](image)

The vast majority (88%) of respondents have investigated questions about teaching and learning at the classroom level, close to 50% have investigated questions about teaching and learning at the program level, 39% have investigated questions about teaching and learning at the institutional level, and close to 24% have investigated questions about teaching and learning at the provincial and national level. It should be noted that the nature of SoTL work at the national level was not specified in the survey, and could be interpreted in a variety of ways, such as nation-wide research about individual classrooms, collaborations with instructors at other institutions, or research about national funding policies or another national entity.

Finally, close to 37% of survey respondents do not conduct research other than SoTL. Those who do both SoTL and other research reported their disciplinary research as the other type.
Support

When participants were asked about what funding they had received for their SoTL work, a majority reported having received funding, most often at the institutional level (Figure 5). We also asked participants to describe “external” sources of funding in detail, and the categories of responses are presented in Table 3. It should be noted that some of these sources, such as departmental/unit awards, internal institution grants, travel grants, and teaching and learning specific grants, are not actually “external” sources of funding, but rather would more appropriately be captured by one of the item responses depicted in Figure 5. Therefore, the percentages reported here should be interpreted with caution, although it is clear that many types of SoTL funding have been received by participants.

**Figure 5.** Funding received. Responses to the question, “What funding, if any, have you received to support your SoTL activities? Please select all options that apply.” (*n* = 217)

**Table 3**

<table>
<thead>
<tr>
<th>Category</th>
<th>Example Funding “Sources”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department/unit</td>
<td>● Small faculty-wide funding (competitive) in the form of a few hundred dollars for each of two projects&lt;br&gt;● Faculty research fund application-competitive&lt;br&gt;● The SoTL work I am involved in is part of a larger academic support mandate and so fits within the umbrella funding allocated to our department</td>
</tr>
<tr>
<td>Institution</td>
<td>● Internal institutional grants</td>
</tr>
</tbody>
</table>
We also looked at how levels of funding sources varied by institution size, and from which levels different positions and disciplines tended to get their funding. For all institution sizes, more respondents reported receiving funding at the institutional level compared to departments and faculties, although the difference was bigger for bigger institutions (Figure 6). There were substantial percentages of practitioners doing SoTL without funding at all institution sizes, ranging from 13% at the smallest institutions to 29 percent at institutions of up to 20,000 students (Figure 6). Perhaps not surprisingly, all levels of Professors reported getting the most funding from the institutional level with the percentage of responses from each position increasing with seniority level, and the percentage of those having received no funding decreasing with seniority level (Figure 7). Staff in the “other” category had the highest percentage of responses having received no funding (34%), and the lowest percentage at the institutional level (24%) (Figure 7). There were not substantial differences between the different disciplinary categories, with approximately half of respondents in each category receiving funding from the institutional level (Figure 8) except for those who worked in Centres for Teaching and Learning, only 22% of whom reported receiving funding from the institutional level. Since only two study participants from Teaching and Learning Centres identified as faculty members (both were Assistant Professors, the rest were

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Details</th>
</tr>
</thead>
</table>
| **Provincial/National**            | Higher Education Quality Council of Ontario (HEQCO)  
                                          Social Sciences and Humanities Research Council (SSHRC)  
                                          Educational Developers Caucus (EDC)  
                                          Atlantic Association of College and University Student Services (AACUSS)  
                                          Canadian Association of University Continuing Education (CAUCE) |
| **International**                  | “My Canadian based SoTL work has been unfunded. I have rec'd funding from the International Development Research Centre for work that was conducted in Kenya” |
| **Industry funding**               | Industry supported funding |
| **Travel grants**                  | Our institution’s teaching and learning centre provided competitive travel awards to cover part of the cost going to presenting at relevant conferences  
                                          I have received partial funding to attend conferences to disseminate my findings |
| **Teaching and/or learning**       | Funds from the university’s teaching and learning centre  
                                          Small seed grant from our Centre for Teaching Excellence  
                                          Chancellor’s chair for teaching excellence  
                                          Learning innovation and teaching enhancement (LITE) |
| **Teaching awards**                | I fund through my teaching awards  
                                          I have used my professional development funds, and in the past, I have used a teaching award to fund these activities |
administrators, educational developers/consultants, instructional designers and other staff) we grouped Teaching and Learning staff with “Other” in Figure 7.

**Figure 6.** Levels of funding sources by institution size.

**Figure 7.** Levels of funding sources by position.
Figure 8. Level of funding by disciplinary/unit affiliation (Science, Technology, Engineering, and Math; Social Sciences; Arts and Humanities, Centres for Teaching and Learning).

