Plan for a SoTL Project

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Research Question

What are you curious about?
What would you like to know about strategies that might hinder and/or help students to learn, in your course?
Do you want to know if an activity, assignment, or teaching strategy "works?"
Do you have a question about how to help your students learn a particular skill?

I am curious about whether using peer assessment and feedback contributes to improved acquisition of competence. This relates to "improved student outcomes" because there are many benefits to peer assessment and feedback, including active learning, developing evaluation skills, enhances student learning and collaboration, and promotes critical thinking. However the negative aspects including unfair or biased result, inconsistency and useful or constructive feedback requires more time on the part of the instructor. I'd like to know if peer assessment and feedback improves performance on learning outcomes. I think there is value in being the peer assessor and the learning that occurs with that process has an impact on the performance of the assessor. the value is not so much about being on the receiving end of the peer feedback, rather the giving end.

Identify challenge/outcome related to learning that is related to your question.

Describe the learning in a way that suggests how you might *measure* it using either qualitative or quantitative methods.

Quantitative: I could test the hypothesis: " Peer assessment improves performance on learning outcomes" by having the class do a series of peer assessments providing formative feedback to each other followed by a summative evaluation of their own performance. The results could be compared to summative evaluation scores where no peer assessment was provided beforehand.

OR

Qualitative: I could have the students perform peer assessments and feedback on their own classmates and follow with a formal summative assessment of that particular skill. Then I could repeat the formal summative assessment for another skill where no peer assessment or feedback was provided. I could ask the students to keep journals to record

their experience providing the peer assessment and ask them to identify the impact of their provision of peer assessment on their own learning.

Identify ethical considerations for this project

- I would need to eliminate the power imbalance of asking my own students to participate in this project. I would ask a colleague if they would be willing to incorporate this project into one of their courses and then I could remain the Principle Investigator without the students fearing their participation could impact their grade.
- Alternately I could ask a colleague to explain the research design to my students and ensure that I have a separate independent evaluator who is unaware of which skills received peer assessment and feedback and which did not
- Another possibility is to be transparent with the students so they are aware I am the Principal Investigator and I will also be evaluating their performance and that participation is entirely voluntary and will not impact their grades
- All students must have the option to participate and to withdraw from the study without penalty
- All data and responses collected should be anonymous, each student assigned a key/code which
- Students may receive additional training in the peer assessment and feedback group which may serve as incentive to participate as this is a role they may have in future careers, supervising students of their own someday
- All research/project work would occur during regularly schedule class times to reduce the burden to the student/participant
- I would keep all data for three years after publishing and then would destroy all data collected after that
- The research project would need to be approved by the my college's Research Ethics Board

Describe the instructional activity, assignment, or teaching strategy that will promote student learning on the outcome you identified.

SoTL projects might investigate the impact of a *modification* to an existing strategy or assignment. Describe how the new approach differs from the old approach and why this modification might change student learning on this outcome.

The use of peer assessment and feedback would be investigated to determine if this would be worth employing as formative feedback in a course. Using peer assessment and feedback has the potential to enhance the overall outcome for the student because it engages the students as active learners, develops their assessment skills which will promote life-long learning and critical thinking,and will enhance collaboration, deeper learning and making connections. This is different form the traditional approach where the instructor/lab assistant were expected to provide all formative feedback and promotes a more passive learning approach.

Describe the evidence that would persuade an external audience that the new or modified teaching strategy improves student learning on the targeted learning outcome.

Describe the evidence you would need to collect to answer questions about the impact or value of this teaching strategy. Qualitative data demonstrating peer assessment provides deeper learning and critical thinking. Journals describing the preparation required to provide peer feedback, the critical thinking required during the process and impact on their own skill development. Quantitative data that shows higher evaluation scores when peer assessment and feedback is incorporated into the course/lab. How would you convince others that this approach is better than other approaches? Once the results are available, assuming the hypothesis is correct, I would probably write up a report to disseminate the findings of the research. I may include testimonials from students as well. What comparisons should you make? I would compare the test scores where peer assessment and feedback was included in the course design with test scores where it was not included in the course design. Examine students; skill before and after the assignment? Test scores after class time that included peer assessment and feedback versus test scores with no peer assessment and feedback provided. Compare students who complete the learning activity to another group of students – what comparisons would be meaningful?

This could be repeated with the same group of students over different skills, or it could be repeated with different groups of students over the same skills.

How and where would you publish, present, or disseminate this work? First, I would publish my results 'in-house' with my students and colleagues within my program area, and then to the larger group of faculty at my institution through our CAFE - Curriculum Academic and Faculty Excellence. I could also attempt to publish and/or present at conferences/workshops to share beyond my institution.

Reflect on your own project planning and think ahead to how you might share your results. Update the last section of your SoTL research plan document with a dissemination strategy for making the key findings of your research study publicly accessible.

After viewing the resources of the SFU flipped classroom research and their dissemination strategies I began to think beyond just sharing the results of my research through a publication or at conferences. Assuming my hypothesis is correct, and peer assessment does improve learning outcomes, then I think the idea of creating a "how to" video or presentation might be helpful for others. I could include some examples of how to implement peer assessment and feedback and maybe some testimonials from students. I could share these during PD sessions within my college and also through the multi-college collaboration that has regular PD sessions. Videos could even be posted on the college's You Tube site.

Adapted from: C. J. Stanny, E. M. El-Sheikh, & H-M. Chung (2009) *Getting Started with a SoTL Project*

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