

THE PERCEPTION OF UNIVERSITY LECTURERS OF TEACHING AND LEARNING IN MASSIVE OPEN ONLINE COURSES (MOOCS)

Norliza Ghazali

Faculty of Education, International Islamic University Malaysia,
Jalan Gombak 53100, Kuala Lumpur, MALAYSIA
norliza.g242@gmail.com

Mohamad Sahari Nordin

Faculty of Education, International Islamic University Malaysia,
Jalan Gombak 53100, Kuala Lumpur, MALAYSIA
msahari@iiu.edu.my

ABSTRACT

Massive Open Online Course, better known as MOOC has become a buzzword within the field of education. MOOC is a new teaching innovation and practise of education delivery that targets to promote active learning and develop educational communities including thousands of students. At this early stage, not many research has been done especially in the Malaysian context. This study aims to explore the perception of teaching and learning in MOOC from the perspectives of selected Malaysian public university lecturers who have had the knowledge and experiences in using MOOC. Moreover, this study will explore how MOOCs are being used in teaching and learning as well as the challenges by using MOOC, and also the suggestion for MOOC improvement. The findings show that MOOC provides opportunity for life-long learning via e-learning. Lecturers use MOOC in teaching and learning process by integrating video and animation. The study also provided information on the challenges in using MOOC and suggestions for further research for MOOC's improvement. The current MOOC offering need to be objectively reviewed to ensure that the innovation is relevant for the educational system. Respondents in this study believe that MOOC will bring positive impact in the education system in this technologically-driven environment of the 21st century.

Keywords: Massive Open Online Courses (MOOCs), teaching and learning, university lecturers, perception, online learning.

INTRODUCTION

Massive Open Online Course (MOOC) is a new innovation whose emergence is a great challenge to the traditional classroom teaching mode and also an alternative way of delivering interactive teaching and learning. MOOC development in Malaysia is in tandem with several important national plans such as the National Economic Model, Economic Transformation Program, the upcoming 11th Malaysia Plan (2016-2020) and Malaysian Education Blueprint for Higher Education (2015-2025). Malaysian Education Blueprint for Higher Education (2015-2025) has discussed MOOC under the 10th Shift called "Globalized Online Learning". In this Shift, Ministry of Education declares Malaysia's aims to leverage on MOOC as a way to take advantage of technology to improve quality and widen access to education (Ministry of Education (MOE), 2014).

Massive and open indicate that it is offerings unlimited courses and open to everyone. Online Course also gives the impression that teaching and learning is delivered on-line and there is no limit for individuals who want to participate. Massive Open Online Course (MOOC) was initially used in 2008 in Canada, where the term was used to describe a pedagogical experiment by employees at Manitoba University (Baggaley, 2013; Liyanagunawardena, Adams & Williams, 2013). Universities proposing MOOC often offers their courses via external companions (MOOC platforms), which provides the technological solution. If a person wants to use MOOC, it is often required to sign up without any payment request via one of the platforms, and from there it is possible to browse the various MOOC offered by numerous universities. MOOCs in Malaysia is developing in tandem with a few important national plans as mentioned above. MOOCs can offer the benefits for Malaysia such as (i) interactive and engaging delivery that encourages high-degree collaboration

To cite this document:

Ghazali, N., & Nordin, M. S. (2016). The perception of university lecturers of teaching and learning in massive open online courses (moocs). *Journal of Personalized Learning*, 2(1): 51-56.

and international interactions; (ii) global visibility and access to Malaysian expertise in niche areas; (iii) an opportunity for Malaysian higher education institutions to showcase their best programmes and research areas (Ministry of Education (MOE), 2014).

Malaysia's first institution to launch MOOC is Taylor's University in 2013, where MOOC are offered as mini courses that serve as a sampler for most university programmes. In October 2014, Datuk Seri Idris Jusoh (Second Education Minister) declared Malaysia as the first country in the world to implement MOOCs for all public universities and the only country where MOOCs are implemented at a national scale through government initiative (Rajendram, 2014). This announcement was made in September 2014 with the launch of four pilot MOOCs by four public universities, namely (i) Islamic and Asian Civilisations (Universiti Putra Malaysia - UPM); (ii) Ethnic Relations (Universiti Kebangsaan Malaysia - UKM); (iii) Entrepreneurship (Universiti Teknologi Mara - UiTM) and ICT Competence (Universiti Malaysia Sarawak - UNIMAS).

MOE has targeted 15% of all courses offered by public universities in Malaysia to be delivered using an online platform by the end of 2015; and to be increased to 30% by 2020. The four public universities have been tasked by MOE to develop and coordinate the official portal for MOOCs (known as Malaysia MOOCs). Open Univeristy Malaysia (OUM) is the sixth Malaysian higher education institution that has embarked on MOOCs. OUM has collaborated with Apple to offer MOOCs via iTunes U, which is available for iPad and iPhone users. A majority of the target audience is students in public and private higher education institutions, Taylor's University and OUM have reported that their MOOCs have attracted the international audience (Digital News Asia, 2014). Table 1 shows the MOOC timeline.

Table 1. The brief timeline of MOOC development in Malaysia

Date	MOOCs Development in Malaysia
March 2013	Taylor's University announces the launch of two pilot MOOCs. By the end of 2014, Taylor's University was hosting 15 MOOCs via the Open Learning platform.
September 2014	The four public universities under Malaysia MOOCs also begin offering four MOOCs via OpenLearning
October 2014	Pre-launch of Malaysia MOOCs by MOE and OpenLearning; with the announcement that Malaysia targets to make online learning an important component in courses at public higher education institutions.
November 2014	Open Univeristy Malaysia (OUM) launches its own MOOCs initiative under iTunes U
December 2014	MOE releases a preliminary discussion document for the Malaysian Education Blueprint for Higher Education, which includes MOOC as a key initiative in Malaysian education from 2015 to 2025

Sources : Mansor Fadzil et al. 2015

Due to the recent overview and exploratory nature of MOOCs initiative in Malaysia, it is clear that there are many issues to identify and gaps to close. At the moment, gaps in the current MOOCs initiatives show that there is still room for improvement (Mansor Fadzil et al. 2015). This is similar with Tan (2014) commentary on MOOC in Malaysia, whereby he identified several issues including the varying layout, quality and structure of courses, standardization, and infrastructure. There are also issues on the values in the educational process itself in the implementation of MOOC (Conole, 2013; Watted & Barak, 2014). MOOC phenomenon provide an opportunity for a wide range of sustainability research in the future, particularly in the measurement of MOOC application, MOOC application development model and implications related courses offered in MOOC (Eloy et al. 2015). Malaysia needs to identify several key factors such as who are enrolling for MOOCs, what are their opinions and experiences, how are their motivations, usage and acceptance, including challenges faced. The current MOOC offering need to be objectively reviewed to ensure that they are relevant to Malaysian education (Mansor Fadzil et al. 2015).

Research shows that the innovation of traditional teaching and learning systems are able to contribute to the excellent outcomes (Farrington et al. 2012) and thus affect the marketability in the workplace (Brooks, 2011). MOOCs has identified as a potential approach and rejuvenated of traditional teaching and learning in order to respond to the fast-paced and technology-driven environment of the 21st century. However, not many researches has been done on MOOC especially in the Malaysian context. Therefore, this study aims to explore the perception of teaching and learning in MOOCs from the perspective of selected Malaysian public university lecturers. The findings will show the perception of teaching and learning in MOOCs and to

suggest possible future research to improve current MOOC implementation. Thus the objective of this study is to explore the perception of three selected Malaysian public university lecturers on the teaching and learning of MOOC. The research questions for the study are:

- i. What are the understandings on teaching and learning using MOOC?
- ii. How is MOOC used in teaching and learning?
- iii. What are the challenges in using MOOC for teaching and learning?
- iv. What are the suggestions for improvement in teaching and learning using MOOC?

