

Title of presentation

'Choose-your-own-adventure' Practicals: Remote & Authentic Learning in
STEM

Presenters

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Abstract

The COVID pandemic has changed the landscape of Higher Education (HE). With regulations easing and the return to face-to-face teaching encouraged across the majority of UK Universities, the pandemic has no doubt demonstrated the gap in student accessibility and has brought its own challenges with student engagement (Farrell & Brunton, 2020). Particularly within STEM, this becomes a challenge when training students in authentic practices which traditionally are taught within a lab environment. Understandably, virtual practicals were largely employed by HE Institutions during the pandemic to relay knowledge and skills usually delivered during these in-person practicals, however the lack of authentic experiences including the option for meaningful, live choices by the students usually offered in-lab, limits students' learning opportunities (Sonbuchner et al., 2021). With the relaxation of regulations, a return to in-lab practicals has become the norm, however it is clear that many students can still not avail from in-person practical learning experiences due to isolation, shielding, or engagement concerns, a suspected longer-term issue, therefore more sustainable and effective means of authentic, digital practices are required.

Research has shown that students engage more effectively in their learning, and thus adopt deeper-learning strategies, when they have more choice within their learning, as well as when they are exposed to more authentic scenarios related to their chosen profession (Quinn, 2005). In an online environment, students can achieve such scenarios through 'Choose-your-own-adventure' games where educators create a simulation for students to complete a series

of pre-designed tasks in an online environment by selecting an individual choice per task, whereby each choice delivers an individual result for the student (Holly & Phlypo, 2019). In this Pecha Kucha, I will quickly and visually present an online, 'Choose-your-own-adventure' scenario which was used to support the delivery and learning associated with a traditionally in-lab practical session for Biology undergraduate students. The scenario will be introduced and demonstrated, and the engagement of students discussed. The possibility for developing such examples, and their potential impact for authentic learning will be proposed.

References

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