

Celebrate SoTL Workshop: Creating a SoTL Project

Silvia Bartolic; Antoine Coulombe, Jonathan Graves; Tal Jarus; Candice Rideout
October 21, 2022 12:15-1:45pm





Session Overview

1. Generating ideas
2. Developing a Research Question
3. Creating a plan to answer your research question
 - What methods will you use?
 - What data will you collect?
4. Considering key factors
 - Ethical practices and ethics review
 - Reflecting on Justice, Equity, Diversity, and Inclusion (JEDI)
5. Wrap Up + Sharing



Generating Ideas for a SoTL Project

Areas to consider might include:

- Determining and/or **addressing a challenge** in teaching, learning or with educational systems
 - E.g. Teaching statistics to Arts students
 - E.g. Examining policies and practices that impact diverse students
- **Gaining insight** into a teaching resource, course or program you plan to develop/have developed
 - E.g. Open access textbook features
 - E.g. Program evaluation/renewal
- **Evaluating** a teaching tool, activity or method
 - E.g. Use of a learning analytics tool to provide feedback

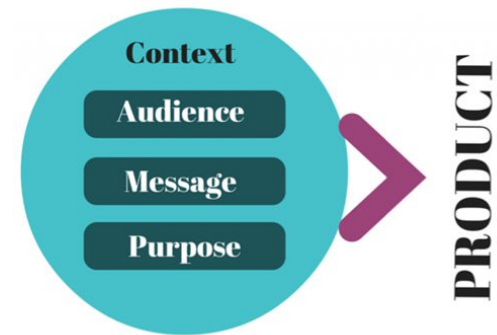


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Acknowledging Context

- In SoTL, context is everything! The singularities of your teaching situation will dictate **what questions you ask, data you collect, method you use and how you choose to share insights found.**
- Situating your work in context will allow others to gauge the extent to which your findings can inform their own teaching.
- Recognize that **generalizability and transferability of findings is not a primary goal in SoTL.**



Worksheet

- Take some time to fill out the first box (10 mins)

Celebrate SoTL Worksheet: Creating a SoTL Project

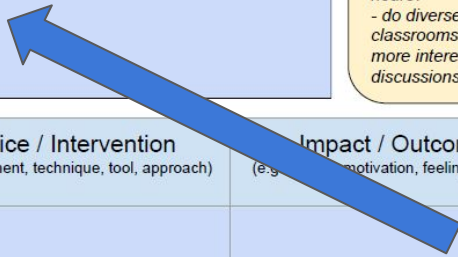
PG 1

Step 1: What is your **research topic** ?

What you want to learn? What is the "big idea"?

A **research topic** is a general idea or area of inquiry. For example:

- *should I hold office hours?*
- *do diverse classrooms lead to more interesting discussions?*



Context (e.g. classroom, lab, student background)	Practice / Intervention (e.g. assessment, technique, tool, approach)	Impact / Outcomes (e.g. motivation, feeling, wellbeing)

Step 2: What is your **research question**?

What are you going to do? What are you going to answer?

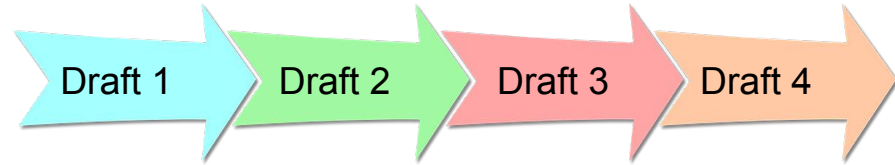
Need a Copy?

<https://tinyurl.com/isotlworksheet>



Develop a Research Question

- This is an iterative process!
- Create a Research Question that is:
 - Open-ended
 - Interesting
 - Appropriate in scope
- Refine it based on research, reflection



ASSESSMENT & EVALUATION IN HIGHER EDUCATION
2022, VOL. 47, NO. 6, 972-983
<https://doi.org/10.1080/02602938.2021.1968792>

 Routledge
Taylor & Francis Group

 Check for updates

What makes students contribute more peer feedback? The role of within-course experience with peer feedback

Zheng Zong^a , Christian Schunn^b  and Yanqing Wang^a 

^aSchool of Management, Harbin Institute of Technology, Harbin, China; ^bLearning Research and Development Center, University of Pittsburgh, Pittsburgh, PA, USA

ABSTRACT

The success of peer feedback approaches to instruction depends upon students contributing in-depth feedback to their peers. Prior researchers have examined the role of general attitudes towards peer feedback, but how experiences, especially the performance information during peer feedback, influence the subsequent amount of feedback that students provide to peers has received little attention. This study investigated what experience factors from one assignment predicted growth or declines in the amount of peer feedback provided on the next assignment in a course with many peer feedback assignments. Data on peer feedback experiences and behaviors across multiple assignments were taken from students across two programming courses ($N=149$). Negative binomial regression analyses reveal three experiences in the prior assignment predicted growth in length of comments provided to peers: receiv-

KEYWORDS

Peer assessment;
peer feedback;
performance feedback;
peer recognition



Create a Research Question that is:

✓ **S**pecific

✓ **M**easurable

✓ **A**chievable

✓ **R**elevant

✓ **T**ime-bound

✓ **F**easible

✓ **I**nteresting

✓ **N**ovel

✓ **E**thical

✓ **R**elevant



Common types of SoTL Questions

Describe

Explore

Evaluate



Common types of SoTL Questions

Describe

How do first-year students perceive their adjustment to a university learning environment?

Explore

To what extent are first-year students prepared to learn effectively in a university context?

Evaluate

STUDIES IN HIGHER EDUCATION
2022, VOL. 47, NO. 3, 668-682
<https://doi.org/10.1080/03075079.2020.1783525>

 **Routledge**
Taylor & Francis Group

 Check for updates

'It's been a challenge finding new ways to learn': first-year students' perceptions of adapting to learning in a university environment

Rose B. Cameron^a and Candice A. Rideout ^b

Common types of SoTL Questions

ASSESSMENT & EVALUATION IN HIGHER EDUCATION, 2018
VOL. 43, NO. 1, 68-78
<https://doi.org/10.1080/02602938.2017.1294144>

 **Routledge**
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Describe

Students' choices and achievement in large undergraduate classes using a novel flexible assessment approach

Candice A. Rideout

Explore

What grading choices are made by students in large upper-year courses using a flexible assessment approach?

Evaluate

How are class attendance and/or performance related to grading choices?

What predicts final exam scores in this context?



Worksheet

- Take some time to fill out the second and third sections (10 mins)

Celebrate SoTL Worksheet: Creating a SoTL Project

PG 1

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- should I hold office hours?
- do diverse classrooms lead to more interesting discussions?

Context (e.g. classroom, lab, student background)	Practice / Intervention (e.g. assessment, technique, pedagogical approach)	Impact / Outcomes (e.g. grades, motivation, feeling, wellbeing)

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Need a Copy?

<https://tinyurl.com/isotlworksheet>



Answering your Question



Answering Questions: Scoping the Project

- Starting by focusing on the **question** not the methods
 - Who will my study **affect** or impact?
 - What **outcomes** am I interested in? (Learning? Feelings? Products?)
 - How will I **observe** them (Grades? Reflections? Artifacts?)
 - How will I **collect** this information (Surveys? Records? Interviews?)

Example 1

I am studying **office hours** and if attendance affects **student** and whether they **feel included** in the course. I will collect information about attendance from **records** and information about feelings using a **survey** and **focus group**.

Example 2

I want to know if **controversial examples** make **TAs feel less comfortable** explaining the material to students. I will collect information about TA experience using **interviews** and the examples and student engagement with **reflections**.



Creating an Research Plan

- The next step is to look at the information you plan to collect and determine how you will use this to answer your question.
 - Try to determine if your answer is **causal** or **relational** in nature

Do better
students attend
office hours?

vs

Do office hours
make students
better?

- This is also a good point to engage with **iSoTL** for advice and support

Quantitative Methods

- These are the **most common** in SoTL journals
- They are characterized by organized and categorized data, usually from academic records, surveys, or other techniques, organized into variables and observations

Examples:

Descriptive Stats

- Averages, percentiles
- Deviations, changes
- Correlations

Visualizations

- Graphs and charts
- Tables
- Histograms, boxplots

Models

- Comparisons
- Regressions
- Factor analyses
- ANOVA
- Coding

Tests

- T-tests
- Power analysis
- Hypothesis testing
- Robustness

Don't be intimidated!

ISoTL has dedicated consultants
and faculty to help with this



Qualitative Methods

- Qualitative methods are more flexible and can overlap with the above
- They generally focus on discussion, using examples and artifacts, from the course.
- They are frequently narrative in nature, and involve identifying and reflecting on themes of experience.

Examples:

Grounded Theory

Ethnographic

Narrative

Action

Data

- The final step is to identify what data your approach will create
- This will be specific to your method and approach

Key Points:

- Double-check that it is clear **how** your data will be collected
- Ensure that your data is suitable to answer the question using the approach and method you have chosen

At this point, you have a draft assessment plan - a plan of attack for your project

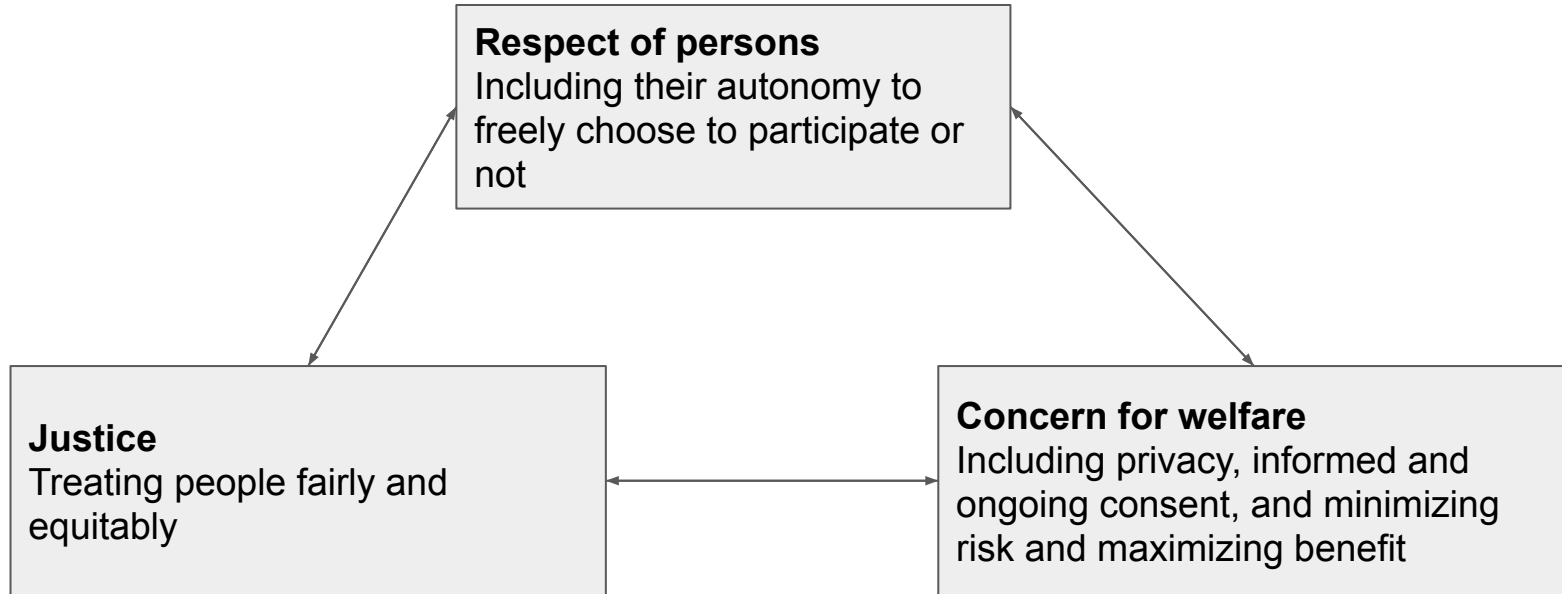


Worksheet

- Take some time to fill out the fourth box (10 mins)

Who will I observe? (e.g. students, groups, classes)	What are the key outcomes? (e.g. grades, learning, artifacts)	How will I collect data? (e.g. surveys, interviews, records)
Step 3: What is your research method? <i>How will you answer your research question? What methods will you use?</i>		
Try to identify both a method and data early on, but focus on your question. For example: - I will interview students about their experience with office hours and record their responses - I will collect examples of projects from groups with different compositions and evaluate them against a rubric		

Ethics: Core Principles



The Three Core Principles of Tri-Council Policy Statement 2:
[Chapter 1: Ethics Framework](#)

