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White paper on the scholarship of teaching and learning: Expanding the academic pharmacy promotion and tenure process

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Abstract

The scholarship of teaching and learning (SoTL) represents one of four well-defined areas of research. Historically, pharmacy institutions have failed to factor the SoTL into the promotion and tenure considerations of their faculty. Without acknowledgement or incentive for their efforts, faculty may be forced to abandon innovative teaching research to pursue research options more highly valued by their institution. This white paper investigates the SoTL definition described by colleges of pharmacy around the world, and the weight with which the SoTL is considered in the promotion of their faculty. The authors conclude there is considerable variability in the SoTL definition across institutions. Additionally, many institutions have not updated their policies to include the SoTL in promotion and tenure considerations. The authors recommend that all colleges of pharmacy adopt the SoTL as defined in this paper, and that all colleges update their promotion and tenure guidelines to include the SoTL in career advancement considerations.

Background

In his seminal work, 'Scholarship reconsidered: priorities of the professoriate,' Ernest L. Boyer (1990) suggests four areas of scholarship: discovery, integration, application, and teaching. For the scholarship of teaching, Boyer indicates the rigor with which engaged teaching scholars approach the classroom or teaching laboratory (Boyer, 1990). Since that time, Boyer's work has been expanded upon and adopted by many different disciplines, including pharmacy. This area of scholarship has become known as the scholarship of teaching and learning (SoTL) and has been more concretely defined. A 2011 definition by Potter and Kustra has been widely accepted. They define the SoTL as the systematic study of teaching and

learning, using established or validated criteria of scholarship, to understand how teaching (beliefs, behaviours, attitudes, and values) can maximise learning, and/or develop a more accurate understanding of learning, resulting in products that are publicly shared for critique and use by an appropriate community (Potter & Kustra, 2011).

However, there continues to be some confusion about the SoTL, with several other terms such as scholarly teaching and educational research being used interchangeably with the SoTL. It has been suggested that, even among English-speaking countries, the term 'scholarship' may not be understood as it is often interpreted to mean a monetary stipend rather than a field of inquiry (Hoon, 2020). Despite some mis-

understanding, the SoTL is becoming more established within the Pharmacy Academy – community of pharmacy scholars. In a 2020 survey of 643 United States (US)-based pharmacy faculty by Islam and colleagues, there was some agreement on activities that were considered to be the SoTL (Islam et al., 2020). More than 60% of faculty agreed that the following activities were consistent with their understanding of the SoTL:

- Peer-reviewed publication of case studies of teaching and learning
- Published reviews of the educational research
- Research involving current teaching and learning principles and/or practices
- Research employing course-level instructions and assessment
- Research involving curriculum development, review, mapping, or assessment
- Research on teaching and learning leading to peer-reviewed presentation without culminating in publication
- Research on teaching and learning leading to peer-reviewed publication

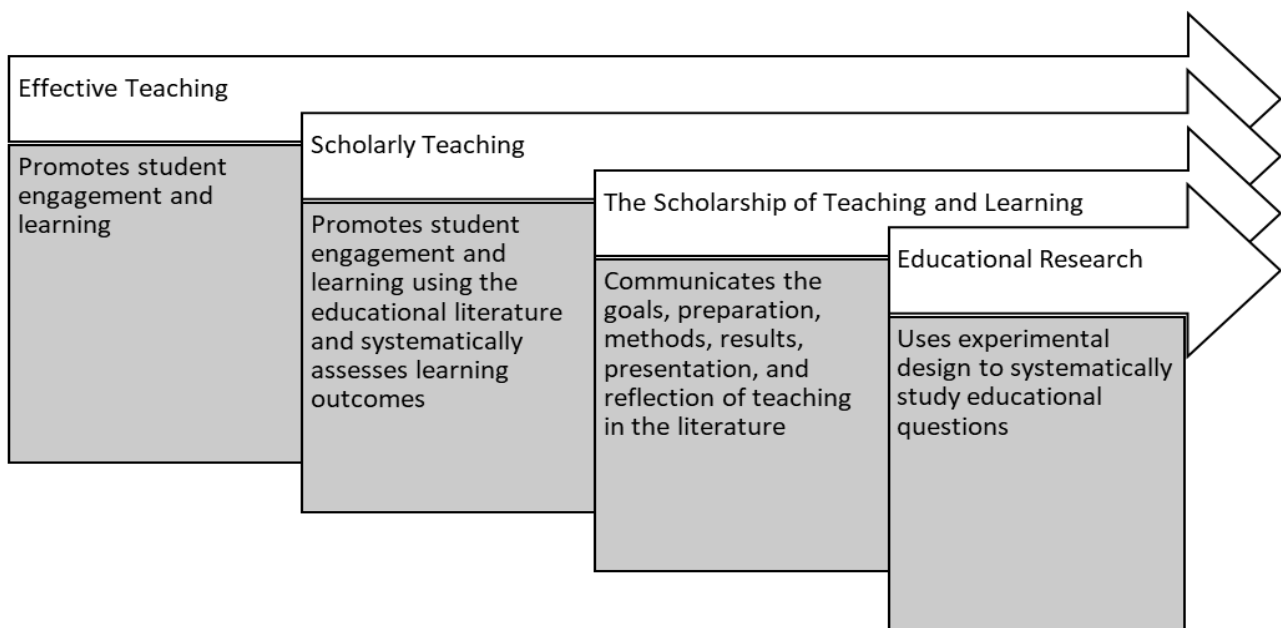
Conversely, those teaching activities not considered to be the SoTL by the majority of respondents included:

