Investigating learners' views of assessment types in Massive Open Online Courses (MOOCs)

Tina Papathoma, Canan Blake, Doug Clow, Eileen Scanlon

Institute of Educational Technology, The Open University, U.K.
{Tina.Papathoma,Canan.Blake,Doug.Clow,Eileen.Scanlon}
@open.ac.uk

Abstract. Massive Open Online Courses (MOOCs) are changing the contours of the teaching and learning landscape. Assessment covers an important part of this landscape and may be a key driver for learning. This paper presents preliminary results of a qualitative study that investigated learners' views on assessment types within a MOOC. A thematic analysis of thirteen observations from online interactions in a MOOC Facebook Group and twelve online interviews from learners in the same MOOC reveals that participants identify benefits in peer assessment but they prefer automated assessment as an already-known type. Self-assessment was not preferred by these learners. They reported that clear guidance assists them to carry out peer assessment more effectively. Some learners favored the combination of assessment types, as each of them serves a different purpose for their learning. The socio-cultural influences of assessment on learners' views emerged as a theme and will be considered for future research.

Keywords: Assessment, MOOCs, Learners' views, Peer assessment, Self-Assessment, Automated Assessment

1 Overview

MOOCs are a fast-growing phenomenon which attract continuous research and discourse as their numbers grow and they are of interest to the educational community [1]. MOOCs are used globally to provide millions of learners with access to education [2]. Assessment is also part of the learning process as it motivates learners and provides the necessary feedback on their performance so that they can track their learning progress [3]. Along the same lines assessment is considered as a process of measuring a person's knowledge, comprehension and skills [4].

The types of assessment, in the MOOC context, that are mostly discussed in the existing literature are auto-assessment, peer-assessment and self-assessment [5,6,7,8] and therefore are the types under investigation in this study. The voice and the standpoint of learners about the different assessment types in MOOCs are not prominent in

the current literature and further research is required. Therefore, the aim of this study was to answer the following research questions:

- How do learners view the different types of assessment in MOOCs?
- How effective do learners feel each type of assessment is in their learning?

This study took a qualitative approach, employing thirteen observations of online interactions in a MOOC Facebook Group of a Behavioral Economics course set up by the course educators, as well as twelve online interviews with learners on the same course. Further information of interviewees is shown in Table 1. This study followed the Ethical Guidelines from the British Educational Research Association and Association of Internet Researchers, and sought and obtained approval from the Open University Human Research Ethics Committee.

Table 1. Participants information

Participant identifier (pseudonyms)	**Age Range**	**Country of origin**	**Higher Education Qualifications**	**Level of Experience – number of courses completed**	**Courses Enrolled and Dropped out**
Filippos	20-30	India	MBA	High/10	None
Orestis	20-30	Brazil	BA	High/14	None
Aris	51+	Canada	MA	High/20	None
Danae	31-40	Australia	MA	Moderate /4	None
Maya	20-30	Greece	MA	Moderate/3	2
Dionysus	31-40	Russia	MA	Moderate/ 3	None
Niobe	20-30	Greece	MA	Limited/2	Several in the past before completing these 2
Antigone	31-40	Venezuela	MA	Limited/2	None
Elpi	51+	US	MA	Limited/1	None
Melpo	51+	Denmark	BA	Limited/1	None
Calypso	20-30	US	BA	Limited/1	Several in the past
Hermes	20-30	Colombia	BA	Limited/2	None

This small sample of interviewees is not necessarily representative of the many millions of learners and the diversity of their contexts, but themes and issues were investigated to be explored in more detail later. The data collected from the interviews and observations were analysed using thematic analysis [9]. The Facebook Group where the online interactions were observed had more than 200 posts when the course was live and the analysis was carried at the end of the course. I was a member of this group. Facebook posts from the course that were related to assessment were manually filtered and saved in separate files. The key words used to filter the Facebook posts were: ‘assessment’, ‘peer’, ‘self’, ‘automated’ and ‘assessment issues’. Only 13 posts were related to assessment. The data from posts and interviews were read repeatedly by one researcher, initial codes were generated and quotes of the participants were highlighted. The codes contributed to creating themes that were then reviewed.

