The Readiness of the Administrators and Undergraduates in Using Massive Open Online Course (MOOC) in the Mandarin Subject

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Abstract: This study, embarked on the following objectives: to investigate Mandarin MOOC administrators' readiness for the planning and implementation of Mandarin MOOC; to find out undergraduate's opinion on the effectiveness of the online learning or MOOC and to examine the critical factors for the sustaina bility of Mandarin MOOC from the perspective of Mandarin MOOC administrators and under graduates. This is a qualitative study using an in-depth face-to-face interview. A Single Case Single issue (SCSS) was also used. The findings yielded that internet connection affected the engagement of learners in online learning. Besides, another challenge in sustaining Mandarin MOOC is the quality of Mandarin MOOC content. Among the strategies to sustain Mandarin MOOC are through creating usable content for MOOC and improving the internet connection. This study, is beneficial for stakeholders in MOOC including tutors, policy makers and administrators. In future, more studies should be done to evaluate whether this course can address the needs of the diverse population.

Key words: MOOCs, Online learning, readiness, Mandarin, Malaysia

INTRODUCTION

The current quality of higher education has become the major concern in many countries as it becomes the challenges to all stakeholders in higher education. According to Rena (2010), the quality in higher education has become a global agenda of the countries around the world. Developing countries including Malaysia are now facing a revolution in education in coping with the emerging trends. Technology is changing the way we teach and learn. As we moved into 21st century, teachers as well as students must equip themselves with all kind of technology and skill to ensure the effectiveness in teaching and learning. The development of educational technology is evident in the institutions of higher education in Malaysia. It is due to the effort played by the Ministry of Education in Malaysia to steer the economy towards a knowledge-based one as discussed by Dawam et al. (2009).

The Massive Open Online Course (MOOCs) is a very recent development in institutions of higher learning in Malaysia. It is best described by McAuley, as "an integration of the connectivity of social networking, the facilitation of an acknowledged expert in a field of a study and a collection of freely accessible online resources".

According to Fadzil, the reasons for adoption of MOOCs in institutions of higher education are to provide quality education to everyone by promoting an institution's brand, attracting new learners to enrol at an institution, collaborating with other institutions, creating opportunities for research and development in online education and transforming traditional teaching and learning approaches.

According to Fadzil, there are only six institutions of higher education which are currently involved in MOOCs development in Malaysia. The universities are Taylor's University, Universiti Putra Malaysia (UPM), Universiti Kebangsaan Malaysia (UKM), Universiti Teknologi MARA (UiTM), Universiti Malaysia Sarawak (UNIMAS) and Open University Malaysia (OUM). Among these universities, four of them are public university: UPM, UKM, UNIMAS and UiTM. These four institutions have developed the official portal for MOOCs (Malaysia MOOCs as shown in Fig. 1.

All the MOOCs are offered via Openlearning where a MOOC platform is based at Sydney, Australia. There are four courses under the MOOCs. They are Islamic and Asian Civilisations offered by UPM; ethnic Relations offered by UKM, Entrepreneurship offered by UiTM and ICT competence offered by UNIMAS. Those are the core courses offered by public universities in Malaysia.

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Fig. 1: The Massive Open Online Course (MOOC)

Kop (2011) claimed that resources with the aids of communication technology will create learning environment which produce a channel for self directed learning. The success of self directed learning really depends on the readiness of the administrators and undergraduates who will be the stakeholder of the new initiative such as Mandarin MOOC. This study, aims to study the readiness of administrators and undergraduates in this new initiative in virtual learning environment. The study of readiness is important in determining the content, the learning approach which highly affect its effectiveness of learning Mandarin.

According to Viswanathan (2012), besides offer learning opportunities to teachers, MOOCS has motivated teacher to play a role as an online tutor in MOOC as a supplement to their classroom teaching. As educational provider, evaluation on learning tool from time to time is a must to ensure that the end user of the program really "learned" in the virtual environment through MOOCS. Hence, this study is significant for its contribution towards practices. Firstly, the research results can be used by the Mandarin MOOC administrator and Mandarin content provider to improve the teaching and learning of the Mandarin subject.

Secondly, the research results will show what problems faced by the learner to learn Mandarin Massive Open Online Course (MOOC). It will also enable policy makers and administrators to make sound decisions. Thirdly, research findings could provide some form of empirical data for future research. More research is needed so that we can come up with newer approaches resulting in better student engagement in mandarin MOOC.

Literature review: All the institutions of higher education in the world are constantly changing in pursue of quality, recognition and progression to become world class higher education provider. Education is always the main agenda for the economic growth, knowledge and harmonious society. In Malaysia, education is the biggest challenge for the government and education is a way to make year 2020 become a reality. How to produce well equipped citizen with education is always a question which is

needed to be answered. One solution is to use technology as a medium or a new teaching approach in order to bring education to the masses. The institutions of higher education have to change because it needs more innovation for today's need (Wildavsky *et al*., 2011). Some existing traditional public universities or private universities and colleges have been worked out to take up this challenge by utilizing the latest technologies to improve the delivery systems. Their effort results a new learning system in Malaysia which is Open and Distance Education. With this, the opportunity of learning has been increased and with belief it will be playing its role to provide education to the masses.

Engagement technology in education will create new learning environment, it is emphasis on student-centered learning, constructivist and collaborative learning. Rena (2010)'s research shows that active learning using ICT approach is a new trend in higher education. The use of computer and internet is a necessity in order to create a quality learning environment. The importance of a quality learning environment is to ensure that students would not left out from the world of technology. In education, the ultimate goal in learning is the outcome because good academic achievement is not just an individual's goal to become a better-equipped person in certain field, but it is also an added value to ensure a productive society. Therefore, it has been the interest of researchers and educators to find out ways of enhancing Mandarin achievement. Good Mandarin achievement will help to increase the individual self-confidence using Mandarin for communication purposes in the future especially in the workplace. The objective of the curriculum is to make the learner become a functional, independent and socially successful individual. This is what is needed by the society especially in the work place.

MOOCs has become a national agenda in the institutions of higher education as it is addressed in the 11th Malaysia Plan (2016-2020), the National Economic Model, Economic Transformation Programme and the anticipated Malaysian Education Blueprint for higher education. The University Teknikal Malaysia Melaka (UTeM) has launched the MOOCs on 7 September 2015 in order to introduce Mandarin course. Hence this study focused on the readiness of the administrators and undergraduates' on using the MOOC in Mandarin subject as a research variable.

Mandarin has becomes one of the most popular foreign languages in the world. According to Ramzy, 160,000 high school and university students in South Korea are studying Mandarin. This figure is an increase of 66% over the past five years. In Japan, Mandarin is now the most taught foreign language after English. The

number of Japanese secondary schools offering Mandarin is more than triple between 1993 and 2005. As Mandarin has become an important foreign language at present, efforts on introducing Mandarin MOOC to the public is an ideal decision.

Graduates who have good Mandarin language proficiency will have an additional medium of communication besides Malay and English languages. With this added value, these graduates will be able to overcome obstacles at their workplace such as communication breakdown. According to Fadzil, the MOOC has challenged the institutions of higher education where many universities are still using age-old, and traditional approaches in teaching and learning. It is because MOOCs can offer many benefits to Malaysia such as high-degree of collaboration, international interactions, global visibility of Malaysian expertise, showcase best programme and research area in Malaysian institutions of higher education. According to Rena (2010), future trends of institutions of higher education include: massification, rapid globalisation, impact of technology and movement of students and scholars, programmes and institutions across borders, and others. The MOOC is an emerging trend in institutions of higher education which exists to cater to the needs of globalization. Gamage *et al.* (2015) have claimed that MOOC is a trending phenomenon in online education with the tremendously growth of number of participants in MOOC and the number of MOOCs. Mackness *et al.* (2010) voiced their concerns about the online course design such as MOOC should take into accounts on considering learners' behaviour to encourage full participation from students in the MOOC learning. Besides, Gamage *et al.* (2015) and Sonwalkar (2013) believed that there are pedagogical differences in every MOOC. Therefore in order to bridge the gap, a research entitled "The readiness of administrators and undergraduates in using the Massive Open Online Course (MOOC) in Mandarin subject" is another researchable topic which can provide us some new insights in this new unexplored area. This study will also enable the author to study the pedagogical need of Mandarin MOOC as respond to the concern voiced by Gamage *et al.* (2015) and Sonwalkar (2013). In this study, the researcher would like to investigate to what extend do the UTeM administrators and undergraduates in using MOOC in Mandarin subject. The study is significant because the UTeM undergraduates are expected to be the future learner of Mandarin MOOC. Thus, using MOOC as a Mandarin learning tool will entail a successful learning. The researcher decided to use the administrators from Pusat Sumber Teknologi Pengajaran (PSTP) in Universiti Teknikal Malaysia Melaka and UTeM's undergraduates as the respondents of this study. The researcher decided to use qualitative method as a research design. Interview will be used to investigate the readiness of both parties in Mandarin MOOC.

