



Scholar Module



Scenario

I've been teaching in my discipline for several years and I'm curious about practices that might improve my teaching and the success of my students. I'd like to try a few new techniques in my class, but I'm unsure where to start, how big a change I should make initially, or whether the strategy I decide to implement will make a difference in student learning outcomes or their satisfaction with my course

Scholar Scenario (Ontario Extend, 2017) <https://www.youtube.com/watch?v=CoMWfeSKnRw>

One of the toughest moments in my teaching career was as a guest lecturer for a face-to-face course in the School of Interactive Arts and Technology at Simon Fraser University. Most of my teaching up to that point had been as an instructor for a series of fully online courses. Now I was being asked to do the reverse of my experience—the dreaded lecture hall experience in front of 200 students, all of whom came to class armed with a laptop, cellphone or tablet.



Image Source: CC [MCGunner](http://imgur.com/N2PYK8S?tags) on Imgur at <http://imgur.com/N2PYK8S?tags>

My instructor colleague asked that I not lecture for the full hour, but create an interactive experience that would engage the students and allow them to participate throughout the class

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as a purposeful demonstration of a lecture topic on knowledge construction. My heart still beats rapidly when I think back to that day. I had to be fully prepped with an engaging set of activities for an hour, or be prepared to potentially “bomb.”

My approach was straightforward:

- I used Google to research teaching practices for bringing interactivity and engagement to large-scale lectures.
- I researched how to employ the students’ own technology effectively in lecture halls to support learning engagement and lesson outcomes.

The result was a one-hour lecture divided into three parts that involved the students individually, in pairs, and as a whole class, using three interactive activities linked to the ideas associated with knowledge construction. I think it worked, but I went away wondering how I would handle the same group of students over an entire course and what framework I might use to research teaching strategies for large-scale lecture experiences in the future.

The possibilities are endless!

Overview



This module examines how you can use your classroom and your courses as a research lab to explore how you might improve your teaching practice and positively affect student outcomes and their satisfaction with the overall learning experience in your course. It invites you to consider research about teaching and learning within your discipline and provides a process to implement a research plan.

This kind of action research is often called the “scholarship of teaching and learning” (SoTL), and it involves an awareness and appreciation of effective, research-based, discipline-appropriate pedagogical approaches for examining your own practice.



“The scholarship of teaching is not merely teaching our scholarship. Nor is it simply teaching well... The scholarship of teaching means that we invest in our teaching the intellectual powers we practice in our research”

(Bender and Gray, 1998).

Outcome

Create an action plan to examine key questions about improving student learning outcomes in a specific discipline area using your own course and teaching practice, informed by the research of others, to build your SoTL plan.

Objectives

- Explore key characteristics of SoTL.
- Identify instructional practices or teaching strategies from your own discipline that you would like to explore or test within your own courses.
- Identify a range of research strategies that suit your discipline.
- Identify a framework for analysis of your research.
- Select a strategy for sharing your research for others to build on.

What is the Scholarship of Teaching and Learning (SoTL)?

To learn more about SoTL, watch: [The Key Characteristics of the Scholarship of Teaching and Learning](#) (Center for Engaged Learning (CELatElon), September 2013)

This video features several educators defining SoTL in the context of their own professional practice.

Everybody involved in teaching has questions about the success of their practice. We deal with some of the questions informally all the time. In other cases, we seek to formalize our enquiry by doing research, and that is what SoTL is about.

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- Login to your Google Account and go to the [SoTL Research Plan Folder](#). Create a new Google Doc in this folder and Name it “*Your Name – SoTL Research Plan* (and allow it to be shared). Record the three characteristics of SoTL that are interesting to you.
- Take a look at some of the other docs to compare your thoughts to those of your colleagues.

(Explore the example from the Ontario Extend Summer Institute <http://tiny.cc/extend-scholarship> (we used Padlet during the Institute).

The Value of SoTL

The purpose of SoTL is to improve student learning by implementing optimized teaching practices based on research and evidence to support changes in practice.

