MOOC DEVELOPERS' MOTIVATION

Tengku Intan Suzila T. S.¹, Mohd Yusri M.N.², Omar, S. R.³

^{1,2}Universiti Teknologi Mara Cawangan Pahang, 26400 Bandar Jengka, Pahang, ³Universiti Teknikal Malaysia Melaka, 76100 Durian Tunggal, Melaka. *Corresponding Author: mohdyusri@uitm.edu.my

Abstract: Massive Open Online Courses (MOOC) has become more relevant during this Covid-19 pandemic. MOOC enables students to learn generic courses by sharing platforms between universities with similar curriculum and study plans. These common courses may pose different challenges to students as their universities' standards varies although they are of shared credits. The challenge includes the developers' motivation. This paper presents a study on how students' acceptance and satisfaction of one such generic MOOC course, i.e. Ethnic Relations, reflects the MOOC developers' motivation during preparation of the lessons. Questionnaires were distributed to 93 students who enrolled in this subject. The objectives are to unfold factors that are demanded in the course development and how the students' expectations mirror the developers' motivation. This study suggests that developers have to tackle an increasing dissatisfaction of the contents. The need for developers to be persistent until the end in completing the course development is mandatory. Insufficient and poorly constructed teaching materials in MOOC would only harm the learning process. Interest in the subject matter and supports may assist MOOC developers to produce well-developed studentcentered courses.

Keywords: Developers, demotivation, MOOC, medium acceptance, motivation

Introduction

With over sixty MOOC platforms around the world (Li et al., 2014) and over five hundred fifty universities sharing platforms (Shah, 2016), the expansion of MOOC to Malaysian education system is thus undeniably important. MOOC relies heavily on e-learning through e-contents. E-learning has been widely accepted. It has also been proven to boost knowledge and learning acquisition where fluency, originality, flexibility, and elaboration were improved (Zare et al., 2016).

Most MOOC contents are for higher degree students (Hara et al., 2013; Melicherikova & Piovarci, 2016), thus its contents must correlate with the students' level of learning (Lin, 2017). With numerous video styles found in MOOC like talking ahead, text-overlay, conversation, on location, animation, picture-in-picture, slides with voice-over, demonstration, Udacity-style tablet capture, interview, recorded seminar, webcam capture and green screen (Hansch et al., 2015), the present paper looks into how the students' satisfaction level reflects the actual motivation level of the MOOC developers during lesson preparation.

The issue at hand is the integrating of e-learning in teaching where it should seriously be considered as ICT also has been revealed to offer sustenance to the three methods of learning for example, "problem solving, critical learning and creative learning that are of different methods of student-oriented, creative and critical-based learning" (Zare et al., 2016, p. 32). Impacts of e-learning on the teachings of science and technology subjects have been vastly reported, however, rarely on social sciences and humanities subjects like ethnic relations (Abdeen, 2016; Gunuç & Babacan, 2017; Solano et al., 2017). Extensive study on its impact on both educators cum MOOC developers and the diverse participants' backgrounds is significant. According Muin (2021), when dealing with isolated learners during ODL, instructors cum MOOC developers also have to re-evaluate their teaching styles, be more creative and innovative in employing various methods to engage them. Mainstream academic subjects on MOOC may demand higher efficiency from its designers and convenience of supports in various areas are crucial.

It is significant to evaluate any e-content materials. This is to offer guidelines on any improvements needed. Each question here is to address specific issues pertaining to the purposive need to evaluate the ethnic MOOC e-content. The research questions that lead the present study are: What are the means of students' acceptance and satisfaction of each Ethnic Relation MOOC chapter? How does students' eISSN: 2600-7568 | 36

satisfaction reflect the developers' motivation? Thus, the objectives of the study are: to unfold the students' acceptance and satisfaction of the Ethnic Relation MOOC chapters and to unfold the developers' motivation level for each Ethnic Relation MOOC chapter.

