A BLENDED-LEARNING APPROACH IN UNDERGRADUATE SOIL SCIENCE INTERRUPTED BY COVID-19

Brigid McKenna, Peter Kopittke

Presenting Author: Brigid McKenna (b.mckenn1@uq.edu.au)
School of Agriculture and Food Sciences, The University of Queensland, Brisbane QLD 4072, Australia

Keywords: engagement, blended learning, online learning, quantitative analysis, survey, Zoom

We investigated the impact of the interruption caused by COVID-19 restrictions on student engagement and achievement in a third year soil science course taught across two campuses simultaneously by the same teaching staff. Initially, the first three weeks of semester were taught in a blended-learning approach – each week there were three 20 minute lectures posted online with a three hour face-to-face laboratory practical, and each fortnight a face-to-face tutorial was scheduled. Due to the COVID-19 pandemic, week four became a pause in teaching at our institution, thereafter all teaching and learning was conducted exclusively online for the remainder of semester. Face-to-face tutorials were replaced by Zoom sessions and the laboratory practicals were posted on Blackboard as videos. We assessed student engagement by monitoring attendance at both face-to-face and online tutorials and analysed the frequency and timing of access to all learning materials available via Blackboard throughout semester. We examined if student overall course performance was a function of online engagement. We observed differences in attendance and online behaviour as a function of course delivery mode. We examined the impact of a major interruption to teaching and learning activities due to COVID-19 and the impact of this interruption on student engagement.