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UNDERSTANDING STUDENTS' EXPERIENCE ON MASSIVE OPEN ONLINE COURSES (MOOCS): AN EXAMINATION OF COMPLETION AND BARRIERS

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ABSTRACT
Although Massive Open Online Courses (MOOCs) are seen as a novel educational resource and have more conveniences than a traditional classroom (Dyer, 2014) and many tertiary schools have decided to invest in them because of their unique features like massiveness, openness, machine, and peer assessment, which attract plenty of participants and researchers, there are still many questions prone to MOOCs to be answered. Hence, through a case study employing text analysis of interview transcripts, I revealed the genuine voices of participants and landed an insightful understanding of learners' definition of MOOCs completion, and identify barriers that impact their completion experienced by students participating in MOOCs. The study was conducted during the Summer semester of 2022 at a Vietnamese university. Fifteen participants were interviewed and these participants varied in experience with subject matter and majors. Results indicated that various definitions of completion of MOOCs were identified, and barriers preventing students from achieving the completion were also revealed. These findings are supplemented with illustrative quotes from interview transcripts and compared and contrasted with earlier findings reported in the literature, and therefore this study contributes to the field by offering the learners' voices.

Keywords:
Moocs, Moocs completion, barriers, EFL students, content analysis

INTRODUCTION

The incorporation of advanced digital technology has dramatically altered education. Especially, the introduction of MOOCs, massive, open, online classes with the purpose to offer an innovative educational model. In addition, MOOCs were introduced by several organizations like Coursera, Udacity, and EDX in 2011 to enhance the idea of the long-learning process as well as to provide learners with skills and knowledge. Despite the novelty of this type of education, MOOCS have been known as enormous attrition. For instance, the dropout rate is high, specifically only around 5% to 15% of students completing the course(Kolowich, 2013c; Daradoumis et al., 2013). Likewise, MOOCs are notorious for not recruiting student interests, low motivation of students and lacking payment incentive (Koller, Ng, Do & Chen, 2013; Kolowich, 2013c; Lindeore, 2013). This has made MOOC developers and providers, as well as higher education administrators to question the value and purpose of MOOCs (Kolowich, 2013f).

In Viet Nam, the first firm to operate a MOOCs portal which includes lots of courses with various disciplines was GiapSchool in 2013. Two years later, FPT joined the race via another start-up project named FUNiX. More specifically, FPT University is known as one of the first institutions to apply this type of method, but the dropout rates are rather high with 30%. Therefore, this paper attempts to find out the experiences of students in MOOCs at FPT University in Can Tho. Its findings are also expected to identify how students define completion, and find out barriers causing courses' incompletion. Thanks to the findings, the students, lecturers, and boards of leaders will have a deep look about MOOCs, and this also helps university authority understand students' wishes to improve the quality and effectiveness of this platform, and find out students' problems when using MOOCs. To fulfill the research objectives, the two research questions were raised as follow:
RQ1: How do students define completion?

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RQ2: What perceived barriers prevent students from achieving MOOCs completion?

LITERATURE REVIEW

Moocs

Massive Open Online Courses (MOOCs) is originally from the word " massive" which means a sort of education for a large-scale of learners; the word" open" denotes that anyone is welcomed for these free and open courses; the word "online" alludes that the courses are taught on the internet through interactive resources such as videos, presentations, and audio (Kesim & Altınpulluk, 2015). Additionally, according to Chen (2014), they are viewed as a technique of imposing a new perspective on digital teaching and learning processes. In the current study, a MOOC is defined as a course designed to build up an educational environment through online sources (videos, assignments, and quizzes), applying distance education pedagogical methodologies (networked learning methods, connectivist approaches), and delivering assigned instruction through the Coursera platform to numerous learners.

Completion

The completion rate is always a useful indicator to compare across a variety of MOOCs and in relation to MOOCs, 'dropout' generally refers to those who failed to complete a course. According to Koller et al. (2013), for the most part, completion rate (student retention) has been defined as the percentage of those among the original registrants who successfully finish the course according to the instructor's requirements. To put it simply, the completion rate is when the learner completes the MOOC course according to the specified standard and specific learner's goal. In this sense, it is the same vein as Jordan (2014) who found completion rates were defined as the proportion of students (out of total the student enrolled for each course) who fulfilled the course requirements and received a certificate. Recognizing the significance, Koller et al., 2013 recommended that the completion rate should be changed to the learner's learning intentions as a typical measurement of success. According to Markoff (2013), while thousands of people sign up for MOOCs, only a tiny percentage ultimately complete them. For instance, MOOCs' poor completion rates have been criticized for often being below 10% (Jordan, 2013; Rivard, 2013). Bioelectricity at Duke University (Belanger & Thornton, 2013) enrolled 12,175 students in the Fall 2012 semester. However, only 7,761 students viewed a video, 3,658 students completed a minimum of one quiz, 345 students tried the final test, and only 313 students received a certificate. The typical dropout rate is believed to be between 91% and 93%. Likewise, Meyer (2012), the dropout rates of Stanford, MIT, and UC Berkley MOOCs were 80% to 90% and just 7% of the 50.000 students that took the Coursera-UC-Berkeley Software Engineering course completed it.

Types of MOOC learners

MOOC learners are divided into two major categories, according to Koller et al.: "browsers"- those who have interest but do not take part in first class or participate for a week then disengage and "committed learners"- who prefer to stay throughout the duration of the class. They also categorize "committed learners" into three groups which are passive participants, active participants, and community contributors. First of all, passive participants watch lecture videos on a regular basis but seldom interact in course forums and may only try a few exercises. Meanwhile, active students eagerly finished course content by completing assignments, and quizzes, and taking an interest in peer review and graded exams in order to receive a Statement of Accomplishment. Community contributors take part in courses as well, but they are particularly interested in developing new material, participating in forum debates, and contributing to the benefit of the community.

Barriers of completion

Although MOOCs provide an opportunity to study without any barriers to admission and learning MOOCs is incredibly convenient and free, this does not imply that MOOCs learners do not experience challenges in finishing them, and in certain cases, learners are under no duty to complete the course because it is free. I discovered barriers from individuals (the barrier of basic subject knowledge and skills, and the barrier of lack of prior MOOC experience or bad experience) and others barriers such as lack of time, lack of interactivity, lack of