The Behavioral Economics Course in which all the participants were enrolled ran for six weeks and consisted of video lectures, automated quizzes (no time limitation, with multiple attempts), peer-assessed writing assignments, self-assessment, and a final exam (with just one attempt with time limit). Some of the themes -from the interviews and observations- that captured data in relation to the research questions are:

- Assessment value
- Types of assessment
  - Automated Assessment
  - Peer Assessment
  - Self-Assessment
- Assessment preference
- Peer Assessment Issues

2 Preliminary Results

The preliminary results of the interviews and the observations of this qualitative study shows that the majority of the interviewees made statements indicating that assessment drives their learning [3] and they valued each type in various ways. Each assessment type served a different purpose for learners. They reported that automated methods tested their memory and knowledge, giving them the opportunity to revise and see wrong and correct answers, crystallizing what they learned while giving them a feeling of accomplishment. They reported that peer assessment exposed them to others' ideas and was a powerful way to understand some concepts more deeply, despite the fact that some learners were negative about the process of assessing their peers' work because they found it time consuming, unfair or they felt that a language barrier made it hard to assess their peers' work. Finally, learners reported fewer benefits in self-assessment. The benefits they reported were related to self-assessment's role in assisting to the improvement of their own work and in contributing to the enhancement of their learning experience. Interviewees also reported that the combination of different assessment types could also have positive effects on students' learning because each of them serves a different purpose and provided that each assessment type is well designed, they can reinforce each other. Most students reported that they preferred automated methods while only a couple preferred peer assessment and none had self-assessment as a first preference.

Some interviewees also reported the view that expertise is needed for peers to assess other peer's work, with a notion that papers should be marked by a "respected superior". Learners came from different countries (as shown in Table 1) and educational systems, and may have been expecting a certain set of conventions based on their previous experiences. Further analysis is needed of problems that learners encountered.

An unexpected theme that emerged from this study is the socio-cultural influences of assessment in learners' views. MOOCs learners come from various educational systems and they may have different expectations. It is reasonable to assume that

educational systems in different countries have specific norms or conventions that are used in teaching and learning environments. As a result, assessment may elicit different responses and needs to be considered in the next steps of this study in the context of the global offer of MOOCs. When designing assessment in MOOCs it is important to also take into account the cultural differences of the students. MOOCs designers need to examine students' views and prepare them for learning in a global setting.

Conclusions

The preliminary findings of this study suggest that assessment in MOOCs can be considered from different perspectives (i.e. learners' expectations, prior educational experience, prior MOOCs experience etc.) and that learners perceive different benefits depending on whether they are assessing, being assessed, or are self-assessing. Moreover, learners from different backgrounds and intentions may value assessment in various ways and a more intensive exploration of the socio-cultural aspect may assist in examining that further. In this way, MOOCs designers and educational researchers will have a better understanding of how learners perceive the different assessment types and this will enable them to tailor assessment to learners' needs to enhance the learning experience.

References

1. Clow, D.: MOOCs and the funnel of participation. In: Proc. of the Third Learning Analytics & Knowledge Conference at Leuven, Belgium, pp. 185-189 (2013)
2. Ferguson, R., Clow, D.: Examining Engagement: Analysing Learner Subpopulations in Massive Open Online Courses (MOOCs) In: Proc. of the Fifth Learning Analytics & Knowledge Conference at Poughkeepsie, NY, USA, pp. 51-58 (2015)
3. Rowntree, D.: Assessing Students: How shall we know them? Kogan Page, London (1987)
4. Chao, K.J., Hung I.C., Chen, N.S.: On the design of online synchronous assessment in a synchronous cyber classroom. Journal of Computer Assisted Learning, 28 (4), 379-375 (2011)
5. Vogelsang, T., Ryppertz, L.: On the validity of peer grading and a cloud teaching assistant system. In : Proc. of the Fifth Learning Analytics & Knowledge Conference at Poughkeepsie, NY, USA pp. 41-50 (2015)
6. Raman, K., Joachims, T.: Bayesian Ordinal Peer Grading. In: Proc. of the Second Learning @ Scale Conference at Vancouver, BC, Canada, pp. 149-156 (2015)
7. Balfour, S.P.: Assessing Writing in MOOCs: Automated Essay Scoring and Calibrated Peer Review. Research & Practice in Assessment, 8 (1), 40-48 (2013)
8. Wilkowski, J., Russel, D. M., Deutsch, A.: Self-evaluation in advanced power searching and mapping with google MOOCs. In: Proc. of the First Learning @ Scale Conference in New York, USA, pp. 109-116 (2014)
9. Braun V., Clark, V.: Using Thematic analysis in psychology. Qualitative Research in Psychology, 3 (2), 77-101 (2006)