

Gathering SoTL Evidence: Methods for Systematic Inquiry into Student Learning

Renee A. Meyers
Coordinator, UWS SoTL Leadership Site
Faculty College, May 2009

Gathering Evidence

Assessment of Prior Knowledge:

- Have you ever completed an IRB protocol?
- Have you ever had instruction in survey design?
- Have you ever written a survey?
- Have you ever administered a survey?
- Have you ever had instruction in how to conduct interviews or focus groups?
- Have you ever conducted an interview or focus group for research purposes?
- Have you ever had instruction in how to conduct a Protocol Analysis (Think Aloud)?
- Have you ever conducted a Protocol Analysis (Think-Aloud)?
- Have you ever collected student assignments for research evidence of learning?

Gathering Evidence

Assume you want to conduct a SoTL investigation having to do with students learning research skills.

Frame a SoTL research question where the type of data we just collected might be useful.

Your pre-assessment

- Write down 2-3 questions that you might want to ask your students as a type of pre-assessment for your SoTL investigation.

Overview of Session

- Prior to Gathering Evidence: IRB
- Orientation to SoTL Research
- Methodological Orientations
- Types of Questions
- Forms of Evidence
- Tools for, or Methods of, Gathering Evidence
- Developing an initial evidence-gathering plan for your project

IRB Approval

- What is IRB, and why do I have to do it?
 - IRB Quiz
 - Whitepaper on UWS SoTL website:
 - <http://sotl.uwm.edu>

Orientation to SoTL Research

Orientation to SoTL Research

- Interpretive Orientation
- Quasi-Objective Orientation
 - What are research goals of each?
 - How is human behavior viewed?
 - What types of methods typically characterize each orientation?
 - What are strengths/difficulties of each orientation?
 - Where do you stand? Is there a disciplinary stance?
- Fill out handout on research orientations

	Quasi-Objective	Interpretive
Research Goals	Explain and predict	Understand and interpret meaning
Motivation for Human Behavior	Natural forces shape behavior	Humans have conscious choice
Types of Methods	Often Quantitative -Surveys, content analysis, experimental design	Often Qualitative -Interviews, Focus Groups, Observation, Discourse Analysis
Strengths/Difficulties	Useful/practical Detached; overly objective	New insight Can't generalize Difficult to validate

Orientation to SoTL Methods for Gathering Evidence

Thinking it through . . .

- Suppose you wondered how students use instructor feedback to write the second draft of a paper. How might you design methods of evidence gathering to answer this question?
- Qualitative methods?
- Quantitative methods?
- Pros/Cons of each?

Types of SoTL Questions

Asking Good SoTL Questions

- SoTL questions are focused on student learning
 - Consequently we look to students for evidence to answer our questions
- Handout of some of your questions (and others)
 - Type/Form of research question guides the type of evidence you collect

Types of Questions

- Descriptive questions (What is)
 - *Lessons From the Best* article on website
- Confirmatory questions (What works)
 - *Practice Versus Review Exams* article on website
- Can you identify the SoTL questions on the handout?

Types of Questions and Time Orientation in Research

Time Orientation and Research Questions

- All research takes place within time and space
- Researcher needs to decide whether question being asked is best investigated as a one-time phenomenon, or over time (longitudinally)
 - Cross sectional research-snapshot in time
 - Longitudinal research-goes across time

Example

- Suppose you wanted to study whether group members use “explaining” communication in their group discussions.
 - If you were to do a cross-sectional study, how would you proceed?
 - If you were to do a longitudinal study, how would you proceed?
- What are the advantages/disadvantages of undertaking each of these time orientations in SoTL research?

Types of Evidence

Types of Evidence

■ Secondary data

- Secondary data are data collected for some purpose or need other than the one being currently pursued by a SoTL researcher.
- Secondary data can be found within your own university and also within external organizations.

■ Primary data

- Primary data are collected to specifically answer the questions posed in the current SoTL research project.
- Primary data are collected by you in your own classroom, or others' classrooms

Sources of SoTL Secondary Data

- [National Center for Education Statistics](#)
- [UWS Office of Policy and Analysis Research](#)
- [The Chronicle of Higher Education](#)
- [U.S. Department of Education](#)
- [NSSE and FSSE data](#)
- [Campus Institutional Research](#)

Using Secondary Data

- How might you use secondary data in a SoTL investigation?

Credibility of Secondary Data

- Whenever you use secondary data, you must consider how credible it is
- Questions to ask:
 - Does the report reveal who sponsored the research?
 - Does the report reveal who conducted the research?
Is this a respected source?
 - Are the research methods disclosed and explained?
(Size of sample? Characteristics of respondents?
Margin of error?)
 - When was the study conducted?

Initial Reflection

- What is your orientation (and/or your disciplinary orientation) to doing research?
- What is your comfort level with qualitative and quantitative methods? Do you have a preference for one over the other?
- What is your research question?
- What forms of evidence/data do you think you might collect?