Why SoTL, Why Now, and How?

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Creative Engagement

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Agenda

Definition of SoTL

Rise of SoTL. Ernest Boyer, Scholarship Reconsidered (1990)

Four Types of SoTL Projects & many examples

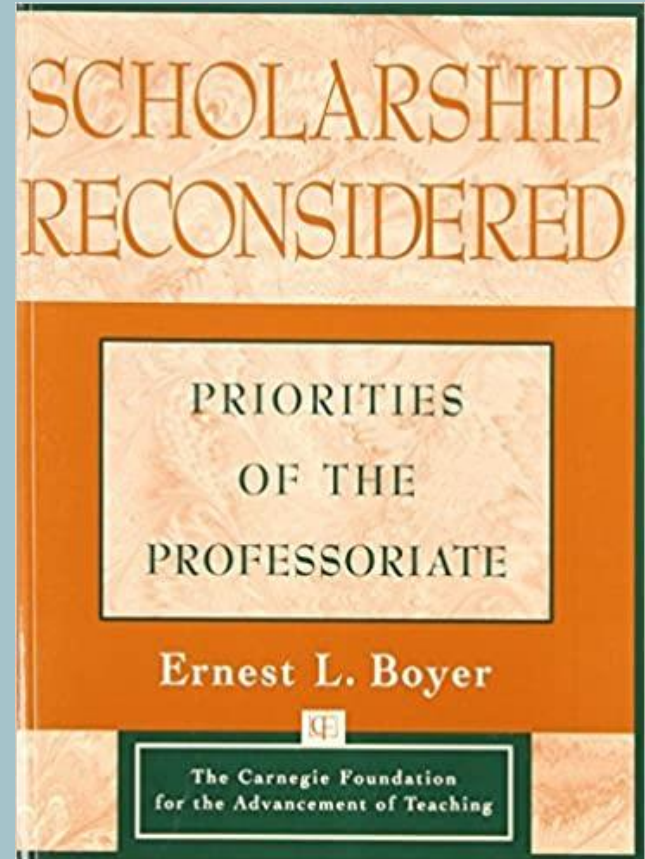5 Steps of a Successful SoTL Project & a Template

Benefits, a Review, and Resources

SoTL is the 'systematic inquiry into student learning which advances the practice of teaching in higher education by making inquiry findings public' (Hutchings, Pat. *Change, 1990, p. 10)*

Ernest L. Boyer,
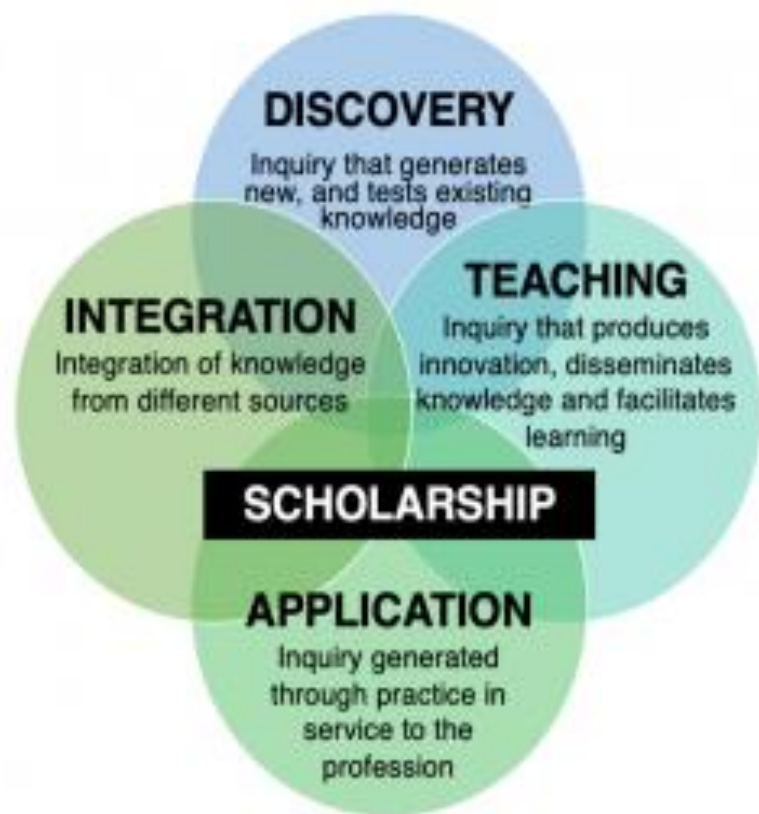*Scholarship Reconsidered*
(1990)
and the Boyer Report (1998)