METHODOLOGY

This qualitative study employed interviews as data collection method. Three senior lecturers were interviewed, about their perception on teaching and learning using MOOC. The selection of informants was based on the knowledge and experiences of the lecturers on MOOCs. Three Malaysian public university lecturers who are experienced as researcher, lecturers and/or coordinator of MOOC were chosen. On average, the informants possess at least ten years of teaching experience as lecturers, and all the informants have had the experiences using MOOC.

Data were collected using semi-structured interview with the selected informants. Interview method was selected. As stated by Patton and Cochran (2002), in qualitative study, it is the most practical and reliable to gain information and insights from the participants. Interview sessions were arranged based on the informants' availability and convenience. The duration of the interview sessions was between 30 to 45 minutes. Prior to the interview, consent forms were issued to each of the informants and they sign the form on a voluntary basis.

The interview data were transcribed and labelled as RL1 for informant 1, RL2 for informant 2 and RL3 for informant 3. Analysis of the interview data were done based on the research questions. Interview transcription was reviewed to derive an overall sense of data and the important initial findings were jotted down as a note. Then, by reading, classifying and interpreting the data, themes were explored and determined. In representing the data, explanatory interpretations were developed, accompanied by well supported data. As for the credibility and trustworthiness of the data, the generated themes were forwarded to two inter-raters who were expert in the area of generating themes of qualitative research and content of knowledge regarding MOOC. This was to validate that the researcher has developed the themes correctly. The average of inter-raters' agreements was 84.7% which indicated that the researcher's interpretation was representative and rational.

FINDINGS AND DISCUSSION

MOOC is described as a teaching and learning platform. MOOC promote development of education. MOOC is also described a learning platform for e-learning and life-long learning. E-learning includes elements such as online lecture and open to everyone. The findings of the themes are related with the previous research by Allen & Seaman (2013), Dikran Kassabian (2014), Ian Lee Morris (2014), Mansor Fadzil et al., (2015) and Yuan & Powell (2013). From the previous research, they conclude that MOOC is a teaching and learning platform which teaching and learning is delivered on-line with no limited course offerings and open to everyone. As stated by Dikran Kassabian (2014), MOOC is equivalent of a lecture often takes the form of a set of short video segments, while student assessment is conducted through online quizzes and projects, all delivered via web interface. MOOC are also defined as online courses with no cap on enrollments, minimal to no student costs, and no prerequisites or enrollment restrictions (Allen & Seaman, 2013; Yuan & Powell, 2013). The term Massive Open Online Course (MOOC) refers to an educational genre that represents a vast myriad of online program approaches and structures (Ian Lee Morris, 2014). For example RL1 and RL3 respectively stated that, "MOOCs is a teaching and learning platform which in line with the 21st century" and "MOOC is a learning approach which video was recorded first and then delivered via web or online interface to share the knowledge".

MOOC also promote the development of education (Yu Chengjie, 2015), which mentioned that information technology has a revolutionary impact on the development of education. It is a more convenient way of learning and will certainly encourage the social atmosphere for the development of lifelong education and universal learning. As a new teaching mode, MOOC represent a new information technology. Its development brings great modifications to the traditional classroom and promote development of education. This is revealed by RL3 which state that, "MOOC promote the development of education and development

of pedagogical education delivery”. In MOOC, students will collaborate with other students, educators and professionals and they can explore personalized and student-centered learning. Personalized learning is a student-centered approach where learning is personalized to each individual’s needs, strengths and interests. Personalized learning environments are the personal working spaces for each online learning student which are supported with Web technology 2.0 and social media networks (Hamdan et al. 2015). As a result, the students experience more adaptable and flexible ways for learning that extend beyond the boundaries of a traditional classroom. Fini (2009) noted that the value of MOOC was also generally for lifelong learners. His research on some of the earliest MOOC indicate that many enrolled students were adult and informal learners. The intention of the learners was based on life-long learning. This is revealed by RL1, “MOOCs is very convenient for lifelong learning”.