- Authoring a textbook or textbook chapter
- Adjusting course content and/or delivery based on course evaluations

- Integrating technology into teaching
- Developing a new course (Islam et al., 2020).

Medina and colleagues place the SoTL on a continuum from effective teaching to educational research, elucidating defining features of each in their 2011 paper, ‘Demonstrating excellence in pharmacy teaching through scholarship’ (Figure 1) (Medina et al., 2011). It is notable that moving from effective teaching to the SoTL requires more than ‘being a good instructor’, including dissemination of the work through publication and/or presentation, much like other forms of scholarly engagement such as the scholarship of discovery. It is this construction of the SoTL that will be discussed in this paper.

The American Association of Colleges of Pharmacy has strongly advocated for the recognition of the SoTL in promotion and tenure decisions (Fulford et al., 2018). This organisation has established grants and awards for the SoTL. A survey of US-based faculty members found over 90% agreed that institutional policies should encourage the SoTL, and more than 70% agreed that it should be considered in promotion and tenure review. The faculty perception numbers mirrored those reporting that it was encouraged by their institutions (83%) and was considered in promotion and tenure decisions (73%), (Islam et al., 2020). However, the SoTL is not specifically mentioned in the majority of available promotion and tenure criteria for US-based colleges of pharmacy. Two separate, recent studies found about 40% of US colleges of pharmacy acknowledge or require the SoTL in their promotion and tenure policy



Modified from Medina et al. 2011

Figure 1: Steps along the teaching continuum

and guidance documents. (Franks & Payakachat, 2020; Snider *et al.*, 2021)

Although not specific to pharmacy, Asmar describes a promotion system at the University of Sydney in Australia that emphasises teaching (Asmar, 2004). She describes a SoTL index which provides an incentive for scholarly activity associated with student learning, including outputs such as refereed journal articles on teaching and learning as well as teaching awards and grants (Asmar, 2004).

Austin and Gregory (2006) examine how Canadian clinical pharmacy faculty are assessed for promotion and tenure across the nine pharmacy faculties in Canada. They found that promotion and tenure policies did not adequately recognise educational and practice researchers. The authors propose evaluating excellence in creative scholarly activity with a 'Five Cs' method: creativity, continuity, contribution, collaboration, and commitment (Austin & Gregory, 2006).

Despite some increased recognition, the SoTL has not been embraced worldwide. A 2020 analysis of the SoTL publications in the health professions by Buffone and colleagues (2020) found that the majority of the SoTL articles were published by authors from North America (56%), Northern Europe (14%), or Western Europe (10%). Lead authors from Asia (15%), Africa (5%), or South America (1%) were infrequent (Buffone *et al.*, 2020). This dearth of publication from some global areas may be because the SoTL articles are systematically discounted by the leading journals of those areas or because the research is not encouraged by the institutions.

In recognition of education as a primary mission of universities and acknowledging that universities encourage what they reward via promotion and tenure, the authors believe it is time for colleges of pharmacy to specifically include the SoTL in their promotion and tenure guidelines.

