

# An Introduction to the Scholarship of Teaching and Learning (SoTL)

February 27, 2024  
1-2:30PM

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# Workshop Outline

- An introduction to the Scholarship of Teaching and Learning
  - Activity: What brought you to this session?
  - What is (and isn't) SoTL?
  - Why do SoTL?
  - Activity: Is this SoTL?
- Getting started with SoTL
  - The SoTL cycle
  - Ethics in SoTL
  - Activity: One takeaway + one outstanding question
- Q&A



# What brought you to this session?

Thank you for taking time to fill out your responses in Jamboard!



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# What is SoTL?

“The **systematic study** of teaching and/or learning and the **public sharing and review** of such work.”

(McKinney, 2006, p. 39)



# SoTL vs.



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**Scholarly Teaching:** Uses evidence-based teaching informed by the teaching and learning community.  
Consumers vs. producers of knowledge.



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**Education Research:** investigates education and learning processes; goal is to understand how contexts of education affect all forms of learning.



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**Discipline Based Educational Research (DBER):** Grounded in the STEM disciplines; addresses questions of teaching and learning within those disciplinary contexts.



# Why do SoTL?

Engaging with SoTL can support purposes beyond improving classroom-level teaching and learning including:

- Support program assessment, review, or accreditation;
- Provide data to enhance institutional and/or disciplinary priorities and initiatives;
- Facilitate partnerships among faculty, staff, and students;
- Support tenure and promotion via scholarly outputs resulting from work.



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# Is this SoTL?

Instructor X has created a few learning activities in their classroom in order to foster more engagement among students. These activities encourage students to work in groups and to share experiences of a particular course activity. The Instructor plans on using these activities again in the future, as students have informally reported that they find them enjoyable.

**Is this SoTL? Yes/no? Why not?**





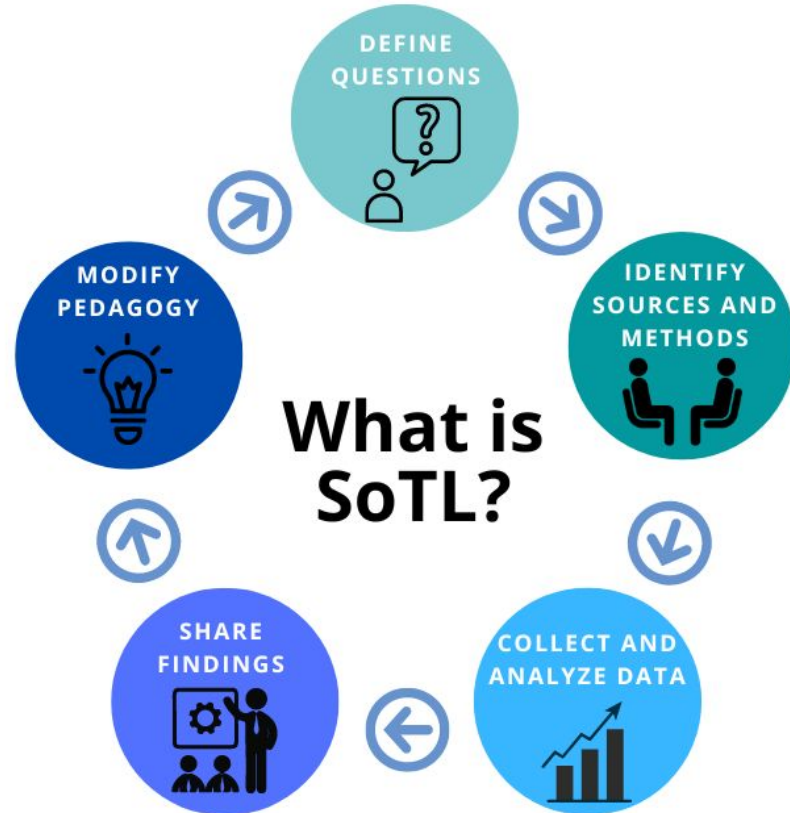
# Is this SoTL?

