

## Explaining or Discussing Your SoTL Results

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In our SoTL work, it is critical, not just to report, but to understand, explain, and discuss our data or results—what we have learned about our students’ learning, and the conditions and processes involved. We need to know, not just that some teaching strategy or intervention or technology or experience or assignment or... helped students learn but, as (more?) importantly, why, how, when. It is best, of course, if we have planned ahead and have been able to gather data or evidence about the ‘why’ and the ‘how’ and the ‘when.’ I have written elsewhere about several strategies to do this in SoTL work (McKinney, K. 2012. “Increasing the Impact of SoTL: Two Sometimes Neglected Opportunities.” *International Journal of the Scholarship of Teaching and Learning* 6 (1).) These five strategies are the following. Some of you may know of or use other strategies.

- Obtain student voices via qualitative reflection about processes and conditions using learning reflection essays, interviews, or focus groups.
- Incorporate an observational component to the SoTL research where observers code process variables (e.g., increased peer discussion, practicing authentic tasks, modeling successful behaviors) they see taking place.
- Draw on theories of learning that suggest possible conditions and processes a priori, then plan ahead and include measures of such variables/factors in the study.
- Use longitudinal designs with multiple methods and/or measures taken at key points in time during the intervention and the learning process to increase the likelihood of obtaining data pointing to intervening processes and conditions.
- Move from isolated SoTL projects to undertaking a series of related SoTL studies where each additional study attempts to ferret out specific conditions or qualify past results.

Unfortunately, many times we don’t have the data on the ‘why,’ ‘how,’ or ‘when.’ We don’t have direct evidence of the conditions and processes. But we still want to try to understand, to explain, and to discuss what we found as well as possible implications. In this case, we can use the literature on learning and what it says about best practices, impactful experiences, effective learning behaviors, etc. We can consider the factors, evidence, and results of our own SoTL project, and discuss whether processes consistently found to enhance learning in the literature on learning may have been at work in our SoTL study and our students’ outcomes.

For example, I have highlighted below five processes (there are certainly more!) that have been shown, empirically, to be positively related to learning in 2-5 of the sources at the end of this post (there are other sources on learning as well!). You can consider whether any of these processes help to explain the results related to learning that you find in your SoTL project.

1. Connecting learning to the students’ prior knowledge or preexisting understandings.

2. Involving appropriate practice, time on task, study time alone, significant reading and writing.
3. Offering some student voice, student control/choice of learning, assignments, or activities.
4. Encouraging and supporting intrinsic motivation for learning and learning tasks.
5. Providing opportunities and support for student self-reflection, metacognition, monitoring own learning.

- Ambrose, S. A., Bridges, M. W., DiPietro, M., Lovett, M. C., & Norman, M. K. (2010). *How learning works: Seven research-based principles for smart teaching*. San Francisco, CA: Jossey-Bass.
- Arum, R., & Roksa, J. (2011). *Academically adrift: Limited learning on college campuses*. Chicago: University of Chicago Press.
- Bain, K. (2012). *What the best college students do*. Cambridge, MA: Harvard University Press.
- Mashek, D., & Hammer, E. Y. (Eds.). (2011). *Empirical research in teaching and learning: Contributions from social psychology*. Malden, MA: Wiley-Blackwell.
- National Research Council. (1999). *How people learn: Bridging research and practice*. Washington, DC: National Academy Press.
- Zull, J. E. (2002). *The art of changing the brain: Enriching teaching by exploring the biology of learning*. Sterling, VA: Stylus Publishing.