Designing Learner-Centric MOOCs

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Lecture 28

Assessment

As an instructor, you would have used the LCM or the Learner-Centric MOOC model, to design learning dialogues, learning by doing activities, learner experience interactions and learning extension trajectories. Before implementing the MOOC, that is, before actually going ahead with the orchestration, you might have thought of how you would access your students in the MOOC.

Let us now pause for a moment, and try to answer this question: "which element of the LCM MOOC can be used for assessment?" LeD, LbD, LxI, LxT or some combination of these? You can respond to this question and after you are done answering the question you can resume.

The answer to this question is that all of these elements can be used for assessment. Let us examine these elements one by one and see how each one can be used for assessment. But, before we do that let us pause for a few minutes again and reflect on the purpose of assessment. As instructors, one goal of conducting assessment is for students to practice their skills and apply their knowledge. So that, we can continuously analyze their progress and this can be used to improve learning as well as improve teaching.

Such assessment is ongoing and frequent and a key element of such assessment is feedback to the learner and feedback to the teacher that helps them improve this teaching and learning process. Assessment for such a purpose is called assessment for learning or formative assessment. Another reason we do

assessment as instructors is, so that students can demonstrate the achievement of their knowledge and skills.

Such assessments describe what a student is able to do and what we value in a course? Assessment for such a purpose is called assessment of learning or summative assessment. Let us now see, how the elements of an LCM MOOC can be used for formative as well as summative assessment. Let us first consider LeDs or learning dialogues. LeDs contain the content of the topic but an LeD is not information transmission of the content.

The main goal of an LeD is to promote concept acquisition by the learner through interaction. This interaction happens via one or more reflection spots in each LeD, wherein learners express their thinking, express their prior conceptions, articulate their reasoning, get opportunity to do micro practice and reflect upon their own actions. Then, the instructor gives collective feedback to the various possible responses related to the reflection spot question.

Thus, LeDs via the embedded reflection spot activity can be used for formative assessment. Let us now focus on LbDs or Learning by Doing. Learning by doing is a formative assessment activity. Feedback is a key component of formative assessment. When learners answer an LbD activity, they get customized and rapid feedback on their response that guides them to improve their learning. Can LbDs be used for summative assessment too?

At its core, an LbD activity contains a question designed by an instructor which the learners answer in a variety of ways. There is also a mechanism for checking and giving feedback to learners' responses. Thus, an LbD activity can be used as summative assessment.

What are possible formats of LbDs? One common format is a multiple choice question. A learner responds to the various choices of the question and the system provides automatic feedback on each choice. The feedback to LbDs in an LCM MOOC are customized and detailed, they go beyond telling the learner

whether he or she was correct or wrong. In fact, they help the learner understand the reason for why their answer might have been wrong and how they could have improved.

However, many of you may be wondering now, that multiple choice questions are not enough. You may want to go beyond and include longer questions such as problems, design activities, reasoning questions and so on. LbDs, in fact, can go beyond multiple choice questions and can include longer complex questions.

Now, the next thing you may be wondering is about the feasibility of longer questions and especially about assessing such longer questions in large massive MOOCs. So, let us see how this can be done. One recommended technique is to provide peer assessment with rubrics, that is, rubrics that contain detailed criteria for various levels of performance to the question. Many MOOC technology platforms have functionalities for peer assessment, as well as to provide grading using rubrics.

Let's now move to LxI or Learner Experience Interaction, whose purpose is to cultivate peer learning via focused discussion. Each LxI contains a focus question which drives the discussion thread, followed by a reflection quiz, whose main purpose is to ensure that learners have participated in the discussion thread. The reflection quiz contains questions based on the discussion thread and can be graded. Thus, reflection quizzes in LxIs can be used as summative assessment activities.

Let's now examine how LxT's or Learning Extension Trajectories can be used for assessment. LxTs advanced learning along diverse paths. Instructors provide learners with a wide variety of learning resources. Learners can access the resource of their choice based on their needs and their interests and so on. Following that, learners have to answer an assimilation quiz, whose goal is to ensure that they have indeed gone through one or more LxT resources.

The assimilation quiz contains a few simple questions based on the resources in the LxTs. Hence, learning extension trajectories can be used for summative assessment. To summarize, the various elements in a Learner-Centric MOOC model, LeDs, LbDs, LxIs and LxTs can be used for assessment, both formative and summative. These elements can be used to design assessment in different formats, both short or multiple choice type of questions as well as longer questions. As a Learner-Centric MOOC instructor, identify assessment functionalities provided by the MOOC platform and leverage these functionalities to design both formative and summative assessment. Use certain known techniques to provide effective customized feedback to shorter multiple choice questions. Exploit the power of peer learning and use peer review as a mechanism to tackle scale, while assessing longer questions such as problems.