

Teaching and learning of biology practical courses for foundation science students during COVID-19 pandemic

ABSTRACT

This article aims to communicate several teaching and learning activities that were redesigned for biology practical courses for Universiti Malaysia Sabah's Foundation Science students during the restriction control movement (RMO) due to the Covid-19 outbreak. When RMO has been started the closure of the university campus resulted in postponed of biology practical face-to-face sessions in the laboratory. The teaching and learning activities have been guided by the Foundation Science Biology Laboratory Manual, however, during the pandemic, the delivery approach was modified using online platforms, including video-based blog or vlog, pre-recorded video, using realtime video conferencing i.e. Google Meet, Webex, scheduled online discussions via mobile apps i.e Whatsapp, Telegram, and greater utilization of Universiti Malaysia Sabah online learning platform, SmartV3UMS. The purpose of these redesigned methodologies that are presented in this paper was mainly focusing on delivering the established practical courses' contents to achieve the intended learning outcomes. A total of 353 students registered for these practical courses. They were divided into 16 groups, with 22 or 23 students per group. All these interventions have facilitated students to sustain their access to Foundation in Science study despite the physical engagement limitation and have opened a pathway to a new normal of science education.