Higher Education Faculty Experiences in Teaching MOOCs (Massive Open Online Courses)

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Abstract: Given the rapid development of technology in the education domain, unprecedented growth of online education was seen as one of the most dramatic recent developments in postsecondary education in the United States. MOOCs (Massive Open Online Courses), as an emerging educational innovation in the field of online education, have successfully garnered attention from the academic community. Studies in MOOCs primarily focus on learner perspectives, context and impact, and design. Little is found on the experience of MOOC instructors. This mixed methods study employs survey and semi-structured interviews as instruments to explore the teaching experience of faculty in higher education who taught a MOOC or are currently teaching a MOOC via edX (a MOOC platform founded in the United States providing over thousands of online courses in a wide range of subjects) in three aspects: motivations, instructor roles, and lessons learned from delivering the MOOC. Since this is an in-progress research, data collection of both quantitative and qualitative strands is in the process. Preliminary findings will be available in early September.

Keywords: MOOCs, faculty, higher education, edX

INTRODUCTION

Computer technology and the World Wide Web have altered the education landscape (Akdemir, 2008; Schiffman, Vignare, & Geith, 2007). Given the rapid development of technology in the education domain, unprecedented growth of online education was seen as one of the most dramatic recent developments in postsecondary education in the United States. MOOCs (Massive Open Online Courses), an emerging educational innovation in the field of online education, first appeared in the US higher education community in 2008 and developed rapidly since 2012 (Barnes, 2013; Jacoby, 2014; Sandeen, 2013). Since 2010, MOOCs have successfully garnered attention from the academic community, and many postsecondary institutions have adopted MOOCs to help meet the increased demand and need for online courses at higher institutions (Allen & Seaman, 2007; Gaebel, 2014; Liyanagunawardena, Adams, & Williams, 2012).

Current estimates suggest that the number of postsecondary faculty engaged in online education was as high as between one-fourth and one-third of all faculty (Mayadas, Bourne, & Bacsich, 2009; Seaman, 2009). The Chronicle surveyed 103 professors and found that the majority of professors who taught a MOOC had no prior experience with online instruction (Kolowich, 2013). Previous studies showed that faculty members who decide to teach online might not be prepared physically or mentally (Bower, 2001). Many instructors adopt the same pedagogy from their traditional classroom to teach online courses, as they perceive that teaching online is merely a change of environment (Choi & Park, 2006). Lacking knowledge of instructional design could impede faculty in efforts to design a quality online course (Akdemir, 2008). The experience of running MOOCs is different from either traditional classroom or teaching online because the scale and open nature of MOOCs changes the locus of control (Walker & Loch, 2014). Managing MOOC's massiveness was described as a challenge in the literature (Hokanson & McCluske, 2014; Ross, Sinclair, Knox, & Macleod, 2014).

While faculty members' experiences with designing and teaching online courses are well documented in online environment, similar studies regarding MOOCs are missing. This study aimed to understand the teaching experience of the higher education faculty members who taught a MOOC or are currently teaching a MOOC via edX (a MOOC platform provided over thousands of online courses in a variety of disciplines). More specifically, the goals of this study are identifying the factors that influence higher education faculty to get involved with MOOCs, understanding the nature of faculty roles and the complex issues involved in delivering MOOCs, and

exploring lessons they learned from the experiences of delivering MOOCs.

Self-Determination Theory (Ryan & Deci, 2017) and Instructor's Roles Model (Berge, 1995) were used to guide this research study and answer six research questions: 1) what intrinsic factors motivate higher education faculty to teach a MOOC? 2) what extrinsic factors motivate higher education faculty to teach a MOOC? 3) what are faculty experiences teaching a MOOC? 4) How do higher education faculty describe their decision-making process in terms of participating in MOOCs? 5) what are the roles and experiences higher education faculty encounter in delivering a MOOC? 6) what lessons have higher education faculty learned through the experience of teaching a MOOC?

RESEARCH DESIGN

A mixed methods approach, consisting of two distinct phases (quantitative and qualitative), was used to answer the research questions in this study (Creswell & Clark, 2007). Online surveys and semi-structured interviews were employed as the primary instruments for collecting responses from potential participants respectively for quantitative and qualitative phases. The target population in this study was higher education faculty members who have taught MOOCs previously or are teaching a MOOC currently through edX. A criterion sampling strategy was adopted to generate a list of qualified participants containing information such as their institutional emails, course name, offer date, and etc.

An email including an online survey link was sent to potential survey participants inviting them to participate in the quantitative phase. The consent form was embedded into the first page of the online survey for participants to view and sign. Google Forms was used as the tool for collecting and saving responses. Meanwhile, another email was sent to potential interview participants inviting them to participate in the qualitative phase. The consent form was emailed to these participants who responded to take part in requesting their signatures and permission to record the audio prior to the interview. The researcher used ZOOM to meet these interviewees online for the semi-structured interviews. An interview protocol was developed with open-ended questions.

LIMITATIONS

Different sample sizes will be adopted for the quantitative and qualitative data in this proposed study for different purposes (generalization vs. in-depth understanding). Hence, unequal sample sizes will be employed in this research. The size of the quantitative sample will be larger than the qualitative sample due to the different intents for these two phases. The qualitative phase will be limited to a small number of participants to develop an in-depth understanding, however they may not be representative of the larger group of MOOC instructors.

The findings derived from this study will have limited ability to be generalized to all institutions of higher education because the participants selected for this study will not necessarily represent faculty members at all universities.

Focusing on edX (one single MOOC provider) in United States can be perceived as limited in scope for a study of this type. Care should be taken in generalizing the results and recommendations.

Subjectivity can be considered as another limitation in this study from both interviewee and interviewer point of view.

IMPLICATIONS

Of the studies published related to MOOCs, many focused on student participation and experience, rather than on instructors. Little was known about higher education faculty members' experiences while designing, developing and delivering MOOCs. It is critical to understand their experience and perceptions in terms of teaching MOOCs.

The findings of this study will enrich the current literature on higher education faculty development, and facilitate best practices in supporting MOOCs. The results of this study will contribute to a deeper understanding of the motivating factors that influence faculty members' decisions to adopt teaching in MOOC environment. The results of this study may be of use to inform administrative decisions about MOOCs and help higher education faculty considering MOOCs to better understand the role shifts involved, and inform design for better facilitating MOOC learning.

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