Plan for a SoTL Project

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Research Question

What are you curious about?
I am curious about the tools that I can use to help bolster curiosity and interest in my students so that they are keen to learn independently.

What would you like to know about strategies that might hinder and/or help students to learn, in your course? I would like to know of strategies and tools that can help my students develop the mindset and skill-set to learn independently.

Do you want to know if an activity, assignment, or teaching strategy "works?" Yes, I do!

Do you have a question about how to help your students learn a particular skill? How can I motivate my students to learn independently in a timely fashion?

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.

One of the chief challenges I face is students' time commitment in doing their work which involves a huge responsibility for the independent development of their knowledge and skill-sets in order to complete a project. One method I am using and continuing to refine is the time/project management tool that enforces individual accountability in their learning progress. This 'tool is the AGILE-SCRUM Project Management System and it is central to my project-based course. The AGILE-SCRUM approach has students identifying what THEY believe that they can accomplish of a given set of predetermined tasks; within a time frame that I provide.   I can then evaluate progress made at the end of several given time periods which we call Sprints. Should they not achieve all the committed tasks for each of the Sprints, there will be consequences (loss of marks) and the uncompleted task is then carried over into the next Sprint to give them opportunities to improve. The biggest challenge I have is time commitment on the part of the students.   Students have said that they have too much to do in other courses to devote time to my course. From my discussions with the other professors and my own observations, the students appear to procrastinate in all courses. This has led to some students complaining and not putting forth any effort in my course. Hence, I am most interested in how I can better lead all students in making appropriate choices and helping them to perform the needed tasks in a timely fashion; spending less time "spinning-their-wheels" and complaining when the "crunch-time" comes and they have to demonstrate their progress or lack of progress to date.

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.

What I would like to explore in my SoTL plan for my project-based course, is the use of tools that help to develop and maintain the students' interest in the course and the materials through the use of appropriate presentation and workflow tools. The use of scaffolding the course materials has proven to be the most appropriate approach to guide students in their initial development of a project but beyond the initial work, the interest appears to diminish as the work becomes more challenging. I had always relied upon the expectation that students had developed good work habits from prerequisite courses so we would really be building up workflow skills. The two main topics I want to explore are: the use of a time/project management system along with the continued use of suitable technical presentation tools to maintain the momentum of the course and continue to help students develop better work habits appropriate for our field. Poor time management and workflow flaws seem to be the most problematic areas that students bring to my project-based course. My mistake appears to be an incorrect assumption that students are able to, and are comfortable with, independent work and/or working as effective members of a group or team.

As I continued my resource reading and analysis I came to realize that there is one tool that I would like to implement in the course and test out. It is GAMMIFYING my course materials. I am curious about how this may affect my students interest in the project that they are to design, develop and verify whilst I am to facilitate the process in a manner that is most like a Scrum master in AGILE. The gamification is proposed as a means to provide a fun way to keep the focus on key concepts and workflow.

Since I have re-evaluated my exploratory ideas with regards to encouraging independence in learning by finding a tool to keep the students' interest and focus I have chosen to use quizzes that pose questions or make statements that students identify as being false or true. This tool could be Quizlet or Microsoft Forms depending on the type of content I wish to draw the students' focus to. I hope to structure my questions and statements like a game of Trivia Pursuit or a Who Done It (or CLUE) mystery game. If I have the time I could also use a

D&D type of approach with Microsoft Sticky Notes on the Whiteboard in place of playing cards whilst providing the 'story' for the players.

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. How would you convince others that this approach is better than other approaches? What comparisons should you make? Examine students; skill before and after the assignment? Compare students who complete the learning activity to another group of students – what comparisons would be meaningful?

My course is a second-year course in a three-year program. In order to even begin to persuade external audiences that a new additional strategy would improve the students learning outcomes (to successfully develop an individual contribution to, and completion of, a project) requires that I review my past-course practices, deliveries, and the associated outcomes. I would need to note the difficulties identified by past students (through my surveys and SATs) and their poor performance/attitudes (by examining emails and marks recordings). I need to discover any key indicators in the final course outcomes, that are attributable to a lack of time management and independent knowledge on the part of the students at this point in their learning path. I would need to confer with the professors of the prerequisite courses on two matters: workload and workflow ethic of the various

cohorts that they can remember. I would also need to invest time in exploring pedagogies that are beneficial, and encouraging, to independent study in the students' scholarly activities and which increase the students' interests in the course. Taking the results of my research, I would then revise my delivery plan to accommodate more time needed early in the course, to instruct and guide in developing the students' independent learning. This may require a reduction in the expected tasks to be completed for the project. I anticipate a higher degree of ALL students being satisfied with the final outcome should the goal of improvements in time management and independent studies be successful. I believe that these skills are paramount to further success in the program.

I anticipate that the gamification will result in more students participating and taking more ownership of their roles in their Project team. With this result, I should see better KPI responses along with positive survey and SAT inquiries.

How and where would you publish, present, or disseminate this work?

My goal is to initially contact the Research department to get approval for my research. Once approval has been obtained, the plan is to initially present my research goals to my peers and learning support folks at the college, in order to begin to develop and use a network that will support my research.   I will then implement a different pedagogical approach, as per my research outcomes, to my course delivery, implementing a system with frequent feedback from students in order that I may record the immediate effects of the new approach. This will allow me to tweak the course plan and delivery as I go; again recording the changes to be examined and analyzed later. Once I have completed my course and the research, I hope to publish

my findings with the various organizations that are recommended to me by my Learning Resource Advisor at the time of the completion of my research.

My ethical concerns in this SoTL research project are focused on general cohort cohesion. I want to avoid any polarization of comfort or interest on the part of the students as they work through the project. Quite often I have noticed that students who are already on the path to independent learning due to prior experience do much better than those who were not really encouraged to develop the ability to learn how to learn. This is very often seen when the cohort has a mix of domestic and international students. I have found that cheating was how some of the students chose to avoid the independent learning in the workflow of the project which in turn had a detrimental effect on those independent-learning oriented students who were concerned that the marks were somehow 'stolen' from themselves by the students who cheated just to get a pass.

It is my hope that all students will buy into a gamified course for the project. Almost all of my past students in every cohort played games but there could be some students who are neither interested in games nor are engaged in socially oriented games that will feel left out and thus turn to the act of cheating; relying upon the other team members to do their work because they could not follow the workflow games.

Some Concluding Remarks

Going forward on my SoTL plan I have in mind a strategy once I receive permission from the Ethics folks.

What I am thinking I will do now is as follows: i) Break up my current course theory presentation workflow into small modules that align precisely with each of the

Sprints in the AGILE system which is set up by myself. The downside of this is that some autonomy of the students will be lost but it creates better control of the acquiring of the data. The final outcome of this SoTL project should see students much better prepared for their Capstone semesters. It also should provide students with the confidence in their knowledge, attitude, and skillset that is so needed to ensure employment in my field.

ii) For each module, I need to create some Quizzes to re-enforce focus on specific concepts needed as a review of previously learned concepts and as a springboard for independent learning on the part of the student. This is a synchronous activity. Data from this activity is to be recorded from Quizzlet.

iii)I need to develop several 'flash cards' in Microsoft Forms that are like a "Clue" or "Trivia" game; based upon the materials presented in the previous presentation class. This game is to be performed asynchronously by students in order to provide a summary of key concepts that lead into the next class. To ensure that this activity was preformed I will be having an initial quiz based upon the concepts that were to be developed. Data from these games is recorded in the Forms on Office 365.

The analysis of the data is to be performed weekly which requires more time on my SWF so approval from my chair for extra time is also needed along with approval from the Ethics folks and funding to pay for my research.

Lots to do!.