Why SoTL, Why Now, and How?

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Creative Engagement

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This webinar hopes to address three key Questions. Before we begin, I want to frame the talk around the Meauxmentum Program. 'It applies a design framework combining **three foundational strands** and **four structural threads**. Together they create a theory of change that can be applied across the length, breadth, and depth of higher education, within the context of an institution, program, **or classroom.**' (from Regents website)

'Or, Classroom,' the sentence reads. It seems to me that each strand and thread suggest a question. How do my courses/classes connect with Everyone or foster learning mindsets? How do my courses and classes present choices or engage the students?
Perhaps some of the strands and threads intersect with Teaching more than others, but each one can pose a specific question that leads to reflection and change.

Where we encounter students and they encounter us and our courses/disciplines, that's where Meauxmentum gathers, or can. So in the classroom, through assignments and experiential learning we engage, everyone, to make good choices to develop learning along the pathway to graduation.

Strands: **Everyone**, Affordability, **Learning Mindsets**
Threads: **Choice**, Pathways, Milestones, **Engagement**

Agenda

Definition of SoTL

Rise of SoTL. Ernest Boyer, Scholarship Reconsidered (1990)
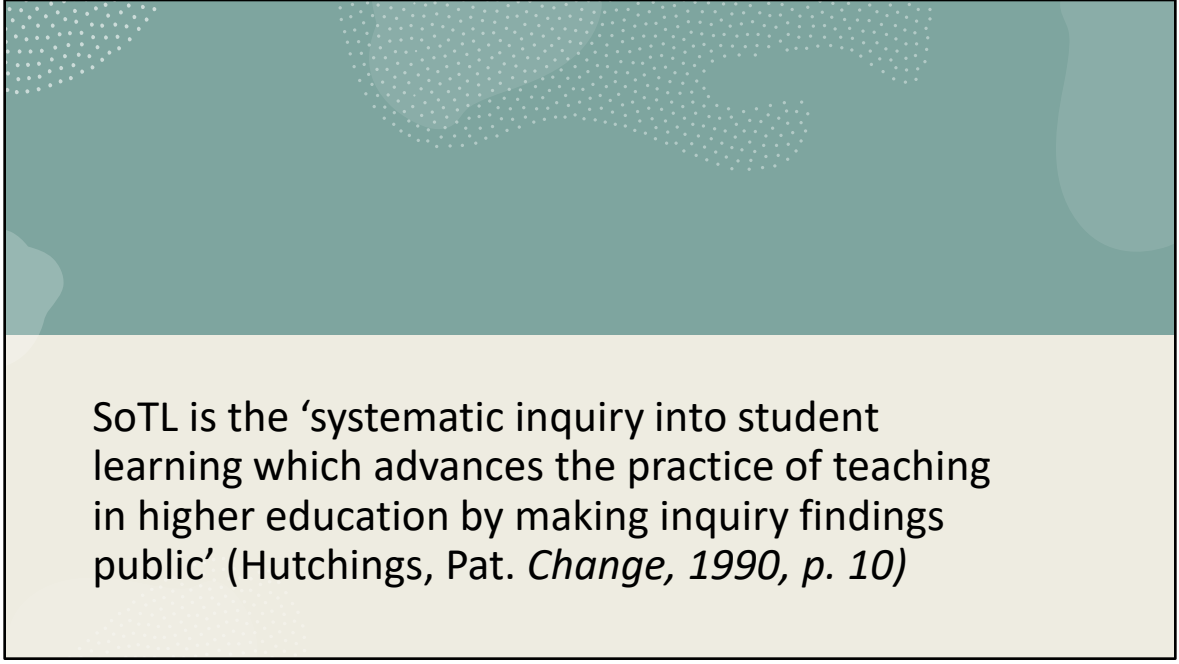
Four Types of SoTL Projects & many examples

5 Steps of a Successful SoTL Project & a Template

Benefits, a Review, and Resources

This Agenda covers a lot of ground, so one way to make use of the time in this webinar is to write down questions that occur to you as you listen. There will be several opportunities in the webinar to post questions in the Chatbox, particularly when it comes to considering a personal SoTL project using the Template in part IV.

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)*

An EPIPHANY: college studies is a fundamental way for people to move up/ahead: a student who failed an essay and seriously offered to give me his Christmas present if I would work with him more so his writing would improve.
I could feel how important it was to him to be there and it was important for him to be successful. I've never forgotten the look on his face.

