Poster presentation

Online learning modules: Does one version fit all?

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The use of information and communications technology (ICT) has an increasing influence on teaching activities in higher education. Material such as online pre-laboratory work can be accessed by students off campus at any time to allow students some timetabling flexibility whilst offering the university a cost effective means of delivery. This poses the question: does one version of any online activity benefit students with different levels of prior knowledge? This study investigated the effectiveness of online pre-laboratory work modules on students' learning and their academic performance in a related practical exercise and the final examination. It clearly demonstrated that students, with a relatively poor chemistry background prior to commencing university study, who completed the module performed significantly better in a laboratory titration assessment and final examination than those who did not complete it, indicating the benefits of the module for students with weaker chemistry backgrounds. Furthermore, this study has shown that not all students benefit from the one version of the online modules. Therefore, adjusting the online modules to cater for students with varying levels of prior knowledge may be beneficial in helping all students to achieve improved outcomes.

Keywords: online learning, higher education, online pre-laboratory work, instructional design

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