Gathering and analyzing evidence
Quantitative data

- Scores on course exam or project
- Survey responses/PPIs
- Frequencies of multiple choice answers
- Standardized exam scores
- Counts (participation, attendance, etc.)
- Measure of time use
- Institutional research data (grades, retention, etc.)
Qualitative data

- Performances (possibly recorded)
- Videotaped “think alouds”
- Interviews
- Focus groups
- Papers/essays
- Reflective statements (yours and theirs)
A word of caution

- Two physics professors want to know if students replace alternative conceptions of gravity in an introductory physics course.

- Why would exam or course grades not be the best single source of evidence for this research study?
“How Do Student of Diverse Achievement Levels Benefit from Peer Assessment?”

Asked:

- Does peer assessment work equally well for students of diverse achievement levels?
- What was the experience of students of diverse achievement levels in this peer assessment?

Mixed methods example:

- Scores on project that was assessed by peers (how good was their work as judged by three professors)

- Survey: were students satisfied with their own projects, and how did they think peer feedback influenced quality of project?

- Interviews: two students having most and least positive attitudes toward peer assessment (based on survey responses)
Your turn

- What evidence will you draw on to answer your question?
- Describe the evidence you will draw on for your project
- Share and get feedback from your teams!