welcome to the 2014 Fall Faculty Retreat

8 networking breakfast
after introducing yourselves to those at your table,
share a summer highlight and a (teaching) goal for the new year

8:30 director’s welcome/announcements

8:45 workshop (2 options!)

11:45 (net)working lunch

12:30 door prizes that relate to today’s workshops! (you must be present to win)
“Scholarly Teaching and the Scholarship of Teaching and Learning: How Scholarship and Your Teaching Can Advance Each Other”

a super CETaL SoTL workshop presented by
Dr. Larry Lesser
CETaL’s Interim Director
at the August 21, 2014 Fall Faculty Retreat
The University of Texas at El Paso

Background: history of SoTL, local support for SoTL, what SoTL is/isn’t, motivations, hesitations

How to do SoTL: hands-on exploration of the 5 steps (so you leave with a draft plan!)
History of SoTL as a formal approach to scholarship

• Ernest Boyer (1990) *Scholarship Reconsidered*

  broadened scholarship into 4 forms: discovery, integration, application, teaching

  (20-year anniversary of this work was the theme of CETaL’s 2010 Sun Conference)

• Boyer’s “scholarship of teaching” morphed into “scholarship of teaching and learning (SoTL)”

• 1998: Carnegie Academy for the SoTL (CASTL)

• 2004: Int’l. Society for the SoTL (ISSOTL)

• Journals (e.g., *IJSoTL*)

• Conferences (e.g., SoTL Commons Conference)
How does CETaL support SoTL?

• This workshop
• SoTL resources page on the CETaL website
• First of CETaL’s 4 Goals:
  “advance the SoTL across the UTEP campus”
• At Int’l Sun Conference on Teaching and Learning, CETaL gives $300 award for best recent SoTL paper
• Anticipated internal SoTL competition
• CETaL initiative resulted in
as of January 2014, Digital Measures lets you designate (Boyer) scholarship type(s) when you enter a publication.
is SoTL recognized for tenure and promotion?

“Scholarship in this area [SoTL] includes classroom innovations, action research, scholarship of service learning, etc. UTEP recognizes all of these forms of scholarship to be legitimate as UTEP moves toward Tier One designation (excellence) while serving its region (access).”

-- end of Feb. 1, 2013 document on Tenure & Promotion process (UTEP Provost’s Office website)
A tip:

Check what your department, chair, and dean view as an appropriate mix of Boyer scholarship types and how your SoTL work will count towards scholarship, teaching, or both when you are evaluated.
yet more SoTL career connections:

• SoTL can be (or lead to) interdisciplinary research

• SoTL is a section of UTROTA dossier!

in mine, I listed abstracts of 35+ papers related to specific UG courses I teach and also included a particular 4-page SoTL paper I did with a student from a 12-student graduate course analyzing rating changes (in knowledge and usefulness) from a 1-day intervention
But how is SoTL....

• Different from education research?
• Done outside colleges of education?
• Different from ‘scholarly teaching’?
Scholarly Teaching

Reflecting on our course (or pedagogical literature), we introduce a change (independent variable) to improve a student outcome (dependent variable).

Example: based on Kaplan et al.’s work, I now say “variability”, not “spread”, to reduce misconceptions.

**TABLE TALK**: Share ONE example of how you have done this in your career so far.
Scholarly Teaching

Reflecting on our course (or pedagogical literature), we introduce a change (independent variable) to improve a student outcome (dependent variable).

We can do this in an intentional, systematic way.

Our (or other’s) SoTL can improve our ST. We can turn our ST into SoTL through peer review.
some of my own (stat ed) SoTL

a question to help students classify variables;

a dataset sequence to give conceptual understanding of ANOVA;

open-ended scenarios to set the tone on day one;

physical model to improve understanding of properties of median
some organizers

- http://teachingcenter.wustl.edu/Scholarship/Pages/default.aspx
- Table 1 of http://www.unl.edu/dber/action-research-sotl-dber
simplified ‘continuum’ of types of papers

• ‘Teaching tips’ paper: “here’s a cool activity/technique that I tried and here’s why I liked it (and think the students did)”

• **SoTL paper**: also includes evidence of effect of method on learning and a moderate literature search (main goal: understand & improve specific T&L practices for the course)