So I learned later to develop multiple drafts of every essay and to require as many conferences as possible with each student, and video/feedback, collaborative work, journaling, lots of reading, and a host of other pedagogical improvements followed.

So when I began to study SoTL in the Louisiana Association for College Composition, it just made sense to me. Learning more about the causes of errors, the sources of the bottleneck moments, simply made sense and SoTL provides a real time source of information on that.

So to the first question in the title: Why SoTL? WE need to do more than give organized information sets to students. To do this effectively, we need to question what is, what works, what motivates them, how they think and why they perform on our exams/assignments as they do.

<u>Have you had such a moment?</u>

Questions have always come up in class. Since Socrates made dialogue a primary pedagogy, students and teachers have explored the reason, emotion, ethics of motivation, learning, knowledge. Questions for me came up early. I wanted to know why students wrote as they did, thought, acted, believed as they did, and what the foundation for actions had been developed. Why they read as they did, interpreted as they did. Why was fluent writing seemingly automatic for some and nearly impossible for others?

But this was not systematic. Over the years, I learned more from sociology, cultural studies… Race, class, gender, a number of belief systems similar to my own as the son of a chaplain originally trained at the Baptist seminary in New Orleans and then an advanced degree in theology at the Princeton Seminary, a doctorate in psychology, along with a masters in sociology. Dad often shared books with me and sent along titles on his studies when I was away at college.

But again these sources of understanding and interpretation were not systematic of the thinking, the motivation, the ways of knowing of my students. SoTL taught me to, as a former dean described data gathering, dip the ladle in wall of water, and examine closely what you have in the ladle.

SoTL enables our own practice to better teach students where they are.

Ernest L. Boyer,
*Scholarship Reconsidered*
(1990)
and the Boyer Report (1998)
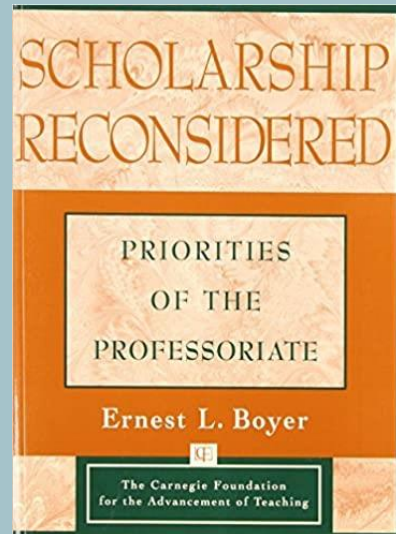
The acceptance of a new model for faculty scholarship actually supports faculty in teaching the students sitting in the classroom.
Since 1990 (and now is nearly 2025), higher education has slowly accommodated a more complete model of scholarship. The original definition included new knowledge called the scholarship of discovery—and this meant different things in different disciplines.

To the SECOND question, Why NOW? Why SoTL now? There are a number of forces at work encourage us to focus on student success and student learning.—such programs as Meauxmentum, Complete College America, organizations founded on student learning. Here is one: aligning one kind of scholarship with our number one priority, student learning, makes sense.