SCHOLARSHIP
RECONSIDERED

PRIORITIES
OF THE
PROFESSORIATE

Ernest L. Boyer

The Carnegie Foundation
for the Advancement of Teaching

SCHOLARSHIP RECONSIDERED

PRIORITIES OF THE PROFESSORIATE

Ernest L. Boyer

DISCOVERY
Inquiry that generates new, and tests existing knowledge

TEACHING
Inquiry that produces innovation, disseminates knowledge and facilitates learning

INTEGRATION
Integration of knowledge from different sources

SCHOLARSHIP

APPLICATION
Inquiry generated through practice in service to the profession

Types of SoTL Projects (Hutchings)

What Is.

What works.

What is possible.

Theory-building studies.

Types of SoTL Projects (Nelson)

♦One Class-Before/After

♦Larger Contexts

  Courses across time

  Students' learning
across time

Pat Hutchings' types by a defining quality

- **What is?**

Involve descriptions of moments of learning (or mislearning).

- **What works?**

Seek evidence of good, better, best teaching/learning strategies.

- **What is possible?**

Seek evidence of what has not been fully discovered (eg, how to foster positive academic mindset, civic-minded, social justice).

- **Theory-building studies**

Seek to develop a new framework for SoTL, similar to framework in a discipline.

Pat Hutchings' types: a Lit example

- **What is?**

How are students attempting to interpret our short stories?

- **What works?**

Which works better: summary of plot, identifying key scene, or applying a literary term to the story as the means to unlock story

- **What is possible?**

Is it possible to use our lit readings to foster a social justice value?

- **Theory-building studies**

What is the meaning of student errors in interpretation?

A 'What is' Example: SoTL in Math

In this article, Georgetown University mathematics professor James Sandefur describes his investigations into his students' problem-solving strategies.
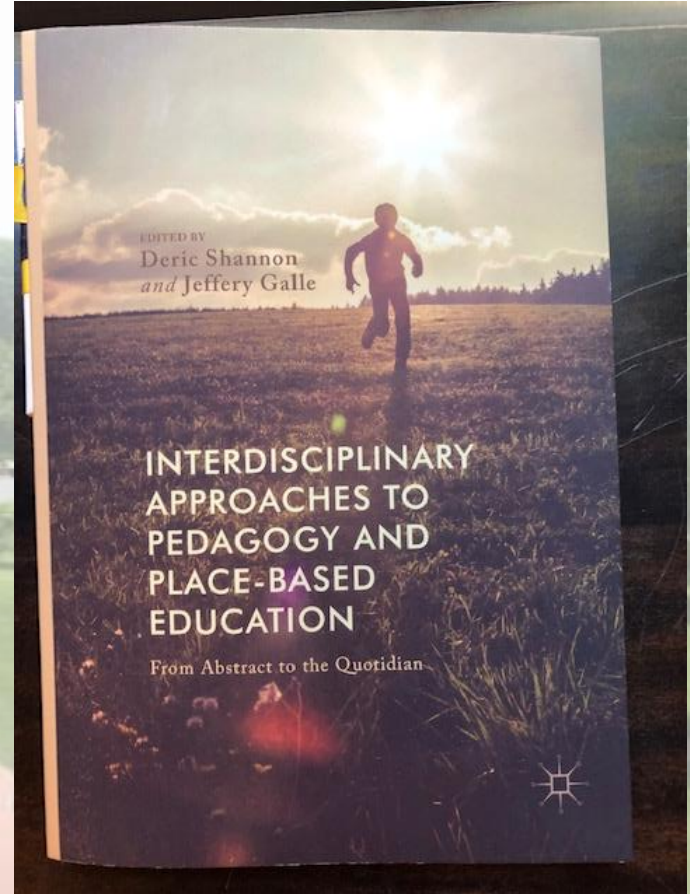
He conducted "think alouds" with his students, in which a student is asked to solve a problem and say aloud everything that they think as they do.