This study, on MOOCs is important for the actions of the government and relevant institution to make sound decisions. This research is significant for its contribution towards teaching practices. This study embarks on the following objectives: To investigate Mandarin MOOC administrators' readiness for the planning and implementation of Mandarin MOOC; To find out undergraduate's opinion on the effectiveness of the online learning or MOOC they have gone through; To examine the critical factors for the sustainability of Mandarin MOOC from the perspective of Mandarin MOOC administrators and undergraduates.

MATERIALS AND METHODS

This study, employed a qualitative methodology as suggested by Strauss and Corbin (1998) that qualitative method is suitable for a research which is planned to get a better understanding about a phenomenon. Rajabi and Virkus (2013) have utilised qualitative method in their research entitled "The potential and readiness of Tallinn University to establish Massive Open Online Courses (MOOCs)", which the focus of study was quite similar to the current study. Rajabi and Virkus (2013) also focused the study on the readiness of students and staff in their university by applying face-to face interview as data collection techniques which was a qualitative methodology as mentioned above.

The research was carried out at the Universiti Teknikal Malaysia Melaka (UTeM). The qualitative information was collected through interview. In this study, interview method was used. In this study, the researcher also used a Single Case Single issue (SCSS) as methodological position. This case study allowed the researcher to study in depth by focusing on only ten respondents. Several measures had been taken into considerations when conducting this research. These include the selection of the respondents who could provide the required data to answer the research questions and accessibility of the respondents. Therefore, the researcher decided to confine her study to one of the public institutions of higher learning in Melaka. The site of this study was UTeM as the university is going to introduce Mandarin MOOC to the public. The researcher teaches at the selected site, thus the researcher has a better understanding about the background of the undergraduates. Therefore with these reasons in mind,

two administrators from Pusat Sumber dan Teknologi Pengajaran (PSTP) and eight undergraduates who learn Mandarin in the second semester of the academic year of 2014/15 were identified as the respondents of the research using purposeful sampling method.

The selection of the instrument was very important to the overall success of the study. In this study, the researcher used the interview to elicit information from the respondents. This tool was chosen because of the short period of time allocated for this qualitative research. Thus, the interview is an effective method to collect data. The length of time required to complete the individual interview was approximately of 10 min for each respondent. The interview was conducted in English and the transcriptions of the interviews were based on their original given information. Analysis followed the principle of grounded theory by searching the transcripts for the common themes or categories.

Two administrators and eight undergraduates were selected to be interviewed in the study. A letter of consent to participate in the interview session has been distributed to the respondents prior to the interview section. Furthermore, the respondents were well informed with the objectives of the study. They were well assured about the confidentiality of their responses and that the data would only be utilized for the purpose of this study.

The semi-structured interview was adopted to allow an open exploration which allowed the respondents to provide any information or interpretation which were related. Secondly, while having a set of general questions for interview, the researcher could follow up with the respondents' responses and actively engage with them in the meaning related to the research topic. There were two different set of questions for the administrators and undergraduates. The interview started with easy questions to make them feel comfortable before directing them to the questions related to the core area of investigation. Additional questions were added to follow up or to clarify the responses. There was only one interview session for each respondent. This decision was made by the researcher where there was no new insight or information as the information has already saturated.

RESULTS AND DISCUSSION

The readiness of the mandarin MOOC administrators for the planning and implementation of mandarin MOOC: There is a significant change of institutions of higher education from the traditional role due to globalization. ICT is an emerging trend in higher educations which allows the real growth in numbers and types of providers, curriculum developers, modes of delivery and pedagogical innovations. The planning of change initiative by UTeM in introducing Mandarin MOOC is timely because in this 21st century, MOOCs is one of the online learning tools which will enhance teaching and encourage the institution to develop strategies (Daniel, 2012). In the interview, the administrators showed their awareness that online learning is the new trends in the higher institutions. According to the administrators interviewed, e-learning or MOOC are methods which are progressive and familiar to them as use gadgets such as smart phone, ipad and table. Therefore they felt that this Mandarin MOOC effort initiated by UTeM is great because it gears that UTeM is heading towards a good future. According to the administrators interviewed, MOOC will be planned as an additional learning tool to facilitate Mandarin learning in UTeM.