Dissemination

Survey respondents disseminated their SoTL research most commonly at teaching and learning conferences, while just under half had published the results of their work in peer reviewed journals (Figure 9). A majority of respondents had shared their work with both colleagues inside and outside of their departments or units; however, only 44% had shared their results with their students. Also notable was that a majority of respondents have shared their SoTL work at discipline-based conferences. Some notable responses to the “Other” category of responses were news media, graduate theses, and local or regional meetings. Similar to levels of funding trends, participants from institutions with 15,000-20,000 students reported the highest publication rates, followed by participants from institutions with more than 20,000 students (49%), 0-5,000 students (42%), 5001-10,000 (41%), and 10,001-15,000 (32%). It should be noted that some institutions may be over or underrepresented in these data. Approximately half of both female and male respondents have published their SoTL work (47 and 48%, respectively).
Limitations

This study used primarily snowball sampling, which has the limitations that the population sampling is not exact, and the total population size is unknown. Hence, we did not conduct any statistics and limited our analysis to description. We saw underrepresentation of some provinces and territories while Ontario, British Columbia, and Alberta made up 90% of the total responses. This could have resulted in a skewed representation of SoTL work across Canada because the majority of results came from only three provinces, although relative to population and institutional density, this is not entirely unexpected, since as illustrated in Table 6, 52% of universities and 41% of colleges are found in Alberta, British Columbia, and Ontario. Similarly, there was underrepresentation of colleges in this study. As previously discussed, one reason for this may have been the lower number of SoTL liaisons that were identified at these institutions. As shown in Appendix B, there were 29 college liaisons as compared to 59 university liaisons. So, while it is possible that we failed to capture some of the SoTL work being done at the college level due to less reach by the SoTL liaisons, this may also be related to fewer SoTL activities at this level, which could be expected due to their reduced research emphasis. That being said, colleges recently have become eligible for major research funding in partnership with industry, and they have a long history of a focus on education. For these reasons, we suggest that SoTL activities in colleges should be a priority in future research in this area. It should also be noted that the college strike in Ontario took place in part during our survey window, which may have reduced responses from Ontario, which has the second highest density of colleges next to Quebec. We did note a higher response rate from SoTL practitioners in BC (which has the third highest density of colleges) as compared to Ontario colleges, but since there were more SoTL liaisons at the college level in BC, it is unclear whether the lower response rate from Ontario was related to the strike or was due to other reasons, such as fewer liaisons. We also failed to capture some information, especially demographic, from survey respondents due to the voluntary response design of our survey; however, we felt that this was an important feature, in order to allow subjects to only disclose that information that they were comfortable disclosing.
Discussion

This Canadian study sought (a) to identify who is doing SoTL; (b) to characterize how SoTL is being conducted, supported, and disseminated; and (c) to differentiate the levels at which SoTL activities are occurring. Our results illustrate the diversity of professional roles of SoTL practitioners and the institutions they work in. Study participants included faculty and staff at universities and some colleges across Canada who represented a wide range of disciplines, ranks, ages, and years of work experience. Knowing levels of activity and support at institutions across the country provides a foundation for advocacy nationally, locally, and by individual SoTL practitioners who wish to advocate for SoTL recognition and support within their own networks (Miller-Young et al., 2017).

Who is Engaged in SoTL in Canada?

One of the aims of this study was to identify who was engaged in SoTL activities in Canada. Questions that targeted this aim asked about personal and professional profiles.

The majority (63%) of our respondents were female, and were primarily dispersed between the ages of 30 and 60 years of age, with approximately 8% between the ages of 60 and 70. This is similar to Wuetherick and Yu (2016), who found that 59% of SoTL survey respondents were female. The greater proportion of females observed in the present study is also consistent with research by McKinney and Chick (2010), who found that women comprised the majority of participants in a variety of self-selected or partially self-selected SoTL “opportunities,” such as participants and presenters involved in SoTL conferences, members of SoTL associations, and authors in SoTL journals. They suggest that the female overrepresentation could be explained by factors including: (a) overrepresentation of females in lower rank or teaching positions that provide access and opportunities to do SoTL; (b) the socialization of females to engage in emotional work such as that which values teaching and learning (that is, SoTL); and (c) a desire by females, who are overrepresented in teaching heavy positions, to do research (perceived as prestigious) and teaching simultaneously (McKinney & Chick, 2010). On the other hand, it is encouraging that, in our sample, there were no noticeable differences between genders in terms of proportions engaged in SoTL activity, support and dissemination.