Conceptual Framework

The present study adopts some of the details suggested in Lin (2017) as the working framework. This study supports the six-phase of a larger study which has reached its sixth phase before leaping to the next research phase. Figure 1 shows the working framework.

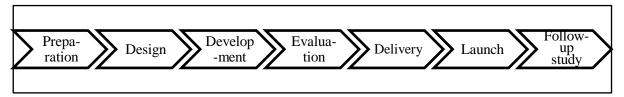


Figure 1 Working Framework (Lin, 2017)

Beaven et al. (2014) combined an adapted intrinsic motivation inventory and self-determination theory to better comprehend students' expectancy and task values in MOOC involvement. In the present study, a questionnaire based on the Gagné Nine Events of Instruction theory was distributed among the students to identify the level of the subject's compatibility to Gagné et al. (1992) suggestions.

Literature Review

Motivation in developing MOOC

Technology resources (MOOC) by itself cannot guarantee the efficacy to deliver the required learning experience. Teachers themselves need support and training for integrating technology into an effective lesson. However, it is a potential resource to deliver the gist of the learning contents at learners' own pace (Mohammad Reza, 2018)

Participants of MOOC themselves should possess characteristics of a self-directed learner to enable them to be self-engaged to MOOC learning processes. Hakami et al. (2017) analysed 42 past studies related to "MOOCs Learners' Motivations", "MOOCs Completion or MOOCs Retention", and "MOOCs Learner Engagement" (p. 327) and found many have addressed on motivational factors to use MOOC yet are limited on acceptance and factors influencing their use of MOOC. Their interests are similar to others (Alario-Hoyos et al., 2017) who studied 6335 MOOC learners from 160 countries and focused on users and the use factor rather than developers.

In building a MOOC course, a team approach to producing a MOOC has to be adopted (Alario-Hoyos et al., 2014; Belanger & Thornton, 2013; Corke et al., 2016). This ensures that sufficiency and efficiency are achieved. The present paper also discusses the issue of collaborative and burn-outs in MOOC course development from students' acceptance and satisfaction in MOOC's Ethnic Relation course.

Method

Ninety-three students who enrolled for the Ethnic Relation Malaysian MOOC course served as the respondents to a survey questionnaire (Gagné et al., 1992). These are conveniently selected samples. SPSS software was then used to analyse the data. Based on these findings, some issues related to the developers were discussed. This indirect observation is a kick-start to future studies.

Ethnic Relations MOOC

There are ten topics covered in this course. Chapters One to Four are informational, while chapters Five to Seven discuss issues while the following chapters dealt in education and daily conduct. It has 140,964 worldwide students who have enrolled with approximately fifteen supporters over the years.

eISSN: 2600-7568 | 37

At the end of the course, participants are expected to understand the scenario of diverse ethnicity in Malaysia in relation to its history and present day. Participants should be aware of social unity and are able to discuss concepts and theories in this unity building in general and apply these in Malaysian context (http://www.openlearning.com/courses/etnik).



Figure 2 MOOC Ethnic Relations course interface (http://www.openlearning.com/courses/etnik)

Properties investigated

Table 1 below shows the properties tackled in the present paper. Only three areas shall be discussed here which include the introduction, objective and teaching and learning. Within the Ethnic Relation MOOC course, the introduction area defines the introductory section, the objective area defines learning objectives and expected outcomes, and the teaching and learning area defines the ability of the course to allow students to relate to the past learning of the subject.

Table 1	Properties	investigated

Introductions	Objectives	Teaching and Learning
Video clips	Detailed information	Simple explanation
Text/cartoons	Sufficient information	Hyperlinks to support
Plot	Background defined	Details for preparations
Pictures	-	
Sound/technical		

Results

Figure 3 reports the students' mean of acceptance according to sections. Unfortunately, the mean achieved for all properties are a mediocre neutral in the range of 3. This feedback is unsatisfactory. The lowest mean was received in 'giving simple explanations.'

