

Developing an SoTL-Based Research Project

Research Question		
What is the impact of activity X on student learning for outcome Y?		
Initial (Flawed) Design		
Introduce activity X to a class you teach.	Assess student learning for outcome Y following the activity.	Results Average score for students: 43 on a test or rubric (50 points possible)

Interpretation of Results

Interpretation of these results is difficult because we do not have a context for evaluating scores. What does a score of 43 mean? Is this “good” student learning? Was the test too easy? Should we attribute the learning represented by these scores to activity X or are other, rival explanations for this learning also reasonable?

Rival explanation: Students knew the material assessed by the test/rubric before they took the class or engaged in activity X. Their “good” performance is unrelated to the activity.		
Improved (Flawed) Design		
Introduce activity X to a class you teach.	Assess student learning for outcome Y both before and after completing the activity.	Results Average score for students: 32 on the pretest or rubric 43 on a posttest or rubric (50 points possible)

This improved design creates a context for interpreting the scores and demonstrates that students are different *after* the activity. Should we attribute this change to the activity?

What other explanations might explain this change?

How might we modify this design to eliminate other explanations about student learning?

Activity

Describe an alternative explanation:	Design the modifications to this design to generate evidence that will allow you to evaluate this alternative explanation.
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