It's not just believing that they can be successful; nor is it that they develop the mindset to be successful. That's a hard necessary first part of the process. But the most vital energy is they must go on to develop deeper, efficient learning in whatever discipline they choose to study. Believing can get them to the table. Knowing how to do Science or Math or Literature or some key processes ….. These are the measures of true success.
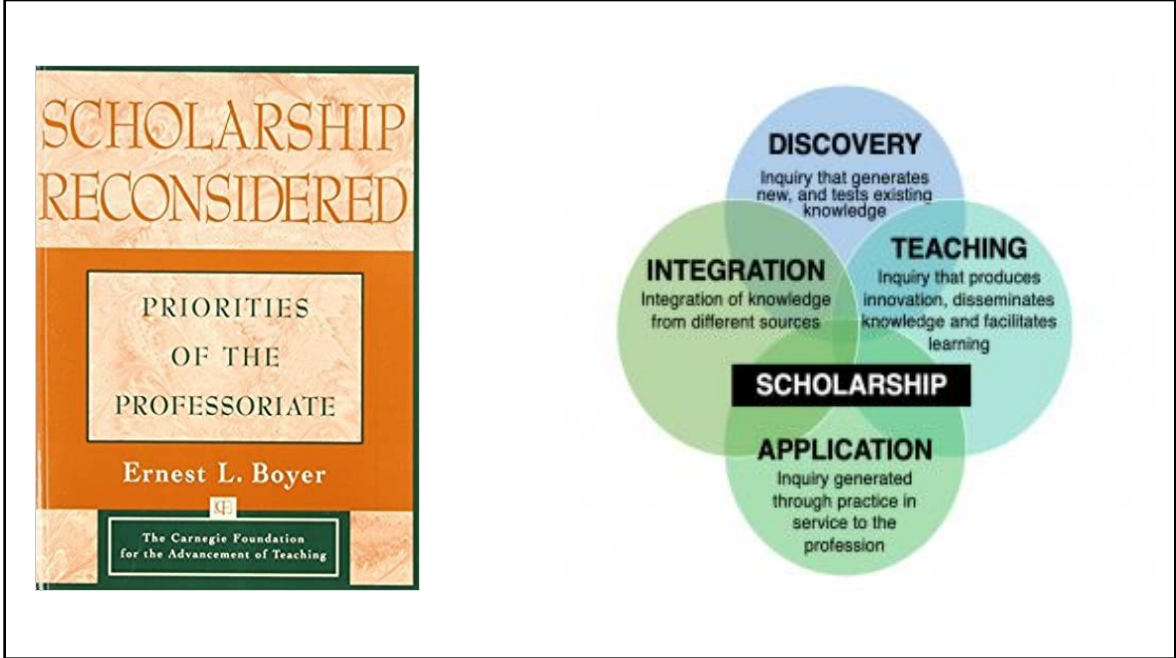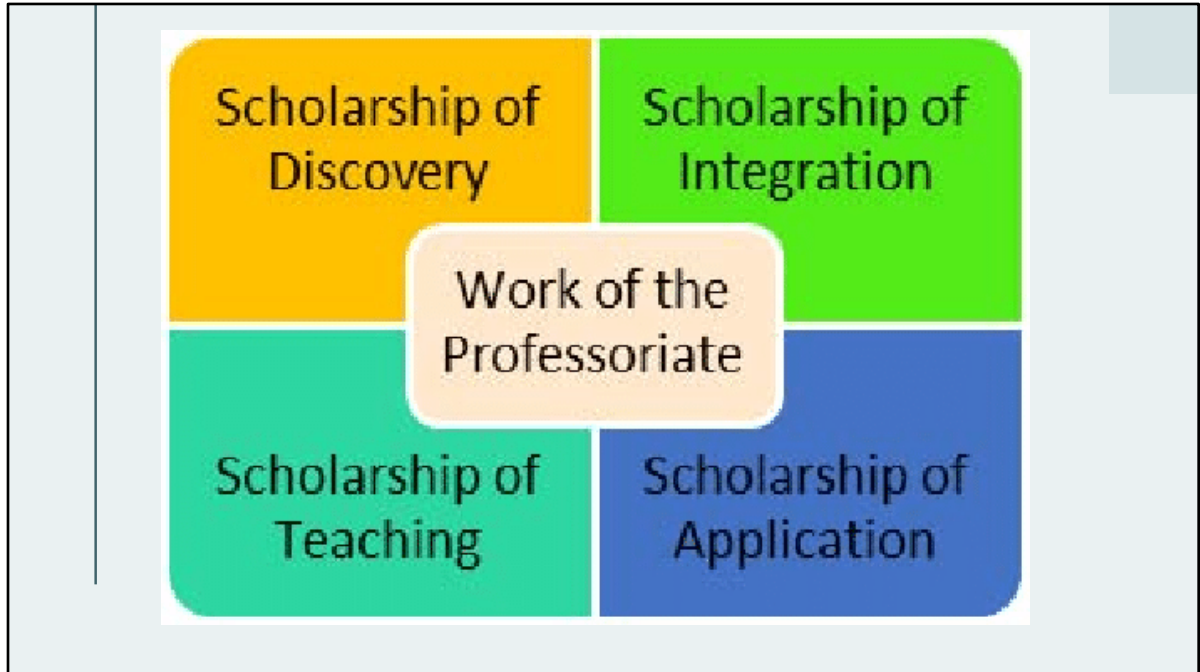
Boyer did more than advocate for Scholarship of Teaching and Learning. He offered a model of scholarship.
In addition to original scholarship he called Discovery, he added Integration, what we might call now interdisciplinary scholarship. He also added applied scholarship or Scholarship of Application in addition to Teaching.