Instructor Y is facing a problem in their classroom - students are not engaging with the online Canvas materials that are essential to learning course content. Instructor Y wants to know why students are not engaging, and also to come up with solutions to this issue. Instructor Y wants to involve a few students in focus groups to ask them why these materials are not being utilized and to get their feedback on how the materials could be improved to enhance learning. Because this issue is of interest to many of Instructor Y's colleagues, Instructor Y plans to share what they have learned from student focus groups in their department and more widely at the CTLT.

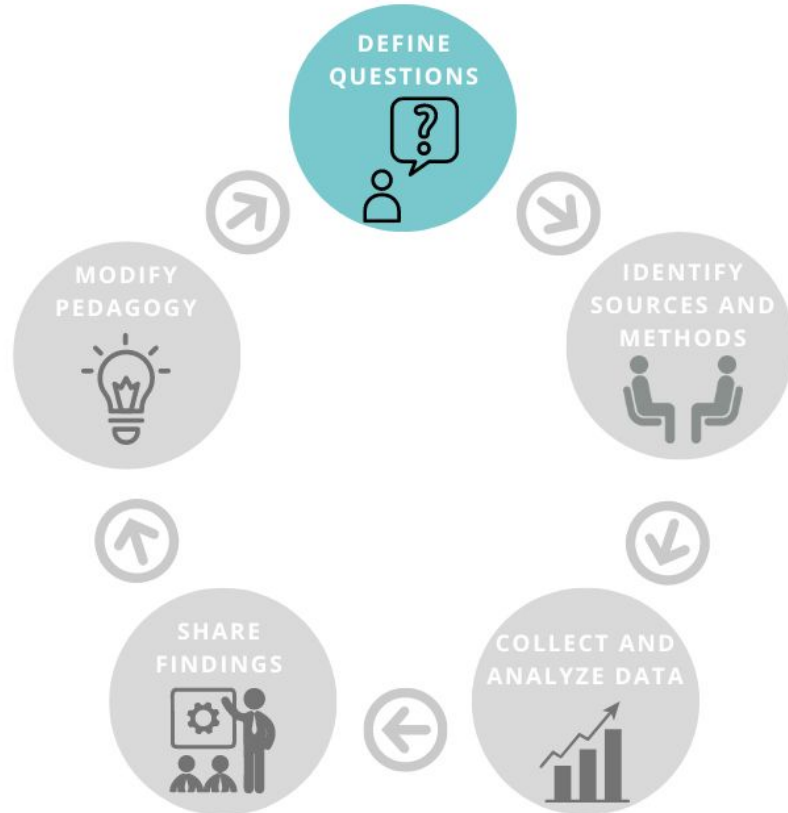
**Is this SoTL? Yes/no? Why not?**



# The SoTL Cycle



# The SoTL Cycle



# Generating a SoTL Question



- What interests you about teaching and learning?
- Is there anything in your classroom that ignites your curiosity?
- Is there anything you would have liked to have seen as a student in the classroom?



# Common Types of SoTL Questions

## “What works...?”

- Evaluative: Seek evidence of the relative effectiveness of particular teaching approaches

## “What/how is...?”

- Descriptive & exploratory: Seek to describe, but not evaluate, a phenomenon observed in the classroom or the consequences of particular teaching approaches



# Scoping SoTL Questions

“...you cannot investigate everything at once. Indeed it may be that you can't investigate more than one question at a time. What matters most is for teachers to investigate the problems that matter most to them” (Bass, 1999).