Case study review

In this section, the authors present several case studies on the practice status and definitions of the SoTL in different countries in Asia, the Middle East, North America, and Europe. A case study survey, available in Appendix A, was created by the authors to be distributed to and completed by willing participants employed as college of pharmacy faculty across the world, all of whom were colleagues of the authors. The University of Kentucky Institutional Review Board has determined this project does not require review because it does not fit the federal definition of human subject research. The purpose of these case studies was to assess current understanding and practice of the SoTL in order to

identify additional avenues for promoting this concept among pharmacy educators globally. The case studies revealed significant differences in academic institutions' understanding of the concept, current practice status, and working definitions of the SoTL. The SoTL was defined in several cases as ongoing efforts at the faculty level to develop their staff teaching capabilities, teaching evaluations, and the use of student feedback to plan for future improvement. Thus, it appears as though the concept is still limited in its application to efforts to improve and sustain the quality of pharmacy teaching and learning rather than a systematic study of teaching and learning that is publicly shared.

More importantly, there were significant differences in how the SoTL activities were evaluated for faculty promotions and tenure. According to the case studies, the SoTL was given less weight in Malaysia than other research components. While in Thailand, it is an optional component for faculty promotion consideration. In Jordan, the SoTL is considered during the promotion process for staff members working in teaching-oriented institutions. Although tenure is not available in the United Kingdom, the SoTL is considered for the promotion of teaching-focused staff only. In a few cases, such as in China, Pakistan and Egypt, there was no clear scope of the SoTL practice by its exact definition and consequently, it had no particular fit into faculty promotion procedures. Furthermore, in the majority of cases, faculty members did not have dedicated time to pursue their the SoTL. This is a significant challenge that must be addressed in the ongoing global efforts to promote the SoTL among pharmacy educators. The solutions are discussed in greater detail later in this white paper.

Although most of the cases indicated that their reported information might also represent most of the pharmacy education institutions in their respective countries, the provided case study examples (Table I) were not intended to make representations at the level of involved countries because it is difficult to make a country representation based on a report from a single institution. However, this overview of the cases highlights the current challenge faced by pharmacy educators in institutions within different countries when it comes to the proper recognition and acknowledgment of the SoTL within the scope of staff promotion or tenure.

High level solution

Although the practice of accepting the SoTL as scholarly work supporting promotion and tenure has varied across the globe, the encouragement for use of this practice is increasing. In the west, this practice has been generally

Table I: SoTL surveys completed by institutions in different countries

Country	Type of Institution	SoTL Practice Status	SoTL definitions	SoTL dedicated time at the institution	SoTL fit in Promotion & Tenure Process
Canada	<ul style="list-style-type: none"> Public Both teaching and research. Not affiliated with medical centre 130 students per class 	Yes, it is encouraged.	SoTL is a scholarly activity that involves engagement of the instructor in careful planning, evaluation, and dissemination of their study to inform their own teaching and to influence practice beyond their own classroom.	It differs between professors.	It is a great asset to annual evaluations and promotion.
China	<ul style="list-style-type: none"> Public Both teaching and research Affiliated with medical centre 100 students per class 	No current scope of practice.	Not a well-defined concept.	No specific dedicated time for SoTL.	No specific fit into the promotion or tenure process.
Egypt	<ul style="list-style-type: none"> Public Teaching-oriented Not affiliated with medical centre 500 students per class 	No current scope of practice.	Not a well-defined concept.	No specific dedicated time for SoTL.	No specific fit into the promotion or tenure process. The promotion process depends mainly on the quality of publications, community services and some faculty related duties and activities.
Japan	<ul style="list-style-type: none"> Private Both teaching and research Affiliated with medical centre 260 students per class 	No, not a widely spread concept.	No, the concept of SoTL has not spread yet in Japan. Instead, there is FD (faculty development) programme (workshops twice a year).	No specific dedicated time for SoTL.	All academic appointments are fixed-term for five years with the possibility for re-appointments. However, there is no clear role for SoTL.
Jordan	<ul style="list-style-type: none"> Private Teaching-oriented Not affiliated with a medical centre 200 students per class 	Yes, it is encouraged.	Use validated scholarship tools to evaluate the student’s perception toward teaching and measure the achievement of intended learning outcomes (ILO) to draw the ‘map of ILO intervention on Skills Development and Lifelong Learning’	Relatively, 70%.	It plays a crucial role in the achievement of requirements.
Indonesia	<ul style="list-style-type: none"> Private Both teaching and research Affiliated with a medical centre 60 students per class 	Yes, it is encouraged.	The efforts related to maintaining quality in teaching and learning. In the capacity of teaching and learning evaluation for further improvement.	30% is dedicated to SoTL. 40% research and 30% community engagement.	It is one of three components (SoTL, research, and community engagement) under assessment of academic performance at a minimum of two years intervals.
Malaysia	<ul style="list-style-type: none"> Public Both teaching and research Affiliated with medical centre 120 students per class 	Yes, it is encouraged.	The conducted efforts at the faculty and university level for the purpose of quality improvement of the teaching and learning activities.	No specific time was allocated for SoTL. The estimated percentage is 40-60% of the workload.	Less weightage (as compared to the research component) is considered for SoTL. Extra points – publication related to teaching & learning and any program/course developed.
Pakistan	<ul style="list-style-type: none"> Private Teaching-oriented Affiliated with medical centre 70 students per class 	No current scope of practice.	Conduct student and expert evaluations and utilize the feedback to improve teaching quality. However, strictly in line with the concept of SoTL, there is nothing practical.	No specific dedicated time for SoTL.	It takes a Master of Philosophy degree in the relevant subject to be a lecturer, a Doctorate (Ph.D.) is a must for Assistant Professor, after, a total of ten years for Associate Professor and 15 years or Post Ph.D. five years’ experience leads to a full professor. There is no clear contribution of SoTL to this process