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motivation, lack of infrastructure, and internet access from previous studies that prohibit students from finishing the course. First and foremost, the barrier of basic subject knowledge and skills. In an online course, a student's basic knowledge and skills are critical to success (Semenova & Rudakova, 2016). This demonstrates that learners have taken serious steps to prepare for the course; as a result, they will be better able to comprehend the material and complete the course. According to Khalil & Ebner (2014), due to lack of the necessary knowledge and skills, many learners are unable to complete the course. Furthermore, because the majority of the courses are given in English, students who have a strong linguistic background will do better. Besides technological skill, reading and writing abilities are essential in MOOC learning since most communication is through text (Khalil & Ebner, 2014). Students are not prepared ahead of time, they will have trouble learning, understanding, and processing the content, which might lower students' enthusiasm to study and lead to dropout. Secondly, the barrier of lack of prior MOOC experience and bad experience. It is necessary to be familiar with the manner of online learning in order to begin an 9 online course and assist learners in completing a MOOC. This gives students more confidence in their ability to finish the course and not be shocked by this new learning style, which is significantly different from the old manner of learning that leads to dropout. As a result, students having previous MOOC expertise will have a greater probability of finishing the course (Semenova & Rudakova, 2016). Moreover, previous bad experiences are also a barrier to learners to continue participating in MOOC courses (Onah, Sinclair, & Boyatt, 2014). Participants that had experienced failures or discouragement in their previous efforts in the subject, as well as improper peer attitude in forums; a lack of attention and cooperation in forums, etc. Those experiences affect participants' intention to complete the courses. Thirdly, the most frequently mentioned barrier was a lack of time. Research undertaken by Shapiro et al. (2017) found that a lack of time is a barrier to students studying in MOOCs. Students will be distracted between how they have time to complete MOOCs and the demands of their daily lives. Likewise, Chen and Chen (2015) discovered that university students struggled to balance their time between MOOC studying and their daily schedule at school. Next, is the barrier of lacking interactivity. According to North et al. (2014), the interactivity barrier may become an impediment that prevents learners from completing MOOCs. Thousands of students are normally enrolled in the same class, but they are unfamiliar with one another (Kennedy, 2014). As students study in traditional classes, many topics are discussed and considered from a variety of perspectives. All students can state their point of view, listen, and think of the opinions of others. Likewise, in an online learning environment, engagement with the lectures and other members is crucial, as it can foster a sense of belonging and bind learners (Kop, 2011). Another barrier is a lack of motivation. One of the most important factors that may prevent from completing MOOCs is learners' motivation. According to Abir Jaafar Hussain et al. (2018), demotivation, boredom, and tiredness trigger dropping out for students. Frankly, if students are not properly motivated to persevere, they 10 can abandon the course or procrastinate. Likewise, as found by Barba et al. (2016), motivation has a substantial influence on learner involvement. In their study, learner experience is shown to be a significant element affecting participants' motivation. Learners with a higher educational level are more likely to participate than those with a lower educational level because they are believed to be more able to overcome barriers. Often MOOCs providers offer rewards, such as completion certificates, to encourage students to complete a course and they would expect students who are more motivated to study to be less likely to drop out of MOOCs. Finally, infrastructure and internet access is perhaps the most obvious barrier to MOOC. The intention to continue using online learning systems is associated with infrastructure quality and students' intent to use online learning course websites is influenced by their perception of system quality. According to Ma, L., & Lee, C. S. (2018), one of the greatest technological barriers to MOOC utilization is a lack of Internet connectivity which was the result undertaken in China's poorer regions, where Internet and communication network infrastructures were still lacking in comparison to other large cities. In a study at a Taiwanese institution, Chiu et al (2005) discovered that student retention is driven by satisfaction, which is determined by perceived infrastructure. Their research found that service quality, information quality, and system quality were all linked to the desire to continue using MOOCs.

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Because of the proliferation of MOOCs, instructors, mentors, tertiary education governors, and even course designers should be conscious of obstacles students encounter and how to aid them to overcome them. In the current research, I do believe that the research outcomes may make a contribution to finding out students' own definitions for Moocs completion as well as the barriers preventing them from finishing the MOOCs courses.

METHODOLOGY

Qualitative research was used in the current paper since it is convincing through its detailed description, fact-gathering evidence, and overcoming basic abstraction in quantitative research. Besides, a semi-structured interview was chosen as it is to ascertain participants on a specific experience related to the research issue. It has a one-of-a-kind structure that makes it compatible with qualitative, quantitative, and mixed-method studies (Mcintosh, M.J. and Morse, J.M. 2015).

In this study, a semi-structured interview was used to identify students' definition of "completion" of massive open online courses and the factors affecting their completion. 15 participants who dropped out on MOOCS were interviewed with questions assigned by the researchers. The interviews via audio-recording were then conducted in Vietnamese to mitigate misunderstandings and encourage the participants to express their own experiences and their own perspectives from their specific situations freely and comfortably. The interview consists of 3 main questions as follows: (1) How many courses have you experienced on Coursera at your university?; (2) How do you define completion?; (3) What perceived barriers prevent you from achieving MOOCs completion

FINDINGS

Fifteen participants who failed the MOOC course(s) took part in the semi-structured interview. All fifteen participants were asked about their perceptions of MOOCs completion, and obstacles for not finishing the MOOC courses.