To the question WHY NOW? Oxford College of Emory University has changed its T and P policy to include Teaching and Learning Scholarship in addition to disciplinary contributions. That's huge and also indicative of the importance given to systematic study of how our students attempt to learn and how we can/must help them learn more deeply and more efficiently.

Image source: https://www.orthodiv.org/networking/awards-grants-bursaries/david-lam-memorial-golden-hands-award/

Image source: Alizadeh, Mehrasa. (2018). Practicing the Scholarship of Teaching and Learning with Classroom Learning Analytics. 366-369. 10.1109/IIAI-AAI.2018.00079.

(1) discovering knowledge, (2) integrating knowledge, (3) applying knowledge, and (4) scholarship of teaching.

These terms are not new. Integration of knowledge is what has grown to be Interdisciplinary courses and programs. Application of knowledge is applied knowledge, practitioners linking pure knowledge to practical applications that benefit society; and then, teaching and learning knowledge.

Since 1990 when Boyer offered Scholarship Reconsidered, much has happened in the four types of Scholarship, **and none has seen more growth than SoTL.**

Image source: Alizadeh, Mehrasa. (2018). Practicing the Scholarship of Teaching and Learning with Classroom Learning Analytics. 366-369. 10.1109/IIAI-AAI.2018.00079.

Types of SoTL Projects (Hutchings)

What Is.

What works.

What is possible.

Theory-building studies.

Citation: **Opening Lines: Approaches to the Scholarship of Teaching and Learning Paperback – June 1, 2000**
by [Carnegie Foundation for the Advancement of Teaching](#) (Author), [Pat Hutchings](#) (Editor)

Before we discuss each type in greater detail, I want to mention Craig Nelson's Types of SoTL as well.

Types of SoTL Projects (Nelson)

♦One Class-Before/After

♦Larger Contexts

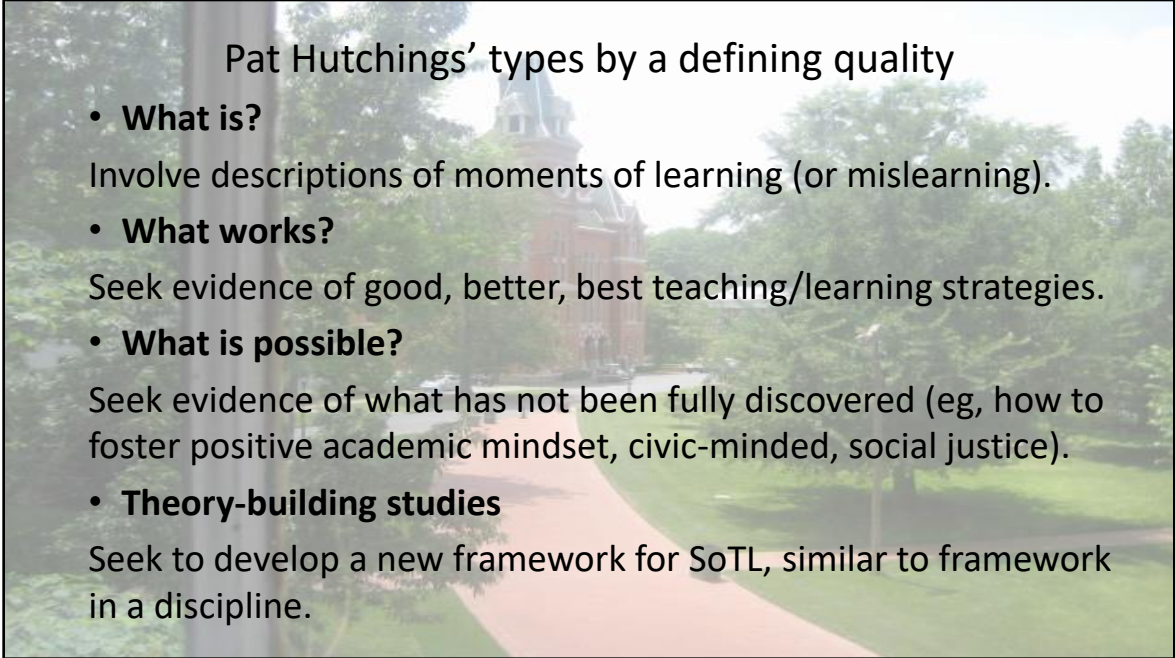 Courses across time

 Students' learning across time

Nelson, Craig. 'Doing It: Examples of several different genres of doing SoTL" Journal of SoTL 14: 85-94.

