**Reflective Response, SoTL Plan**

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**Link to plan:** [**https://docs.google.com/document/d/1Z5XDuArpSF0xYqlEpeziuS2ytojLCzsC/edit?usp=drive\_link&ouid=100507165878484285500&rtpof=true&sd=true**](https://docs.google.com/document/d/1Z5XDuArpSF0xYqlEpeziuS2ytojLCzsC/edit?usp=drive_link&ouid=100507165878484285500&rtpof=true&sd=true)

I have been interested in the use of artificial intelligence (AI) in education for some time. I have quite a few specific questions that could inform research projects, but for this one I focused on the use of AI in grading: *Can artificial intelligence grade better than humans?* There’s reason to think that AI would do a better job. Humans get tired and make mistakes while grading, they are subject to unconscious biases that can be managed but not eliminated, and the time feedback takes to create can limit the amount given to each student. AI graders would not suffer from such issues, so perhaps AI should be used for grading.

A blue and black brain

Description automatically generatedAs with any research project, a literature review of any existing research on the use of AI for grading will need to be compiled and analyzed. Moreover, a literature review on grading in general would be useful to know exactly what to tell the AI to do. In addition to the usual literature reviews, this would be an interdisciplinary project, because the technical skill and knowledge needed to create and train grading-specific neural networks is beyond me. I would need to form a team to create and then train the AI before the research could even begin, and that could take some years. (This is, fortunately, a hypothetical research project.)

1Artificial intelligence prompt completion by dalle mini.jpg. (2023, July 4). Wikimedia Commons. Retrieved 20:48, July 20, 2023 from https://commons.wikimedia.org/w/index.php?title=File:Artificial\_intelligence\_prompt\_completion\_by\_dalle\_mini.jpg&oldi

As for the plan of action, I would first have to form a project team to create and train the AI, which could take place while I conduct relevant literature reviews. With those tasks complete, a specific course with evaluations tailored to test the AI as a grader against human graders would need to be selected, and the research itself would need the approval of Conestoga’s ethics board, since it does involve human subjects, even if obliquely. The experiment itself would have AI grade all evaluations in the course along with humans. (Human grading would be used for actual grades in the course and would act as a control and would provide a set of data for comparison.) Debriefing and the collection of qualitative data from students would then be needed, followed by the compiling of findings and dissemination of research.

The dissemination strategy would follow the usual pattern for sharing research. I would present findings at a conference, likely the annual CALL conference (Call, 2023), to obtain initial feedback from colleagues. Depending on feedback, modifications to the project may be needed with additional research. However, if the reception of the project is good, then publication in a peer-reviewed journal, possibly the IJSS (IJSS 2023), would follow. I cannot, however, see the project not needing modification and without doubt additional questions would arise from the research. This would likely be an ongoing project.

**References**

College Association for Language and Literacy (CALL). (2023). CALL conference 2023: Back to our future: Rethinking college-level education in the 'new normal.' <https://www.callontario.org/>

Interdisciplinary Journal of Student Success (IJSS). (2023). <https://cdspress.ca/?page_id=3942>