Sandefur videotaped a number of these think alouds and learned much about the strategies (good and bad) his students often use to solve mathematics problems.

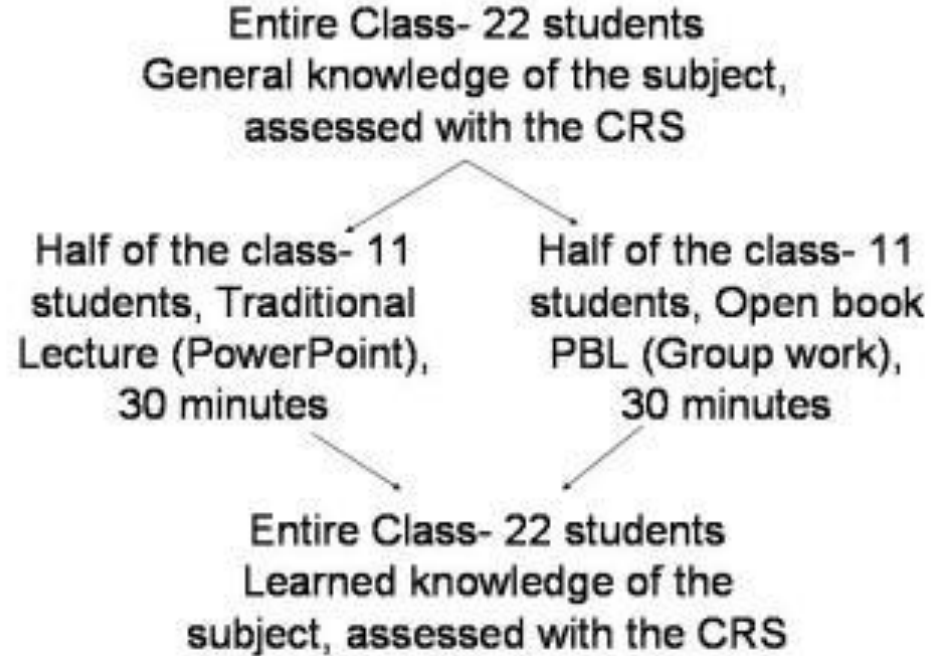He also describes how what he has learned has impacted his teaching.

What Works: A Common Pedagogy Collection

- Fellow Oxford College colleagues
- Representations/Influences of Place
- Both 'What is' and 'What Works' essays

'What works': SoTL in Microbiology

STUDY DESIGN

Entire Class- 22 students
General knowledge of the subject,
assessed with the CRS

| Half of the class- 11 students, Traditional Lecture (PowerPoint), 30 minutes | Half of the class- 11 students, Open book PBL (Group work), 30 minutes |

Entire Class- 22 students
Learned knowledge of the
subject, assessed with the CRS