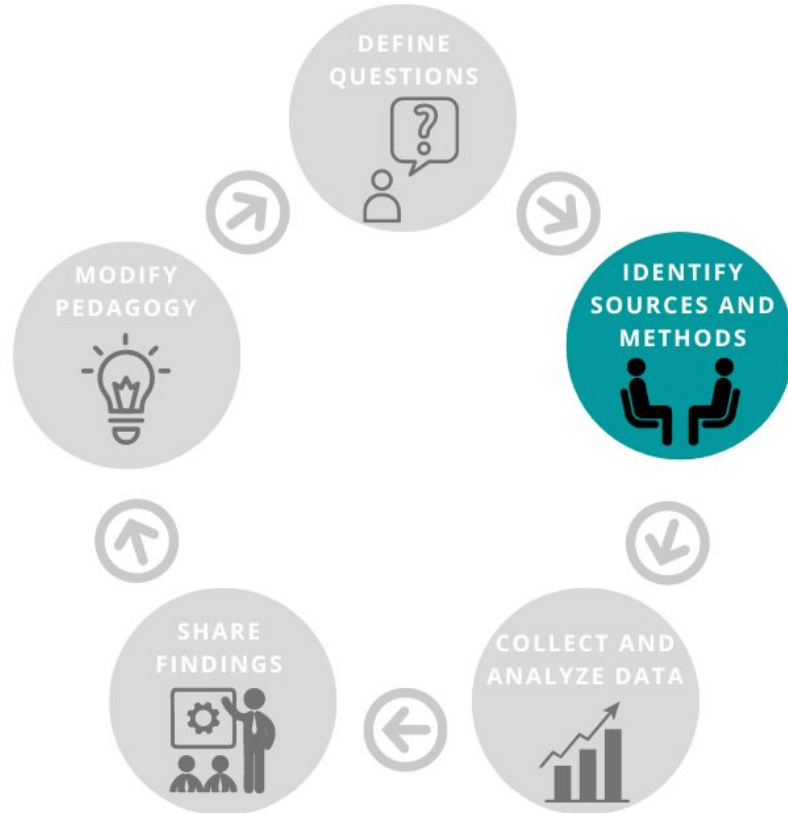


# Developing SoTL Question(s)

| <b>Context</b><br>(e.g., classroom;<br>lab-setting;<br>undergraduate level) | <b>Practice(s)</b><br>(e.g., team-based<br>learning, assessments,<br>office hours) | <b>Area(s) of Impact</b><br>(e.g., student attitudes and<br>motivation, student<br>knowledge, wellbeing)   | <b>SoTL Question(s)</b>  |
|---|--|--|--|
| Undergraduate lab<br>and lecture course.                                    | Series of scientific<br>writing worksheets.  | Student attitudes<br>(preparedness to write)<br><br>Student<br>knowledge/performance<br>(ability to write) | 1) How do the<br>worksheets impact<br>students' perception of<br>being prepared to write<br>scientific reports?<br><br>2) How do the<br>worksheets impact<br>students' ability to write<br>scientific reports? |



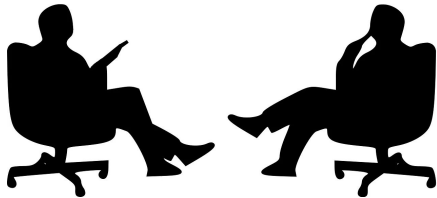
# The SoTL Cycle





# Identifying Data Sources: Common evaluation methods

## Interviews



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## Focus groups



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## Surveys



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Resources exist on the [ISoTL website](#) to help with survey development, focus group and interviews.



# Choosing a Method

When choosing a method, consider:

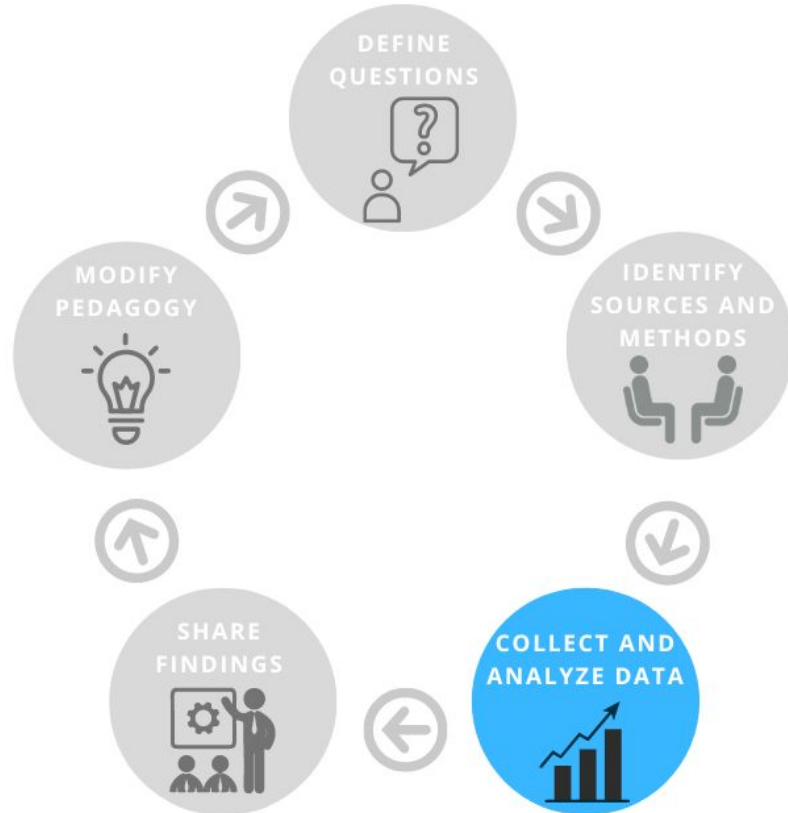
- Alignment with your research question(s)
- Your own expertise and supports you might need
- Practical considerations

“[r]egardless of the methods employed, good practice in SoTL requires the intentional and rigorous application of **research tools that connect the question at the heart of a particular inquiry**”

(Felten, 2013, p. 123)



# The SoTL Cycle

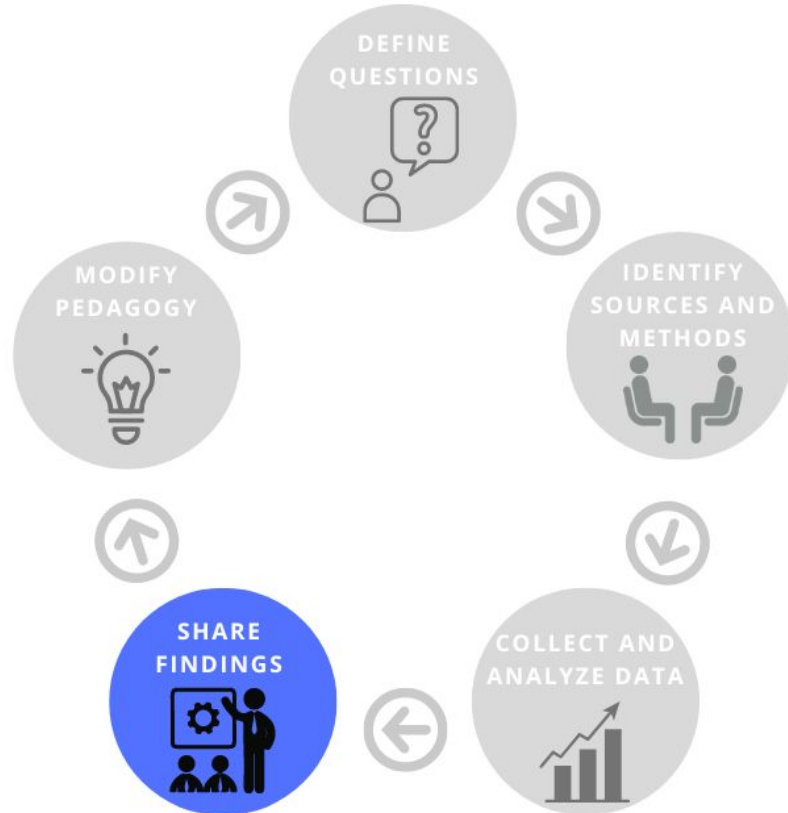


# How to Introduce SoTL Activities

- Maximize the use of existing course activities
- Be mindful of the rhythm of the course/term
  - E.g., a survey will likely be ignored if launched immediately before or during an exam period
- Consider incentives
- Be enthusiastic and transparent!



# The SoTL Cycle



# Share Findings

- Writing about your teaching practice may be new and unfamiliar
- Finding the right outlet for your work can take time
  - Explore different dissemination venues such as: peer reviewed journals, departmental/institutional meetings, social media



# Having BREB approval vs. Being ethical



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Source: <https://www.picpedia.org/highway-signs/e/ethics.html>

Survey governance committee: <https://pair.ubc.ca/surveys/survey-governance/>

Sample consent forms: <https://isotl.cilt.ubc.ca/resources/how-to/>

Guide for deciding if you need to pursue institutional ethics: <https://isotl.cilt.ubc.ca/breb-application/>

“Do you need ethics approval?” (10 minute video) [https://www.youtube.com/watch?v=hU\\_SY5EeYSM](https://www.youtube.com/watch?v=hU_SY5EeYSM)



# One takeaway

# One outstanding question

Thank you for taking time to fill out your responses in Jamboard!



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# Questions?

[ctlt.isotl@ubc.ca](mailto:ctlt.isotl@ubc.ca)



# Engage with the SoTL Seed Program

- Up to 70 hours of SoTL Specialist support - graduate students with expertise in ethics applications, surveys, focus groups, experiments, observation, text analysis and analytics.
- Cohort-based meetings which provide feedback and collegial engagement by SoTL Seed peers.
- Funding for research expenses (up to \$200) and dissemination (up to \$500)
- Next call will open April 2024, close May 2023

<https://isotl.ctlt.ubc.ca/services/sotl-seed-program/>



# References & Resources

## References

- Potter, M.K., & Kustra, E. (2011). The relationship of scholarly teaching and SoTL: Models, distinctions, and clarifications. *International Journal of the Scholarship of Teaching and Learning*, 5(1).
- Shulman, L. S. (1999). Taking learning seriously. *Change: The Magazine of Higher Learning*, 31(4), 10-17.

## Additional Resources

- Center for Engaged Learning. (2013, September 9). Key characteristics of the scholarship of teaching and learning. Retrieved from <https://youtu.be/yvDKHHyx7YY>.
- Dancy, M. H., & Beichner, R. J. (2002). But are they learning? Getting started in classroom evaluation. *Cell Biology Education*, 1(3), 87-94.
- Hubball, H., & Clarke, A. (2010). Diverse methodological approaches and considerations for SoTL in higher education. *Canadian Journal for the Scholarship of Teaching and Learning*, 1(1), 2.
- Common Challenges in SoTL
- Rowland, S. L., & Myatt, P. M. (2014). Getting started in the scholarship of teaching and learning: A “how to” guide for science academics. *Biochemistry and Molecular Biology Education*, 42(1), 6-14.



# Various methodologies in SoTL

## Interviews:

- Wieman, C. E., Adams, W. K., & Perkins, K. K. (2008). PhET: Simulations that enhance learning. *Science*, 322(5902), 682-683.
- Berg, C. A. R. (2005). Factors related to observed attitude change toward learning chemistry among university students. *Chem. Educ. Res. Pract.*, 6(1), 1-18. Chicago

## Surveys:

- Birol, G., Han, A., Welsh, A., & Fox, J. (2013). Impact of a First-Year Seminar in Science on Student Writing and Argumentation. *Journal of College Science Teaching*, 43(1).

## Experiments:

- Gilley, B. H., & Clarkston, B. (2014). Collaborative Testing: Evidence of Learning in a Controlled In-Class Study of Undergraduate Students. *Journal of College Science Teaching*, 43(3).

## Observations:

- Stang, J. B., & Roll, I. (2013). Interactions between teaching assistants and students boost engagement in physics labs. *Physical Review Special Topics-Physics Education Research*, 10(2), 020117.
- Smith, M. K., Jones, F. H., Gilbert, S. L., & Wieman, C. E. (2013). The Classroom Observation Protocol for Undergraduate STEM (COPUS): A New Instrument to Characterize University STEM Classroom Practices. *CBE-Life Sciences Education*, 12(4), 618-627.



# Contact Us

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