The low representation from some provinces and territories may be due to a number of reasons, although population densities and the number of institutions of higher learning are undoubtedly an important factor for several regions. Across the provinces, the number of publicly funded universities and colleges in each province and territory appears related to the province’s response rate, with the exception of Quebec, with the number of responses rising as the number of institutions increases. For example, in Nunavut, Yukon, and the Northwest Territories, there are only a few colleges and no universities, and there were no respondents from any of these locations. Using our method of recruitment of SoTL practitioners via an institutional liaison, we were unable to identify anyone at the colleges in Nunavut, Yukon, and the Northwest Territories, although SoTL practitioners from these regions who are members of STLHE would have still received an invitation to participate through the STLHE listserv email or through the SoTL Canada blog. Unfortunately, we are not able to explain the lack of response from Quebec, which has quite a high density of post-secondary institutions as well as several participating SoTL Liaisons. However, it is likely a limitation of the present study that the survey was not offered to residents of Quebec in French.
The vast majority (92%) of our respondents were from Universities. This is similar to the results of the 2012 survey (Wuetherick & Yu, 2016), which had 10% of survey from college, technical institutes, or other non-university affiliations. The greater proportion of SoTL practitioners at the university level is not surprising given the inclusion of research as part of many University positions, and the additional time and resources available for research. This study also found that institutions employing the majority (50%) of respondents would be considered large, with enrollments of over 20,000 students, which is consistent with the university dominance of the participants. However, our results may underestimate the amount of SoTL research taking place at colleges. For example, it may be that college instructors, who generally have less time and resources for scholarship, are enacting SoTL in less formal ways (such as by presenting their teaching results to colleagues but not publishing), and as a result do not self-identify as doing SoTL.

SoTL survey participants were diverse in their appointments, with about half the respondents being professors, while the “other” category included Professors Emeriti, Librarians, Manager/Directors, and Researchers. The majority (54%) of them do not have SoTL as part of their job description or expectations. More Assistant Professors reported doing SoTL with no funding or department-level funding, while higher percentages of Associate Professors and Full Professors reported receiving institutional funding. The reason for this does not seem to be due to more senior professors having less pressure to establish their research and thus more time or freedom for SoTL, since Assistant Professors reported doing SoTL without funding. It may have to do with the scale and focus of their projects and/or their experience; one Canadian study found that instructors with more years of experience tend to be more concerned about their departments, disciplines, and institution, than their counterparts who are more concerned with developing their own teaching (Miller-Young et al., 2016).

Participants were also distributed across all categories in terms of their primary faculty/unit affiliation. It is difficult to compare our population to the 2012 survey, since their reporting grouped Social Sciences and Humanities together, and they only reported Natural Sciences rather than STEM. However, our results indicate that the Humanities continue to be underrepresented in SoTL (Potter & Wuetherick 2015). Also, while the 2012 survey had higher percentage of professors respond (81%), ours had 49%, approximately the same total number of professors responded to both studies (113 in 2012 vs. 103 in 2017/18). In other words, a much larger percentage of our respondents were instructors, and CTL and administrative staff who identified as doing SoTL. This may indicate a growing amount of interest in SoTL within higher education, and also an expansion of its boundaries, since those who self-identify as doing SoTL are not all professors and instructors. That being said, the present study used a broader recruitment strategy than the previous study, which focused exclusively on STLHE members; our use of SoTL liaisons may simply have captured more of the existing population of SoTL practitioners, and may not truly represent an expansion of SoTL work. Because they comprised the next largest percentage of respondents, our study separated staff from CTLs into their own group, and found that compared to professors, approximately half the percentage of CTL respondents had received institutional level funding. We can think of many possible reasons for this, including recent interest from educational developers in doing SoTL and/or establishing their own field. It would be interesting to follow up to find out how and why CTL staff are currently engaging in SoTL; for example, are they modeling SoTL in their own practice (Kenney et al., 2016; Woodhouse & Force, 2010) or collaborating with faculty, and how is this work improving teaching and learning?
Collaborations, Scope, and Roles Within SoTL

