Instructor Experiences in Designing MOOCs in Higher Education: Considerations and Challenges

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Introduction

Higher education instructors consider MOOCs as an opportunity to reach more people from diverse backgrounds (Hou & Cheng, 2014; Watonnet et al., 2016). Meanwhile, MOOCs have faced criticisms, including insufficient and low-quality instructional design (Ferreira, 2014; Margaryan, Bianco, & Littlejohn, 2015). Instructional design is critical for online learning (Johnson & Aragon, 2003; Phipps & Meriols, 1999), including MOOCs. Instructors are one of the five main components of MOOCs, the other four are learners, topic, material, and context (Koo, 2011). However, few studies have examined instructional design and the delivery of instruction using MOOCs from instructors’ perspectives (Margaryan et al., 2015; Ross, Sinclair, Kote, Bayne, & Macleod, 2014; Watson et al., 2016); especially lacking is research on the design considerations and challenges from MOOC instructors’ perspectives (Tyagavamananda et al., 2012; Ross et al., 2014; Veletsianos & Shepherdson, 2016; Watson et al., 2016). Thus, to better understand instructors’ design experiences in MOOCs and provide suggestions for future MOOC instructors, this study examines MOOC instructors’ design considerations and challenges.

With this purpose, this study was guided by the following three research questions:

1. What are the design considerations of instructors when designing MOOCs?
2. What challenges do instructors perceive when designing MOOCs?
3. How do instructors address the challenges that they perceive related to MOOCs?

Methods

To explore instructors’ considerations and challenges when designing MOOCs, this study used a sequential mixed methods design (Creswell & Clark, 2007). More specifically, we used the following mixed methods approach was used for sequential triangulation and enabled the researchers to have both an overall picture from a large number of participants and rich descriptions of the phenomena.

Results

Demographic information

The participant instructors (n=143) have diverse subject backgrounds, including medicine and health (16%), computer science (14%), education (11%), language and literacy (8%), business (6%), and engineering (6%). Among these 143 instructors, more than half of them (i.e., 58%) had taught one MOOC, 25 instructors (17%) had taught two MOOCs, 20 instructors (i.e., 14%) had taught three MOOCs, and 15 instructors (11%) had taught four or more MOOCs before.

Table 1 Data collections and analyses

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Table 1 Data collections and analyses

Figure 1: MOOC Design Considerations (out of 139)

RQ2. What challenges do instructors perceive when designing MOOCs?

Assessment methods; Engaging students’ learning; Time limitation

Figure 2: Design challenges faced by the MOOC instructors (out of 143)

Assessment methods

Engaging students’ learning

Strategies to engage students’ active participation

Time limitation of designing MOOCs

Strategies to engage students’ active participation

Compressing the content into short sessions

Personalizing students’ learning

Recording video

Tracking students’ learning progress

Technology support

Strategies to encourage students’ learning

Conclusion

This exploratory mixed-methods study examined instructional design considerations and challenges from the perspective of MOOC instructors. The study found a variety of design considerations and challenges in MOOC design in terms of resources, pedagogy, and logistics. Pedagogical aspects were the primary design considerations as well as challenges. The strategies instructors used to address the challenges in MOOC design were identified.

This study offers new insights into MOOC design considerations and challenges as well as ways to address these challenges. The results may inform instructional designers, instructors, and other stakeholders of what should be considered in the design of MOOCs and how to address these challenges. The online surveys and interviews were just the first steps in the process. Deep course reviews, follow-up course observations, and inquiry into learner perspectives (e.g., retrospective analyses of learner behavior in the MOOC) will further inform the methods that can lead to the design of more effective and engaging MOOCs.

References