



SoTL Overview

The Scholarship of Teaching and Learning (SoTL) is the systematic study by instructors of the impact of their teaching on the learning of students and the sharing of results. An exciting aspect of SoTL is that it is practical and applied, having direct implications for the classes we teach.

SoTL has many benefits, but a key underlying principle is that it makes us more informed teachers and can therefore result in improved student outcomes. SoTL affects how we think about teaching and learning opportunities for our students, giving us a more powerful framework to think about our own teaching and our students' learning. It enriches our experiences as instructors and helps to keep us fresh and motivated to improve. It can improve conversations with colleagues and allow us to collaborate with colleagues in different disciplines. By sharing our SoTL experiences and creating a body of knowledge, we can contribute to a collection of examples and strategies that others can learn from.

There are five steps of the SoTL process, as listed and described below.

1. **Generate a research question.** Research questions often stem from experiences and observations in our own classes. Questions can ask about knowledge gains (learning) or student attitudes, values, and motivation. They can ask whether, how, and why. They can examine similarities and differences between students, changes over time, and if our assessments measure what we think they measure. There are an overwhelming number of questions that can be asked, and it is often best to start with a simple question without too many variables and complexities. The question should be stated in clear and measurable terms. Writing a clear research question is essential because it influences the other steps in the SoTL study.
2. **Design the study.** Consider the groups you want to study, such as the classes and the number of students. Do you have something to compare your resulting data to, such as a comparison class or data collected from the students prior to your instruction (e.g., a pre-test)? Quantitative data can be reduced to numbers (e.g., tests, questionnaires) and tend to answer whether something changed. Qualitative data are generally words (e.g., open-ended responses) and tend to be better at answering how and why something changed. It cannot be repeated enough that the study should be designed to answer the research question!
3. **Collect the data.** There are a variety of ways to collect data, and the research question and design impact the data collected. Data may be collected with assignments that students complete, such as exams, quizzes, essays, evaluations of presentations, labs, etc. These types of data tend to measure student knowledge and performance. Data may also be collected with questionnaires and interviews. These data tend to



measure student attitudes and thought processes. Are there instruments that already exist to measure what you want to measure?

4. **Analyze the data and draw conclusions.** The kind of analysis you do depends on your research question and the data you collected. Quantitative data often uses statistics to answer the research question, such as comparing averages of pre- and post-tests or to comparison groups. Qualitative data is generally analyzed by systematically examining the data and looking for themes or patterns.
5. **Present and share your SoTL project.** The last, but essential, step in the SoTL process is to share your study with a larger audience. This can be done through presentations or written publications. It can be shared within your discipline or to an audience with a variety of disciplines. CTE events, such as the Spring Symposium, are excellent venues for sharing SoTL work to the CCRI community. It is only by sharing that we can create a body of knowledge that helps us all.

Much of this information is modified from and inspired by the book *Engaging in the Scholarship of Teaching and Learning* (2012) by Cathy Bishop-Clark and Beth Dietz-Uhler. The CCRI Library has [multiple copies in the CTE collection](#). I encourage you to review the book for additional details, information, and examples, particularly Chapter 3 “Introduction to the Steps in the SoTL Research Process.”