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CAPTURING STUDENT VOICE ON THEIR EXPERIENCES OF THE USE OF DIGITAL SIMULATIONS OF SCIENTIFIC TECHNIQUES IN BIOMEDICAL EDUCATION

Abstract:

The use of digital simulations in education has been increasing post the COVID pandemic; Labster is one such technology that has expanded in its use in biomedical education. Labster is a virtual laboratory simulation that can be used to supplement traditional laboratory instruction. The purpose of this study is to capture student voice on the use of Labster in biomedical education.

Several studies have shown that virtual laboratory simulations can be effective in motivating students and improving their learning outcomes [1][2]. In particular, Labster has been shown to be effective in improving students' understanding of complex concepts in biotechnology and biomedicine [3]. Labster can also be used to supplement traditional laboratory instruction, allowing students to practice laboratory techniques and procedures in a safe and controlled environment [1]. If digital simulations are going to become a widely used education paradigm then the authentic student voice needs capturing to inform the continued use of simulations in biomedical education.

The use of Labster in biomedical education can also help to address some of the challenges faced by educators in this field. For example, the rapid pace of development in laboratory diagnostics can challenge the development of authentic laboratory experiences and influence the authenticity of the education experiences of students [3]. This study explores students voice around the challenges and motivations in the use of Labster digital simulations in their education. The study design uses a mixed method approach of structured Likert questionnaires and semi structured open interviews. The study was designed with a "students as partners" research method with questionnaires, interview questions and interviews performed by student interns who were peers of the interviewees. A design that seeks to minimise power relationship influences on the interview outputs of participants. The interview content was captures through automatic transcription software; a method for capturing authentic student voice whilst reducing capture and analysis burden that makes interview transcription a problematic study method. Analysis of student experience is paramount to the future of the use of online simulation in biomedical education. Methods of capturing authentic student voice are required to address the further development of online simulations as a frontline technique in biomedical education.

Keywords:

Labster, students as partners, simulations, biomedical education, student voice.

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