Blended MOOCs: university teachers' perspective

Laia Albó, Davinia Hernández-Leo, Miquel Oliver

Universitat Pompeu Fabra, Barcelona, Spain
{laia.albo, davinia.hernandez, miquel.oliver}@upf.edu

Abstract. Blended Massive Open Online Courses (bMOOCs) have arisen as a blended learning strategy that combines the use of MOOC platform-supported activities and video-based content with in-class face-to-face activities in Higher Education contexts. While first bMOOCs experiences are being reported in the literature, it is unclear which is the general perception of this approach by university teachers. This paper presents a survey study among 43 professors planning or already involved in the creation and use of MOOCs in their institutions. Results indicate a high level of acceptance. Flipped learning is the hybrid methodological approach preferred, but other approaches are also highlighted. Barriers and difficulties are mostly institutional and technological but also pedagogical.

Keywords: MOOCs, Blended Learning, bMOOCs, Blended MOOCs, Higher Education, Methodology, Professors

1   Introduction

Massive Open Online Courses (MOOCs) are playing an important educational role in higher education [1], but further research is needed to assess the quality of these courses and adopt suitable teaching strategies to promote a more personalized and scaffold learning and provide some type of reliably and valid certification [2] [3]. Blended MOOCs (bMOOCs) have recently emerged as an alternative model to merge traditional and online strategies for better teaching and learning in higher education contexts [2]. This new approach uses MOOC content and activities as part of courses also supported by face-to-face (f2f) sessions, leading to diverse types of hybrid methodological combinations. One of them is flipped learning or the flipped classrooms that suggest learners first to view MOOC videos at home and afterwards enacting f2f discussions in class [4]. However, there are several ways of combining f2f and digital learning [5] [6]. Then, each context and learning objectives requires first to identify the best hybrid model that can take advantage MOOCs in effective, efficient, and engaging ways [6]. Moreover it is crucial to explore the acceptance level of this novel methodology by the professors in charge of the course and identify the main entry barriers.

This paper aims to answer four research questions around professors' perception regarding bMOOCs: (RQ1) What is the level of acceptance of this methodology by university teachers? (RQ2) Which are the main barriers to entry? For those who are thinking in using this strategy, (RQ3) which model of bMOOC methodology they plan to use? And (RQ4) which difficulties do they foresee? To answer these questions, the paper reports a survey study that collects the opinion of professors planning or already involved in the creation of MOOCs.

2   Methodology

This study uses a survey research methodology in order to acquire a detailed view of the meaning of the phenomenon for individuals [7]. Participants were university professors and support staff who participated in a specific workshop about MOOCs. The workshop was focused on how to create a MOOC in Open edX environment [8]. Blended learning approaches with MOOCs were not explicitly discussed as part of the workshop. It took place in the Universitat Autònoma de Barcelona, the 19th of May of 2015, in the context of the Catalan universities MOOC platform (UCATx) [9] conference. In total there were 53 participants, 43 of them were thinking of making a MOOC, or they already had developed one. Therefore, the final sample of this study was 43. To collect both quantitative and qualitative data sequentially, it was used an online questionnaire – which was sent to the participants several days in advance of the workshop by email – with open- ended and close-ended questions. Hence, a quantitative and descriptive qualitative data analysis was also applied.

3   Results and Discussion

3.1   Wide acceptance

An important number of the professors – 14 out of the 43 responses (32%) – do plan to use their MOOCs to also support their formal university f2f courses (Table 1). However, in most cases – 17 (40%) –, professors did not consider that, as it will be shown below, due to the novelty of the methodology. Despite that, 100% of the professors who did not consider the blended strategy believe they could use bMOOC in the future – 65% without conditions, 17'5% if the institutional barriers are overcome and 17'5% if the technological barriers disappear –.

The rest of the respondents –12 out of 43 (28%) – did not have f2f classrooms therefore they can not follow the proposed approach. In no case, the use of a blended methodology was rejected after being considered as a possible option. With these results and answering the RQ1, it can be affirmed that bMOOCs are widely accepted by the professors participating in this survey

Table 1. Participants' considerations of using their MOOC as part of their traditional courses.

Have you considered using your MOOC in your f2f classrooms?	#	%	
I did not consider this possibility.	17	40	
Yes, I will use the MOOC in my f2f classes.	14	32	
I do not have access to f2f classrooms.	12	28	
I considered this option but finally I will not use it.	0	0	28

3.2 Main entry barrier: still a very novel approach

Most participants – 10 out of the 17 (60%) – did not consider using bMOOC because they did not think of / know about the possibility of using their MOOC in their f2f classes. The other reason of not considering a blended approach with MOOCs – that 2 of the 17 participants manifested (11'8%) –, was the potential institutional barriers in accepting the introduction of new methodologies in class. Only one participant (6%) of those who did not consider bMOOC, was because of the potential difficulties that can arise when combining different learning platforms, for example, the university platform with MOOC platform. Moreover, one respondent exposed his own answer, which is that she or he conceives MOOCs as external teaching endeavors. In no case, the reason for not taking in consideration the bMOOC approach was due to the perception that students will refuse this methodology or because of the belief that materials prepared for a MOOC are not useful for f2f classrooms. Concerning the RQ2, the main entry barrier identified is the novelty of the methodology. Most of professors do not know the possibility of using their MOOCs in classroom, however, they manifested that they could use it in the future.

3.3 Blended MOOCs implementation and foreseen difficulties

Concerning the percentage of MOOC content which will be used by the professors in the traditional classrooms: in most cases – 6 out of 14 (43%) – all MOOC content will be used as part of the f2f classrooms, whereas 5 out 14 (36%) of professors will use the online content partially. In only 3 cases (21%) they will simply recommend the MOOC as complementary material. In relation to RQ3, flipped classroom approach was the most voted by the respondents (29%) when it was asked to them how will use the MOOC in their traditional classes. A 5% will use the contents in class hours as a support material. Also a 5% will offer the MOOC to the students who fail the course and have to face exam preparation that they will make it a few weeks or months later. Some of the professors (4%) did not still know how they will use the MOOC whereas the same number (4%) will base their f2f classes in their massive open online course.

However, participants who are planning to use their MOOC in a blended approach identified some possible foreseen difficulties (regarding the RQ4). Technological problems: related to MOOC and university platforms, lack of simulation or design

activities as well as automatic evaluation related to special subjects as electronics and possible problem to assure reliably evaluation in a continuous assessment. Institutional barriers: budget and low future vision related with innovation processes. Issues related to professors: low institutional support, low motivation and involvement in new learning methodologies and high effort to introduce novel methodologies and produce new high quality content in new formats. Issues related to the students: lack of self-discipline and perseverance in autonomous work. Legal aspects: rights of authorship (images, videos…etc.).

4 Conclusions

Despite being a new blended learning strategy, bMOOCs show a high level of acceptance by the professors. In order to reduce the main entry barrier, related to the novelty of the approach, it could be appropriate to provide guidance and models to the professors to unveil good practices shaping hybrid pedagogies. Further research, with a larger sample and analyzing bMOOCs case studies, is necessary in order to offer deeper insights and understanding. Results also indicate the need for research on how to reduce the technological, pedagogical and institutional problems that appear when implementing bMOOCs in Higher Education.

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