He calls these 'Genres' but he is classifying as does Hutchings: Before and After of one class after the intervention and studying across time either/or student learning and course changes/developments that impact learning.

So let's look!

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.

What IS: In a 'what is' study, the effort is aimed not so much at proving (or disproving) the effectiveness of a particular approach or intervention but at describing what it looks like (Hutnchings 4).

What WORKS: a study that seeks evidence about the relative effectiveness of different teaching approaches(4)

What's possible: These studies seek evidence of ways to open up new possibilities for learning, as Mariolina Salvatori focuses on bottlenecks or difficulties in an English classroom as opportunities for learning.

Theory building: creating a new framework for learning. As applying Salvatori's approach to failure in literature or writing as applied to other disciplines. She offered a way to approach failure as a new model for T and L.

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?

What IS in lit studies/composition: what is happening as students read, interpret, and make meaning?

What works or what does not work? What do the data say?

Is it possible to foster, further develop, or use one thing to make another a reality?

What is your theory of student errors in grammar, in interpretation, in reading?

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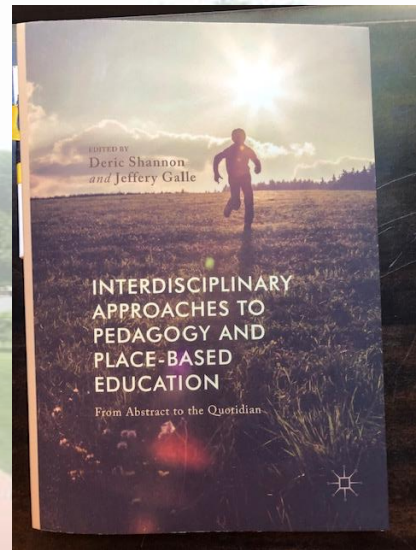
He also describes how what he has learned has impacted his teaching.

Article: **"Problem solving: What I have learned from my students" (2007)**

Also can be thought of as Craig Nelson's first genre, the before-after class

What Works: A Common Pedagogy Collection

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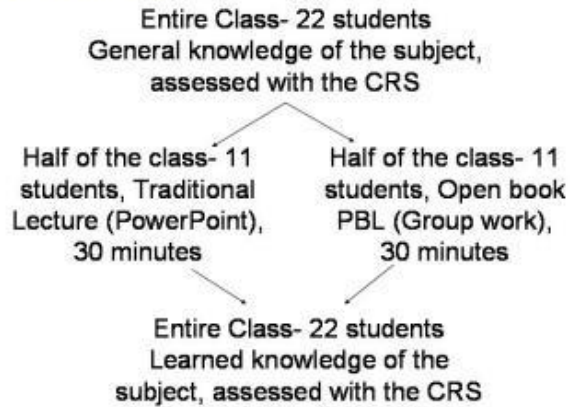- Both 'What is' and 'What Works' essays

INTERDISCIPLINARY APPROACHES TO PEDAGOGY AND PLACE-BASED EDUCATION

From Abstract to the Quotidian

EDITED BY
Deric Shannon
and Jeffery Galle

A themed collection on Place Based Education, Place Based Learning. Publisher: Palgrave Macmillan

Each chapter entails a feature of Place that works to stimulate learning. In some chapters, the focus involves student learning about a particular representation of PLACE>
A few of the chapters invite a What's Possible analysis.

'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
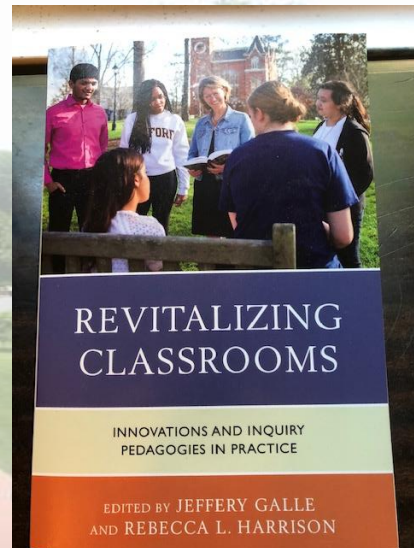Learned knowledge of the
subject, assessed with the CRS

A Study of Active Learning versus Traditional Lecturing Style in Teaching

CRS = Classroom Response System. Typically CLICKERs

A traditional approach to STUDY DESIGN. Quantitative.
And is also based on ONE class, hence Nelson.