Our results reflect that most SoTL practitioners are engaged in SoTL through a variety of activities and for a variety of purposes. 61% have collaborated with colleagues, half of them provide informal support to others in SoTL, and nearly half are currently engaged in multiple SoTL projects. Wuetherick and Yu (2016) similarly found high rates of collaboration with colleagues; in fact, they observed that 94% of individuals in their study reported collaborating with colleagues specifically at their own institutions. The majority of respondents in our survey (88%) are investigating questions about teaching and learning at the classroom level, close to 50% at the program level, 39% at the institutional level, and 24% at the provincial or national level. These results seem to indicate that SoTL is quite embedded in our respondents’ professional lives and that they have a fairly high level of experience with SoTL, indicating that the field is maturing. On the other hand, while more than half did not explicitly have SoTL as part of the job expectations, 37% of respondents said they do not conduct research other than SoTL. To our knowledge, explicit investigation of the levels at which SoTL is being investigated in Canada as well as the incorporation of SoTL as part of job expectations is unique to the present study, although Wuetherick and Yu (2016) did observe that many of their survey respondents reported that their involvement in SoTL played a role in things like tenure and promotion and hiring decisions, and they also observed SoTL activities across a variety of levels, including micro, meso, macro and mega (Wuetherick & Yu, 2016). As the field matures and practitioners get more specialized, there is the possibility that SoTL practice will become more removed from the professors and instructors whom the work is meant to influence. One other result that seems to support this trend (SoTL as research rather than as reflective practice) was that while approximately half or more of our participants had shared their SoTL results with colleagues and presented and published their work, fewer than half reported sharing their results with students.

How SoTL is Supported

Our respondents reported having received funding across a variety of levels and from different sources, up to the institutional level. It is encouraging that almost 65% of our respondents have received funding for their SoTL, and 45% have received institutional level funding. We cannot tell whether support has changed since 2012 because in the previous survey (Wuetherick & Yu, 2016), 76% of respondents reported that campus funding was available but not whether they had received it nor from which level.

While close to 24% of our respondents have investigated questions about teaching and learning at the provincial and national level, very few reported receiving funding from these levels and only two provincial or regional funding sources were mentioned (HEQCO and AACUSS). This may be in part due to those who receive external grants identifying as researchers rather than SoTL practitioners and thus not replying to the survey; it may also be a reflection of the maturity of the field of SoTL, where practitioners often enter by asking questions or noticing problems around teaching and learning in their own classrooms (Kreber, 2001) and broaden their work as they gain experience. Some disciplines, such as science and engineering, have defined discipline-based educational research (DBER) as overlapping but distinct from SoTL, with DBER ranging from fundamental to applied research on teaching and learning in these disciplines, and SoTL as emphasizing reflective practice using classroom-based evidence as well as engagement across disciplines (Singer & Smith 2013). As SoTL activity grows, however it is defined, it will be
important to advocate for more support at the provincial and national level; doing SoTL work on a larger scale would broaden the scope of SoTL work being conducted across Canada, potentially expanding its contribution to knowledge and impact related to teaching and learning.

On a cautionary note, there is also a need for critical debate about what exactly are the definitional limits of SoTL; for example, as the context of a SoTL study gets broader, there is the danger of losing the rich description offered by SoTL studies in a trade-off for the generalizability achieved by larger, multi-site studies (Bernstein, 2010; McKinney, 2013). Smaller, localized SoTL studies directly inform practice, and contribute to building robust knowledge about teaching and learning across multiple contexts (Chick & Poole, 2018). Therefore, those who advocate for more support need to be clear about what they mean by SoTL. Given the number of projects, collaborations, and variety of levels at which our participants report engaging and collaborating in SoTL, we suggest that they are seeing the benefits of both small and larger studies. Thus, while we advocate for more support at the provincial and national level for studies which will have impact at those levels, we stress that support at local levels will continue to be important if SoTL is to remain a field which has direct impact on classroom practice.

Conclusion

The purpose of the present study was to gain insight into the SoTL activities of faculty and staff at institutions of higher education across Canada. While we likely did not fully capture the work being done, particularly at the college level, our inquiry nonetheless provides important data related to the current nature and scope of SoTL in Canada. Several conclusions can be inferred from this research, including: (a) SoTL practitioners in Canada are very diverse in terms of personal and professional characteristics; (b) practitioners are engaged in a variety of activities and actively disseminate their work; (c) collaborations with both colleagues and students are common in SoTL work; (d) SoTL is conducted across a variety of levels, although the activities at the classroom level are most common; and (e) funding for SoTL work is commonplace, but there is underfunding at the provincial and national levels. Now that SoTL is becoming more common, supported, and presumably valued at the institutional level (at least for the participants who participated in our study), we suggest that future research to inform SoTL advocacy should explore what kind of supports are required by different groups of SoTL scholars, such as those seeking local vs institutional or broader impact, those at different career stages and/or with different amounts of research experience, and those with different academic roles including those balancing SoTL with other scholarly work.