According to the law of readiness, if the stakeholders of the institutions of higher learning are ready for the new trends, thus the educational goal will be able to achieve. The MOOC is an online learning without boundaries and open to anyone for enroment. According to Mouza (2008), multisensory stimulation stimulated by the use of ICT will produce multipath progression and create information exchange environment. Both of the administrators agreed that this kind of learning tool should be encouraged because MOOC will change the way of learning as it allows users to learn at anywhere, anytime and at their own convenience. A person might not be able to enroll into a university for a certain reason but he or she could still learn via MOOC.

Both administrators predicted that Mandarin MOOC will be used widely in the future. Taneja and Goel (2014) suggested that with the increasing number of users accessing internet via their mobile devices, it is important for MOOC providers to plan their strategies to cater to the needs of the massive learners. In the future, everyone who has interest to learn Mandarin could be the user of Mandarin MOOC. In the interview, the students have recommended to the Mandarin MOOC administrator to do planning such as creating more interactive games and videos along with the pronunciation of Chinese words which includes its meaning in Malay or English. One of the students has stressed the importance of the clarity of the pronunciation in the video for the benefit of a new learner. Besides, video with subtitles is recommended because it will be helpful for those who do not have any basic in Mandarin. Most of the undergraduates have given input on how to ensure the quality of video. Lecture videos are one of the important elements in MOOCs. Thus the length of the video must be appropriate as it attains students' attention to have better concentration and comprehension of the lecture content (Bruff *et al.*, 2013).

According to the students interviewed, a good planning in Mandarin MOOC content will attract more users to access to Mandarin. As it will be a challenge for student to stay on schedule, the interactivity of the learning materials is important. As informed by the administrators, they were trained to use proper procedure to create MOOC content interactively to engage with the students. The Mandarin MOOC administrators play an important role to make Mandarin MOOC not only known in UTeM itself but also recognized by people around the world.

The undergraduate's opinion on the effectiveness of the online learning: According to Bruff *et al.* (2013), there are three encouraging elements in online learning: flexibility, customization and accessibility. These elements are for students to have self-paced learning. UTeM's undergraduates are the users of the online learning in the university and they have shown their positive perceptions towards online learning. According to the undergraduates interviewed, most of the students have their smart phones. Thus, online learning is an interesting and interactive learning method which allows them to download their notes or educational videos to do revision at any time they want without bringing their text books. Online learning enables them to explore more on the subject without the supervision of their lecturer. Learning through internet is an authentic learning which allows students to see the real things. According to cognitive theory, this type of learning will create meaningful effect because meaningful information is easier to learn and remember.

In the process of evaluating the effectiveness of the online learning or MOOC, students' opinion on their learning experiences is the evidence which must be taken into consideration. The undergraduates showed that they were not afraid of the new technology and comfortable with acquiring new skills. The respondents have reported that they had experience with online learning as they had used MOOC or online learning in certain subjects taught in UTeM such as Tamadun Islam and Tamadun Asia, Technology Entrepreneurship and Industrial Engineering. According to the students interviewed, their lecturer has asked them to discuss online and utilize the online sources for revision purpose. They indicated that they were very excited with this new experience as they could access to a lot of information easily in the subject area through MOOC. Besides, MOOC also allows them to communicate with students from other universities.

Autonomy, diversity, openness, and interactivity are characteristics of a MOOC. Learners are now can take control on their learning such as where, when, how, what and with whom they learn (Mackness *et al.*, 2010). The

undergraduates now a days realize and value the benefits of internet which could be obtained through this new learning approach. The experience mentioned by undergraduates in online learning that this approach could be a good foundation to expose them to the new learning subject through online learning such as Mandarin MOOCs. In the interview, the undergraduates stated that they convinced they had benefited from using the MOOC in Mandarin subject. They admitted that Mandarin MOOC enables them to search information easily in the subject area and help them with the revision of Mandarin subject such as listening and pronunciation exercises. Their positive justifications are very important for the administrators to evaluate the readiness of UTeM undergraduates in utilizing Mandarin MOOC. However, one of the students has pointed out that "I think Mandarin MOOC should be encouraged. Everyone can access it anytime anywhere as long as there is an internet connection". From the comment, it can concluded that the effectiveness of Mandarin MOOC can be determined not only by functional information and communication technology skill, more importantly it is largely relied on the access to the internet, as indicated by Fakinlede *et al.* (2014).

The sustainability of mandarin mooc from the perspective of mandarin mooc administrators and students: After the invention of microcomputer, internet was a transformative agent that enhanced learning. The use of computer can cater to learners' differences such as individual learning styles and preferences. The administrators believe Mandarin MOOC will have a positive learning result for students. According to the administrator interviewed, online learning is more interactive and interesting because resources such as written text, examples video, speaking tutorials and exercise are easier to be obtained and accessed. With these great experiences, the quality of learning will be improved with the increase of student motivation in this learning process (Gottfried, 1990). This is an important factor which contributes to the sustainability of Mandarin MOOC.

Mandarin MOOC is one of the open educational resources which seek to provide the opportunity to the public to access to the course. How to face challenges is the effort for the sustainability of Mandarin MOOC. According to the students interviewed, one of the students mentioned that a year ago that his lecturer has asked them to register for MOOC. Unfortunately not all the students registered because some of the students felt that this MOOC will not sustain for a long time. This was the worries expressed by the students. Some undergraduates were even concerned about the strategies

taken by the administrators to attract students to enroll for Mandarin MOOC. The undergraduates realized that Mandarin MOOC is a higher education course but the users may have comprised of undergraduates but users of a diverse background. All the issues discussed were related to the sustainability of Mandarin MOOC.

The undergraduates who participated in the interview were given some suggestions for Mandarin MOOC providers in facing the challenges for the sustainability of Mandarin MOOC purpose. The undergraduates had expressed their concerns on the internet connection which would affect the engagement of the learner in the online learning. This issue would become a great challenge for certain parts of a country which had low speed of internet access. Fortunately, in this interview, the administrators of Mandarin MOOC were aware of the problems on sustainability of Mandarin MOOC due to internet failure.

Besides, another challenge which faced by the administrators in sustaining Mandarin MOOC was the quality of Mandarin MOOC content. Mandarin MOOC should overcome the critical factors for the sustainability of the initiative. The issue like how can MOOC offers a more interactive learning to participants who can have a better engagement with their elearning. The strategies mentioned by the administrators to sustain Mandarin MOOC are through creating usable content for MOOC. It was a challenge according to them as MOOC is a lot more different than just creating a new power point slide. It is supported by Lesjak and Florjaneie (2014) that the course comprehensiveness and the usefulness of course material are the most important characteristics of an online course for participants.

The presence of ICT is to enhance the quality of learning. Mouza (2008) stated that the engagement in technology will enhance the academic. Internet has becomes a key element in determining how knowledge is delivered. With the effort on the sustainability on Mandarin MOOC, it is hoped that Mandarin MOOC will have great progress in the future. The administrator hope Mandarin MOOC can be used as a daily basis by lecturers and students in the university or even used by children and parents at home as well.

CONCLUSION

This study, has managed to answer the research questions. The undergraduates showed that they are not afraid of new technology and are in fact comfortable with acquiring new skills. The respondents have reported that they had experienced online learning. They had used MOOC or online learning in certain subject taught in Universiti Teknikal Malaysia Melaka such as Tamadun Islam and Tamadun Asia, Technology Entrepreneurship and Industrial Engineering. The experience mentioned by undergraduate in online learning can be a good foundation to them to expose to the new learning subject through online learning such as Mandarin MOOCs. In the interview, the undergraduates had stated that they believe they will be benefited from Massive Open Online Course (MOOC) in Mandarin subject. Besides, the Mandarin MOOC administrator found readily for the planning and implementation of Mandarin MOOC. As informed by the administrator, they are now trained to use proper procedure to create MOOC content interactively to make sure that Mandarin MOOC engages students better. The Mandarin MOOC administrator will to play a good role to make Mandarin MOOC not only known in UTeM itself but also recognized by people around the world.

Both administrator and undergraduate are aware of the challenge faced and effort needed for the sustainability of Mandarin MOOC. The undergraduates had expressed their concern on the internet connection which will affect the engagement of the learner in online learning. The interview also reveals that the administrators of Mandarin MOOC are aware of the problems on sustainability of Mandarin MOOC due to internet failure. Besides, another challenge which will be faced by administrators in sustaining Mandarin MOOC is the quality of Mandarin MOOC content. The strategies mentioned by the administrators to sustain Mandarin MOOC are through creating usable content for MOOC. It was a challenge according to them as MOOC is a lot more different than just creating a new power point slide. Hopefully strategies taken by administrator will make Mandarin MOOC become a desired course as expected by the students.

LIMITATIONS

The limitation of this study is only ten respondents is chosen for interview which lasted for 10 min each. Therefore in terms of the fruitfulness of data, it shows a limitation of this study. To evaluate the effectiveness of Mandarin MOOC, more studies should be done to evaluate whether this course can address the need of the diverse population. The openness of the course such as free flow of information is also another area which needs to be explored. Finally, study on ensuring the smoothness of internet access should be carried out.

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