Introduction to the Scholarship of Teaching and Learning

Contact:
Dr. Kristen Miller, krmiller@uga.edu
Division of Biological Sciences, UGA

Supported by CIRTL (Center for the Integration of Research, Teaching and Learning) and the SEER (Scientists Engaged in Education Research) Center

Objectives for Workshop

- Introductions
- Define SoTL
- Distinguish between SoTL, Action Research, DBER
- Construct basic framework for starting a SoTL project
- CIRTL's practitioner levels

Introductions

- Name
- UGA position
- Prior SoTL or teaching experience
- Something you love about your discipline

- GREEN = group work!

Why SoTL? Why Now?

- UGA's Interdisciplinary Certificate in University Teaching:
  - http://grad.uga.edu/index.php/current-students/professional-development/university-teaching/
- Increasing recognition in faculty positions

What is SoTL?

- "the scholarship of teaching and learning encompasses a broad set of practices that engage teachers in looking closely and critically at student learning in order to improve their own courses and programs, and to share insights with other educators who can evaluate and build on their efforts."
  - Hutchings, P., Huber, M., & Ciccone, A. (2011). *The Scholarship of Teaching and Learning Reconsidered*. San Francisco: Jossey-Bass. p. xix

https://www.youtube.com/watch?v=yvDKHHyx7YY

Table 1. Distinctions between action research, scholarship of teaching and learning (SoTL), and discipline-based education research (DBER)

	Action Research	SoTL	DBER
Subject of research	▪ K-12 class	▪ College course	▪ Post-secondary education specific to a discipline
Researcher	▪ Teacher of the class	▪ Instructor of the course	▪ Usu. not the instructor
Scope of findings	▪ Specific to the class	▪ Specific to the course	▪ Generalizable
Audience for findings	▪ Researcher	▪ Researcher and Public	▪ Public
Governing research questions	▪ How can I improve my own teaching? ▪ How can I improve the learning of students' in my K-12 class?	▪ How can I improve my own teaching? ▪ How can I improve the learning of students in my college course?	▪ How do undergraduate students learn a specific discipline? ▪ What are the best methods for achieving understanding within that discipline?
Motivation behind research	▪ Teachers (actors) should study their own teaching (action). ▪ Understand one's own teaching and students, to improve learning in your own personal teaching context and class.	▪ Systematically reflect on one's own teaching and students, to improve learning in teacher-researcher's own personal teaching context and course. ▪ Bring same level of rigor in one's scholarly research to one's teaching.	▪ Understand disciplinary-level impediments to student learning and interventions to enhance student learning. ▪ Research is broadly applicable beyond a single course.

http://www.unl.edu/dber/action-research-sotl-dber University of Nebraska-Lincoln DBER Group

Examples of SoTL projects

- https://www.youtube.com/watch?v=LogmkiN6utk

Reflect on the past academic year…

- Worksheet 1 – Question 1
  - What issues or problems with your students' learning raise meaningful questions for you?

- Student attitudes/perceptions/beliefs
- Affective development
- Skills
- Content knowledge
- Use/application/transfer of knowledge or skills
- Retention of knowledge or skills
- Communication and interactions

Reflect on the past academic year…

- Worksheet 1 – Question 2
  - What are your research questions?

Discuss in your groups:

- Are they answerable?
- Doable?
- Meaningful?

For the future:

- *Literature review - What will inform your work? Where to look?
  - SoTL journals
  - Ed research journals
  - Teaching of… disciplinary journals
  - Google Scholar
  - GALILEO (or your university's database)

With your research questions in mind…

- Worksheet 1 – Question 3
  - Methodology, project design, evidence of learning, analysis of evidence
  - How many ways can you think to answer your research question? Look for a variety of approaches (methods) and multiple types of data/evidence…

Qualitative	Quantitative
Methods	**Methods**
Case Study	Correlational
Observation	Causal Comparative
Interviews	Experimental
Focus Group	Quasi-Experimental
Document Analysis	
Data	**Data**
Observational journal	Survey/Questionnaire
Interviews/focus groups	- nominal (categories)
Documents/student work	- ordinal (ordered, e.g. age range)
Video/Audio recordings	- interval (e.g. scale of 1 to 10)
Artifacts/Relics (e.g. photos)	Student grades/scores
Think-aloud protocol	Rubrics
Mind maps	Other:
Other:	

Mixed methods!

After discussing approaches to methods and forms of evidence…

Worksheet 1, Question 4

- Discuss in your groups:
  - Considering *your* context, **which** approach(es) is/are 1) the most feasible (why?), and 2) the most likely to answer your research questions (why?).

For the future:

Participants? Single student, few students, groups/teams, class

Comparison groups?

What is your time frame for collecting data? (class period, a module, a semester, etc.)

What will you need for analysis?
- software, collaborators, support?

Will you do a pilot study? When?

Additional essential considerations for any SoTL study…

- Is this human subjects research?
  - Students are human subjects!
- Ethical Considerations?
- Other issues?

When in doubt, contact your Institutional Review Board (IRB)!

- **Kim Fowler,** *Interim Director*
  706-542-5318, kfowler@uga.edu
  206 Tucker Hall, Research Center
  310 E. Campus Rd., Athens, GA 30602

Additional essential considerations for any SoTL study…

- • Implications
- • Big picture
- • Suggestions
- • Next steps

Going public…

- • Your department
- • Your university
- • Disciplinary or SoTL conferences
- • Disciplinary or SoTL journals

CIRTL (Center for the Integration of Research, Teaching and Learning)

Committed to advancing the teaching of STEM disciplines in higher education

- http://www.cirtl.net/
- CIRTL Program Outcomes: http://www.cirtl.net/files/CIRTLOutcomesJune2015.pdf
  - **Associate** – Describe and Recognize Value
  - **Practitioner** – Engage
  - **Scholar** – Advance and Disseminate