But what is the value of SoTL for faculty?

Many SoTL practitioners, publications, and journals list potential benefits of a proactive approach to classroom scholarship, some of which are articulated in [Making a Case for SoTL](#). This video also makes a case for institutions to support faculty who are engaging in SoTL research.



Extend Activity



From the list of potential benefits below, pick a few statements that would motivate you to become more engaged in SoTL activities.

- Better student outcomes and assessment scores.
- Useful data for assessments, program reviews, and accreditation processes.
- Faculty development opportunities.



- Increased reflection on teaching and learning among colleagues.
- Stronger overall faculty that values teaching and student learning.
- Promotion of new networks among faculty members.
- Scholarship opportunities in the form of presentations and publications.
- Opportunity for outside funding to support program innovation.
- Renewed faculty excitement about teaching and greater self-awareness. You might also consider other benefits that you can think of that aren't on this list.

Update your document in the [SoTL Research Plan Folder](#) to reflect two to three value propositions that would motivate you to participate in SoTL activities. Compare with a few others.

Considerations for your SoTL Project

As an experienced educator, you have likely undertaken and published research in your discipline. But now you need to consider how to conduct research in your classroom.

Watch the video [Examples of SoTL Projects](#) which provides examples from three instructors who describe their research projects, the questions they were seeking to answer, and how they benefited from the experience.

The video participants describe their large and small-scale questions, and research projects that were very specific to their disciplines and their interests. You may wish to start small with your own research.

Like any research project, a SoTL project requires you to formalize your research approach. Remember, **what is different about SoTL is that the focus is on improving student learning outcomes as a result of classroom practices you implement, research, assess, and report. Like any research project, a SoTL project requires you to formalize your research approach.**

Typical considerations include:

- Identifying a research problem or a challenge of practice that interests you.
- Developing a research question from the identified problem or challenge.
- Using relevant literature to inform your study.
- Designing a specific project and choosing an appropriate methodology.
- Obtaining Research Ethics Board (REB) Approval for your research
- Finding support or funding to provide you time and space to conduct the research.
- Considering a networking and dissemination strategy to share your research and invite discussion from colleagues.



Your own research experience may predispose you to follow a deductive or quantitative approach to test a current approach to the problem. Alternatively, you may wish to take a more exploratory, inductive approach using qualitative methods to illuminate new thinking about a teaching problem. It's really up to you what approach you take.

What kinds of problems about teaching practice interest you?

There are some well-known areas of practice that SoTL researchers have probed through classroom projects. Some of these you can explore through the University of British Columbia resources made available to educators:

- [Flipped classroom](#)
- [Experiential learning](#)
- [Blended learning](#)
- [Peer assessment and feedback](#)
- [Helping students to get the most out of studying](#)
- [Test-enhanced learning](#)
- [Student misconceptions](#)

A Tool to Support SoTL Research

The University of British Columbia provides SoTL Explorer, which you can use as you consider how to frame your projects in a research context: <http://sotl-explorer.sites.olt.ubc.ca>

Extend Activity



Examine each of the practice resource links provided in this section and the SoTL Explorer.

- Use your SoTL Research Plan (google doc) to further refine your thinking about an area of research interest and a potential framework you are considering.
- Read what your colleagues are planning in their Google Docs



Designing Your SoTL Project

Now comes the interesting part: designing a SoTL project of your own.



The Higher Education Quality Council of Ontario (HEQCO), the University of Guelph, and Western University provide useful links for planning a SoTL research projects:

[Researching Teaching and Student Outcomes in Postsecondary Education: A Guide](#) published by the Higher Education Quality Council of Ontario.

University of Guelph: [Engaging in SoTL](#)

Western University: [Resources for Preparing your Research Proposal](#)

Each of these sites also discusses the types of data collection strategies you might consider, such as:

- Portfolios
- Interviews and focus groups
- Observational research
- Questionnaires
- Experiments and quasi- experiments
- Case studies
- Secondary analysis of analytical data that may already exist

It is up to you to select the method that best suits your problem and intent.