A Study of Active Learning versus Traditional Lecturing Style in Teaching

What Works: An Inquiry Collection

- Institute at Emory's Oxford

- Focus on Inquiry Based Learning

- Multiple disciplines

- Different data sources

- Similar successful outcomes
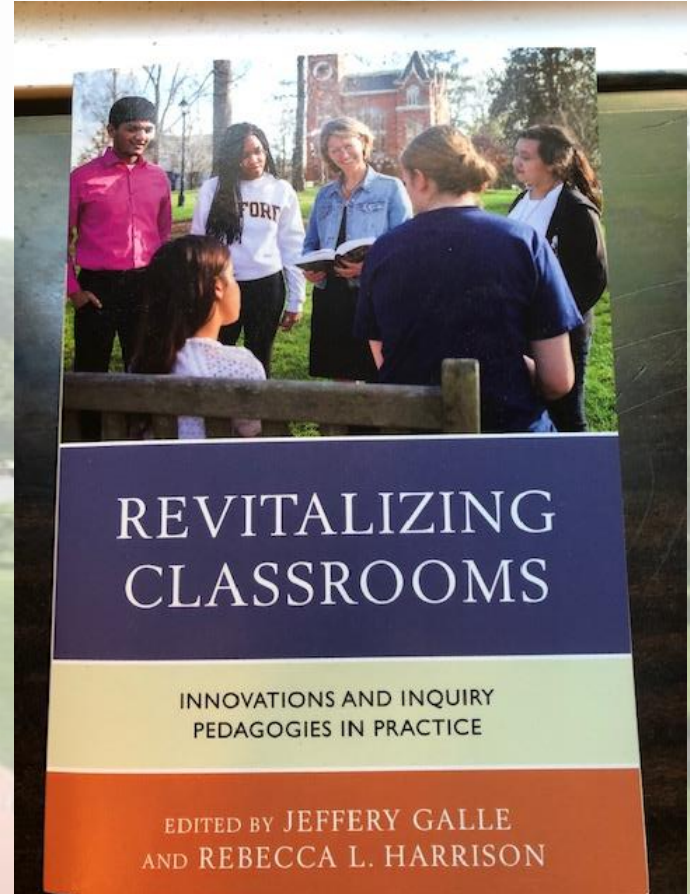
What Works: An Engaged Pedagogy Collection

- Systemwide FLC program
- Focus impact of 8 pedagogies
- Multiple disciplines
- Different data sources
- Similar successful outcomes

FACULTY LEARNING COMMUNITIES

Chancellor's Learning Scholars for Student Success

Edited by JEFFERY W. GALLE AND DENISE PINETTE DOMIZI

What's Possible: Fostering College Engagement

- Tasked by college provost
- IR and teaching center collaboration
- Qualitative study, methodology
- Identifying multiple HIPS, rigor,

high expectations: all replicable

SoTL in Nursing: Identify the type

DNP students frequently have to make schematic models (similar to concept maps) of the theories they're learning, "visually represent[ing] a theory's concepts and the interrelationships among those concepts" (Thomas Christenbery, "Building" 250).

Dr. Nancy Chick notes: 'A colleague who teaches the course mentioned that students struggle with this task, Tom [Christenbery] and colleagues developed a project guiding students through the parsing of a theory to represent it visually, documented in his article in Nurse Educator.'

(from Dr. Nancy Chick's original Vanderbilt site)

Enough with the examples

♦'What is' and 'What Works' = most used types.

♦ One class/course: Before-After = very reliable

♦ Lendol Calder says simply: 'A finished SoTL Project has a beginning, a middle, and an end. It's situated in a conversation among scholars. It has some sort of data. And the data has been analyzed.'

And How: The Steps in a SoTL Project

1. Formulating a research question developed from (mis)learning of our students.

2. Methodology and design: Qualitative study, quantitative study, or both; 'type' of SoTL; data source; time frame

3. IRB status, typically Exempt but must be submitted

4. Gathering and analyzing the data

5. Going public in some way

A Few Qualitative Data sources

♦ Interviews

♦ Focus groups

♦ Observations

♦ Case studies

♦ Written documents: journals, Minute Paper, prompts

Methods for Gathering SoTL Evidence

More Quantitative

- Questionnaire/survey
- Quasi-experiments
- Content analysis
- Secondary analysis (test data, student records)