References


Appendix A

Characterizing Scholarship of Teaching and Learning across Canada survey questions and possible responses

<table>
<thead>
<tr>
<th>Survey Questions</th>
<th>Possible Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do you give consent to participate in the following survey?</td>
<td>a) Yes</td>
</tr>
<tr>
<td></td>
<td>b) No</td>
</tr>
<tr>
<td>2. How are you involved in SoTL? Please select all that apply.</td>
<td>a) I engage in SoTL myself</td>
</tr>
<tr>
<td></td>
<td>b) I provide formal support to others in SoTL</td>
</tr>
<tr>
<td></td>
<td>c) I provide informal support to others in SoTL</td>
</tr>
<tr>
<td></td>
<td>d) I attend SoTL presentations and/or read SoTL</td>
</tr>
<tr>
<td></td>
<td>literature</td>
</tr>
<tr>
<td></td>
<td>e) Other (text response)</td>
</tr>
<tr>
<td>3. How many SoTL projects are you working on during the 2017/2018 academic year?</td>
<td>a) I am currently working on one SoTL project</td>
</tr>
<tr>
<td></td>
<td>b) I am currently working on multiple SoTL projects</td>
</tr>
<tr>
<td></td>
<td>c) I am not currently working on a SoTL project, but have worked on a project(s) in the past</td>
</tr>
<tr>
<td>4. Have you ever supervised and/or partnered with a student on a SoTL project?</td>
<td>a) No</td>
</tr>
<tr>
<td></td>
<td>b) Yes. If yes, what was the level of the student(s)? Graduate or Undergraduate?</td>
</tr>
<tr>
<td>5. Is SoTL a part of your job description or expectations?</td>
<td>a) No</td>
</tr>
<tr>
<td></td>
<td>b) Yes (includes text response)</td>
</tr>
<tr>
<td>6. What funding, if any, have you received to support your SoTL activities? Please select all options that apply.</td>
<td>a) I have not received funding for any of my SoTL work</td>
</tr>
<tr>
<td></td>
<td>b) I have received department/unit level funding for a SoTL project</td>
</tr>
<tr>
<td></td>
<td>c) I have received faculty level funding for a SoTL project</td>
</tr>
<tr>
<td></td>
<td>d) I have received institutional level funding for a SoTL project</td>
</tr>
<tr>
<td></td>
<td>e) If you have received funding, please describe the source of funding</td>
</tr>
</tbody>
</table>
### 7. How do you disseminate the results of your SoTL projects? Please select all that apply

- a) I have shared my SoTL work with my students
- b) I have shared my SoTL work with departmental/unit colleagues
- c) I have shared my SoTL work institutional colleagues outside my department/unit
- d) I have presented my SoTL work at a discipline-based conference
- e) I have presented my SoTL work at a conference dedicated to teaching and learning
- f) My SoTL work has been published (or accepted for publication) in a peer reviewed journal or a book.
- g) I have made my SoTL work available on a website
- h) I have not disseminated my SoTL work
- i) Other (text response)

### 8. How often do you collaborate on SoTL research?

- a) Never
- b) Rarely
- c) Sometimes
- d) Often
- e) Always

### 9. With whom do you engage in SoTL activities? Please select all options that apply.

- a) I have worked on SoTL projects on my own
- b) I have worked on SoTL projects with colleagues in my department/unit
- c) I have worked on SoTL projects with colleagues in other departments/units at my institution
- d) I have worked on SoTL projects with colleagues outside of my institution

### 10. At what level do you conduct your SoTL projects? Please select all that apply.

- a) I have investigated questions about teaching and learning at the classroom level
- b) I have investigated questions about teaching and learning at the program level
- c) I have investigated questions about teaching and learning at the institutional level
- d) I have investigated questions about teaching and learning at the provincial level
- e) I have investigated questions about teaching and learning at the national level