Table I: SoTL surveys completed by institutions in different countries

Country	Type of Institution	SoTL Practice Status	SoTL definitions	SoTL dedicated time at the institution	SoTL fit in Promotion & Tenure Process
Poland	<ul style="list-style-type: none"> Public Both teaching and research Affiliated with a medical centre 126 students per class 	Yes, it is encouraged.	<p>It is defined as academic quality assurance - using evaluation surveys, each student is able to evaluate faculty staff in various areas of courses.</p> <p>Faculty staff may be asked to contextualise and investigate/provide responses or develop action plans to address issues.</p> <p>Results of evaluation surveys are discussed at annual meetings of Faculty Staff and Students' Representatives.</p>	Approximately 10%-20%.	<p>SoTL is not recognised as being important factor in staff promotion. Overall, there is no additional funding /increase salary coming with better quality of teaching.</p> <p>Promotion depends on scientific achievement measured by the number and the quality of publications with IF- h-index (citation report), securing and leading research projects.</p>
Saudi Arabia	<ul style="list-style-type: none"> Public Both teaching and research Affiliated with a medical centre 70 students per class 	Yes, it is encouraged.	<p>A training programme offered every semester to 40+ faculty members catered to freshly appointed assistant professors with aims to develop and improve their academic skills, provide them with guidance to perform their tasks, and fulfil their teaching and learning responsibilities.</p>	25% for one term only.	<p>This training programme offered by the Center for Teaching and Learning Development is a requirement for a promotion.</p> <p>Appointments in high administrative positions in the university require the completion of this programme.</p>
Thailand	<ul style="list-style-type: none"> Public Research-oriented Not affiliated with a medical centre 150 students per class 	Yes, it is encouraged.	<p>In a form of PSU Teaching Professional Standards Framework (PSU-TPSF) that consists of three domains:</p> <ol style="list-style-type: none"> Professional knowledge Professional practices Profession values 	No specific dedicated time for SoTL.	<p>PSU-TPSF is optional. It is categorised into four levels: Fellow teacher, Professional Teacher, Scholarly teacher, and Mastery teacher.</p> <p>Those who are awarded in the level of Professional teacher or higher will receive extra money.</p>
United Kingdom	<ul style="list-style-type: none"> Public Both teaching and research Affiliated with a medical centre 220 students per year 	Yes, it is encouraged—especially for those on the teaching track.	<p>Defined per academic rank where higher levels will contribute to scholarly dialogue at national and international levels—responsibilities include:</p> <ul style="list-style-type: none"> Develop new concepts, win support for innovative research and teaching Develop proposals and funding bids Engage in subject, professional and pedagogical research and disseminate to the wider academic community Contribute to critical community dialogue via publication of teaching-related scholarship at a national/international level 	Not defined except for individuals by managers at the school level depending on workloads and the primary individual role (i.e., Research and Teaching, or Teaching and Learning).	<p>Tenure does not exist in UK.</p> <p>Promotion requires the submission of evidence in SoTL, especially for teaching only role holders.</p>
United States of America	<ul style="list-style-type: none"> Public Both teaching and research Part of an academic medical centre 130 students per class 	Yes, it is encouraged through professional development programmes and funds offered for relevant research projects.	<p>At undergraduate level, SoTL is defined as 'problem posing about an issue of teaching or learning, study of the problem through methods appropriate to the disciplinary epistemologies, applications of results to practice, communication of results, self-reflection, and peer review.'</p> <p>Ref: Cambridge BL (2001). To Improve the Academy (Vol 19, pp 3-16.)</p>	There is no pre-specified percentage of time dedicated to SoTL.	<p>SoTL could be used to demonstrate excellence in education or scholarly activity but no clear role in promotion.</p> <p>Tenure is reserved for 'regular' not 'clinical' track faculty members who are among the best in their field of education and scholarly endeavours.</p>