More Qualitative

- Focus groups
- Interviews
- Talk-alouds/think-alouds (protocol analysis)
- Observation
- Text and discourse analysis

--Renee Meyers, "Designing Systematic Inquiry: Research Methods & Evidence Gathering"

When to Use Qualitative Methods

- "What" or "How" research questions
- Exploratory studies, topic can't be easily quantified, variables can't be easily identified (qual can help identify variables or develop theories)
- Goal is great detail and close-up view
- Physical and/or social context is important, so study in context of its natural setting (removing from this context would lead to contrived findings)
- Researcher as writer: narratives, thick description of complex human/social situation in non-trivial manner

~Brian Cochrane & Jennifer Oliver, "Qualitative Research" (explaining Creswell 1998), CASTL Institute 2006

Example: Gathering and Analyzing Data
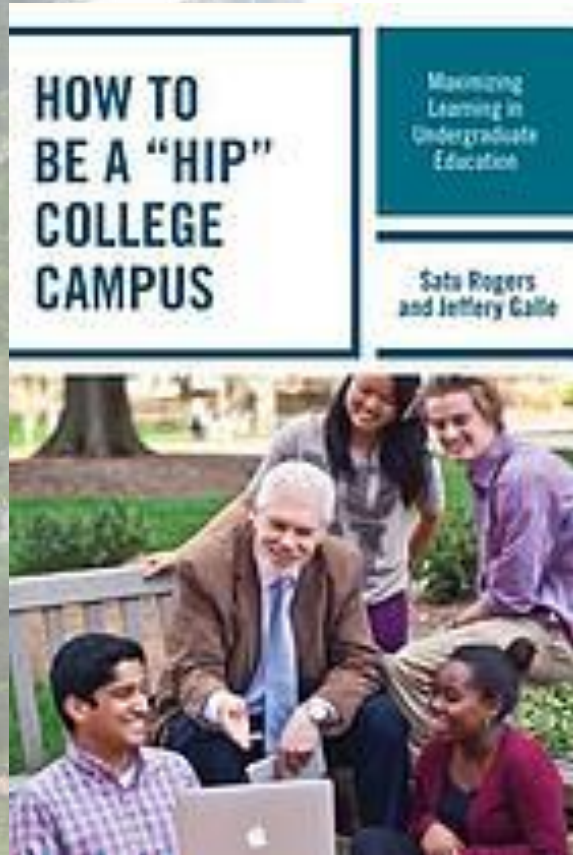
IRB

- Informed consent can be met in a couple of different ways
- CITI training
- Exempt status for most SoTL projects
- https://www.elon.edu/u/academics/catl/sotl-and-the-irb/

Read a good IRB page from your university or one from another such as the Elon page above.

Going Public

- Changing teaching practice
- Sharing findings with students
- Conference presentation
- Journal
- Book

Key SoTL Moves

In recent discussions of _____, a controversy has been whether _____. On the one hand, some argue that _____. On the other hand, some argue _____.   In sum, then, the issue is whether _____ or _____.

My own thought is that perhaps _____.   To find out, I designed a project to _____. In terms of other SoTL inquiries, my project was a what is / what works (circle one) type of project.

My central question was _____.

To help me draw conclusions, I relied on the following kinds of data: _____. My key methods for generating and gathering this data were _____. Some of the problems I ran into were _____. But it was also quite exciting when _____ happened.