### 11. Do you conduct any research other than SoTL?

- a) No
- b) Yes. If yes, please describe briefly (text response)
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. What is your gender?</td>
<td>a) Male</td>
</tr>
<tr>
<td></td>
<td>b) Female</td>
</tr>
<tr>
<td></td>
<td>c) Other (text response)</td>
</tr>
<tr>
<td>13. How old are you? (text response)</td>
<td></td>
</tr>
<tr>
<td>14. What is your primary faculty/unit affiliation?</td>
<td>a) Arts and Humanities</td>
</tr>
<tr>
<td></td>
<td>b) Business</td>
</tr>
<tr>
<td></td>
<td>c) Education</td>
</tr>
<tr>
<td></td>
<td>d) Health Sciences (nursing, medicine, pharmacy, etc.)</td>
</tr>
<tr>
<td></td>
<td>e) Law</td>
</tr>
<tr>
<td></td>
<td>f) Natural Sciences, engineering, or mathematics (STEM)</td>
</tr>
<tr>
<td></td>
<td>g) Social Sciences</td>
</tr>
<tr>
<td></td>
<td>h) Teaching and Learning Centre</td>
</tr>
<tr>
<td></td>
<td>i) Other, please specify (text response)</td>
</tr>
<tr>
<td>15. How many years have you been in your current position? (text response)</td>
<td></td>
</tr>
<tr>
<td>16. Which of the following best describes your current academic rank, title, or position?</td>
<td>a) Administrative Staff</td>
</tr>
<tr>
<td></td>
<td>b) Administrator</td>
</tr>
<tr>
<td></td>
<td>c) Assistant Professor</td>
</tr>
<tr>
<td></td>
<td>d) Associate Professor</td>
</tr>
<tr>
<td></td>
<td>e) Instructor/Lecturer (full time)</td>
</tr>
<tr>
<td></td>
<td>f) Instructor/Lecturer (part time)</td>
</tr>
<tr>
<td></td>
<td>g) Lab Coordinator or Technician</td>
</tr>
<tr>
<td></td>
<td>h) Professor</td>
</tr>
<tr>
<td></td>
<td>i) Other, please explain (text response)</td>
</tr>
<tr>
<td>17. What province or territory do you do the majority of your work in?</td>
<td>a) Alberta</td>
</tr>
<tr>
<td></td>
<td>b) British Columbia</td>
</tr>
<tr>
<td></td>
<td>c) Manitoba</td>
</tr>
<tr>
<td></td>
<td>d) New Brunswick</td>
</tr>
<tr>
<td></td>
<td>e) Newfoundland and Labrador</td>
</tr>
<tr>
<td></td>
<td>f) Northwest Territories</td>
</tr>
<tr>
<td></td>
<td>g) Nunavut</td>
</tr>
<tr>
<td></td>
<td>h) Ontario</td>
</tr>
<tr>
<td></td>
<td>i) Prince Edward Island</td>
</tr>
<tr>
<td></td>
<td>j) Quebec</td>
</tr>
<tr>
<td></td>
<td>k) Saskatchewan</td>
</tr>
<tr>
<td></td>
<td>l) Yukon</td>
</tr>
</tbody>
</table>
18. What is the approximate student enrolment (graduate and undergraduate) at your institution?  
   a) 5,000 students or fewer  
   b) 5,001 to 10,000 students  
   c) 10,001 to 15,000 students  
   d) 15,001 to 20,000 students  
   e) Greater than 20,001 students  

19. At what type of institution do you work?  
   a) University  
   b) College  
   c) Other please explain (text response)  

20. Would you be interested in participating in a SoTL Canada Peer Mentoring Program?  
   a) Yes, as a mentee  
   b) Yes, as a mentor  
   c) No
Appendix B

Number of publicly funded universities and colleges and SoTL liaisons in each province and territory in Canada

<table>
<thead>
<tr>
<th>Province/Territory</th>
<th>Number of Universities</th>
<th>Number of Colleges</th>
<th>Number of University SoTL Liaisons</th>
<th>Number of College SoTL Liaisons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alberta</td>
<td>9</td>
<td>18</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>British Columbia</td>
<td>17</td>
<td>21</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Manitoba</td>
<td>8</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>4</td>
<td>11</td>
<td>3</td>
<td>none</td>
</tr>
<tr>
<td>Newfoundland and Labrador</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>none</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>None</td>
<td>3</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>8</td>
<td>5</td>
<td>5</td>
<td>none</td>
</tr>
<tr>
<td>Nunavut</td>
<td>None</td>
<td>1</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>Ontario</td>
<td>20</td>
<td>27</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>none</td>
</tr>
<tr>
<td>Quebec</td>
<td>18</td>
<td>48</td>
<td>6</td>
<td>none</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>3</td>
<td>18</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Yukon</td>
<td>None</td>
<td>1</td>
<td>None</td>
<td>none</td>
</tr>
</tbody>
</table>