What Works: An Inquiry Collection

- Institute at Emory's Oxford
- Focus on Inquiry Based Learning
- Multiple disciplines
- Different data sources
- Similar successful outcomes

REVITALIZING CLASSROOMS

INNOVATIONS AND INQUIRY
PEDAGOGIES IN PRACTICE

EDITED BY JEFFERY GALLE
AND REBECCA L. HARRISON

Similar to the themed Place Based Learning book, this book focuses on Inquiry pedagogy and a number of experiments in different disciplines each of which involves student learning within the Inquiry pedagogy
This book developed out of the Institute for Pedagogy in the Liberal Arts (IPLA). My co-author/editor is Rebecca Harrison, of U of West Georgia. I mention co-authoring as one good way to get a book proposal accepted, article too.

Inquiry in courses across the college: OFFER an example or two

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

A **third themed collection** involving application of individual ones of the 8 pedagogies explored in Georgia institutions.

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

HOW TO BE A "HIP" COLLEGE CAMPUS

Maximizing Learning in Undergraduate Education

Satu Rogers and Jeffery Galle

Under a college wide study exploring the development of HIPS across the curriculum, the study identified exceptional learning occurring at Oxford College through more than 100 detailed interviews and 20+ focus groups as well as many of the college's faculty.

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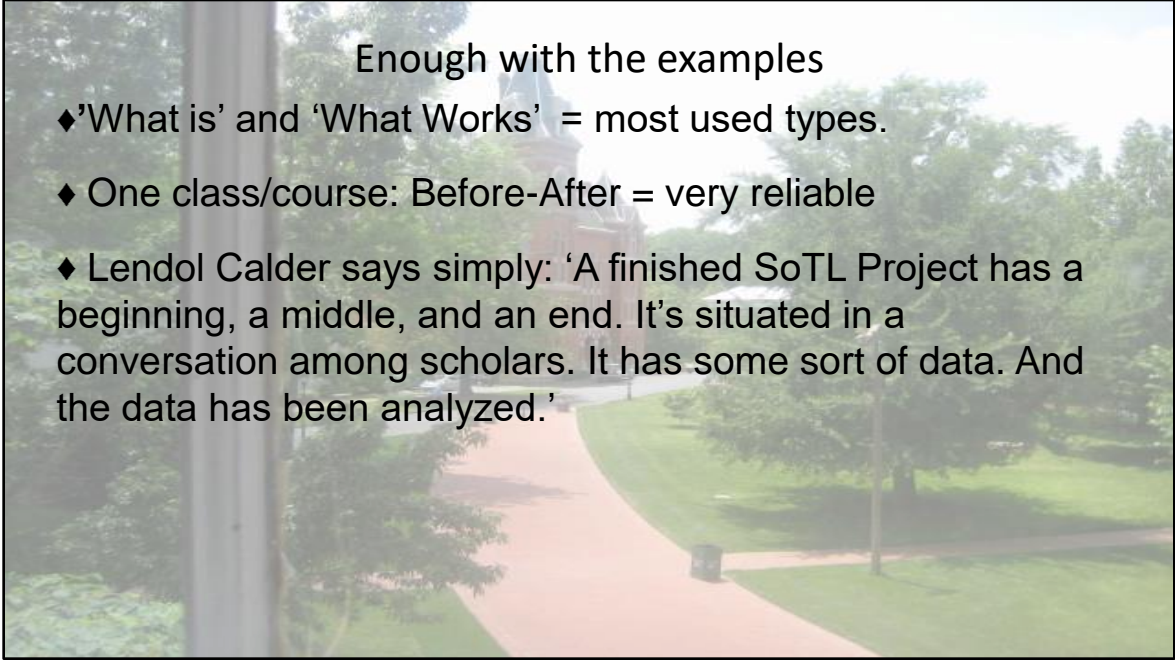
Dr. Nancy Chick notes: 'A colleague who teaches the course mentioned that students struggle with this task, Tom [Christenbery] and colleagues developed a project guiding students through the parsing of a theory to represent it visually, documented in his article in Nurse Educator.'

