

ONLINE EXAMS IN UNDERGRADUATE MATHEMATICS AT UNE DURING COVID-19 ISOLATION

Jock McOrist, Gerd Schmalz, Jelena Schmalz

Presenting Authors: Jock McOrist, Gerd Schmalz, Jelena Schmalz (jschmalz@une.edu.au)
School of Science and Technology, University of New England, Armidale NSW 2351, Australia

KEYWORDS: online exams, undergraduate mathematics, Möbius, e-learning platform, interactive exercises

The University of New England (UNE) has been a champion in online teaching even prior to the COVID-19 pandemic. Nonetheless, moving all teaching to a purely online modality presented challenges. A key goal is to have fair examinations that satisfy academic standards and avoid plagiarism. A fair exam guarantees that a student has achieved the learning outcomes and is prepared for further studies or capable of problem solving. We discuss our experiences in creating fair online examinations. Invigilated paper exams were replaced by a combination of online exams using Möbius, an e-learning platform, as well as other “take-home” alternative assessments. Möbius has the ability to create interactive exercises with support for mathematical notation. We found Möbius is suitable for standard skills amenable to multiple choice or numerical answers. However, for more advanced topics Möbius presented additional challenges not present for paper exams and this limited its usefulness. We conclude that upper level undergraduate classes are better tested in a paper or oral examination. The necessity to run all exams online in this trimester caused us to rethink what we ultimately want to achieve in a fair examination as well as to look for alternative examination formats for the future.

Proceedings of the Australian Conference on Science and Mathematics Education, 30 September - 2 October 2020, page 55, ISBN Number 978-0-9871834-9-1.