Advancing Your Scholarly Teaching into the Scholarship of Teaching and Learning (SoTL)

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Workshop Objectives and Outcomes

- Upon completion of the workshop participants will have:
  - Identified and developed a researchable question
  - Developed a framework and protocol for data collection
  - Completed a project timeline including milestones
Workshop Agenda

• Introductions
• Sorting activity
• Discuss pre-reading in small groups and summarize in large group
• Identify and develop research question; refine with group input
• Data collection protocol
• Develop individualized research timeline
• Wrap up
Pre-reading Discussion

• Is there a particularly effective method you have used to increase student learning, and can you document its effectiveness?
• What more would you like to know about the effects of your course design and teaching on student learning?
• Are there challenges you have encountered (attendance, incivility, poor performance, etc.) you would like to improve?
Generating a Research Question

http://www.playbuzz.com/
Sample Research Question

A. Do students learn better in small classes?

B. Is student performance on a final exam higher for those students in the 20-student section of Hort 481 or the 250-student section of Hort 481.
Designing the Study

- What group do you want to study?
- How many people will be in the group?
- Where will you conduct the study?
- Will you need a comparison group?

- Pilot study?
- Collaborator?
Data Collection Protocol

- What type of data will help you answer your research question
  - direct vs. indirect measures
  - qualitative vs. quantitative data
Data Types

• **Direct measure**
  • Course assignments
  • Exam scores
  • Portfolios
  • Presentations

• **Indirect measure**
  • Student feedback and reflections
  • Survey related to the research question
  • Focus groups
Data Types

• **Quantitative**
  • Deals with numbers
  • Data which can be measured

• **Qualitative**
  • Data can be observed but not measured
  • Deals with descriptors
Latte Example

Quantitative

• 12 ounces of latte
• Serving temp. = 150° F
• Serving cup = 7 inches tall
• Cost: $4.95

Qualitative

• Robust aroma
• Frothy appearance
• Strong taste
• White mug

Example adapted from http://regentsprep.org/regents/math/algebra/AD1/qualquant.htm
Data Analysis

- Statistical analysis
- Thematic analysis
- A combination of both

Individual Research Timeline

- Determine research question
- Background literature review
  - Searchable keywords
- Design the research study
- IRB (Institutional Review Board) application/approval
- Publication venues (timelines)
  - http://www.celt.iastate.edu/for-faculty/sotl/teaching-related-journals/agriculture/
Thank you!

ISU CELT :: http://www.celt.iastate.edu/

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