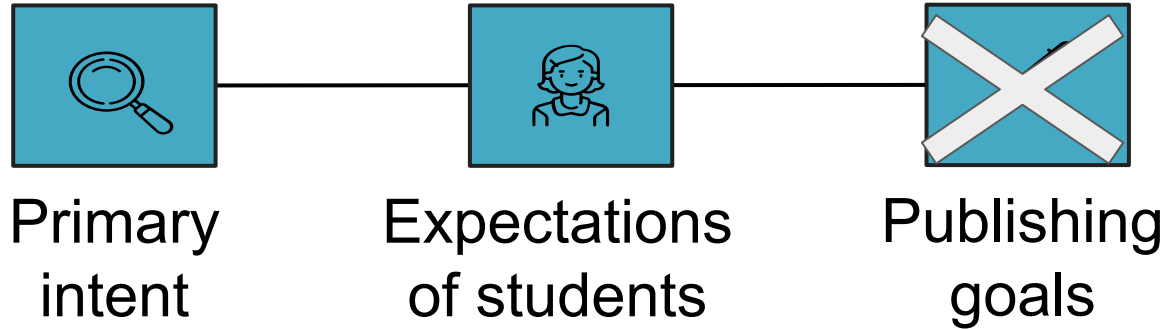
Nine Principles to Guide Use of Student Work in Classroom

1. Identify SoTL projects as inquiry or research projects
2. Plan the project before the class begins
3. Design an informed consent project
4. Seek external review
5. Inform students at regular junctures of the project
6. Acknowledge that students control the way their work is used
7. Proceed very carefully if using data from previous classes without student consent
8. Consider ways to involve students
9. Share findings with students

Burman, M. E., & Kleinsasser, A. M. (2004). Ethical guidelines for use of student work: Moving from teaching's invisibility to inquiry's visibility in the scholarship of teaching and learning. *The Journal of General Education (University Park, Pa.)*, 53(1), 59-79. <https://doi.org/10.1353/jge.2004.0018>



To BREB or not to BREB?



Icons from slidesgo.com

https://ethics.research.ubc.ca/sites/ore.ubc.ca/files/documents/BREB_ChecklistForResearchRequiringEthicsReview.pdf

<https://isotl.ctlt.ubc.ca/breb-application/> (Specifically Section 1b)

<https://ethics.research.ubc.ca/sites/ore.ubc.ca/files/documents/PERL%20ethics%20review%20vetting%20guide.Apr09-2021.pdf>

Having BREB approval ≠ Being ethical

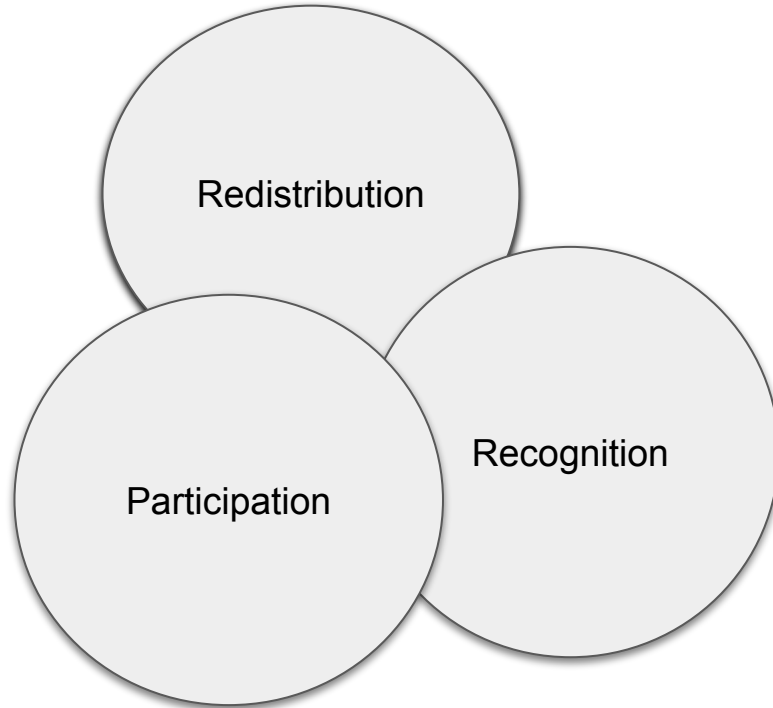
Make sure you clearly inform students of your intentions by sharing (via a consent form):

- **Why** you are doing this project
- **What** data you'll be using/how (e.g., de-identifying aggregate data, linking their responses to course grades, etc.)
- **Where** their data will be shared
 - Recommended text: "Aggregate data and/or anonymized quotes may also be shared publicly."
- **How** their data will be kept confidential and private (e.g., who will access it, where will it be stored)

Sample BREB and non-BREB consent forms: <https://isotl.ctlt.ubc.ca/resources/resource-hub/> under "Recruiting Participants"



SoTL and JEDI



“... a case of injustice that cannot be redressed by either one of them alone, but that requires their integration.”

Fraser, N. (2010). *Social justice in the age of identity politics: Redistribution, recognition, participation*. DEU.



- **Why should I consider identity factors in my research design?**

Make research more

1. ethically sound,
2. rigorous,
3. relevant,
4. accurate,
5. useful.

Lots of evidence to show that not taking into consideration certain identity factors can lead to failed research projects.

- **How do I demonstrate that I have taken identity factors into consideration in my application?**

Some questions to consider:

- Are **identity factors** taken into account in the research design, methods, analysis and interpretation, and/or dissemination of research findings?
- Can the research data be **disaggregated** by identity factors to determine differences between groups?
- Is there **diversity** in the work consulted and referenced?
- Does the research engage or involve **students with diverse lived experience**?

If "Yes" – Explain how.

If "No" - Explain why.



Worksheet - Take a moment to Reflect

- If you were a student, and your instructor was conducting a SoTL project in your class, what are some things YOU would want to know about the project?
- Would you have any concerns? Requests?

Take some time to fill out the fifth box and the BREB (10 mins)

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PG 2

Step 4: Stop! If you were a student and you were participating in this SoTL project, what are some thing you would want to know about it?

Are there any risks to you? What might be a worry you would have?

Think about the *context* and the *kind of students* who might be taking part. Are there any special factors? Are they vulnerable or are there power dynamics? Are there subject groups on the research team?

Do you need to BREB?

- Do you consider it research?
- How is it funded?
- Is there randomization or intervention?
- Is it pilot a new intervention
- Are the results intended to make a broad point?

A 'yes' to any of these means you should likely answer "yes" to this question.

Yes

No

Positioning Your Research



Researcher Positionality

The term **positionality** refers to a researcher's personal relationship to (i) a topic or research area, (ii) the subjects or objects of study, and (iii) the research methods and process

- This often includes our *social identity*
 - (who we are in society: gender, ethnicity, class, nationality)
- ...and our *place-based identity*
 - (where we come from, where we are, where we grew up)
- In SoTL this requires us to position ourselves within the academic environment:
 - Who are we in the classroom? Who are our students? What is our relationship?
 - How does our classroom fit in the larger framework of the university?
 - How does our program fit? Our project? Our university?

Research Positioning

We also need to position our research in terms of its audience and goals:

- Who is this being written for? (e.g. the public, administrators, academics)
- Is this a **disciplinary** project or more general?
- What is the goal of my research?
- How do I want to share or disseminate it?
- What literature or conversations do I want to speak to?

These are helpful, because designing a project with these in mind will help you speak to these goals - in addition to making the writing / dissemination part easier!



Back to Quantitative vs. Qualitative

A big part of this decision is the methodology chosen

- Most areas and audiences will have clear disciplinary standards of practice and methods which they use - sometimes in very specific ways
- Identifying where you want to position your work can be an influential decision if you have alternative ways to answer your question(s)

Frequently, this is rooted in the original discipline the research comes from (e.g. STEM, education, economics, etc.)



Worksheet

- Take some time to fill out the sixth box (10 mins)
- Then, keep working - finish filling out the worksheet? What do you still think?

Step 5: Where will you **position** your research?

*Who are **you** as the researcher? Who are you going to "speak to" about this researcher?*

Think about who *you* are in your practice: who are we? Who are our students? How do we fit in a teaching context? Then, think about who you want to *inform* with your work? Others in your area? Another *discipline*?

You may want to think about a particular literature or debate your research is "speaking" to. For example:
- as a BIPOC teacher, I want to explain to other teachers how diversity impacts group practice in the classroom

Step 6+: Keep thinking!

What other questions do you have? What else do you need to answer? What do you need help with?

Think-Share-Pair (10 mins)

- Now that we've had a chance to work on our projects we will now break into groups to share our thoughts
- Each group will have 1 facilitator
- For those people on **Zoom** please join the Breakout Rooms listed in the chat

Room 1

- *Candice*
- *Tal*

Room 2

- *Antoine*

Wrap Up

- Thanks for coming and taking part!
- Feel free to reach out to us or the iSoTL staff team as you continue to develop your project
 - iSoTL Seed grants are available for application now!
- Consider joining our community of practice as well

<https://isotl.cilt.ubc.ca/>

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