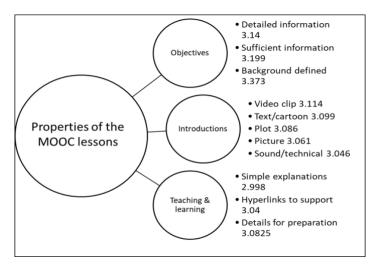


Figure 3 Students' mean of acceptance

Figures 4, 5 and 6 show other segments of evaluation, which is the MOOC developers-cumeducators' although it is based on users' satisfaction. The sections represent the chapters covered in the Ethnic Relations course. The same three areas serve as the focus of the study. The finding is discussed based on significant difference of mean of students' satisfaction of information retrieved from Figure 3. The mean of the chapters in Figures 4, 5 and 6 represent the mean for the properties within each area.

A deteriorating mean of students' satisfaction throughout the chapters can be seen in Figures 4, 5 and 6. These findings agree with Alario-Hoyos et al. (2017), Belanger and Thornton (2013), and Corke et al. (2016). Students' satisfaction can highly correlate to developers' motivation to present good content. One of the reasons is the syllabus concluding chapters were unpolished before publication. This is due to time constraints and declining team effort.

Figure 4 shows Chapter Nine has the lowest mean satisfaction \bar{x} 2.75 yet a minor increase is seen in Chapter Ten \bar{x} 2.88. Chapter Four shows a slight drop to \bar{x} 3.04 yet managed to gain momentum in the following chapters. Students' satisfaction seemed to plunge twice, however, in both incidents, they managed to be regained. This proves that given the time and opportunity, the developers may improve their output.

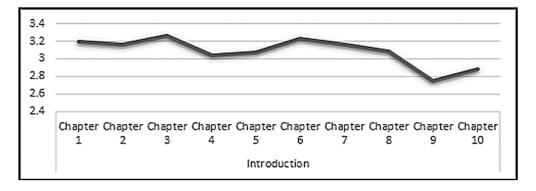


Figure 4 Students' satisfaction in introductory chapters

The objective component of the course is also satisfactorily defined thus ensuring positive acceptance as seen in Figure 5. The background properties in the objective component has gained a high neutral mean better than other sections. Tactlessly, Chapter Nine still shows a slight dip. Chapter Nine is on education enforcement towards unity in Malaysia.

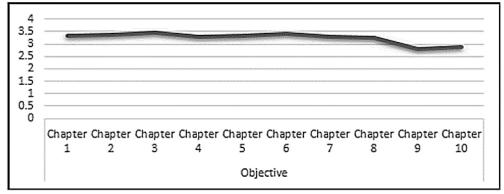


Figure 5 Students' satisfaction in objective chapters

As the area of teaching and learning (Figure 6) is an area to support past learning to the present one, a mere 2.998 mean is recorded in its explanation segment, which signifies, although simple, explanations have to be clear and sufficient. Other chapters received a neutral 3.0 mean. Again, Chapter Nine shows a slight dip.

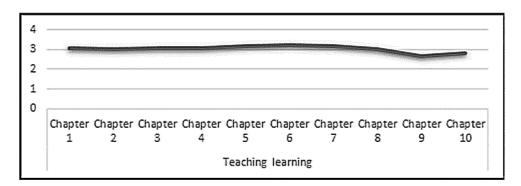


Figure 6 Students' satisfaction in teaching learning chapters

Discussion

In the area of a MOOC introduction, visual and audio are deemed significant to attract students' interest in learning (Hansch et al., 2015). This can be possibly further expanded to aged and new or advanced learners. As the component of 'giving simple explanations' received the lowest mean, developers may address by rewording the sentences using simple sentences rather than complex sentences. This subject is taught in Malay language which might not be appealing to other races in Malaysia although it is the national language. As Lin (2017) mentioned, students' learning level is also a vital consideration in MOOC. Availability of adequate lesson, detailed information and support leads to students' satisfaction.

