Project Design: Structuring the Learning Activities and Data Collection

"What Is?" Projects

"What is?" SoTL projects don't revolve around an intervention, comparison, or evaluation of effectiveness. Instead, their purpose is to describe what's happening or what moments of learning look like, drawing from direct evidence of student thinking and learning. (See model below [Chick, 2008].) They also don't require large numbers of students. In smaller classes, a case study approach in which you closely unpack the learning of fewer students may work best. These projects will be highly descriptive of the specific learning context (what kind of course? who are the students? what kind of institution? where?), the evidence of learning (with plenty of examples, including ideally those representing students' actual voices), and the analysis of that evidence (how does the evidence help answer your research question?).

These projects tend to be more qualitative and are particularly good for answering "how" and "why" research questions, focusing on the individual and collective experiences of the students involved. In Qualitative Research: A Guide to Design and Implementation (2009), Sharan B. Merriam adds, "Qualitative case studies share with other forms of qualitative research the search for meaning and understanding, the researcher as the primary instrument of data collection and analysis, an inductive investigative strategy, and the end product being richly descriptive" (2009, p. 39).

"What is?" Design

"What does learning look like?"

"What happens when….?"

students → learning activity

1 2 3 4 5 6 7 8 9 10 11 12 …

visible evidence of student thinking and learning in response to learning activity

A   B   C   D

meaningful themes, patterns, or conclusions drawn from the above evidence

Graphic by Nancy Chick

There are many ways to design such a project. The tips below may help in the design process:

- Look for patterns across samples of student work (one set, selections from multiple sets).
- Follow selected students' development of a single assignment over the semester.
- Track selected students' performance on several assignments over the semester.
- Use a variety of assessment methods to obtain a rich and multifaceted view of the students' thinking and learning—at a variety of stages.
- Keep in mind that interesting results may emerge in subgroups of your student population, so don't lose sight of your specific context's demographics.

"What Works?" Projects

"What works?" SoTL projects are organized around comparisons that measure the effectiveness of an approach or activity. You don't need access to two sections of the same course for such a project. Instead, you can split one class into two groups: one that receives one type of assignment or intervention and one that doesn't. (See model on next page [Brown, 2006].)
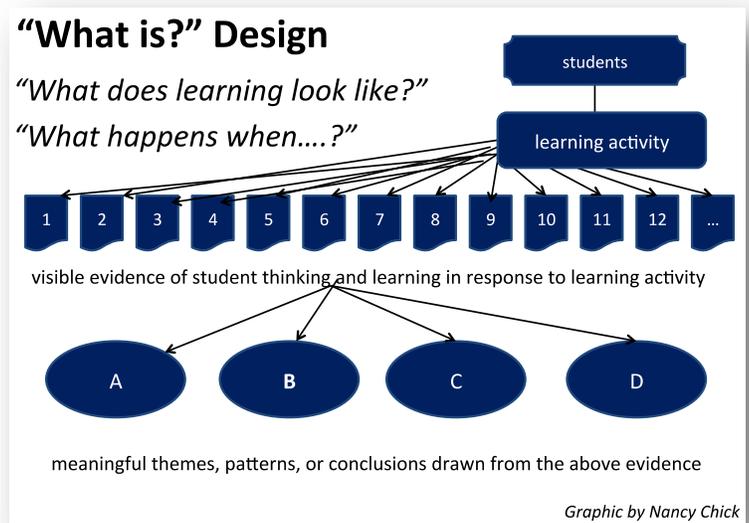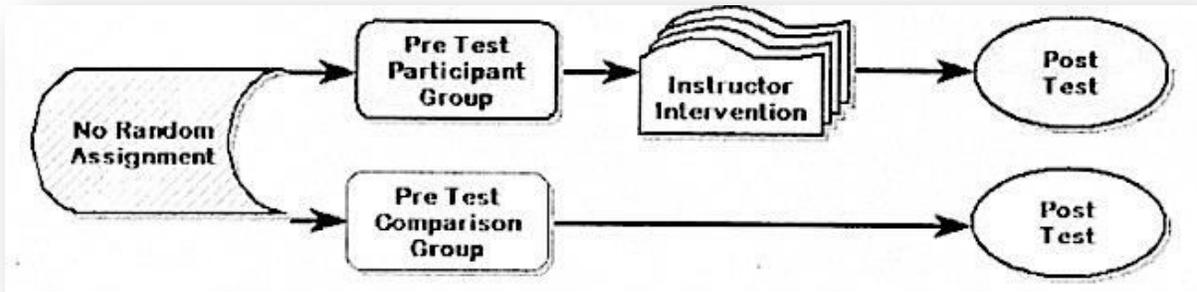
If it's not feasible to split a class into two groups, there are alternatives when working with one group of students. By adding two pretests to the intervention, you can validate your pretest data to improve the chances that any changes seen in the post-test result from the intervention.
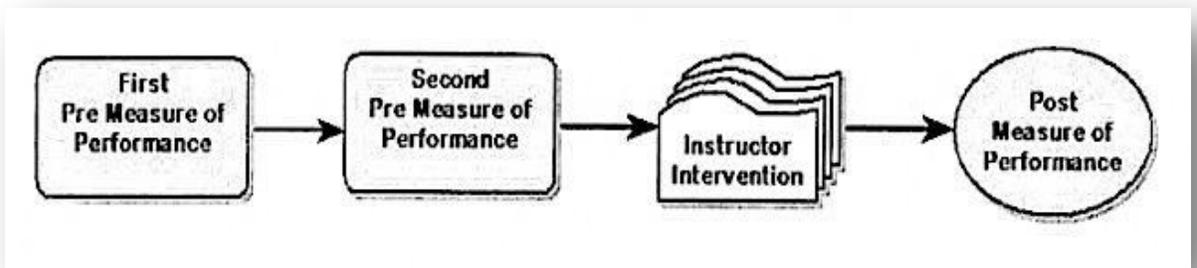
For more information on qualitative and quantitative approaches, see the National Science Foundation's User-Friendly Handbook for Mixed Method Evaluations.