adopted, with most educators and promotion and tenure committees acknowledging Boyer's 'Scholarship Reconsidered', as a broadening of the definition of scholarship. As noted in the study examples provided above, the SoTL is beginning to be recognised in more institutions within the Middle East, including countries such as Jordan and Saudi Arabia. There are likely many solutions contributing to this reported progress.

As educators work more internationally, attend professional conferences outside their regions and build more collaborations with colleagues across the globe, there is great opportunity for the value of the SoTL to be recognised and accepted within the profession as an international standard. Research collaborations, which have historically been focused primarily in basic research and clinical practice, can expand to extend collaboration opportunities in the SoTL, disseminating best practices and evaluating new teaching innovations in educational settings, influenced by different cultural practices.

Professional organisations can serve as hosts for the SoTL collaboration. For example, the International Pharmaceutical Federation University Twinning and Networking (FIP UNITWIN) programme is an excellent demonstration of global collaboration, providing a platform of institutions and key stakeholders to share educational knowledge, as well as innovation and expertise, thus providing a natural venue for enhanced SoTL (FIP, 2021). In the era of COVID-19 and increasing online activities, many professional organisations, such as FIP, AACP and others, have provided webinar series. These allow colleagues to share not only ideas and best practices, but ultimately, connections for future SoTL collaborations, locally and globally. As more SoTL is conducted in additional regions, it will be incumbent on educators and administrative leaders within the institutions, as well as national professional pharmacy organisations and structures, to advocate for incorporation of these innovations into promotion and tenure practices. The authors note in the case studies provided that many of the institutions moving toward SoTL inclusion have developed training programmes. This is encouraging, as creation of SoTL professional development programmes, as well as communities of practice and rewards (e.g., grants), further support faculty members in growing their SoTL practices (Gubbins, 2014; Kenny, Watson, & Desmarais, 2016; Franks & Payakachat, 2020; Wolcott, 2021). Educators can highlight the acknowledgement given to the SoTL in many institutions in western countries, the value of journals specifically focused on pharmacy education, and organisations such as the International Pharmaceutical Federation (FIP), which support these efforts. Practices for assessing teaching effectiveness (e.g., course evaluations) are also noted among progressing

institutions. These provide a solid foundation toward the SoTL, as described in Table I (Medina *et al.*, 2011).

Solution benefits

As the authors consider why progress on the SoTL in pharmacy education is important, they note its benefits for individuals and institutions. This includes students, faculty members, colleges of pharmacy, and ultimately society as the knowledge disseminated to student pharmacists will be utilised to care for patients. Pharmacy faculty should be supported and rewarded by their institutions in their pursuit of the SoTL. In pharmacy, many faculty are clinician-educator-scholars. Many clinical pharmacy faculty pursued this career because of the opportunity to practice and teach. Those heavy loads may preclude pursuit of the scholarship of discovery. The SoTL is an excellent opportunity for them to pursue scholarship (Gubbins, 2014). Additionally, one small study by Lawrence and Herrick suggests that participation in SoTL learning groups enhances faculty wellbeing (Lawrence & Herrick, 2020).

The benefits to institutional encouragement of the SoTL accrue not only for the individual faculty member, but also for the larger institution. The products of the SoTL which are the same as for the scholarship of discovery – publications, presentations, grants – increase the academic standing of the institution with which they are associated. Much like other types of research, the continual engagement of the SoTL faculty member in an inquiry mode improves the practice, in this case, of educating (Franks & Payakachat, 2020). Therefore, the SoTL can increase the quality of instruction at the home institution as well as influence educational practices nationally or internationally (Bernstein, 2013; Franks & Payakachat, 2020). Further, the SoTL can align with institutional priorities, such as increasing inter-professional education, and assist with curriculum renewal (Hubble, 2013; Franks & Payakachat, 2020). The assessment done as part of the SoTL improves programmatic assessment for the institution (Bernstein, 2013). Connection of the SoTL scholar through participation in conferences and publications introduces external best practices to the home institution (Bernstein, 2013). Universities, particularly publicly funded institutions, face increased pressure to demonstrate accountability to the public and governments for the quality of teaching they provide and increased pressure to produce highly skilled workers who will contribute to the community and the country's economic competitiveness (Kreber, 2015). This pressure may be particularly acute in countries where increasing costs are borne by individual students.

