

Integrating virtual reality farm and facility tours into the veterinary curriculum to improve student outcomes in an interactive environment

Project Number: 6000761

Principal Investigator: Dr. Kate Jade FLAY

Grant Type: TDG

Abstract:

As with other veterinary curriculums globally, City University's Bachelor of Veterinary Medicine (BVM) program requires a high level of technical skills and integration and application of knowledge to achieve 'Day One Competencies'. An in-depth knowledge of livestock industries, husbandry, welfare and production are an important part of this and veterinarians play a crucial role in ensuring food security and safety globally. The BVM program intends to maintain accreditation with international accrediting bodies, so an understanding of livestock production and husbandry will be essential for our BVM students. Contrasting with students based in overseas tertiary institutions where farms are more readily accessible, in Hong Kong few students have prior exposure to farms or livestock. Also, there are a limited number of farms that our BVM students are able to visit locally as part of their practical training, as Hong Kong has only a small number of commercial farms. Therefore, it is essential that CityU students are well-prepared and are able to maximise the learning opportunities provided during their practical on-farm field-trips, extramural studies and clinical placements. This project will involve collaboration between staff in CityU's Department of Veterinary Clinical Sciences and Department of Infectious Diseases and Public Health, and Zhejiang University, to develop purpose designed virtual reality farms and facilities.

Familiarity with farms through use of virtual reality (VR) will help facilitate student learning. Improved situational awareness through use of VR will also assist in enhancing student safety while on-farm, while concurrently reducing workload of placement providers such as farm owners and workers (making it more appealing to host veterinary students). Additionally, the Covid-19 pandemic has highlighted the value in diversity in educational delivery techniques, particularly those that can be delivered remotely (1). Having access to virtual resources allows for continuity of learning, even when farm visits may not be feasible. For example, the recent announcement of African Swine Fever (ASF) in a Hong Kong farm (4 Feb 2021) has meant the upcoming swine farm visit for Livestock Husbandry (VM2002) has been cancelled as part of the immediate response and risk-mitigation measures.

Use of VR farm and facility tours allows for standardisation between cohorts of students. Material is delivered in a number of ways within the VR landscape (visual, written, audio) catering for different student learning preferences. The use of a VR resource will improve the student's learning experience by allowing them to review material when they need to, at a time that suits them, and is tailored to the technology-oriented student.



香港城市大學
City University of Hong Kong