Ethics of SoTL Research

As you design your project remember that SoTL research primarily addresses the impact of one's teaching practice upon student learning. SoTL's ethical challenges stem from the fact that



this has the potential to create a power differential between the researchers and their students. In situations where we conduct research in our own classrooms, these issues can be complicated by our dual responsibilities as both teacher and researcher and by the power differential inherent in the relationship between teacher and student. Other potential issues may arise around the confidentiality of data, the use of class time for research and students feeling compelled to participate in the research for fear of non-participation impacting their grades.

Institutions of higher learning throughout Canada have adopted the [Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans \(TCPS2\)](#) as the core human research ethics guideline. The information on the TCPS2 website covers the ethical conduct of all faculty (full- or part-time), post-doctoral fellows, graduate students, undergraduate students and staff who conduct research with humans, including research on teaching, learning and student outcomes. The website provides considerable support materials, including an [online tutorial](#).

SoTL researchers should contact their institutions' research ethics offices early in the research design phase to ask for advice about how to address any ethics issues that might arise during their SoTL research.

Extend Activity



Go to the [Plan for a SoTL project](#) template in the [SoTL Research Plan Folder](#).

- In the File menu on Google Docs, select the menu item to make a copy of the template file. Rename the file for yourself and your plan.
- Begin to build your own SoTL plan based on this module of study and its resource links. Reflect on whether there are likely to be any ethical concerns with the research you are planning.

Publishing and/or Presenting Your SoTL Research

Before you present or publish your own SoTL research, take the time to examine and learn from what others have done.

Below is an example from Simon Fraser University. The SoTL research involved professors in the Mathematics Department along with professional staff from the Centre for Teaching and Learning. The team produced a number of videos and mounted them on a YouTube video channel as an advance organizer for large-enrollment, first-year calculus classes. The videos



were designed to serve as self-study teaching materials for a flipped classroom teaching model that the researchers implemented. They conducted research, produced presentations using PowerPoint slides, and published and disseminated papers on the SoTL study.

<https://www.youtube.com/watch?v=5a32bhjm46k>

<http://www.sfu.ca/~jtmulhol/presentations/2014-CMEF.pdf>

<https://cms.math.ca/Events/CMEF2014/vignettes/29V%20-%20Jamie%20Mulholland.pdf>

<http://www.youtube.com/watch?v=ScfOAOTG6Fk>

Extend Activity



Reflective practice is a key component of SoTL activity. Often, it is the reflections that practitioners make on their work that become the stimuli for their research ideas.

- Have a good look at each of the SoTL research outputs—the demonstrations of scholarship—from the SFU SoTL study.
- Update your SoTL research plan document with a dissemination strategy for making public the key findings of your research study.

Sharing Your SoTL Plan

Now that you have completed the sections of the Scholarship module, you can begin to present your ideas for your peers and colleagues using your own domain and its web-based tools.

Extend Activity

One last activity is required to complete this module. It has three components.



- Share your SoTL research plan through a blog post that reflects your thinking from the beginning of the Scholarship module to the point at which you begin to plan your research.

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- In the blog post, describe your research questions, prior research you will undertake to inform your research design, your plan of action, and a dissemination strategy.
- Make your personal reflection the core narrative of the blog post, along with your written plan through a link to the file and/or a summary and an image that illustrates the direction in which you intend to go with this SoTL research.

Module Checklist



I have:

- Defined SoTL and explored examples of its practice through video clips and web links.
- Considered problems or questions of teaching practice from my discipline area that I would like to research.
- Built a scholarship plan for one of my courses.
- Considered the attributes or indicators of student learning that would address my research question.
- Examined examples of previous scholarship in the identified area of practice.
- Considered who among my peers could review the study that I will undertake.
- Considered how I might disseminate the work to others.
- Shared my research plan through a blog post

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