Promotion and tenure for faculty engaged in the SoTL research are a way for institutions to demonstrate that a scholarly approach to teaching and learning is valued by the institutions (Franks & Payakachat, 2020). The price, if this recognition is not given, is steep: teaching advances may be abandoned and educational innovation will suffer (Franks & Payakachat, 2020). In fact, the academy has an obligation to approach education in the same scholarly way it approaches its other endeavours: to apply research-supported methods to one of its primary functions of education.

This is supported by FIP's recent call to action for advancing pharmaceutical education (FIP, 2021). Through the implementation of FIP's Development Goals, and programs such as the FIP-UNESCO-UNITWIN Centre for Excellence on pharmaceutical education, this is possible (FIP, 2020; FIP, 2021). A common theme within these entities is the importance of planning, documenting, assessing, reviewing, and sharing our work, including educational methods and practices, or the SoTL (FIP, 2020; FIP, 2021).

Thus, the practice of the SoTL takes on global significance toward the profession's progress. Steps toward supporting its practice, such as inclusion in promotion and tenure practices, and provision of professional development, become key elements of our success. These solutions could not only benefit the learning community and profession, but also global health. (Lawrence & Herrick, 2020; FIP, 2021).

Conclusion

Continued advancement in the field of pharmacy relies upon the educational foundation afforded to student pharmacists. To foster innovation, colleges of pharmacy must continually evaluate the learning experiences they provide to identify successes, pitfalls, and areas for improvement. To meet criteria for promotion and tenure in many institutions across the globe, pharmacy faculty are often required to fulfil teaching, scholarship, and practice commitments. While the scholarship of discovery can be seen as a more traditional way to meet the scholarship requirement, the SoTL can serve as a welcomed alternative.

The SoTL allows for a scientific evaluation of current teaching practice to develop a better understanding of learning; it encourages pharmacy educators to be in a continuous state of investigation as to how their practice may be improved upon. Similar to the scholarship of discovery, the product of that evaluation can be disseminated for review through publication and presentation. Just as the scholarship of discovery findings are used to improve clinical practice outcomes,

the SoTL findings can be utilised by the pharmacy teaching community to improve teaching practice and, therefore, student learning worldwide. With that being said, the incorporation of the SoTL into college of pharmacy promotion and tenure guidelines would be in line with the importance that is placed on teaching innovation as well as the impact that great teaching can have on the progression of the profession.

Time for action

The authors recommend that all colleges of pharmacy:

1. Accept the following definition of the SoTL from Potter and Kustra (2011):
 - The systematic study of teaching and learning, using established or validated criteria of scholarship, to understand how teaching (beliefs, behaviours, attitudes, and values) can maximize learning and/or develop a more accurate understanding of learning, resulting in products that are publicly shared for critique and use by an appropriate community
2. Incorporate the practice of the SoTL into the college of pharmacy's expectations
3. Include the SoTL in the college of pharmacy's definition of research/scholarship
4. Update college of pharmacy promotion and tenure guidelines to include the SoTL in career advancement considerations

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Appendix

Appendix A: Case study survey

Suggested Interview

The following questions help the interviewers understand how the Scholarship of Teaching and Learning (SoTL) is viewed at your institution. To answer these questions, please use the following definition of SoTL from Potter, et al.: SoTL is the systematic study of teaching and learning, using established or validated criteria of scholarship, to understand how teaching (beliefs, behaviours, attitudes, and values) can maximize learning, and/or develop a more accurate understanding of learning, resulting in products that are publicly shared for critique and use by an appropriate community.

In what world region is your College of Pharmacy located?

Can you describe your institution?

- Public or private?
- Research-oriented or teaching oriented?
- Is it a part of an academic medical centre?
- What is the average pharmacy class size of your institution?

Is SoTL encouraged at your institution?

- Does your institution practice SoTL? And if so, in what capacity?
- How does your institution define SoTL?
- What is the overall workflow and timeline for the tenure process at your institution?
- How does SoTL fit into the overall picture of promotion and tenure?
- What percentage of time, if any, is outlined to be dedicated to SoTL at your institution?

Is the information you provided typical or standardized in your country or region or is it specific for each institution? Please explain.

Would you prefer

- To be acknowledged as a contributor to this paper?
- To be anonymous?