

# Chapter 16: Assessing at Scale In a Global Health MOOC

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## Summary

LSHTM delivered its first massive open online course (MOOC) in the field of global health in January 2015. Each free online course, delivered via the FutureLearn platform, has made use of a range of content delivery methods and learning activities.

With far greater numbers of learners than we are used to in a traditional context, it is important that the pedagogies employed are fit for purpose at a ‘massive’ scale and effective without tutor intervention; this is particularly true for assessment tasks. As such, it has been key to select methods that can mirror the course or educator voice, while being automated, and offer supportive feedback that motivates the learner towards the appropriate solution or outcome, at the same time as being rigorous enough to challenge learners’ understanding and application of material.

Multiple choice questions, with either single or multiple answers, and structured, pre-defined feedback can perform in such a way, and have therefore acted as the fundamental form of assessment throughout our courses.

## Implementation

Simple quiz activities have been employed at appropriate points throughout each free online course, and are targeted towards assessment of learners’ understanding of theoretical concepts rather than current or historical issues. Quiz questions require that students apply the concepts and understanding they have been exposed to, rather than demonstrate their retention. Every question also incorporates general and per option feedback that, in the case of an incorrect answer, implicitly and in a meaningful way signposts learners towards course material that is of use in seeking the correct answer. In the case of a correct answer, the feedback received is both targeted and formative, working to underscore the reasoning for the option to be correct and, where possible, extending knowledge through access to advanced material.

While these assessment activities are ultimately low stakes given that there are unlimited opportunities to yield the correct answers, an individual’s attempt and score do count towards the ability to purchase a Statement of Participation (attempt required only) or Certificate of Achievement (pass mark of >50%).

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## Benefits and Challenges

Multiple choice quizzes are a valid and worthwhile form of assessing learners at scale. They can address gaps in learners' understanding quickly and efficiently, and provide instantaneous feedback. However, a challenge common in the design of multiple choice questions in any context is to constructively align each quiz task to the teaching week's learning outcomes, and to instil effective question design techniques that target higher order thinking rather than recall. Nonetheless, for the staff involved this challenge became a benefit, with the training given in this area being applicable and transferable to their regular teaching and assessment practices.

## Take-Aways

A valuable paper with respect to effective use of multiple choice questioning is David Nicol's 'E-Assessment by design: using multiple-choice tests to good effect':

[http://www.reap.ac.uk/reap/public/Papers/MCQ\\_paperDN.pdf](http://www.reap.ac.uk/reap/public/Papers/MCQ_paperDN.pdf).

Another short blog post from the University of Sussex also targets quiz design in a practical fashion:

<http://blogs.sussex.ac.uk/tel/2015/08/04/effective-online-quiz-design/>.