Definitions of "Completion" of a MOOC

After collecting the students' responses through the interviews, I classified them into three categories. First, six out of fifteen students thought that completion was defined as gaining knowledge and course requirement fulfillment. These students tended to have a desire to learn, explore, and develop what they absorbed from the courses. According to student #2 *"I think completion is when I pass the subject, and use knowledge that the course brings to apply in real cases"*. As student #3 said *"In my opinion, completion is finishing the school's requirements about the course and gaining knowledge to apply in the next semester and in life"*. Another definition of completion from the participants is fulfilling the course's requirements to receive a certificate. When I asked how they defined completion of a MOOC, one third of the population thought that completion simply satisfied the courses' criteria in order to earn a certificate such as completing a MOOCs tasks on time, passing all the quizzes, and watching all the videos. As student #7 stated *"completion means that we complete the course requirements and receive the certificate"*. Also, student #14 explained *"I think I just need to gain certificates at all costs as well as pass the final exam with good grades"*. The ultimate definition of completion is merely acquiring knowledge. In an online course, four out of fifteen interviewees' responses claimed that having knowledge is depicted as a key ingredient in an individual to learning success, for example, *"I think I need to understand the basic content of that course, and even gain a deep understanding of the course"* student #6 or student #8 said *"Completion is recognized only when we acquire new knowledge from the courses"*.

In conclusion, students made their own definition of course completion as gaining knowledge and fulfilling the Coursera requirements, fulfilling the requirements of the courses to receive a certificate, and gaining knowledge. Furthermore, I also found that all participants who participated in the interview section belonged to the second type of MOOCs learner.

Barriers prevent students from achieving MOOCs completion

Lack of motivation

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Six students thought the barrier which prevents them from completing the MOOC is short of motivation. Online learning through watching videos and then summarizing the lesson for themselves makes them feel bored. Moreover, they did not have high self-discipline for learning on Coursera. According to student #6 explained, *"The content of MOOC has a lot of reading, so I am often too lazy to read, which is a barrier for me."* As student #5 said, *"Sometimes I am really lazy, so I keep the deadline for a long time. In the end, sometimes I do not finish my assignment on time, I think that is my only barrier."*.

Challenging course content

Approximately 50 % of participants thought that language is a factor that makes it difficult for them to absorb the core content of the lesson, leading to skipping important knowledge. Due to a lack of understanding of the content, participants had to slow down the video pace to half or even rewind frequently to make sure they understood it. This barrier is illustrated in the following excerpts: *"The barrier I encounter is English which prevents me from absorbing knowledge. In addition, I wonder whether it is useful for my major or not."* student #10. *"It is probably the language barrier. I hardly understand the content of the video clips, so I have to use vietsub a lot. That is the reason why I can't pay much attention to the content in the video."* student #14. Moreover, lectures/audio lectures designed on the Coursera platform were mentioned by interviewees which made them uninteresting to study because of the lecturers or the content. An individual shared that *"Because all Coursera videos are pre-recorded, you may view one video after another without feeling obligated. Hence, to get beyond that milestone, you can generally just fast-forward to the end of the video, resulting in ineffective information gain."* student #2.

Lack of interaction

When asked about what is the barrier that prevents them from completing the MOOC, some of the students interviewed thought about interaction deficiency. In fact, during online learning, it is very difficult to communicate with teachers compared to face-to-face learning, reducing the effectiveness of knowledge transmission as well as missing the enthusiasm and curiosity of learners, they stated: *"I think Coursera is a bit boring in the video with the reading part, which means giving readings with listening, not explaining clearly like offline teachers."* student #7. *"Most of the clips are only fascinating at all, the teaching method of online teachers is quite boring, so I can't absorb much knowledge."* student #2.

Plagiarism

The interviewees frequently expressed dissatisfaction with Coursera's plagiarism. Besides, they also explained that the plagiarism checking program on Coursera is sometimes incorrect. Through the interview, there are a small number of individuals mentioned this problem as a barrier for them. *"Coursera's plagiarism-checking system has various problems. For example, although we submit our original texts, our writing gets plagiarized."* Furthermore, he said *"even rewriting the topic and re-submitting, the result is still the same."* student #5.

Assessment

MOOCs requested learners to evaluate and give feedback to one another to pass the course. However, the peer-reviewed evaluation is mainly a hindrance in completing courses since it lacks credibility and sometimes is unfair. Participants were frustrated by inappropriate or unspecialized comments on their work from peers. One interviewee said that *"I found that Coursera is a really straightforward learning software thus I had no issues, but the most annoying part about this is that I sometimes have no assignment to grade, or no one grades my paper after I finish it, which affects my completion process. Moreover, I frequently receive comments unrelated to my topic. That's a bothersome"* student #1.

