

Journal of Nusantara Studies 2019, Vol 4(2) 144-167
Universiti Sultan Zainal Abidin
ISSN 0127-9386 (Online)
<http://dx.doi.org/10.24200/jonus.vol4iss2pp144-167>



Journal of Nusantara
Studies (JONUS)

HOW MALAYSIAN LECTURERS VIEW MOOC AND ITS CHALLENGES

Nagaletchimee Annamalai

School of Distance Education, Universiti Sains Malaysia,
11800 Gelugor, Penang, Malaysia
E-mail: naga@usm.my

Received: 27 Sep 2019,

Accepted: 27 Dec 2019

ABSTRACT

This study addresses a relatively new phenomenon in the Malaysian higher education (Massive Open Online Courses) MOOCs and explored the perception of the Malaysian lecturers on the emerging online learning environment. A qualitative case study was adopted and fifteen lecturers were interviewed from a higher education institution in Malaysia. These lecturers are familiar with the blended learning approach. The in-depth interviews were further transcribed and thematic analysis were considered to identify the emerging themes. The study identified themes related to educational change, design of the instruction, motivational and challenging issues. The findings demonstrated that the lecturers were aware of the transition from traditional classroom teaching to the teaching in the virtual platform. The investigation also contributes to greater understanding of challenges of integrating MOOCs in Malaysian higher institutions. Based on the findings, pedagogical implications are discussed on how workshops should integrate certain aspects related to MOOCs that can be useful for the Heads of Higher Institutions and policy makers. It is hoped that these strategic workshops will increase the effectiveness of MOOC implementation in Malaysian higher institutions.

Keywords: Higher education, MOOC, online learning, technology adoption

Cite as: Annamalai, N. (2019). How Malaysian lecturers view MOOC and its challenges. *Journal of Nusantara Studies*, 4(2), 144-167. <http://dx.doi.org/10.24200/jonus.vol4iss2pp144-167>

1.0 INTRODUCTION

Recent concepts such as the Internet of Things, Industrial Internet, Cloud-based Manufacturing and Smart Manufacturing are some of the terms associated with Industry Revolution 4.0. Industry Revolution 4.0 will necessitate profound changes in aspects related to education particularly in content, delivery/pedagogy and structure/management of education (Haseeb, 2018). Learners need to design their own educational pathways based on their personal goals and to stay abreast with the quicker cycles of disruptive changes. Different kinds of learning spaces and pedagogical practices are suggested such as heutagogy (self-determined learning), pedagogy (peer-oriented learning) and cybergogy (virtual-based learning). Viewed in this manner, there is a need for curriculum to be fluid, organic and incorporating the latest technologies and tools. Education needs to offer strong value to the nation in the context of Industry 4.0.

The emergence of Massive Open Online Courses (MOOCs) appear to be a disruptive force and promising to revolutionize education across the globe. MOOCs are large scale, open access classes conducted by universities via online learning using a variety of techniques such as tape recorded lecturers, online assessments, discussion forums and even live video chat discussions (Brahimi & Sarirete, 2015). It uses collaborative methods to build worldwide knowledge (Freitas & Paredes, 2018) and opens up classes to a wide audience without geographical and social limitations (Hone & El Said, 2016).

The frenetic enthusiasm of MOOCs to revolutionize education is evident when 23 million learners signed up for MOOC in 2017 and the total number of learners of MOOC is 81 million (Dhawal, 2018). Despite these achievements, the initial claim that MOOCs are democratizing endeavor is slowly giving way to more measured questions that consider the settings and context. Significant questions arise on how to capture such online learning opportunities while assuring that the integrity of the teaching and learning experiences remain as the fundamental principal of the university program. Studies are starting to probe into the reasons behind low retention rates

and little is known about the actual behaviors of educators and learners (Hone & El Said, 2016). Thus, this present study aims to provide insights into current perception of MOOCs in Malaysian higher institution. This research would also help us to understand how lecturers in Malaysia perceive the massive rise of MOOCs by probing lecturers' ideas, knowledge to counter criticism, overcome limitations and create an interesting platform for learning experience.

There are two reasons to conduct this study. First, academicians act as change agents that need to acquire relevant knowledge and understand stakeholders' perspectives in education for an effective changing process (Debowski, 2014). There are two types of barriers in integrating ICT in classrooms; intrinsic and extrinsic barriers. The intrinsic barriers are related to educators as mediating agents who decide the actual application of technology in the pedagogical practices whereas extrinsic barriers refer to the quality of the educational tools and the teachers' knowledge on how to utilize them effectively. As such, the intrinsic barrier involves educators as mediating agents, manipulating technology in their pedagogical practices (Ertmer & Ottenbreit-Leftwich, 2010). Second, the study also acknowledges the fact that a one size fits all approach is not practical and users obviously will not have the same opinions and reactions to MOOCs in different settings. Thus, the qualitative approach to reveal perception will reveal a wide range of elements related to MOOCs and shed light on what lecturer's perception about MOOCs in order to create successful, useful and effective MOOCs. The findings can be a guide for the professional development courses and policy makers. According to Liu, Kang, and McKelroy (2015), "the real revolution of MOOCs is for universities to pay more attention to teaching and effective pedagogical practices" (p.132). The research questions addressed in this study are:

1. What are the lecturers' perceptions of MOOCs?
2. What are the strengths and limitations of MOOCs in Malaysian higher institutions?

In the following section, a review of the related research will be introduced and followed by the methodology. The author further describes and discusses the findings as well as the pedagogical implications.

2.0 LITERATURE REVIEW

2.1 Why Malaysia

In Malaysia, MOOC was initiated by the Malaysian Educational Blueprint for Higher Education 2012-2025. Thirty-six MOOCs were offered by six higher education institutions in Malaysia (15 by Taylors University via Open learning platform; four by Malaysian public universities and 17 by Malaysian OUM under iTunes. The instructional formats and pedagogies in the 36 MOOCs offered in Malaysia are relatively conventional. The Government aims to deliver 15% of the courses offered by public universities to be delivered via MOOCs by 2015 and to further increase the delivery to 30% by 2020. According to Tan, Goh, and Sabastian (2014), MOOCs in Malaysia needs to be reviewed to ensure quality to ensure that teaching and learning activities are relevant to the Malaysian Higher Education. He believes that in order for MOOCs to be successful in Malaysian higher institutions, lecturers need to be techno-savvy and technophobia of the lecturers need to be addressed. Further, Mansor, Woo, Mazlan, Fathinirna, and Nurhisyam (2014) argue that one of the reasons why MOOCs has not ‘taken off’ as expected is due to “lack of potential local resources to further develop MOOCs to suit the needs of the Malaysian audience” (p. 146). These authors further commented that three characteristics of MOOCs: ‘massive’ ‘open’ and ‘online’ illustrate three key factors that determine whether MOOCs can be significant in Malaysian higher educational context. These three attributes need to be well manifested to facilitate effective teaching and learning experiences in Malaysian education. As such, streamlining, co-operation and united effort from lecturers are pertinent to develop a positive view and support in implementing MOOCs in Malaysia. According to Barclay and Logan (2013) research to examine the use of MOOCs in developing countries particularly from the perspective of developing countries is scare.

2.2 Prior Research on MOOCs

An increasing emphasis on the potential of MOOCs as an effective mode of online learning is well documented (Hone & El Said, 2016; Waldrop, 2013; Moore & Janowicz, 2009). MOOCs promote learning in the virtual platform for the following reasons: i) economical to the students as most of the course materials are available free or at a minimal cost; ii) accessibility of the digital platform at any time convenient to the student without time and space constraints; iii) personalized learning as students can choose their courses based on their interest and time (Barclay & Logan, 2013). Studies reveal significant relationships mediated by the effect of content on the perceived

effectiveness of the course. For example, task and technology characteristics positively influence behavioral intentions (Ahmed, Khan, Faisal, & Khan, 2017); perceived usefulness, ease of use and mimetic pressures were significantly correlated with students' intention of adoption (Gao & Yang, 2015). Hew and Cheung (2014) found four reasons on why learners enrolled for MOOCs: to acquire knowledge on new topics, curiosity of what a MOOC is, personal challenge and to gather completion certificates.

Despite novel features, many practitioners and researchers are skeptical of the quality of learning provided by MOOCs and the possible detrimental consequences (Bali, 2014; Hone & El Said, 2016). It has been emphasized that learning outcomes in MOOCs are not clearly established (MacDonald & Ahern, 2015) and the number of participants is an obstacle to conduct effective assessment (Dhawal, 2018). Low completion rates have been reported in most MOOCs and the reason highlighted is the learning structure (Liyaganawardena, Adams, & Williams, 2013). Deshpande and Chukhlomin (2017) reported that visual, design, self-assessment and learnability were not found to be contributing to learners' motivation to learn. The researchers made clear that the course design is pertinent as difficult navigations and not easy to understand interface will affect the learners' experience on MOOCs. Other reasons for failure of MOOCs are related to poor course design and low quality, expectations, time and inadequate prior knowledge (Colman, 2013). Responding to these challenges, literature commonly recommended that MOOCs need to identify the appropriate pedagogical practices in integrating MOOCs (Liyaganawardena et al., 2013). Wenger, McDermott, and Snyder (2002) pointed out that it is critical to discover personal stories when examining how knowledge system works because only practitioners can illustrate how knowledge can be put into action. Margaryan, Bianco, and Littlejohn (2015) found that the quality of the instructional design is an important factor in the success of learning. Further, Park, Jung, and Reeves (2015) described the need for the presence of cognitive, social and teaching presences as suggested by Garrison, Anderson, and Archer (2001). Park et al. (2015) in his auto ethnography refined the Caroll model of school learning to be adapted for MOOCs learning. The authors concluded that systematic instructional design is pertinent to assure quality, relevance and low drop-out rates. Larionova, Brown, Bystrova, and Sinitsyn (2018) conducted a study with different group of learners from Russian university using online learning with tutor support, blended learning and traditional classroom. It appeared that blended learning and online additional materials show greater effectiveness in learning outcomes compared to traditional classroom teaching. Another

qualitative study by Hood, Littlejohn, and Milligan (2015) compared the self-reported self-regulated learning behaviors between students from various situations. Further, McGrath, Stenfors-Hayes, Roxå, and Laksov (2017) adopted a phenomenography approach to explore the conception of different stakeholders' perception on MOOCs phenomenon. The study revealed five conceptions of MOOCs: 1) MOOCs as learning platform; 2) MOOCs as content learning; 3) MOOCs as catalyst for educational change; 4) MOOC as moral obligation; 5) MOOC as institutional positioning. A recent study by Annamalai, Noonin, and Buathong (2019) investigated the Thai lecturers' perception and their needs in designing MOOCs. The qualitative study reported that for MOOCs to be integrated in their teaching practices, it is pertinent for the lecturers to attend training and workshops on how to design effective MOOCs.

While reviewing the rich studies of MOOCs is beyond the scope of this study. To the researcher's knowledge there are limited studies on lecturers' perception of MOOCs in Malaysian settings. This is probably because MOOCs in Malaysia is quite new and in-depth investigations related to perception of Malaysian has not been attempted. In fact, Tan (2014) has pointed out that there are a number of issues that need further investigations to develop good quality MOOCs in Malaysia to assure quality, relevance and low dropouts. According to Shapiro et al. (2017) qualitative work about MOOCs is just beginning.

3.0 METHODOLOGY

A qualitative case study research is deemed appropriate to explore the lecturers' perception on MOOCs. The study aims to "be true to the nature of the phenomena under study" (Norris & Walker, 2005, p. 132) and to explain it like it is without any manipulation. It intends to discover and interpret the data rather than hypothesis testing. The bounded phenomenon refers to the idea that the study is separated in terms of time, space and physical boundaries (Creswell, 2009) as this study is situated in a Malaysian higher institution.

3.1 Participants and Data Sources

This study focused on a single higher institution in northern region of Malaysia. Fifteen lecturers agreed to take part and all are non-users of MOOCs in their teaching and learning activities. The participants were aged between 30-50 and have strong computer literacy. There were 8 male and 7 female lecturers. Trigwell (2000) has suggested that 15-20 participants will be able to provide

reasonable variation and to keep the qualitative data manageable (Dunkin, 2000). The lecturers are familiar with blended learning approach and have the opportunity to meet their students in traditional classroom teaching and video conferencing. Their course content is delivered via webex and video conferences. The lecturers come from various disciplinary backgrounds including; language, business, finance and science. All the participants were involved in teaching undergraduate students and post-graduate students. The names of the participants as well as the faculties names are anonymous due to the consideration of confidentiality and ethics. The class sized ranged from 20-900 students. The science course had 6 hours contact hours and the language course had 4 contact hours. Face to face contact hours were related to lecturers, laboratories, tutorial and assessments. All lecturers were familiar with the learning management system (LMS) provided by the faculty. E-lecturers are compulsory for all lecturers and other types of technology use are also encouraged to deliver their content of the courses.

3.2 Interviews

One to one interviews lasted for 40-60 minutes with each participant. A room at the university campus was arranged. Participants were given the information sheet outlining that nature of the study and provided their consent to participate. All participants were given pseudonym and they agreed to keep what was discussed in the interview confidential. Since the aim was to investigate the lecturers' perceptions, open-ended questions were used to allow lecturers to express their ideas, opinions and understanding of the themes under investigation. The interview data was recorded and notes were taken during the interviews. A list of questions was prepared and prompts were used to encourage and stimulate lecturers to explain further. For example, what else can you say about, why do you say so, Give me more examples and... Why do you think it is important...? Participants were asked more open-ended questions to gain more information about the idea discussed rather than a straight forward questions.

The interviews were conducted in English with the exception of times when some participants prefer to reply in Malay language in order to better express their views. These responses are further translated to English by the researchers. The data transcribed was further scrutinized inductively to identify the themes and dimensions of variation. Interviews were audio taped, transcribed verbatim and analyzed by three independent researchers.

4.0 DATA ANALYSIS

The purpose of this study is to explore the lecturers' perception of MOOCs and to investigate the variations in their perceptions. This study was undertaken to analyze the lecturers' interview transcripts and identify themes related to MOOCs. The categorization was compared, discussed and calibrated before deciding on the themes. The themes will be illustrated in a distinctive and succinct way (Marton & Booth, 1997).

Three lecturers were trained to categorize the interview transcripts based on Dahlgren and Fallsberg (1991) and Stenfors-Hayes, Hult, and Dahlgren (2013). The steps are:

Familiarization: reading through the interview transcripts to get a feel of how the interview proceeded: at this stage all data in the data-set are given equal consideration

Condensation: identifying meaning units and marking these for the purpose of further scrutiny; the size of the meaning units can vary; different fragments of sentence can be associated with different ways of experiencing phenomenon

Comparison: comparing the units with regard to similarities and differences

Grouping: allocating responses that express similar ways of understanding the phenomenon to the same category

Articulating: capturing the essential meaning of a category

Labelling: expressing the core meaning of the category; steps 3-6 are repeated in an iterative procedure to make sure that the similarities within the differences between categories are discerned and formulated in a distinct way. For example, the researchers made sure that the sub-themes such as on line pedagogical practices and democratization of education appropriately fits in for the educational change theme and not any other themes.

Contrasting: comparing categories through a contrastive procedure whereby the categories are described in terms of their individual meanings as well as in terms of what they do not comprise.

4.1 Distribution of Themes

To gain a better understanding of the lecturers, perception of MOOCs spread across the themes, the frequencies of the lecturers' perception were tabulated in Table 1. The themes were named as A, B, C...The themes and sub-themes will be discussed in the following section. The quotations

for the interview transcripts are not edited for grammatical accuracy. It has been transcribed as how the interviews were recorded without any paraphrasing. Fillers and pauses were also included.

Table 1: Frequency distribution of lecturers' perception of MOOCs

PARTICIPANTS															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B	X	X				X			X				X	X	X
C	X	X	X	X	X							X			
D			X	X	X										
E					X		X	X							X
F		X		X	X										
G					X								X		
H													X		X
I				X	X	X							X		X
J					X	X	X	X	X	X	X	X	X		
K					X	X	X					X			

A: Online Pedagogical Practices

B: Democratization of Education

C: Design of the Instruction

D: Effective teaching materials

E: Tool for Blended Learning

F: Rich Learning Environment

G: Systematic Lectures

H. Academic qualification to excel in career

I. Cognitive Presence

J. Social Presence

K. Interpersonal and Effective Communication Skills

The sub-themes to each main themes mentioned are provided and elaborated on. The findings are illustrated in Table 2.

Table 2: Themes and sub-themes

Themes	Sub-Themes
(Research Question 1)	
Educational Change	<ul style="list-style-type: none">• Online pedagogical practices• Democratization of Education
Design of the Instruction	<ul style="list-style-type: none">• Effective teaching materials• Tool for blended learning
(Research Question 2)	
Motivational Issues	<ul style="list-style-type: none">• Motivational Issues• Rich learning Environment• Systematic Lectures• Career Advancement
Challenging Issues	<ul style="list-style-type: none">• Cognitive Presence• Social Presence• Interpersonal and Effective Social Skills

The following section discusses the themes related to Research Question 1: What are the lecturers' perceptions of MOOCs?

4.1.1 Educational Change

The educational change was strong in focus and MOOCs are viewed as learning in the virtual environment which is different from traditional classroom teaching. They also identified that anyone who is interested in acquiring knowledge can engage themselves in the virtual environment as part of the on campus learning experience. Lecturers' perception highlighted the feature of

bringing the course content to the global audience. The education change theme involves two sub-themes and illustrated in the following section.

4.1.2 MOOC as delivering online pedagogical practices

In this category, MOOC was described as a digital platform where course materials are available online. Affordances of MOOCs are associated with the virtual environment that breaks the geographical and social boundaries. This will allow students to attend classes at any time convenient to them and the pre-arranged classes and location in campus will not be in paramount.

P4: MOOCs do not have geographical barriers. Engages whoever who wants to learn about it.

P5: Ideal learning platform for the ideal world. It is with the assumption that learners will share, acquire knowledge and can be shared. The use of MOOCs has to be connected with the learners, time commitment and their interest. It is the users in the ideal world.

P6: Online platforms, materials are available and students can access them.

P9: Open access, anybody can get access, lifelong learning. Any age group

P12: Online learning, pre-arranged teaching

P14: need to prepare videos

Lecturers have the idea that MOOCs are online and is offered over the Internet and recognized the advantages that will accrue when students are engaged in MOOCs.

4.1.3 MOOCs as democratization of education

The perception illustrated in this category is a direct reaction to the booming of technology in education. MOOCs are viewed as a democratic endeavor with digitalization of subject matter, allowing learners to engage with the subject specific material according to their needs and preferences. In short, it gives a greater control to students to access knowledge and learning opportunities. MOOCs are platforms for many to look at education in a different way.

P4: MOOC is open source knowledge, make it available to the masses. Anybody can participate. Underprivileged are able to learn.

P7: Massive number, easily and efficiently and store information so the storing is good.

P2: open... even If students don't go to university.... able to learn from the top graded university...Can do everything that the teacher does in the traditional classroom.

P13: attending lectures world-wide without boundaries

P:14: can stop it and continue later because lectures are recorded

In short, MOOCs have the potential to reinvent the way we acquire and engage with knowledge.

4.1.4 Design of the instruction

Teaching materials are vitally important and complex component of any type of teaching and learning experiences. Being engaged in MOOCs demands how materials need to be organized to suit or to achieve certain outcomes. Lecturers testimonial illustrates that educators are aware of the need to organize materials to fit specific needs and to construct knowledge effectively. Organizing the teaching materials is viewed as prerequisite for the success of MOOCs. The sub-themes for the design of instruction themes are effective teaching materials and MOOCs as a tool in blended learning environment.

4.1.5 Effective teaching materials

Lecturers are aware of their responsibilities to have a learning environment that provokes thinking and creativity. Teaching in the digital platform like MOOCs requires evidence based teaching strategies. Lecturers' perceptions are illustrated in the following section:

P3: High quality MOOCs to keep students motivated and interested. Bad stuff lose interest if you make them read the slides

P4: Material is interesting...element multimedia. Creativity is needed

P5: Like it or not. It forces lecturers to be systematic. You have to plan the full course, tangible and it is well designed. It purposefully plans you to have a good planning.

4.1.6 MOOC as a tool for blended learning

A number of lecturers was quite certain that MOOCs are appropriate to be used in the blended learning approach and will strengthen students' learning experience. The classroom time is more

likely to be for structured exercises that emphasize the application of content to solve problems or work through tasks. Lecturers stated that:

P5: The face to face classroom strengthen the teaching process through practice and the application of theories learned in MOOCs.

P8: MOOC can be used in blended and flipped learning classroom situation or context.

P11. I am able to link the app and the following week we can discuss further. For example, in my field I use the Windy Apps. We need hands on in my field and certain huge data and programmer is difficult to use MOOCs. I still need the traditional classroom.

P7. Should be with blended learning...when you go to class ...you learn. MOOC is supplementary teaching

P15: We need the blended element...

The following section discusses the themes related to Research Question 2: What are the strengths and limitations of MOOCs in Malaysian higher institutions?

4.1.7 Motivational issues

The factors driving the lecturers to consider MOOCs can be divided to rich learning environment, systematic lectures and career advancement. The sub-themes are rich learning environment, systematic lectures and career advancement.

4.1.8 Rich learning environment

Lecturers highlighted that students have access to a number of learning materials providing choices. Independent exploration via MOOCs provides opportunities to access materials consistently. The lecturers stated that:

P2: Different kind of style in teaching no longer rely upon one standard material

P4: Whatever we teach is immortalized. If it would have existed during Einstein time...we could have learned a lot of things

P5: Interesting.... interactive animations which suits the current generation. The younger generation are technology users. In fact, the middle age and senior citizens are using technology...

4.1.9 Systematic lectures

Lecturers need to bring out their very best approach for MOOCs to succeed. The teaching and learning activities must relate to the requirement of the curriculum as a whole and learner's difficulties.

P5: Like it or not. It forces lecturers to be systematic. The application follows certain logic. You have to plan the full course, tangible and it is well designed. It purposefully plans you to have good planning.

P13: It is easier to handle in the virtual environment, sharing of knowledge with them. It is very structured lesson... Google is there to answer questions

4.1.10 Career advancement

It is obvious that MOOCs are career oriented. Many occupations are shifting from academic qualifications to professional training. There is a need for employers to update their skills in Industry 4.0. Global challenges need to be addressed. Therefore, MOOC is viewed as a platform to gain knowledge and to learn about new techniques.

P13: All CEO can have MBA. They can be in the plant but to attend lectures worldwide...they are not bound by boundaries.

P15: flexible graduate. cannot be book smart. You have to be street smart. If you are from the science background and interested in language you can always take up classes without formally going for classes.

4.1.11 Challenging issues

The findings evoke the concern of educators with practical aspects, effectiveness of MOOCs to achieve learning outcomes in terms of approaches of teaching. The rigid academic procedure is questioned and transfer of knowledge from educators to learners is at the forefront of the educator's awareness. Teachers role have been emphasized and subject matter content were their concern. Educators would like to know the feeling of frustration, disappointment and excitement of students

to design their teaching approaches. The challenging issues can be discussed in two sub-themes; social and cognitive presences.

4.1.12 Cognitive presence

In this category, MOOC as a platform for transfer of knowledge and learning was emphasized. Lecturers talked about different ways that knowledge can be acquired and reasoned out different transfer of knowledge based on subject matter and learning outcomes. The learning structure was in strong focus. MOOCs seem to reinforce the idea that it is a content supplier and participants as knowledge consumers instead of producing a platform for construction of knowledge, where teaching and learning experience as a reciprocal process. The role of educators is related to instructor's existence and immediacy. Evidence of engagement, log in and monitoring is commensurate with effective learning experiences. Participants were more concerned on how the digital platform will lead the course for knowledge building. A central feature of this category is teacher to drive innovation and lead the teaching and learning experience.

The following quotes illustrate on lecturers focus on learning structure:

P4. Via MOOC critical thinking is not achievable. Lecturer needs to be there to provoke thinking and creativity. MOOC needs to be complemented with teaching.

P5: How do we know how to paint, learning style is different for each student. There are visual, audio, and kinesthetic. You can't learn how to dissect a frog by just looking at the video. Also subjects that need labs. Delayed response may discourage students in their learning activities. In fact, I can't remember what I have posted online. It kills the students' enthusiasm and interest.

P6. For economy it is difficult to create graph. very tedious, time consuming. I feel the learning curve is stiff.

P11: It is a pre-arranged teaching, video lectures... it is easier to share our knowledge with students. It is very structured lessons

Lecturers were essentially concerned on how the digital platform will be able to accommodate effective learning outcomes particularly lower and higher order thinking skills.

4.1.13 Social presence

Social presence points to the idea of what teachers realize or think about the learners, their qualities, characters and their inner states. This category was characterized by lecturers considering how important is human-human interactions in shaping behavior and learning. Lecturers were concerned about how students will handle the feeling of frustration, isolation and their motivation.

P4: I don't think interactions can be replaced by MOOCs...who do this, why do you do it that way, MOOCs don't have the real element to interact...

P4: Lecturers have to be there to provoke creativity

P5: MOOC should be blended...do not remove teacher. You can't gain knowledge but you can gain skills via online learning. Teacher brings experience...stories that they can share with students.

P10: Labs we cannot do animation, need real life experiments, teaching and tutorial online

The real time interactions were questioned to refine interpersonal and effective communication skills. While interactions occur online, mainly through content community discussion, lecturers felt that it is totally different from the traditional classroom interactions.

P12: Two-way communication is lacking

P5: It is fundamental for learners to develop leadership and character development. Without engaging with society, how can one be an entrepreneur?

P6: There is no personal touch. You don't know the mood of the learners and lecturers. You can embed on Facebook and can use emoji to indicate emotions but it is the Internet language. Certain students need the presence of another student...that is human nature. In MOOCs class does not exist.

P7: Repository...keep and download there is no interaction. Without interaction. Teaching will not be teaching and learning will not be learning

The idea of contact and involvement with the students was highlighted which is challenging the heart of learning experience. The participants were more concerned about how MOOCs will be able to maintain the same level of engagement that they feel, see and hear in their traditional classroom teaching. Online interactions lacked the depth and nuance that could be effectively achieved in face to face interactions.

4.2 Discussion

The findings revealed a profusion of expectations, strengths, challenges and convictions about MOOCs from Malaysian lecturers. Completion of this study revealed that the Malaysian lecturers are aware and realized that the pedagogical practices in the 21st century have evolved with new and unique affordances of MOOCs.

Although the lecturers did not have any educational experience with MOOCs, their perception of MOOCs to enhance learning is both notable and promising in terms of the successful implementation of MOOCs in future. In fact, most of the prospective lecturers kept their positive views towards MOOCs till the end of the interviews. There was a very strong theme that compared the traditional classroom teaching and MOOCs. The Malaysian lecturers seem to acknowledge the fact that the educational technology architectures seem to undergo changes and expansion. Understanding the perception of Malaysian educators in the case of MOOCs in turn enable the policy makers to better understand how educators are engaged in the changing process and what are the factors that facilitate and hinders the implementation of MOOCs. According to Hofstede (2001), the preparation and implementation of change is highly culturally sensitive.

The findings indicate that the Malaysian lecturers' perception towards a MOOC integration is mainly positive, emphasizing their valuation and recognition in aspects related to characteristics and potential for educational purposes. However, the challenges and doubts voiced by the lecturers seem to point to the fact that high take away value and effective hands of experience is needed for lecturers to consider MOOCs in their teaching and learning activities. These workshops need to be designed to circumvent the challenges and bring about the positive outcomes of MOOCs. Workshops and seminars need to include: i. types of MOOCs and their function; ii. learning how to utilize cutting edge tools in designing MOOCs; iii. application of 21st century learning.

4.2.1 The models of MOOCs

In this study, it is evident that lecturers are not familiar with various type of MOOCs and their functions. Workshops need to emphasize the various types of MOOCs such as iMOOCs, cMOOCs and xMOOCs. Furthermore, lecturers need to identify different type of learners: a) general new experiencing seeking learners; b) learners seeking to understand and overcome barriers; c) learners seeking professional development; d) learners seeking innovation (Deshpande

& Chukhlomin, 2017). Different types of strategies and pedagogical practices are needed for different types of learners. cMOOCs are the distributed course organization and self-phased learning (Rodriguez, 2012). xMOOCs are pre-recorded video lecturers, quizzes, automated assignments with restricted interaction with the instructor (Kovanović et al., 2018). iMOOCs were designed to facilitate students from non-formal education to formal education (Teixeira & Mota, 2014). Learning the intricacies of different types of MOOCs can be a prerequisite for integrating MOOCs in the teaching practices. The trend towards MOOCs in Malaysian higher institution definitely demands a rethinking of the design of the teaching approaches.

A number of researchers from Russia have obtained an analysis of theoretical and empirical material on e-learning development and designed models on online learning according to disciplines and students. The models can be a guide to the Malaysian lecturers. The models are listed in the following section.

Model 1: Use of model as a support resource

Model 2: Blended learning model using parts of the MOOCs for mastering the discipline/module

Model 3: Blended learning model based on MOOCs with mid-term and final examinations online while preserving part of the face-to face classes

Model 4: Online learning model, using MOOCs internal organization and technical support by the tutors

Model 5: Exclusive online-learning using MOOCs

(Larionova et al., 2018, p. 4)

4.2.2 Learning to utilize cutting edge tools in designing MOOCs

Lecturers acknowledge the fact that teaching activities need to be designed carefully to engage learning and to achieve learning outcomes. To achieve this aim, lecturers need to be exposed to various type of interactive digital tools. A carefully designed workshop to know the features of the tools and apply it accordingly is needed. For example, i) video recording tools like Screencast-O-matic, Camtasia Studio; ii) animation tools like Sparkol, Biteable; iii) mind mapping tools like Mindmeister, Wisemapping, iv) gamification tools like Go Formative, Socrative and brainstorming tools like Poll Everywhere and Padlet. The challenges highlighted in this study were

related to cognitive and social presences. Lectures highlighted their difficulties to achieve higher order thinking and practical skills in MOOCs. When lecturers are equipped with good knowledge of the interactive tools, lecturers can design appropriate instructions, project work and assignments. MOOCs can also provide interactive forums to encourage interactions between student-student and student-teacher (Greene, Oswald, & Pomerantz, 2015). Thus, it is the responsibilities of the institution and the policy makers to raise awareness of such features to enhance learning activities. Ram and Sheth (1989) made clear that barriers to innovation adoption are related to “product usage patterns, product value and risks associated with product usage while psychological barriers arise from “traditions and norms of customers and perceived product image” (p. 7). Teachers very often are not equipped with background knowledge professional development which lead to negative attitude towards inclusion of any changes related to education.

4.2.3 Approaches of 21st century learning

Workshops should be designed on how various types of 21st century approaches should be integrated in their teaching and learning experiences. Therefore, task/assignments designed by lecturers should move forward learners’ ability to self-regulate and self- assess themselves as active learners. Learning in the 21st century should move pedagogy (child learning), to andragogy (adult learning) and heutagogy (self-directed learning). There is mound of skills that need to be mastered in a subject but learning does not begin and end with books and exams. The learning pyramid illustrate in Diagram 1 made clear that the best approaches for learning retention are at the base of the learning pyramid. This can be achieved via group interaction and collaborated integrated in task base and challenge based activities.

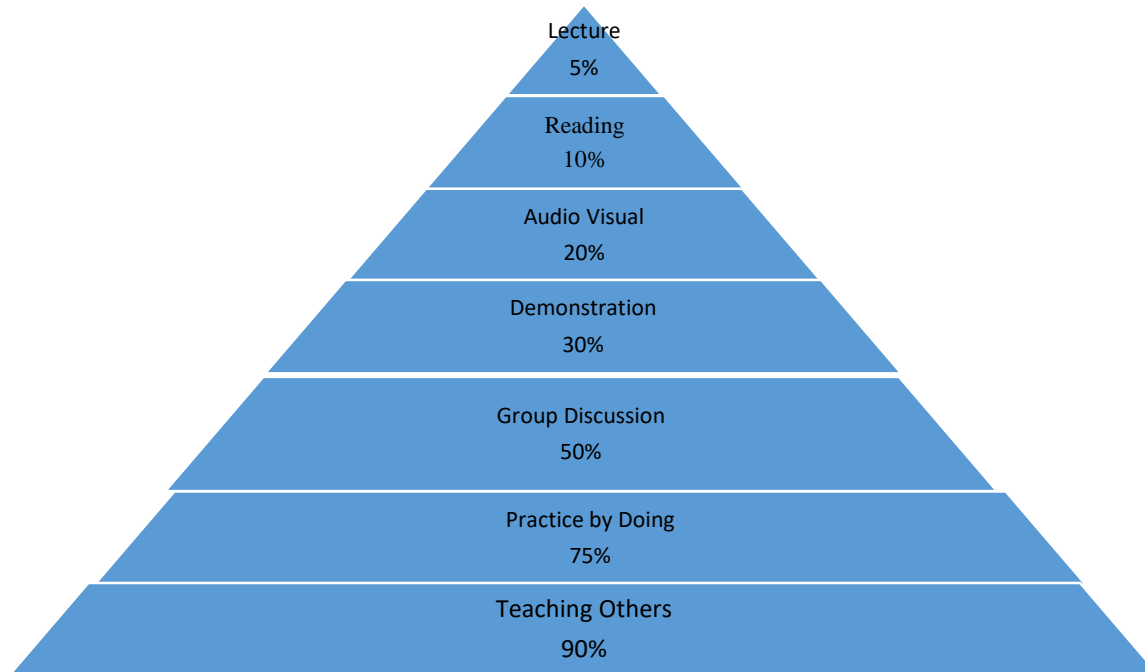


Figure 1: Learning pyramid

5.0 CONCLUSION

From this study it can be concluded that Malaysian lecturers are not rejecting technology but they feel the virtual environment is taking away the pedagogical considerations. Different technology advancement offers different affordances and possibilities. Therefore, it is pertinent to pay close attention on how they can be used in to achieve quality teaching and learning experiences. The findings are important as there has been lack of studies that investigated the perception of MOOCs and what are the factors that can influence or hinder. As noted earlier, there has been fewer studies on the perception of educators on MOOCs in developing countries and this study provides a timely opportunity to gain an understanding of the rationale, opportunities risks and constraints in implementing and integrating MOOCs in educational contexts. There are some limitations in the current study that need caution in interpreting the findings. Firstly, the number of participants were small as such the results are difficult to generalized to other settings. Further research should consider quantitative research with more participants to test the current findings in different settings. Despite these limitations, this study contributes to a better understanding of the perception of MOOCs among lecturers in Malaysian higher institution in the context of a developing country.

Acknowledgement

The work described in this paper was supported by the grant from the Thammasat University, Bangkok, Thailand. Grant number 304 /PJJAUH /650988 /T143].

REFERENCES

- Annamalai, N., Noonin, S., & Buathong, S. (2019). Perception matters: Exploring Thai lecturers' views, preferences and needs of MOOCs. *The Reference Librarian*, 60(4), 310-328.
- Ahmed, S. S., Khan, E., Faisal, M., & Khan, S. (2017). The potential and challenges of MOOCs in Pakistan: A perspective of students and faculty. *Asian Association of Open Universities Journal*, 12(1), 94-105.
- Bali, M. (2014). MOOC pedagogy: Gleaning good practice from existing MOOCs. *Journal of Online Learning and Teaching*, 10(1), 44-56.
- Barclay, C., & Logan, D. (2013). Towards an understanding of the implementation & adoption of massive online open courses (MOOCs) in a developing economy context. *In Proceedings Annual Workshop of the AIS Special Interest Group for ICT in Global Development* (pp. 1-14). Milano, Italy: GLOBDEV.
- Brahimi, T., & Sarirete, A. (2015). Learning outside the classroom through MOOCs. *Computers in Human Behavior*, 51(1), 604-609.
- Colman, D. (2013). MOOC interrupted: Top 10 reasons our readers didn't finish a massive open online course. Retrieved from http://www.openculture.com/2013/04/10_reasons_you_didnt_complete_a_mooc.html
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Los Angeles: SAGE.
- Dahlgren, L. O., & Fallsberg, M. (1991). Phenomenography as a qualitative approach in social pharmacy research. *Journal of Social and Administrative Pharmacy*, 8(4), 150-156.
- Debowski, S. (2014). From agents of change to partners in arms: The emerging academic developer role. *International Journal for Academic Development*, 19(1), 50-56.
- Dhawal, S. (2018). By the numbers: MOOCs in the 2017. Retrieved from <https://www.class-central.com/report/mooc-stats-2017/>

- Deshpande, A., & Chukhlomin, V. (2017). What makes a good MOOC: A field study of factors impacting student motivation to learn. *American Journal of Distance Education*, 31(4), 275-293.
- Dunkin, R. (2000). Using phenomenography to study organizational change. In Bowden, John A., Walsh, Eleanor (Eds.). *Phenomenography* (pp. 137-152). Melbourne: RMIT University Press.
- Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. *Journal of Research on Technology in Education*, 42(3), 255-284.
- Freitas, A., & Paredes, J. (2018). Understanding the faculty perspectives influencing their innovative practices in MOOCs/SPOCs: A case study. *International Journal of Educational Technology in Higher Education*, 15(1), 1-5.
- Garrison, D. R., Anderson, T., & Archer, W. (2001). Critical thinking, cognitive presence, and computer conferencing in distance education. *American Journal of Distance Education*, 15(1), 7-23.
- Gao, S., & Yang, Y. (2015). Exploring users' adoption of MOOCs from the perspective of the institutional theory. *Paper presented at the 14th Wuhan International Conference on E-Business* (pp. 383-390). Wuhan, China: Berkeley Electronic Press.
- Greene, J. A., Oswald, C. A., & Pomerantz, J. (2015). Predictors of retention and achievement in a massive open online course. *American Educational Research Journal*, 52(5), 925-955.
- Haseeb, A. S. M. A. (2018, January 10). Higher education in the era of IR 4. *New Straits Times*. Retrieved from <https://www.nst.com.my/education/2018/01/323591/higher-education-era-ir-40>
- Hew, K. F., & Cheung, W. S. (2014). Students' and instructors' use of massive open online courses (MOOCs): Motivations and challenges. *Educational Research Review*, 12(1), 45-58.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. London: Sage publications.
- Hone, K. S., & El Said, G. R. (2016). Exploring the factors affecting MOOC retention: A survey study. *Computers & Education*, 98(1), 157-168.
- Hood, N., Littlejohn, A., & Milligan, C. (2015). Context counts: How learners' contexts influence learning in a MOOC. *Computers & Education*, 91(1), 83-91.

- Kovanović, V., Joksimović, S., Poquet, O., Hennis, T., Čukić, I., de Vries, P., ... Gašević, D. (2018). Exploring communities of inquiry in massive open online courses. *Computers & Education*, 119(1), 44-58.
- Larionova, V., Brown, K., Bystrova, T., & Sinitsyn, E. (2018). Russian perspectives of online learning technologies in higher education: An empirical study of a MOOC. *Research in Comparative and International Education*, 13(1), 70-91.
- Liu, M., Kang, J., & McKelroy, E. (2015). Examining learners' perspective of taking a MOOC: reasons, excitement, and perception of usefulness. *Educational Media International*, 52(2), 129-146.
- Liyanagunawardena, T. R., Adams, A. A., & Williams, S. A. (2013). MOOCs: A systematic study of the published literature 2008-2012. *The International Review of Research in Open and Distributed Learning*, 14(3), 202-227.
- Mansor, F., Woo, T. K., Mazlan, Z., Fathinirna, M. A., & Nurhisyam, M. S. (2014). Embarking on MOOCs: The OUM experience. *Paper presented at the 28th Annual Conference of the Asian Association of Open Universities, Hong Kong, China, 28-31 October 2014* (pp. 65-86). Seoul, South Korea: KNOU Press.
- MacDonald, P., & Ahern, T. C. (2015). Exploring the instructional value and worth of a MOOC. *Journal of Educational Computing Research*, 52(4), 496-513.
- Margaryan, A., Bianco, M., & Littlejohn, A. (2015). Instructional quality of massive open online courses (MOOCs). *Computers & Education*, 80(1), 77-83.
- Marton, F., & Booth, S. (1997). *Learning and awareness*. Mahwah, New Jersey: Lawrence Erlbaum.
- McGrath, C., Stenfors-Hayes, T., Roxå, T., & Laksov, K. B. (2017). Exploring dimensions of change: The case of MOOC conceptions. *International Journal for Academic Development*, 22(3), 257-269.
- Moore, J. S., & Janowicz, P. A. (2009). Chemistry goes global in the virtual world. *Nature Chemistry*, 1(1), 1-4.
- Norris, N., & Walker, R. (2005). *Naturalistic inquiry: Research methods in the social sciences*. London, UK: Sage.
- Park, Y., Jung, I., & Reeves, T. C. (2015). Learning from MOOCs: A qualitative case study from the learners' perspectives. *Educational Media International*, 52(2), 72-87.

- Ram, S., & Sheth, J. (1989). Consumer resistance to innovations: The marketing problem and its solutions. *Journal of Consumer Marketing*, 6(2), 5-14.
- Rodriguez, C. O. (2012). MOOCs and the AI-Stanford like courses: Two successful and distinct course formats for massive open online courses. *European Journal of Open, Distance and E-Learning*, 16(32), 1-13.
- Shapiro, H. B., Lee, C. H., Roth, N. E. W., Li, K., Çetinkaya-Rundel, M., & Canelas, D. A. (2017). Understanding the massive open online course (MOOC) student experience: An examination of attitudes, motivations, and barriers. *Computers & Education*, 110(1), 35-50.
- Stenfors-Hayes, T., Hult, H., & Dahlgren, M. A. (2013). A phenomenographic approach to research in medical education. *Medical Education*, 47(3), 261-270.
- Tan, L. F., Goh, K. S., & Sabastian, E. (2014). Motivation and engagement in MOOC-Teachers' perspective. In *22nd International Conference on Computers in Education, ICCE* (pp. 508-513). Taoyuan: APSCE.
- Teixeira, A. M., & Mota, J. (2014). A proposal for the methodological design of collaborative language MOOCs. In Elena Martín-Monje & Elena Bárcena (Eds.), *Language MOOCs: Providing learning, transcending boundaries* (pp. 33-47). Berlin: De Gruyter Open.
- Trigwell, K. (2000). A phenomenographic interview on phenomenography. *Phenomenography*, 1(1), 62-82.
- Waldrop, M. M. (2013). Online learning: Campus 2.0. *Nature News*, 495(7440), 160-163.
- Wenger, E., McDermott, R. A., & Snyder, W. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Massachusetts: Harvard Business Press.