As Ethnic Relation course can be a sensitive issue in a multi-racial country like Malaysia, a light and generic approach, which appeals to the mass, is vital. Therefore, a neutral plot depiction of video clips, pictures, learning plot, sounds, text and cartoons may provide a good Ethnic Relation MOOC course. Mediocre neutral mean feedback indicates that the developers must review the content and improve the majority of the components. The developers must view this criticism as a motivation to excel. Because of the constant dip in mean of satisfaction in Chapter Nine, which is on education enforcement towards unity in Malaysia, the developers must be responsible in enhancing this vital topic.

A team approach to producing a MOOC (Alario-Hoyos et al., 2014; Belanger & Thornton, 2013; Corke et al., 2016) plays a vital role in maintaining developers' motivation. This suggests the waning motivation of the developers, and time insufficiency in completing the task produce a dissatisfying output. In ensuring success in MOOC course development, a lean yet sustainable approach has to be adopted (Lin, 2017).

A MOOC course has to appeal to the potential students in a vast manner. Beaven et al. (2014) called for MOOC developers to assume that all potential students are "well educated, well-motivated as

participation is voluntary, young, in education or employment and mostly from developed countries" (p. 63-64). This shall simplify their work as the objective of MOOC is to serve those who are educated in IT, have strong motivation, self-directed, self-driven and reach wide population.

Lin (2017) suggested the implementation process of producing MOOCs has to be shared as a guide to future MOOC developers. This shall assist future development of MOOC as known territory can be explored while grey territory can be avoided. Earlier Beaven et al. (2014) recommended that it is detrimental for MOOC developers to avert factors that might create stress in MOOC participants, and if inevitable, they need to lessen the impact. These factors might include time, accessibility and rewards. Appreciation, motivation and time must be furnished accordingly as these factors are also important to the developers.

It is essential for MOOC developers to adopt "an educational engineering approach to the development and evaluation of their work and embrace the transdisciplinary and the timeframes needed to make sense of the new phenomenon" (Beaven et al., 2014, p.64). Universities need to provide adequate IT supports, trainings even spaces in order to enable professional MOOC courses are produced as any assistance and support are significant to MOOC developers too.

Conclusion

It is challenging to generate the best MOOC course because the feedback from the participants can be overwhelming. It is almost impossible to cater for various participants' profiles and demands. Thus, Beaven et al. (2014) wrote a wish list of information on MOOC participants so that they could develop a good MOOC course for language learners. The present course may benefit from the list.

A good MOOC course, however, would induce some excitement for students to proceed with the learning content. This can only be achieved by exhibiting good materials. Chinedu et al. (2015) suggested "systematically planned, taught to students by integrating brainstorming activities and using co-operative learning" in promoting higher thinking order in learning (p.42). These could also be considered in developing MOOC.

This paper suggests that in developing a good MOOC ethnic relation course, the developers need to address several aspects. Firstly, the medium of instructions has to be appealing to potential participants. The sentence structure has to be simple, regardless of the language used in the course. Secondly, the content materials have to be able to sustain the students' interest throughout the duration of the course. The findings also recommend that the developers' welfare have to be uphold too for they need to persevere and possess a high endurance to complete all components within the stipulated time. Lastly, they also need to be acknowledged so that they will receive a better satisfaction score from the participants and conduct continuous improvements based on several widely accepted educational approaches.

Motivation among MOOC developers is an essential area for future comprehensive study. It may include recognition, determination and perseverance aside from motivation of MOOC developers. As students' participation is voluntary and free, due recognition is perceived as a catalyst to ensure developers to be persistent in constructing excellent MOOC materials for the benefits of students.

To sum up, this study proposes all MOOC developers to walk in the learning path of the potential students and try to fulfil the demands of learning with replaced educator. This may assist the developers to understand and thus fulfil these needs without fail.

Acknowledgement

The authors would like to acknowledge Universiti Teknologi Mara (UiTM) for providing the financial support for this study. This study is financed by FRGS-RACER research grant RACER/1/2019/SS109/UITM//1.