Infrastructure

It can be said that the problem of internet access is one of the objective barriers mentioned when learning online. They often have problems with network outages and intermittent connection. One interviewee said that internet connection is a factor that they often encounter during their online learning process, ***"... lack of internet connection is my barrier to complete courses"*** student #4.

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DISCUSSION

Among the 15 interviewees, five think getting a certificate meant completing a course. This is entirely consistent with the study of Jordan (2014). On the other hand, Daphne Koller et al., 2013 said that the measure of completion is the number of knowledge users gain throughout the course, which is in the same vein as my findings. However, completing MOOCs was also defined as acquiring knowledge and getting a certificate. Students think that having a certificate is very important, but acquiring knowledge from MOOCs is the top priority. *"In my opinion, certification is necessary but the most important thing is still knowledge."* student 10 said. Therefore, I can conclude that students have various perceptions on "MOOCs completion", and whether or not the institution should consider learners' needs to provide appropriate modules. For instance, the first kind is for a deep learning-driven module, which contains a flexible schedule without tight deadlines. Learners here can have their own right to choose the courses they are interested in, even access they do not need to experience final exams organized by their school. The rest is for a surface-driven module, which is similar to the current MOOCs offered by education institutions. The schedule needs to be arranged, assignments are fully evaluated, and students must take part in the final exam as well. This will allow a completion certificate to be more prestigious and worthy. I identified six barriers preventing students from MOOCs completion such as lack of motivation, challenging course content, lack of interaction, plagiarism, assessment, and infrastructure. My findings are in accordance with previous studies on the factors ``challenging course content", "lack of interaction", "motivation" and "infrastructure". Thereby I conclude that "challenging course content", "lack of interaction", "motivation" and "infrastructure" are common undeniable causes of obstacles in completing MOOCs. Furthermore, two more barriers namely plagiarism and assessment were discovered. Firstly, it is plagiarism. When being interviewed, most students consider this to be one of the main reasons for their failure on MOOCs. *"I find Coursera very prone to plagiarism errors, sometimes your self-submitted articles are marked as plagiarized by the software."* student 5 said. Therefore, I recommend that users should check their work thoroughly before submitting it. They can also use various plagiarism-checking websites to ensure there were accusations of plagiarism. Assessment is the second reason why most students fail. Coursera requires learners to evaluate and give feedback to each other to go further. Students must experience long-time waiting to receive evaluations from non-specialists which are sometimes negligent and irresponsible, thus leading to uncompleted courses. *"The reason why I failed is peer review, which is very time-consuming. It prevented me from getting a certificate in time to pass the course."* student 9 said. I think participants should submit their work as soon as possible so that their peers have more time to judge theirs or participants can ask for help from admins on the Coursera platform for this issue.

CONCLUSION AND SUGGESTIONS

The present study figured out students' own definition of MOOCs completion as well as obstacles in the process of finishing them. In the realm of definition of completion, students equate completion with gaining knowledge and course requirement fulfillment, earning the statement of accomplishment, or merely acquiring knowledge, which leads to relevant aspects of completion which are students' retention, and student success. In the spectrum of barriers, there were six barriers revealed to MOOC's completion as lack of motivation, challenging course content, lack of interaction, plagiarism, assessment, and infrastructure. After all, our findings give insight into the adoption of MOOCs in the future, specifically constructing a deep understanding of users' needs is vital for the evolution of MOOCs in the years ahead besides discovering barriers to not finishing MOOCs.

Since the current study primarily focuses on students' perception at a university, I propose that for a broader view, research should be conducted at other universities in Vietnam and other nations from a global perspective. Furthermore, the interview's time is limited, it is suggested that future studies should try to extend the interview length to around 30 minutes. If feasible, a numerical balance among male and female participants is needed to investigate whether or not there is a different perception between them.

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