• **Paper for an education research journal**: also includes a theoretical framework, additional focus on methodology/rigor, results being transferable/reproducible, etc. (main goal: developing/improving/testing theory/foundations of how people learn)
a “teaching tip” can lead to SoTL: Lesser, Wagler, Abormegah (2014)

- Fine-tuned intervention
- Literature review
- Compiled an assessment instrument
- Submitted IRB
- Piloted with a small class ($n = 10$), with a grad student’s help
- 27-page paper in the coming issue of *J. of Statistics Education*
SoTL: Motivations

• Improves your course, motivation, teaching awareness
• Puts emphasis on learning (and assessing it)
• Makes teaching process more public/shared
• Additional publications for your CV
• Bolsters teaching portfolio, award dossier
• Components of T&L in grant proposals can make stronger case for broader impact
• Natural vehicle to collaborate with colleagues
• Go beyond being disciplinary-only researcher
• Documenting learning for SoTL dovetails with reviewing/revising a program or curriculum
• Students can collaborate more readily
SoTL: Hesitations (informed by your pre-survey)

• “I don’t have enough expertise myself”
• “I teach only one section of this course a year and I don’t have an appropriate control or comparison group”
• “I could have a comparison/control group, but it wouldn’t be fair to deprive some students of my teaching intervention”
• “I don’t have time for add-ons”
SoTL: Addressing Hesitations

“I don’t have enough expertise myself”

Collaborate!
SoTL: Addressing Hesitations

“I teach only one section of this course a year and don’t have a control or comparison group”

Use previous classes for comparison, establishing comparability from GPA, etc.

Use a colleague’s class.

Divide your class into 2 groups.
SoTL: Addressing Hesitations

“I’d have a comparison/control group, but it’s unfair to deprive some students of my intervention”

You could collect data for a short-term intervention, and *then* give the control group exposure to the intervention, too.

If you already know the intervention is better, maybe the more interesting investigation is how/why it works, so you could go *qualitative*.

You could promise to curve the lower-performing section up to the other section.
SoTL: Addressing Hesitations

“I don’t have time for add-ons.”

Integrating some of your teaching and research saves time and can even help your research goals (see FAQ #1 at cetal.utep.edu).

Some SoTL data can be collected in a single class meeting, rather than ongoing over a whole semester.
How to do SoTL: 5 steps
(this approach is adapted from Bishop-Clark & Dietz-Uhler, 2012)

• Identify Research Question
• Design Study
• Collect Data
• Analyze Data and Draw Conclusions
• Discuss and Disseminate Results
How to do SoTL: Step 1 of 5

• Identify Research Question
• Design Study
• Collect Data
• Analyze Data and Draw Conclusions
• Discuss and Disseminate Results
Step 1a: Research Question

• Reflection on puzzling/intriguing class experiences
• Area/theme ➔ specific questions
• 2 common types: “what works”, “what is”
Sample progression

• Should we use technology in teaching?
• Does technology improve student learning?
• Do dynamic applets improve student learning of statistics?
• Do dynamic applets improve student understanding of measures of center, as measured by midterm exam performance?
• Do dynamic applets improve college students’ understanding of measures of center, as measured by a concept inventory?
Step 1b: Literature

**Why** search literature?

- Build on prior work
- Contextualize your question
- Don’t reinvent wheel, or study something already saturated with studies
- Ideas for variations
- Ideas for collaborators or related disciplines
Step 1b: Literature

How to search literature?
• Identify keywords from your RQ
• Use those keywords when you search:
  http://scholar.google.com,
  http://eric.ed.gov/?advanced,
as well as the library’s many databases such as Academic Search Complete, & Education Full Text
How to do SoTL: Step 2 of 5

• Identify Research Question
• Design Study
• Collect Data
• Analyze Data and Draw Conclusions
• Discuss and Disseminate Results
Step 2: RQ drives design

- Some RQs call for **QUANTITATIVE** approach
  (e.g., survey, experiment, quasi-experiment)
- Some RQs call for **QUALITATIVE** approach
  (e.g., descriptive, case study, observation, interview, focus group)
- Some RQs call for “mixed methods”
What method would you choose for these RQs?

1.) Did group A perform better than group B on a test of content knowledge?
2.) What is a student thinking as she solves a problem involving X?
3.) Do student attitudes improve when using pedagogical technique Y?
4.) Why do students enjoy pedagogical technique Y?
5.) Does using technique Y improve student learning?
6.) How does using technique Y improve student learning?
7.) Do students participate more after experiencing pedagogical technique Y?