MOOC Teaching and Learning Mode

The mode of teaching and learning in MOOC from the perspectives of three selected Malaysia public university lecturers has found three major themes. The first theme was video which include the elements of video shooting and expert interview video. The second theme was animation and the third theme is delivering knowledge. The first and second theme were in line with the research findings by Dikran Kassabian (2014) whereby students will watch a learning video prepared by the lecturer, followed by face-to-face meeting in the pre-scheduled class. Classroom meeting include interactive learning such as individualized instruction, labs and discussions with instructors. Duratul Ain (2013) also view using videos through MOOC as an opportunity to prepare students for increased engagement during class time. Animation is also an approach for MOOC implementation in teaching and learning. For example RL1 stated that, “Instead of video, animation is also suitable for MOOC”.

High-quality MOOC has been introduced as a supplement to the traditional classroom teaching mode. Students study online courses through MOOC video before class and master knowledge, in the classroom, the teacher spends only a small amount of time to review the basic knowledge, and spends more time on discussing the teaching content with students face to face, therefore, the teacher’s preparation way is different from the past. Teachers can also be freed from the heavy repetitive explanations of knowledge. They can devote more time with students in deep exchanges, understand students’ doubts, and answer questions more effectively, thus truly improve their teaching quality (Yu Chengjie, 2015). The “flipped classroom” concept, for example, emphasizes student time spent on lecture content outside the class, reserving class time for interaction which is an approach that can often efficiently leverage MOOC video lectures (Dikran Kassabian, 2014).

Challenges of Teaching and Learning In MOOCs

The most common challenges of teaching and learning in MOOCs include students attitude, human resource, time constrain, lecturer’s self-efficacy and technical problem. With respect to the independent style of learning as the main characteristics of MOOC, learners can freely choose to learn or freely choose not to learn. Many people use MOOC to recharge themselves and do not continue to learn. Statistics show that only 5 to 15% of the enrolled learners can persist to complete a course (Yu Chengjie, 2015). This finding is in line with the research finding by Balch (2013) and Katy (2014) which stated that MOOCs is low in completion rate.

MOOC lacks monitoring and supervision to students’ learning quality which causes the low completion rate. The other challenge is regarding the human resource and time constraints. For example RL2 stated that, “one of the limitations and challenges is human resource” and “the other limitation is time constraint where the lecturers have many other works and responsibilities”. Due to the open characteristics of MOOC, the current courses are all free, but lecturer’ production of course videos, launch onto website, design issues, discussions, and network maintenance require a lot of time and investment (Yu Chengjie, 2015). Technical problems is also one of the challenge in MOOC implementation. Technical problems include infrastructures, tools, intellectual properties issues and so on.

Another challenge of teaching and learning in MOOCs is lecturer’s self-efficacy. Lecturer’s self-efficacy is about the lecturer’s belief in his or her ability to organize and execute courses. As mention by RL2 and RL3 that lecturer should know their capabilities and the important things that they have to emphasize in order to achieve effective teaching and learning in MOOCs. Teaching self-efficacy is ones perceived capabilities to teach a subject effectively and to provide meaningful learning for students (Burcu, 2015). Lecturer’s self-efficacy is an important aspect in order to achieve effective and meaningful learning in MOOCs. Lecturer’s self-efficacy also will develop constructivist instructional practices and lead to effective teaching and learning in MOOCs. Related literature revealed that instructor self-efficacy has a powerful effect on their

instructional practices (Holzberger et al. 2013; Morris- Rothschild & Brassard, 2006), show greater commitment towards teaching (Coladarci, 1992) and eager to try new strategies and methods (Cousins & Walker, 2000). The informants also voiced their suggestions for improvement of teaching and learning in MOOCs which includes top management support and the availability a digital learning committee. They also proposed content and technical improvement, and standard scale development to enhance the quality of teaching and learning in MOOCs.

Top management support is very important in terms of MOOC improvement. Kezar and Eckel (2002) suggested that such change can be successfully supported by collaborative leadership and gaining senior administrative support. Beside that, a digital learning committee can also alleviate the success of MOOC. For example RL1 stated that, “top management support is very important in order to promote MOOCs successfulness” and “committee digital learning is one of the suggestion for MOOCs improvement. There should have a committee manager, specialist and administrator. All of them should cooperate and unite together to develop MOOC”. Content improvement was one of the suggestion for MOOCs improvement.

This is align with the research by Sandeen (2013) and Shirky (2012) which they stated that high quality MOOC content created at one university could support classes at many, the way a high quality textbook produced at one university today may be used at many other universities and attract more students. Technical improvement is also the other suggestion for MOOCs improvement. RL3 stated that, “we have to make sure the internet that we use is fast, the tools such as laptop and computer can be use efficiently and using updated version for MOOC improvement”. Due to the recent exploratory nature of MOOC in Malaysia, all the informants suggest that we need to develop standards for instructors, students or administrators checklist in order to enhance the quality of teaching and learning in MOOC. Standard scale development in terms of content, knowledge and instructional design for teaching and learning in MOOCs are also recommended.

CONCLUSION

MOOCs provide curriculum design and teaching design, but there is still lack of research for improvement and assessment. Based on the findings above, future research is needed on these areas; i) students’ perception about MOOC implementation; ii) instructors’ capabilities to conduct teaching and learning in MOOCs; iii) the important elements of MOOCs’ content in order to achieve meaningful learning; iv) comparison of courses in MOOCs; iv) to develop instructional design instrument which is based on instructional design criteria. Another possible future research is to explore in detail and in depth the challenges faced in practicing MOOCs and how to overcome the challenges in the best way. This study has describe several significant conclusions regarding the understanding towards MOOC in the context of three selected Malaysia public university lecturers. The research also pinpointed the suggestion for MOOCs improvement as well as the suggestion for research and instrument development to improve the implementation of MOOC. At this early stage, we acknowledge the introduction of MOOC as a positive innovation that can hopefully augur the transformation and modernisation of higher education. MOOC has a potential to have social advantages that they can attract and bring together like-minded Malaysians who have a vested interest in education and learning alighted with the fast-paced and technologically-driven environment of the 21st century.

References

- Allen, E., & Seaman, J. (2013). Changing course: ten years of tracking online education in the United States. *Sloan Consortium Report*. Babson Survey research Group and Quahog Research Group LLC. Retrieved from <http://www.onlinelearningsurvey.com/reports/changingcourse.pdf>
- Baggaley, J. (2013). MOOC Rampant. *Distance Education*, 34(3), 253-263.
- Balch, T. (2013). About MOOC Completion Rates: The Importance of Student Investment. Retrieved from <http://augmentedtrader.wordpress.com/2013/01/06/aboutMooc-completion-rates-the-importance-of-investment/>
- Brooks, R.C. (2011). Are schools the great (noncognitive skills) equalizer? Disertasi Ph.D. The Ohio State University.
- Burcu, S. (2015). To Be Or Not To Be An Effective Science Teacher. Education and Transition Network:Emerging Researchers' Group, ECER 2015.
- Coladarci, T. (1992). Teachers’ sense of efficacy and commitment to teaching. *Journal of Experimental Education*, 60(4), 323–337.

- Conole, G. (2013). MOOCs as disruptive technologies: strategies for enhancing the learner experience and quality of MOOCs. *Revista de Educación a Distancia*, 39, 1–17.
- Cousins, J. B., & Walker, C. A. (2000). Predictors of educators' valuing of systemic inquiry in schools. *Canadian Journal of Program Evaluation (Special Issue)*, 25–53.
- Digital News Asia. (2014). Taylor's Rolls Out New Free Interactive MOOCs. Retrieved from <http://www.digitalnewsasia.com/digital-economy/taylors-rolls-out-new-free-interactive-moocs>
- Dikran Kassabian. (2014). Massive Open Online Courses (MOOCs) At Elite, Early-Adopter Universities: Goals, Progress, And Value Proposition. Dissertation Doctor Of Education. University of Pennsylvania.
- Duratul Ain, Y. (2013). Buletin Sokongan Penyelidikan & Pendidikan. Pusat Teknologi Maklumat. Universiti Kebangsaan Malaysia.
- Eloy, L. M., Esteben, V. C. & Pedro, R. (2015). Analysis and Implications of the Impact of MOOC Movement in the Scientific Community: JCR and Scopus (2010-13).
- Farrington, C.A., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T.S., Johnson, D.W. & Beechum, N.O. (2012). Teaching adolescents to become learners. The role of noncognitive factors in shaping school performance: A critical literature review. Chicago: University of Chicago Consortium on Chicago School Research.
- Fini, A. (2009). The technological dimension of a massive open online course: The case of the CCK08 course tools. *International Review of Research in Open and Distance Learning*, 10(5)
- Hamdan, A., Din, R., Manaf, S. Z. A., Saleh, N. S. M., Kamsin, I. F. K., Khalid, R. A., Ismail, N. M., Shah, P. M., & Karim, A. A. (2015). Personalized learning environment: Integration of web technology 2.0 in achieving meaningful learning. *Journal of Personalized Learning*, 1(1), 13-26.
- Holzberger, D., Philipp, A., & Kunter, M. (2013). How teachers' self-efficacy is related to instructional quality: A longitudinal analysis. *Journal of Educational Psychology*, 105(3), Aug 2013, 774-786.
- Ian Lee Morris. (2014). An Exploratory Analysis of Motivation and Engagement in Massive Online Open Courses (MOOCs). Master Dissertatation. University of California.
- Kezar, A., & Eckel, P. (2002). Examining the institutional transformation process: The importance of sense making and inter-related strategies. *Research in Higher Education*, 43(4), 295-328.
- Katy, J (2014). Initial Trends in Enrolment and Completion of Massive Open Online Courses. *The International Review of Research in Open and Distributed Learning*. Vol. 15.
- Kolowich, S. (2013). Coursera takes a nuanced view of MOOC dropout rates. *Chronicle of Higher Education*, 59(32), A22-A23.
- Liyanagunawardena, T., Adams, A., & Williams, S. (2013). MOOCs: A systematic study of the published literature 2008-2012. *The International Review Of Research In Open And Distance Learning*, 14(3), 202-227. Retrieved from <http://www.irrodl.org/index.php/irrodl/article/view/1455/2531>
- Mansor, F, Latifah, A. L. & Tengku Amina Munira. (2015). MOOCs in Malaysia : A Preliminary Case Study. Paper presented at the E-ASEM Forum: Renewing the Lifelong Learning Agenda for the Future, Bali, Indonesia, 10-11 Mac 2015.
- Ministry of Education. (2014). MOOC: Massive Open Online Course. Putrajaya. KPM.
- Ministry of Education Malaysia (2014). Malaysian Education Blueprint on Higher Education [Discussion Document] – Shift 10: Globalised Online Learning. Retrieved from http://moe.gov.my/cms/upload_files/files/Chapter%2010Globalised%20Online%20Learning%20FINAL%20EN_2.pdf
- Patton, M.Q. & Cochran, M. (2002). A Guide to Using Qualitative Research Methodology. Retrieved from <http://fieldresearch.msf.org/msf/bitstream/10144/84230/1/Qualitative%20research%20methodology.pdf>
- Sandeen, C. (2013). Integrating MOOCs into Traditional Higher Education: The Emerging MOOC 3.0 Era. *Change: The Magazine of Higher Learning*, 45:6, 34-39.
- Shirky, C. (2012, November 12). Napster, Udacity, and the Academy [Web log post], Retrieved from <http://www.shirky.com/weblog/2012/11/napster-udacity-and-theacademy/>
- Tan, S. (2014). On Blended Learning and Malaysian MOOCs. Retrieved from <http://www.digitalnewsasia.com/insights/on-blended-learning-and-malaysia-moocs>
- Taylor, J. C. (2001). Distance education: the fifth generation. In Proc. 19th ICDE World Conf. Open Learning and Distance Education.
- Watted, A & Barak, M. (2014). Students' preferences and views about learning in a MOOC. *Procedia Social and Behavioral Sciences*, 152, 318-323.
- Yu Chengjie. (2015). Challenges and Changes of MOOC to Traditional Classroom Teaching Mode. *Canada Social Sciences*, 11(1), 135-139.
- Yuan, L., & Powell, S. (2013). MOOCs and open education: implications for higher education. CETIS Publications. Retrieved from <http://publications.cetis.ac.uk/2013/667>