Category: Teaching Techniques: Highlighting specific and/or novel educational methods

Title: Impact of Cross-Platform Approaches to Online Learning During a Pandemic

Authors: Crystal Cole, Jacob Aguinaga, Jeffrey Bennett

Submitted: 14 March 2022

The Division of Anatomical Sciences at Michigan Medicine partnered with the Center for Academic Innovation to develop a series of 4 Massive Open Online Courses (MOOCs) launched in 2017 and 2018 on EdX and in 2019 on Coursera. The 4 courses were designed to be a holistic, systems-based introduction to anatomy for learners of all educational backgrounds.

The Center for Academic Innovation soon expanded to FutureLearn, a third MOOC platform, and faced the urgent question, "How can we better create consistent experiences for learners across multiple platforms and what independent tools could we develop to enhance those experiences?" While exploring this question, the need for quality online learning experiences during the global pandemic increased drastically, and so, in the summer of 2020 we began migrating the Anatomy series to FutureLearn.

In contrast to assessment-based platforms like edX and Coursera, the FutureLearn platform is designed to support a pedagogy of social learning. It emphasizes course designs that tell a story and encourage conversations, while deemphasizing tests and encouraging broader assessment of applied knowledge. The original design of the Anatomy series created a 'guided study tool', with many tests and quizzes providing learners with practice opportunities for information recall and application.

During the iterative process of transforming the series to utilize a social pedagogy, we were faced with several important questions. How should we incorporate formative and summative assessment without using the platform's assessment tools? How do you ensure parity of different platforms certifications, given different assessment designs?

We assumed the goal of all learners would be to practice identifying various anatomical elements visually, with some pursuing professional or educational goals and others engaging for personal enrichment. We made a number of changes to the course design to align it with instructor, FutureLearn, and learner expectations. Topical tests originally designed as practice opportunities were replaced with weekly tests, and alternative options were provided for learners to practice recall, ask questions, and share feedback.

A diverse array of MOOC learners had consistently strong positive experiences with the courses that exceeded their expectations. In FutureLearn's post-course survey, over 95% of learners said that they'd gained new knowledge or skills by taking the course, and 73% of learners said that they've "shared what they learned with other people" (calculated as a weighted average of responses in the most recent course runs).

Understanding the unique philosophies of different MOOC platforms is vital to efforts to capture the essence and maintain the intention of the course when transitioning from one platform to another.

While we feel we successfully captured the original intent of the course, it became clear to us that an Anatomy course developed specifically for FutureLearn would likely look quite different than what we were able to create. Future opportunities for updates include combining shorter lecture videos, developing more specific discussion prompts, and diversifying content type. Because this course was designed and intended to serve as a guided study aid, we believe it would be beneficial to include non-video resources to encourage further self-paced study.