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

Article: Building a Schematic Model: A Blueprint for DNP Students (2011)

ANSWER IN CHATBOX: what type of study is this one? NOTE: DNP is Doctoral Nurse Practitioner program.

To identify the processes students develop to explain/understand: so **What is, possibly what works as well.**

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.'

Lendol Calder and Mills Kelly, at the CASTL Institute at Columbia College in 2006.

What does CASTL stand for: Center for Advanced Study of Teaching and Learning.

Lendol Calder quote is a good informal summary.

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

Here is more formal-looking set of steps:

- The <u>research question</u>: a major step; it's iterative, dynamic, and developing. [HIPS book --''Oxford's specialness' and evolved to HIPS, rigor, relationships

- **Design: qualitative, quantitative, data: a lot going on here, so take time or you may know immediately.**
Will I do interviews? Will I create a survey? Is there a standing measure that I can use?

- Data: instrument and number of times

- IRB: typically exempt but necessary to complete IRB

app; MORE on this one in a minute.

- Gathering and analyzing the data
- Going public

We can add a point or two for each step. First, the research question. Don't think you have the question finalized on first writing.

A Few Qualitative Data sources

♦ Interviews
♦ Focus groups
♦ Observations
♦ Case studies
♦ Written documents: journals, Minute Paper, prompts

Much of my first SoTL work involved focus groups and interviews. Learned from the Wabash Study, one could incorporate both Qual/Quan. Added surveys.

Next slide is more comprehensive! More kinds of SoTL evidence.

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

So interviews and focus groups can yield thick descriptions of learning, particularly of complex pedagogical strategies.
If researcher wants to learn 'how' something has happened, then that finer grain from interviews may be needed.

Example: Gathering and Analyzing Data
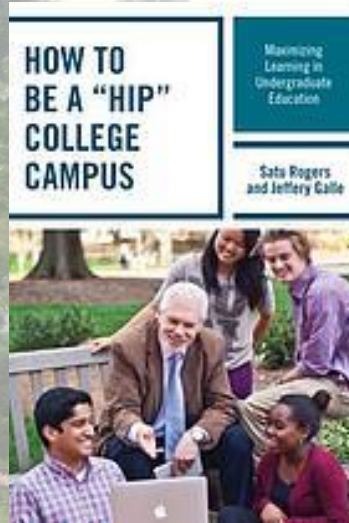
- For the HIPS book, we structured sets of interviews within focus groups of second year students and continues. and individual faculty across the college

- Two interviewers (Satu Rogers and myself) took extensive notes during the focus groups, wrote up our interviews, and shared those transcripts/notes.

- Analyzed the many pages of interviews to identify recurring kinds of statements, themes, common experiences.

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.

https://www.elon.edu/u/academics/catl/sotl-and-the-irb/

 https://about.citiprogram.org/   (check it out to take Collaborative Institutional Training Initiative CITI)

Key steps:
1. Establishing informed consent
2. CITI training
3. Learn from those who are doing it now.   See the Elon page

Going Public

- Changing teaching practice
- Sharing findings with students
- Conference presentation
- Journal https://facultydevelopment.kennesaw.edu/scholarly-teaching/journals/index.php
- Book- writing a book proposal

Encourage them to undertake a first SoTL project within a class, gather data (minute paper, journals, conferences with students), analyze that, and write it up after reflecting and changing a practice. That's the complete circle.

KEY: changing practice is one form of GOING PUBLIC

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)

ACTIVITY: Providing a structure of 'moves' to form a solid SoTL project, the template is fun to work through.

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.'

Can I connect this template to one or more of the brief articles sent out in the Invitation?

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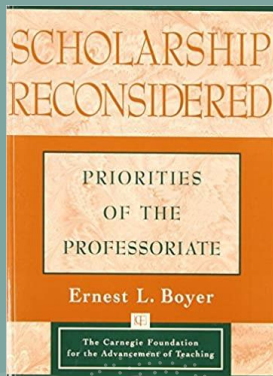
What prompted Boyer to advocate for its inclusion as a legitimate kind of scholarship?

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.
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THANKS!

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