**QUANTITATIVE** (survey, experiment, quasi-experiment)

**QUALITATIVE** (e.g., descriptive, case study, observation, interview, focus group)
How to do SoTL: Step 3 of 5

• Identify Research Question
• Design Study
• Collect Data
• Analyze Data and Draw Conclusions
• Discuss and Disseminate Results
Data Collection Considerations

• Operationalize variables ("learning", "enjoyment", "engagement", etc.)

• Any standardized/validated instruments? (if not, design and pilot one)

• Plan timeline of collection

• Is IRB approval or CITI training needed?

• Is funding needed?
How to search the many contemporary instruments?

in the box, type

Mental Measurements Yearbook with Tests in Print
or
PsycINFO
Need IRB approval/training?

YES, if you think you might want to report (i.e., publish or present) results or if you intend to contribute to generalizable knowledge.

Steps:

1.) If you lack current CITI certification (https://www.citiprogram.org), do the SBC (Social Behavioral Researchers) module; if your work involves federal funds, also do the RCR (Responsible Conduct in Research) module; takes a full afternoon, but is good for 3 years!

2.) Submit application for UTEP’s IRB (forms are in https://irbnet.org); allow plenty of time for review (and possible requested changes or clarifications). Understand distinctions (exempt, expedited, full board).

3.) After you get approval, you can solicit participants and collect data.

Questions? research.utep.edu/IRB  Christina Ramirez, 747-7693, cramirez22@utep.edu
the IRB/CITI process helps ensure:

- You understand any related ethical issues
- Voluntary participation
- Privacy (confidentiality/anonymity)
- Disclosure/justification of any risks
- Any needed debriefing of participants
- You have design mapped out and will collect no more data than needed
Welcome to IRBnet
Lawrence Lesser

My Projects
Create New Project
My Reminders (374)

Project Administration
Project Overview
Designer
Share this Project
Sign this Package
Submit this Package
Delete this Package
Send Project Mail
Reviews
Project History
Messages & Alerts (49)

Other Tools
Forms and Templates

Communication, Language, and Statistics Survey

This package is: Locked

Get stamped documents, approval letters and other board documents, and track reviews for this package: Review details.

Step 1:
Download blank forms, document templates and reference materials to assist you in assembling your document package.

Select a Library: University of Texas at El Paso IRB, El Paso, TX

Select a Document: IRB-001 Basic guide for IRB review processes

Step 2:
Assemble your document, link your project team’s new and revised documents to your package. Learn more.

Add New Document (When should I do this?)
How to do SoTL: Step 4 of 5

• Identify Research Question
• Design Study
• Collect Data
• Analyze Data and Draw Conclusions
• Discuss and Disseminate Results
Analyze Data and Draw Conclusions

• Use type of analysis (e.g., narrative analysis, rubric analysis, descriptive or inferential statistics) aligned with RQ and design

• UTEP has resources/training in software (e.g., COE’s Research and Evaluation Lab supports SPSS and NVivo)

• Search [http://expertise.utep.edu/](http://expertise.utep.edu/) for a collaborator with desired background (to enter yours: Digital Measures→Personal & Contact Information)
How to do SoTL: Step 5 of 5

- Identify Research Question
- Design Study
- Collect Data
- Analyze Data and Draw Conclusions
- Discuss and Disseminate Results
Can present at 3 types of conferences, if your discipline is “X”

• Disciplinary: “Conference on X” often has SoTL-friendly thread

• Disciplinary-Based Education: “Conference on X Education”

• SoTL: such as SoTL Commons Conference
what journals disseminate SoTL? CETaL posted an e-reading that lists:

• Disciplinary journals in 60 disciplines,
• 70 general higher education journals, and
• 80 core SoTL journals (e.g., *IJSoTL*)

Here’s how to access that e-reading and identify one or more outlets to investigate...
The fastest way to CETaL electronic readings via UTEP Library website is to visit libraryweb.utep.edu. After entering the site, you can search for CETaL. The results show two items: an Annual report and Electronic Readings. The Annual report is available at the library and in the CETaL collection. The Electronic Readings are also available for reserve.
also, reference books

- **general** SoTL books such as:

- **discipline-specific** SoTL books such as: