**Title**

Flipped classrooms, open educational resources, and ungrading: The learning experience of students in their own words

**Summary**

Applied Spatial Statistics (ENVSOCTY 4GA3) is a senior course offered by the School of Earth, Environment and Society at McMaster University. As a technical offering in a highly multidisciplinary academic unit, it presents both challenges and opportunities. While a version of the course has been offered for at least 25 years in a traditional lecture-lab style, with two hours per week in the classroom for lectures and labs respectively, starting on 2018 it was completely redesigned to try a number of ideas supported by the existing Scholarship of Teaching and Learning. In 2018 the course was offered for the first time in a flipped classroom format. At the same time, a new set of lecture notes were prepared that became the foundation for an Open Educational Resource. In 2019 a webbook with a companion course package was made available. And in 2020 the use of reflections was introduced to replace traditional unseen examinations. Over time, the assessment scheme was refined and fine-tuned to implement ideas related to ungrading, a family of evaluation techniques that de-emphasize grades to promote a love for learning. After several years of refinement and fine tuning, the course has reached a mature stage, both in terms of the use of a flipped classroom, OERs, and ungrading. The use of reflections in the course furnishes an excellent opportunity to try to understand how students respond to innovations in teaching and learning. The objective of this talk is to learn from the students, as they explain in their own words, their experience taking this course. The use of reflections for research purposes was approved by McMaster Research Ethics Board. For the analysis, we use a combination of semi-automated machine learning-powered natural language processing techniques, and in-depth, qualitative analysis of the reflections themselves. Our reading of the reflections, along with descriptive analysis of grades, suggest that the change of the format and style of evaluation in the course has worked well for a majority of students, many of whom report surprising insights in terms of what they learned and how they learned it.

**Relevant References**

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