

Postgraduate Students' Perception of Massive Open Online Courses (MOOCs) in Enhancing their Learning Experience

Faizah Abd Majid^{1*}, Rafidah Kamarudin², Ainul Azmin Mohd Zamin³

¹Faculty of Education, Universiti Teknologi MARA, Malaysia

²Academy of Language Studies, Universiti Teknologi MARA, Malaysia

³Kuliyah of Islamic Revealed Knowledge & Human Sciences, International Islamic University, Malaysia

Corresponding author: Faizah Abd Majid, E-mail: faiza404@uitm.edu.my

ARTICLE INFO

Article history

Received: June 01, 2019

Accepted: October 13, 2019

Published: October 31, 2019

Volume: 7 Issue: 4

Conflicts of interest: None

Funding: None

ABSTRACT

MOOCs first became a phenomenon in the higher education landscape in 2008. Ever since, various researches have been conducted to explore the potential of MOOCs as an alternative in the learning and teaching process, and the way forward in delivering the courses effectively. Despite the growing interest in MOOCs applicability in higher education, very little is known about how postgraduate students perceive the use of MOOCs in their programme. Postgraduate students are synonymous with the concept of adult learners. One of the characteristics of adult learners is their motivation, which is driven by intrinsic and instrumental factors. As past research have concentrated on the undergraduates, this paper uncovers the postgraduates' perceptions of MOOCs. A total of 51 respondents took part in a survey conducted in one of the Malaysian public universities. Quantitative data yielded findings similar to past research findings. However, what is new is the need for MOOC providers to cater to the needs of the postgraduate students who are adult learners particularly in determining the following; MOOCs' attributes, learning process and learning outcomes. It is expected that the postgraduate students, their educators and the MOOC developers would find the findings helpful.

Key words: Higher Education, MOOCs, Postgraduate Students

INTRODUCTION

The 21st century has witnessed the importance of globalization and internationalization in higher education. As higher education institutes (HEIs) are seen as the beacon of knowledge co-construction and dissemination, several initiatives have been spurred to encourage the cutting-edge knowledge construction and consumption through open collaborations. Massive Open Online Courses (MOOCs) first became popular in 2008 (Zawacki-Richter, Bozkurt, Alturki, & Aldraiweesh, 2018). MOOCs were seen as the 21st century cutting-edge online platform for the globalization and internationalization of the higher education teaching and learning delivery approach. The idea of knowledge construction and consumption through effective open collaboration was seen as most feasible through MOOCs (Tait, 2008). The obvious factor lies on the fact that MOOCs provide access for international participation through the open online discussions and exchanges of information through the immediate feedback and constant monitoring of the course facilitator (Zawacki-Richter et al., 2018).

The Ministry of Education in Malaysia has amplified the serious investment in MOOCs when a Key Performance Indicator was related to the development and conduct

of MOOCs in the HEIs. There is a need for the HEIs to provide at least 20% of their courses offered via MOOCs (MOE, 2018). This KPI has indirectly encouraged several academics to provide their courses through MOOCs aside from offering the courses via blended learning through their respective institute's learning management system (LMS). Similar to offering their courses via blended learning approach using the institute's LMS, the idea to offer the course via MOOCs signals the potential participation of students from across the globe which indirectly leverages the institutes' internationalization and globalization initiatives (Saadatdoost, Sim, Jafarkarimi, & Mei Hee, 2015).

To determine the quality and effectiveness of MOOCs, various researches have been conducted (Calonge & Shah, 2016; Chen, 2014; Ossiannilsson; Altinay & Altinay, 2016; Saadatdoost et al., 2015). However, little emphasis has been given to understand how the postgraduate students would perceive their courses conducted via MOOCs. Hence, this paper hopes to uncover the postgraduate students' perceptions of the MOOCs they have participated in. The research questions that guided this study are as follows;

- a) What do the respondents think of their MOOCs in terms of the MOOCs' attributes?

- b) What do the respondents think of the learning process and outcomes through MOOCs platform?
- c) What are the reasons the respondents like or dislike the MOOCs platform?

LITERATURE REVIEW

Massive Open Online Courses (MOOCs)

In the era of the 21st century higher education, institutions of higher learning have been constantly challenged to stay ahead of time as the champion of knowledge co-construction and dissemination. Accessibility to education has always been one of the main issues for the establishment of any higher learning institutions. As technology and the internet have become central to the latest development of education delivery, MOOCs is seen as the latest platform for education accessibility. The first course offered openly via online was the one offered by the University of Manitoba in 2008 (Tait, 2008). Since then, various courses have been made available and offered through the massive open online format.

There are various reasons why MOOCs are seen as relevant as the way forward in the 21st century education. According to Zawacki-Richter et al. (2018), MOOCs have great potentials in supporting lifelong learning, eliminating barriers in learning process, providing equality and opportunity in education and ensuring the liberalization of knowledge. In MOOCs, the courses are offered openly via an online platform. Such is the format that participants from various background across the globe could sign up. The learning process includes various activities aside the input provided by the course developers and instructors through various multimedia such as YouTube, links and uploaded documents and info graphics. Participants are awarded certain reward formats such as badges and certificates upon successful completion of the course.

Adult Learners' Characteristics

Adult learners are defined as students who have other social roles than that of a student (Knowles, 1990). In other words, they could be a spouse, a parent and an employee. They are perhaps significantly distinguished from other traditional college students by the following characteristics as claimed by Knowles (1990):

- i) They have a self-concept that portrays them as autonomous and independent
- ii) Experience is their rich resource of information in their learning
- iii) They seek to learn something related to their work and plan to put the new knowledge to immediate use

Lindeman's (1926) assumptions on their orientation towards learning further differentiate them from the traditional college students. According to Lindeman (1926 as cited in Knowles, 1990, p.31),

- i) adults are more motivated to learn as they experience needs and interests that learning will satisfy,
- ii) adult' orientation to learning is life-centred,
- iii) experience is the richest resource for adults' learning and
- iv) adults have a deep need to be self-directing.

The characteristics as proposed by Knowles (1990) and Lindeman (1926), as cited in Knowles, 1990 guided the present study's conception of the postgraduates as adult learners.

METHODOLOGY

Adopting a quantitative research design, the present study employed a survey. The population for the present study was the postgraduate students who were enrolled in one of the social sciences faculties in a public university in Malaysia. As the number of the postgraduates who took their courses via MOOCs was small, all of them were involved as the research respondents. A set of questionnaire was distributed to the respondents. A total of 51 respondents participated in the survey. Most of the postgraduate students are full-time students (76.5%) and female (70.6%). All of them were working and married.

The questionnaire was developed based on literature review and upon consultation with panel of experts to establish its content validity. In determining its reliability, a Cronbach alpha value of .78 was generated which indicates a comfortable reliability value. The value exceeded .70, which as claimed by Fraenkel, Wallenn, and Hyun (2012), indicates high reliability and good internal consistency.

The questionnaire was divided into three parts; Part A elicits the respondents' demographic background (study mode and gender), Part B focuses on MOOCs' attributes (10 items), Part C on learning process (7 items) and outcomes (3 items) and Part D is an open-ended question for writing their comments on why they like or dislike the MOOCs they took (1 item). The respondents' responses for each item were measured on a 5-point Likert scale that ranges from 1 (strongly disagree) to 5 (strongly agree).

A descriptive statistic analysis was employed in analyzing and interpreting the data. The data was analyzed in terms of the mean scores. The values provided further interpretations of the findings in answering the research questions.

FINDINGS AND DISCUSSIONS

The order of the discussions on the findings is guided by the research questions posed at the onset of the present study.

a) Respondents' views towards the MOOCs' attributes

There were 10 items posed to elicit the respondents' views on the attributes of the MOOCs they had taken in their programme. Table 1 summarizes their responses.

On a scale of 1 – 5, it is interesting to note that the highest mean score is 4.39 while the majority of the items have mean scores exceeding 4.00. This is a clear indication that the respondents agree with most of the item describing the MOOCs' attributes. To the respondents, the MOOCs they took were well organized ($M= 4.39$), user-friendly ($M= 4.35$) and that they were able to share any media or documents in MOOCs ($M = 4.35$). The lowest mean score is an indication of their frustration with MOOCs malfunctioning occurrences ($M= 3.47$).

The findings have indicated similar findings with past research (Calonge & Shah, 2016; Daza, Makriyanis, & Rovira Riera, 2013; Ossiannilsson et al., 2016;

Table 1. MOOCs attributes

Item	Mean
I like the MOOCs' visual design	4.14
The MOOCs lay-out is user-friendly	4.35
The MOOCs are organized	4.39
I have fully utilized the chatbox/chatroom	4.12
It is easy for me to navigate to different topics using MOOCs	4.16
The chatbox/chatroom offers a helpful means of communication with my peers	4.16
I found the course content interesting	4.27
I am able to share any media or documents in MOOCs	4.35
The award of badge motivates me to do well in the tasks	4.14
I am frustrated with MOOCs malfunctioning occurrence	3.47

Table 2. Learning process and outcomes

Item	Mean
I am able to reflect on what was learnt	4.43
MOOCs activities helped me to understand the topics better than by reading	4.41
I am able to share my thoughts and ideas with other participants better	4.29
I can read the comments posted by other participants for my reference	4.30
I can engage with my facilitators better in MOOCs than in class	4.33
I am interested in watching all the educational videos posted	4.24
I do not lose momentum as the course progressed	3.96
I am able to explain the major concepts of the courses	4.27
I believe that my knowledge on the courses has increased	3.65
I have improved my practice of the concepts learnt in the courses.	4.39

Saadatdoost et al., 2015; Li, Zhang, Bok & Guo, 2015; Zutshi, O'Hare, & Rodafinos, 2013). Nonetheless, in interpreting the findings to the postgraduate students' characteristics as adult learners, it is safe to deduce that being adult learners who juggle various tasks at one time, attributes such as well-organized and user-friendly are deemed important. Additionally, a platform that enables the sharing of extra information such as relevant media and documents is favourable to the adult learners as they could have easy access to extra learning resources amidst their busy schedule at work and at home. This interpretation is further supported by past research findings on adult learners such as Siti Nur Amira, Munira, and Nur Hana (2013) who claimed their respondents reported challenges in learning include the lack of time to prepare for classes due to tight working schedule and family commitments.

b) Respondents' views towards the learning process and outcomes through MOOCs platform

There are 10 items posed to elicit the respondents' views on the learning process and outcomes of the MOOCs they had taken in their programme. Table 2 summarizes their responses.

The respondents seem to have high regards of the MOOCs they took in terms of their learning process and outcomes. Interestingly, these findings are also similar to past findings such as that of Calonge and Shah, (2016), Chen (2014), Ossiannilsson et al. (2016), Phan, McNeil, and Robin (2016), Stevanovic (2014), and Yang (2014). Most of the items have mean scores above 4.30. The highest mean score is 4.43 while the lowest is 3.65.

Relating to the respondents' characteristics as adult learners, it is acceptable why they mostly claimed that MOOCs enabled them to reflect on what they had learnt ($M = 4.43$), understand better than by reading ($M = 4.41$), improve their practice of the concepts learnt (mean 4.39) and engage with their facilitators better in MOOCs than in class ($M = 4.33$).

Adult learners are generally seen as different from the traditional learners in terms of their motivation and

time-perspectiveness (Knowles, 1990; Merriam, 2001; Rogers, 2002). Unlike the traditional learners, they made a come back to learning institutions with real work issues and problems to solve. The new skills and various information gained from the classes are seen as their problem-solving alternatives. Hence, it is understandable why the respondents in the present study seem to claim MOOCs had enabled to reflect and improve their practice of the concepts. As adult learners, the respondents prefer to interact and engage than by reading on their own. Again, this finding could be associated with their need as adult learners who prefer to have meaningful and hands-on experiences. Ross-Gordon (2013) and Ritt (2008) had similar findings and interpretations in their research.

c) Respondents' reasons for like or dislike MOOCs platform

The respondents were asked to state why they like or dislike the MOOCs they had taken. The following table summarizes their responses. Since the analysis was done according to themes, the reasons were listed and ordered in the table according to the themes identified and the theme's popularity seen from its frequency count.

Table 3 provides further data that could be related to the earlier findings. All in all, the data churned from the open-ended item of the questionnaire confirmed the findings as summarized in Tables 1 and 2. As adult learners, the postgraduate students in the present study confirm the fact that they prefer easy accessibility to their learning platforms. Top of the list of why they like MOOCs is the fact that MOOCs could be accessible anytime and anywhere. This attribute suits their characteristics as adult learners. Additionally, the respondents claimed to like MOOCs due to their user-friendliness, variety and immediate feedback. Again, this is an indication of the adult learners who are all at the same time having commitments at work and home. Ease of use, availability of resources and immediate feedback best suit their busy lifestyle as married, working adult learners.

Table 3. Reasons to like or dislike MOOCs

Reasons to like	Frequency
Anytime, anywhere	7
User-friendly	4
Offers variety	4
Immediate feedback	4
Interactive	3
Cater to learning style	3
Able to share extra info	2
In constant communication	2
Freedom to express ideas	2
Technical glitch	3
Poor internet	2
Insufficient content	2
Outdated contents	1

Interestingly, the reasons the respondents gave in disliking MOOCs are expected as the same reasons were found in past research (Calonge & Shah, 2016; Chen, 2014; Ossiannilsson et al., 2016; Phan et al., 2016; Stevanovic, 2014; and Yang 2014). MOOCs participants in past research seem to claim that technical glitch do happen in MOOCs and that poor internet connection could be a push factor in following MOOCs. However, the present study also revealed issues such as insufficient and outdated MOOCs contents. The findings could reflect the need for the MOOCs developers to improve their contents to better suit the participants' expectations, especially the adult learners.

CONCLUSION

The aim of this research was to uncover the postgraduate students' perceptions of the MOOCs they took. Based on relevant literature review and past research findings, the present study was conducted to fill the gap between what is already known about MOOCs and learners' learning, and what is yet to be known about adult learners and their MOOCs. Hence, the characteristics of adult learners were referred to in interpreting the findings. All in all, it could be concluded that MOOCs serve as a facilitating learning platform to the adult learners due to several attributes namely the user-friendliness, accessibility and sharing opportunities. As adult learners are those with multiple responsibilities, such attributes in their learning platform were seen as facilitative in maximizing their learning potentials.

Likewise, in addressing their learning process and outcomes, the postgraduates seem to agree that MOOCs had provided them with opportunities that encourage meaningful and hands-on learning which suit their learning needs as adult learners. MOOCs enabled them to engage meaningfully, interact with the others and receive immediate feedback, which in turn enabled them to improve their practice. Opportunities to reflect and share relevant information were beneficial to the postgraduates as those are learning strategies relevant to them as adult learners.

As a way forward, it is suggested that relevant pedagogical implications could be considered when developing MOOCs. The contents and activities could best be suited to the adult learners based on their characteristics. The MOOC instructors and adult learners themselves could also be enlightened on how to better approach their teaching and learning process respectively.

ACKNOWLEDGEMENT

The present study was part of a bigger research, which was funded under the Fundamental Research Grant Scheme (FRGS) entitled "Teaching Model for the Millennials in Malaysian Public Universities". 600-RMI/FRGS 5/3 (140/2013). The researchers wish to express their gratitude to the Ministry of Education for the research funding.

REFERENCES

- Calonge, D., & Shah, M. (2016). MOOCs, graduate skills gaps, and employability: A qualitative systematic review of the literature. *The International Review of Research in Open and Distributed Learning*, 17(5), 67-90. doi: 10.19173/irrodl.v17i5.2675
- Chen, Y. (2014). Investigating MOOCs through blog mining. *The International Review of Research in Open and Distributed Learning*, 15(2), 85-106. doi: 10.19173/irrodl.v15i2.1695
- Daza, V., Makriyannis, N., & Rovira Riera, C. (2013). MOOC attack: Closing the gap between pre-university and university mathematics. *Open Learning: The Journal of Open, Distance and E-Learning*, 28(3), 227-238. doi: 10.1080/02680513.2013.872558
- Fraenkel, J., Wallenn, N. & Hyun, N. (2012). *How to design and evaluate research in education*. New York: McGraw Hill
- Knowles, M. (1990). *Adult learners: a neglected species*. Houston: Gulf Publishing Co.
- Li, Y., Zhang, M., Bonk, C. J., & Guo, N. (2015). Integrating MOOC and flipped classroom practice in a traditional undergraduate course: Students' experience and perceptions. *International Journal of Emerging Technologies in Learning (IJET)*, 10(6), 4. doi: 10.3991/ijet.v10i6.4708
- Lindeman, E.C. (1926). *The meaning of adult education*. New York, NY: New Republic.
- Merriam, Sharan B. (2001). Andragogy and Self-directed Learning: Pillars of Adult Learning Theory. In *The New Update on Adult Learning Theory: New Directions for Adult and Continuing Education*. No.89 (pp. 3-13). San Francisco: Jossey-Bass.
- Rogers, A. (2002). *Teaching adults*. Philadelphia: OUP.
- Ossiannilsson, E., Altinay, F., & Altinay, Z. (2016). Analysis of MOOCs practices from the perspective of learner experiences and quality culture. *Educational Media International*, 52(4), 272-283. 10.1080/09523987.2015.1125985
- Phan, T., McNeil, S. G., & Robin, B. R. (2016). Students' patterns of engagement and course performance in a massive open online course. *Computers & Education*, 95, 36-44. doi: 10.1016/j.compedu.2015.11.015

- Ritt, Elizabeth. (2008). Redefining Tradition: Adult Learners and Higher Education. In *Adult Learning* 19(1/2), 12–16.
- Roos-Gordon, J. (2013). Research on adult learners: supporting the needs of a student population that is no longer nontraditional. In *Peer Review*. Vol 13 (1). Available online: <https://www.aacu.org/publications-research/periodicals/research-adult-learners-supporting-needs-student-population-no>
- Saadatdoost, R., Sim, A. T. H., Jafarkarimi, H., & Mei Hee, J. (2015). Exploring MOOC from education and Information Systems perspectives: A short literature review. *Educational Review*, 67(4), 505-518. doi: 10.1080/00131911.2015.1058748
- Siti Nor Amira, B., Munira, M, & Nur Hana, M. (2013). Challenges of adult learners: a case study of full-time postgraduate students. In *Procedia Social and Behavioral Science*, 90, pp 772-781. (available online: https://www.researchgate.net/publication/273086363_Challenges_of_Adult_Learners_A_Case_Study_of_Full_Time_Postgraduates_Students)
- Stevanovic, N. (2014). Effects of motivation on performance of students in MOOC. Paper presented at Sinteza 2014 - Impact of the Internet on Business Activities in Serbia and Worldwide. Serbia. doi: 10.15308/sinteza-2014-418-422
- Tait, A. (2008). What are open universities for? *Open Learning: The Journal of Open and Distance Learning*, 23(2), 85-93. doi: 10.1080/02680510802051871
- Yang, Q. (2014). Students' motivation in asynchronous online discussions with MOOC mode. *American Journal of Educational Research*, 2(5), 325-330. doi: 10.12691/education-2-5-13
- Zawacki-Richter, O., Bozkurt, A., Alturki, O., & Aldraiweesh, A. (2018). *What research says about MOOCs: An explorative content analysis*. Available online: <http://www.irrodl.org/index.php/irrodl/article/view/3356/4490> February - 2018
- Zutshi, S., O'Hare, S., & Rodafinos, A. (2013). Experiences in MOOCs: The perspective of students. *American Journal of Distance Education*, 27(4), 218-227. doi: 10.1080/08923647.2013.838067