A Template for Essential SoTL Moves Lendol Calder, CASTL Institute, Columbia College Chicago (6--10--06)

Benefits of Doing Successful SoTL
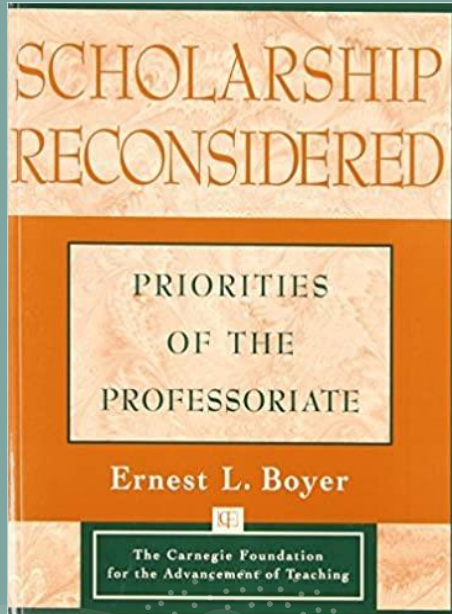
What prompted Boyer to advocate for its inclusion as a legitimate kind of scholarship?

Why Now: Benefits of SoTL

- Students benefit from the reflective, iterative, experimental approach to teaching

- Much like the data on High Impact Practices, the populations who benefit most from such teaching are those with the least prep, most tenuous connection to higher ed

- Faculty and institutions doing this pivot during the Covid crisis are examining modalities, reexamining assignments, developing best practices: these are SoTL activities

Benefit to faculty whose SoTL 'counts' toward tenure/promotion:

"In addition to traditional disciplinary research (sometimes referred to as the scholarship of discovery), Oxford College recognizes the scholarship of teaching and learning, the scholarship of engagement, and the scholarship of integration as these concepts are widely understood in the contemporary literature of higher education."
Faculty Handbook, p. 16

Review: Guiding Questions

♦ **Why SoTL?** Learning what/why students struggle provides data to remedy the struggle. **Pedagogy with knowledge is adaptable.**

♦ **Why now?** Meauxmentum program; student success.

♦ **And how?** Pilot project following this guide. Discuss with FLC colleagues.

Review: Areas to Explore

- Definition of SoTL
- SoTL and the Boyer Model (History)
- Types of SoTL projects
- Steps in the process
- Examples and resources

(Very) Select SoTL Resources

- https://cdn.vanderbilt.edu/vu-cft/resources/teaching_resources/reflecting/sotl.htm

- https://my.vanderbilt.edu/sotl/

- Bishop-Clark, C., & Dietz-Uhler, B. (2012). Engaging in the Scholarship of Teaching and Learning: A Guide to the Process, and How to Develop a Project from Start to Finish (1st ed.). Routledge.

- Chick, Nancy L. (2018). SoTL in Action: Illuminating Critical Moments of Practice. Stylus.

Referenced Sources

- SoTL definition: Pat Hutchings, *Change* (1990), 10.

- Ernest L. Boyer, *Scholarship Reconsidered* (1990)

- Pat Hutchings (ed), *Opening Lines: Approaches to the Scholarship of Teaching and Learning* Paperback (June 1, 2000)
[Carnegie Foundation for the Advancement of Teaching](#).

- Nelson, Craig. 'Doing It: Examples of several different genres of doing SoTL" Journal of SoTL 14: 85-94.
-
- James Sandefur, "Problem solving: What I have learned from my students" (2007)
-
- Deric Shannon and Jeffery Galle, eds. (2017). Interdisciplinary Approaches to Pedagogy and PBE. Palgrave Macmillan.
-
- Active Learning vs Traditional Lecture, Active Learning in Microbiology.

- Jeffery Galle and Rebecca Harrison, eds. (2017). Revitalizing Classrooms: Innovations and Inquiry Pedagogies in Practice. Rowman and Littlefield.

- Jeffery Galle and Denise Domizi, eds. (2021). Faculty Learning Communities: Chancellor's Learning Scholars for Student Success. Rowman and Littlefield.

- Satu Rogers and Jeffery Galle. (2015). How to be a *HIP* College Campus: Maximizing Learning in Undergraduate Education. Rowman and Littlefield.
- Thomas Christenbery. (2011). Building a Schematic Model: A Blueprint for DNP Students.

THANKS!

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