References

Abdeen T. A. (2016). *The attitude of learners towards the use of technology in enhancing English language learning*. (Masters dissertation). Sudan University of Science and Technology, Khartoum. http://repository.sustech.edu/handle/123456789/15466

eISSN: 2600-7568 | **41**

- Alario-Hoyos, C., Pérez-Sanagustín, M., Cormier, D. & Delgado-Kloos, C. (2014). Proposal for a conceptual framework for educators to describe and design MOOCs. *Journal of Universal Computer Science*, 20 (1), 6–23. http://dx.doi.org/10.3217/jucs-020-01-0006
- Alario-Hoyos, C., Estévez-Ayres, I., Pérez-Sanagustín, M., Delgado-Kloos, C., & Fernández-Panadero, C. (2017). Understanding learners' motivation and learning strategies in MOOCs. *The International Review of Research in Open and Distributed Learning*, 18(3). https://doi.org/10.19173/irrodl.v18i3.2996
- Beaven, T., Codreanu, T., & Creuzé, A. (2014). 4 Motivation in a language MOOC: Issues for course designers. In E. Mart'ın-Monje, and E. Bárcena (Eds). *Language MOOCs: Providing Learning, Transcending Boundaries*. 48–66. Berlin: De Gruyter Open. http://oro.open.ac.uk/41520/
- Belanger, Y. & Thornton, J. (2013). *Bioelectricity: A quantitative Approach-Duke University's first MOOC*. Duke University, North Carolina. https://dukespace.lib.duke.edu/dspace/bitstream/handle/10161/6216/Duke_Bioelectricity_MOOC_Fall2012.pdf
- Chinedu, C.C., Olabiyi, O.S., & Kamin, Y. (2015). Strategies for improving higher order thinking skills in teaching and learning of design and technology education. *Journal of Technical Education and Training*. 7(2). http://penerbit.uthm.edu.my/ojs/index.php/JTET/article/view/1081/795
- Corke, P., Greener, E. & Philip, R. (2016). An innovative educational change: Massive open online courses in robotics and robotic vision. *IEEE Robotics & Automation Magazine*, 23(2), 81–89. http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7469836&isnumber=7494796
- Gagné, R. M., Briggs, L. J., & Wager, W. W. (1992). *Principles of instructional design* (4th ed.). Fort Worth, TX: Harcourt Brace Jovanovich College Publishers.
- Gunuç, S. & Babacan, N. (2017). Technology integration in English language teaching and learning. *The Journal of Teaching English for Specific and Academic Purposes*. 5(2), 349-358. doi:10.22190/JTESAP1702349G
- Hakami, N., White, S. & Chakaveh, S. (2017). Motivational factors that influence the use of MOOCs: Learners' perspectives a systematic literature review. Proceedings from CSEDU 2017: *the 9th International Conference on Computer Supported Education*, 2, 323-331. doi: 10.5220/0006259503230331
- Hansch, A., Hillers, L., McConachie, K., Newman, C., Schildhauer, T. & Schmidt, P. (2015). The role of video in online learning: Findings from the field and critical reflections. Alexander von Humboldt Institute for Internet and Society, Berlin. https://www.hiig.de/wp-content/uploads/2015/02/TopMOOC_Final-Paper.pdf
- Hara, T., Moskal, P. D., & Saarinen, C. (2013). Preliminary analyses of a cutting-edge knowledge distribution method of MOOC to teach tourism as an industry. Proceedings from the 3rd International Conference on the Measurement and Economic Analysis of Regional Tourism American Chapter. Pp. 236-247. Spain:CICtourGUNE. https://www.researchgate.net/profile/Jose_Marquez18/publication/328199167_0MOVE2013_proceedings_FINAL/links/5bbe 194da6fdccf2978fe057/0MOVE2013-proceedings-FINAL.pdf#page=236
- Li, K.C., Wong, B.T.M., Chok, E.W.S., & Lee, T. (2014). Profiling the characteristics of MOOC platforms. In D. Wong, K.C. Li & K.S. