TRANSFORMING OUR LEARNING EXPERIENCES THROUGH THE SCHOLARSHIP OF TEACHING AND LEARNING

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PART I GETTING STARTED

- What is SoTL
- Conceptual and theoretical frameworks
- Research questions
- Approaches and methods
- Ethical considerations

What is SoTL?

- Scholarly teaching
  - Informed by current scholarship about teaching the field
- Scholarship of teaching & learning
  - Focused on student learning
  - Grounded in a T&L context,
  - Methodologically sound,
  - Conducted in partnership with students,
  - Publicly disseminated, (Felten, 2013)
  - Adds to knowledge about teaching and learning

Taxonomy of SoTL questions

- What works?
  - *Questions that seek evidence about the relative effectiveness and appropriateness of different teaching approaches*
- What is (happening)?
  - *Questions that seek to describe how students learns or what is happening in the classroom*
- What's possible?
  - *Questions related to goals for teaching and learning that have yet to be met*
- Theory-building
  - *Questions designed to build new theoretical frameworks about learning in a discipline*
- (Hutchings, 2000)

The SoTL Spectrum: Finding your place

Doing it for your own purposes, in a way that meets your goals

Research/scholarship to contribute knowledge to a field

(Bernstein, 2010)

Framing the research question

- Learner-Centered
  - Cognitive
    - Questions about learning process i.e. prior knowledge, making connections with new content, how much and how to structure new content
  - Social cognitive
    - Questions about learning skills and procedures eg. practice and feedback,
  - Learner characteristics
    - Motivation, developmental stage, learning preferences

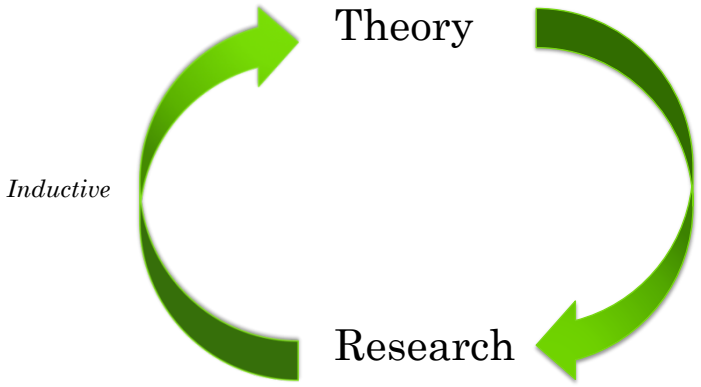
FRAMING THE RESEARCH QUESTION

- Knowledge-Centered
  - Questions about the content to be learned eg. cognitive complexity (eg. Bloom's taxonomy), threshold concepts & bottlenecks, disciplinary thinking, etc.
- Assessment-Centered
  - Questions about assessment design, feedback characteristics, peer assessment, etc.
- Community-Centered
  - Questions about team environments, forming teams, increasing community in the classroom, etc.

FRAMING THE RESEARCH QUESTION

- For more see:
  - Svinicki, M.D. (2010) *A Guidebook on conceptual frameworks for research in engineering education*. Rigorous Research in Engineering Education: NSF.
  - www.learning-theories.com

RESEARCH AND THEORY



SHARE, GENERATE AND REFINE RESEARCH QUESTIONS

APPROACHES AND METHODS

This next section of the workshop will explore:

- Potential data sources
- The language of data analysis
- Data analysis: what the data is telling you
- Evidence and claims: making your case

POTENTIAL DATA SOURCES

- Existing assignments / exams
- Response or reflection journals / learning logs
- One-minute papers
- Feedback cards / brief submissions
- Think alouds
- Blackboard discussions / postings
- Portfolios
- Interviews / focus groups
- Observations / field notes
- Questionnaires / surveys
- Video / audio tape
- Photos / images / film
- Artifacts

ETHICAL CONSIDERATIONS

- The TCPS core principles and guidelines are:
  - Concern for welfare
    - Sound Methodology
    - Proportionality
    - Minimizing (Risk of) Harm and Maximizing Benefits
    - Respect for Privacy and Confidentiality
  - Respect for Persons
    - Free , Informed and Ongoing Consent
    - Accountability and Transparency
    - Respect for Vulnerable Persons
  - Justice
    - Inclusiveness
    - Imbalance of power
    - Conflicts of Interest (COIs)

ETHICAL CONSIDERATIONS HANDOUT

PART II I HAVE DATA; NOW WHAT?

- More on approaches, methods and methodology
- Data analysis practice
- Strategies for moving from data to evidence
- Dissemination options

THE LANGUAGE OF DATA ANALYSIS

- Transcribing
- Journaling
- Field notes
- Coding
- Categorizing
- Themes
- Essences
- Interpretation
- Description
- Writing

Data analysis: What the data is Telling you

- Data analysis begins as soon as you see the data
- The data you have asked for guides you
- Remain open to all the data has to say
- The silent and the missing, the seen and the unseen, all of it speaks

Evidence and claims: Making your case

- Describing your students' learning
- Identifying what called you / what your audience will find interesting
- Using quality and confidence when making a case for your observations / interpretations
- Defending the claim you are comfortable making
- Contributing to your study's rigor, authenticity, and trustworthiness

Qualitative Research

Unique Creative Sensitivity Flexibility
The taken for granted Breaking open Messy
Stories Context Complexity Ambiguity
Naturalistic Inductive Interpretive Relationships
Making sense Meaning making Patience
Interrupt Unfasten Contradict Illuminate
Uncharted Mysterious Explore Depth
Unpredictable Evolving Multifaceted Fascinating
Human experience Breadth **Creates evidence**
Making visible Troubling Pushing boundaries
Intuitive Organic Layers Dynamic Reflexivity

Qualitative approaches

- Traditional approaches (ethnography, grounded theory, case study)
- Interpretive approaches (phenomenology, narrative inquiry, interpretive inquiry, hermeneutics)
- Critical theory approaches (feminist inquiry, action research, participatory action research)
- Descriptive and generic qualitative approaches

TRADITIONAL APPROACHES

- Ethnography: in-depth analysis and thick description of a culture or group as the members see it
- Grounded theory: what is relevant within an area of study is allowed to emerge through the use of procedural steps that develop a theory about a particular phenomenon
- Case study: in-depth analysis over time of one or more cases in a bounded system

INTERPRETIVE APPROACHES

- Phenomenology: the study of lived experiences. "It aims to gain a deeper understanding of the nature or meaning of everyday experiences" (van Manen, 1997).
- Interpretive inquiry: experiences are explored with an attempt "to make sense of and interpret phenomena in terms of the meanings people bring to them" (Denzin & Lincoln, 1994).
- Hermeneutics: a philosophical activity and method of inquiry where co-creation of meanings evolve through dialogue and interpretation.

Critical theory approaches

- Action research: leads to the generation of practical knowledge that relates to concerns and issues found in a particular context or setting. Involves taking action to improve practice and studying the subsequent effects.
- Participatory action research: focuses on empowerment, active consciousness raising and social action. Involves full participation by all involved during all phases of the research process.

Descriptive and generic approaches

Descriptive qualitative approach: can be used when the goals of research are a basic description and summary of the phenomenon. A significant, rigorous and practical study can occur through this method (Mayan, 2009).

Generic qualitative approach: the combination of several qualitative approaches used to collect and analyze data. "If the researcher takes a generic viewpoint, it is not necessary to adopt any one approach to doing qualitative research" (Lichtman, 2010).

You've gathered and analyzed your data and have something important to say. Now what?

This next section of the workshop will address the following topics:

- When and where to publish
- How to read for publication
- How to make your case
- What the review process looks like

But first: why is it so scary?

Can you take a look at this draft and tell me what you think?

Sure. Is there anything in particular you want me to look for?

Is it stupid?

Academic Writing

"University academics do not write to persuade but to impress and gain approval within a hierarchy. They are trained to write for approval."

Judith Brett

What happens when you suddenly find yourself near the bottom of the hierarchy as a novice in SoTL?

Reasons not to write

"I did not take the necessary steps to narrow my focus sufficiently and enable myself to find a starting point. Rather, I allowed myself to get caught up in the smorgasbord of possibilities and fascinating stuff out there."

Susan E. Elliott-Johns

Plus writing is hard, time-consuming, not as much fun as planning the next study, and not as immediately rewarding as working with students.

Reasons to write

"Scholarship entails an artifact, a product, some form of community property that can be shared, discussed, critiqued, exchanged, built upon. So if pedagogy is to become an important part of scholarship, we have to provide it with this same kind of documentation and transformation."

Lee Shulman

We owe it to our students.

Publish when you have something significant to say

How do you know? Try it out.

- Talk to colleagues.
- Create posters and presentations at conferences.
- Read what others have written.
- Talk to colleagues some more.

Decide who needs to hear this the most

- Do you need to speak back to your specific discipline?
- Does your project have something significant to say to instructors from multiple disciplines?

If you said both, pick **ONE** to focus on first. You probably need two different articles for two different venues.

Have a target journal in mind when you write

- Would you read this journal?
- What type of articles does this journal usually publish?
- Is this journal indexed?

DO NOT THROW AWAY GOOD WORK ON BAD JOURNALS

READING FOR PUBLICATION: 2 TYPES

- Reading for content—and remember you will read far more than you include in your lit review.
- Reading for the specific target journal
  - Pick a couple articles that are similar to what you want to do in terms of approach, structure, and style.

TARGET JOURNAL WORKSHEET

Making your Case

- Using the lit review to tell your story
- Moving from data to evidence
- Using meta-commentary

An example

"X of 25 students indicated anxiety about the task. For example, one student said "blah blah blah."

BUT don't end there. Explain why you picked this quotation and what you see in it. Try something like

"In making this comment, X seems to …"
"In other words, …"
"X reminds us that …"

Specific context → Contribution

Don't forget to say why it matters to anyone else who is not here teaching this class with these students.

- Indicate who cares or who should care
- Establish why your claims matter
- Indicate how your work fits in a larger context

Process

- Write, write, write—even when you don't want to.
- Have someone you trust read it—even if you're scared.
- Write some more.
- Cut some out.
- Wait—but not too long.
- Read it as a critic—Then, read it as a fan. Have other people help.

THE REVIEW PROCESS

- Follow all directions for submission.
- Include cover letter/email to editor briefly explaining article. Request acknowledgement.
- Wait. Time varies by publication.
- Give them a few extra weeks. Then contact editor about status of article.

FROM THE REVIEWER'S PERSPECTIVE

You get a manuscript, instructions, and timeline.
Instructions usually include:

1. Rating of specific items—clear goals, background, method, style including referencing, insight or conclusions.
2. Overall rating.
3. Comments to editors.
4. Comments to authors.

The Decision

- Yes (probably with minor changes)—Celebrate and do changes promptly.
- No—Find friend to commiserate with. Put aside comments for a week or two. Then reread comments looking to the future. How can you make the piece better for the next journal? Be prepared to adjust style for next journal.
- Maybe (Conditional Accept or Revise and Resubmit)

Revise and Resubmit

- Read reviews very carefully. Have a friend read the reviews and essay.
- Make a list of changes requested. Decide what you can change and are willing to change. Decide what you can't change or aren't willing to change.
- Revise manuscript. Update literature review. Get feedback.
- Write letter to editor: explain changes you made and why you chose not to make other changes.
- Resubmit.

Remember you have something important to say, so keep trying

And you don't have to do this alone.

Resources & References

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