

ASSURING HEALTH AND SAFETY LEARNING OUTCOMES FOR S.M.A.H FACULTY STAKEHOLDERS BY USING A HYBRID LEARNING AND HURDLE ASSESSMENT PEDAGOGY

Simon. B. Bedforda, Roza Dimeskab, Melinda Chylinskic

Presenting Author: Simon B Bedford (sbedford@uow.edu.au)

KEYWORDS: Hybrid Learning, Hurdle Assessments, Health and Safety, Gamification Pedagogy.

Background

At University of Wollongong those responsible for workplace, health and safety (W.H.S) are well aware of the challenges involved in getting both staff and students through important health and safety inductions. Health and safety practices are seen as tedious by staff and students alike and most induction programmes do not persuade participants from this point of view. This research study carried out in the Faculty of Science, Medicine and Health (S.M.A.H.) based on sound underpinning pedagogy has demonstrated how to deliver health and safety learning outcomes that are a vital aspect of the scientific method, discipline standards and ultimately successful science staff and students.

Aims

The primary aim was the deployment of a hybrid learning methodology to make the best use of any face-to-face activity by making sure all learners had already covered the requisite knowledge and skills beforehand via an online staff or student development module that had also assured through a hurdle assessment item that they had met the minimum or threshold learning outcomes.

Design and methods

This project has provided a range of engaging health and safety induction programmes within the Faculty of Science, Medicine and Health for:

- 1. Laboratory inductions for large numbers of first year and second year undergraduate students
- 2. Postgraduate students undertaking specialist equipment inductions
- 3. General WHS inductions for all SMAH Faculty staff
- 4. Specific inductions for SMAH Faculty staff

Different methodologies were employed depending upon the target audience, so for example, online gamification was used in the first year UG inductions to engage the students with the learning outcomes being assessed. In the PG modules some element of learner control over time, place, path, or pace was incorporated. But in all the modules the key underlying pedagogy was to promote self-efficacy within the learners to find out about health and safety for themselves rather than have it delivered to them by the providers.

Results

By creating SCORM modules deployed within the Moodle CMS this allowed easy access for any number of users, tracking of completions, simple communication and administration. The end result being that each online module made the very most of any face-to-face interaction, and assessed that the threshold WHS outcomes had been met and recorded. This resulted in a net saving of staff time and more teaching time available in laboratories rather than spent on repetitive inductions.

^aLearning, Teaching and Curriculum, University of Wollongong, Wollongong NSW 2522, Australia

^bSchool of Chemistry, University of Wollongong, Wollongong NSW 2522, Australia

^cWorkplace, Health, and Safety Unit, University of Wollongong, Wollongong NSW 2522, Australia

Conclusions

This work has promoted engagement and motivation in the topic and better long term retention of the health and safety requirements. The work has now stimulated other Faculties at UOW to do similar and has just picked up the Vice Chancellors WHS award for 2016.

Proceedings of the Australian Conference on Science and Mathematics Education, The University of Queensland, Sept 28^{th} to 30^{th} , 2016, page 20-21, ISBN Number 978-0-9871834-5-3.