

Design Your SoTL Project

by Patrick Hymus – St. Lawrence College



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 the use of [ChatGPT](#), the OpenAI large language model (LLM), and its usage by students to create written reports that are undetectable by plagiarism software. Given the obvious potential for abuse, how can faculty better adjust their assessment strategies to minimize the ease by which students can easily spoof them? If required, what alternative forms of assessments should instructors adapt instead and are they more difficult to spoof with ChatGPT?

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. 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.

The challenge related to my question is being able to persuade faculty to modify their existing assessment strategies and get away from the traditional measure of learning that is the long-form essay. It may also be difficult to select forms of alternative assessments as some programs may have specific requirements and some instructors have their own preferences. I would also be evaluating assessments according to the difficulty to shortcut via ChatGPT and not learner achievement.

I would need to assess the learning outcomes associated with a particular written assignment and recommend alternative assessment strategies, for example presentations, role plays, case studies, etc. I would then need to run both the standard and alternative assessments through ChatGPT to simulate learner usage. Finally, I would present the output to the SME/faculty for comparison and simulated grading. This would require a great deal of planning, effort, and coordination.

Describe how the new approach differs from the old approach and why this modification might change student learning on this outcome.

This approach differs from past methods of assessment because it's leveraging the usage of a recently released tool that was not previously 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.

The evidence of this modification being an improvement would be faculty corroboration that this alternative method of assessment aligns with the course learning objectives and cannot be quickly completed using ChatGPT. This corroboration would hopefully suffice for an external audience.

How would you convince others that this approach is better than other approaches?

Convincing others that this approach is better starts with demonstrating how easily ChatGPT can complete assessments consisting of written reports. In this instance, I'm not measuring student learning but instead the superiority of alternative forms of assessing student skill and knowledge.

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?

The comparison would be gauging the output of ChatGPT with existing assessment compared with alternatives.

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

I would begin by presenting this work to my colleagues and then to faculty via workshops during our semester start-up. Beyond that, we could host some strategies on our webpage and potentially link them out to an external audience as well.

Considerations of any ethical concerns with the research

Efforts would be made to follow the [Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans](#). As such, all participants would be volunteers and their privacy would be prioritized. The extent of data collection on the part of OpenAI is unknown. I would not want any potentially identifying information, either on the part of learners or instructors, being collected without their permission. As ChatGPT now allows users to opt-out of data retention, I regard this approach as best practice and recommend others do the same when using this tool.

I would also contact the Research Ethics Board at my organization to determine what, if any, additional steps must be taken.

Dissemination Strategy

I would initially share my findings with colleagues via small workshops and then move into offerings to the larger faculty body. Another potential avenue for sharing these findings could be our in-house Learning Connections Conference held yearly in May. Given the growing disruption AI tools like ChatGPT currently pose, this information would likely be of great value. The next step may be organizing a webinar to a larger audience via organizations like Contact North.

Adapted from: C. J. Stanny, E. M. El-Sheikh, & H-M. Chung (2009) ***Getting Started with a SoTL Project*** Center for University Teaching, Learning, and Assessment <http://uwf.edu/cutla/>