Plan for a SoTL Project

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| **Research Question**What are you curious about? *My curiosity is oriented towards the tools and methodologies that I can use to enhance each student’s comfort level when they need to perform scientific research assignments that they have never done before.*What would you like to know about strategies that might hinder and/or help students to learn, in your course?*How difficult is for each student to perform the scientific research assignments and use the tools that I will teach*.Do you want to know if an activity, assignment, or teaching strategy “works?”*I will try different methods and tools to draw conclusions regarding the student’s comfort level to perform scientific research assignments.*Do you have a question about how to help your students learn a particular skill?  *How difficult is for an International Student to use tools and methodologies to perform scientific research without having any previous experience.* |
| **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.*International students who attend my course may have not used in the past appropriate scientific research methodology for project execution. I will use both qualitative and quantitative methods to assess their assignments. The main qualitative tool that I will use while students collaborate during the online session will be Wilcoxon signed rank test. The main quantitative tool that I will use will be Libert Scale. Students will work together based on the Libert Scale and then I will use Wicoxon signed rank test.*  |
| **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 current approach does not use an in-process method to separate and quantify the work in progress.* *The new approach that I am proposing is that students should complete work within their comfort zone. Each student should be able to perform better when they work within a team that has been pre-selected based on experience and comfort zone.* *The first assignment is done individually (non-treatment) without any prior team work. The 2nd and 3rd assignments will be completed during online classes, in teams that have been selected based on the predetermined questionnaire (Libert Scale). The 2nd and 3rd assignments are interpreted using Wilcoxon signed rank test based on difference scores, which in addition to analyzing the signs of the differences, it also considers the magnitude of the observed differences. Each group will be monitored to ensure that there are no changes and students become more comfortable performing the scientific research assignments while using the tools that are available.*  |
| **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?*International students are a diverse population since they come from different countries or regions where there is a large amount of data variability. The main important steps in ensuring each student success consists in evaluation on how well the student can use the scientific research tool (i.e. Hypothesis.is), how well each can collaborate during the online sessions or after the sessions. Since each student is assessed at the beginning when completing the Libert Scale, the consequence will be working in the teams that have a similar profile.*  |
| **How and where would you publish, present, or disseminate this work?***I will present the work on AACE* [*https://www.aace.org/*](https://www.aace.org/) *and Research Gate* [*https://www.researchgate.net/*](https://www.researchgate.net/) |

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

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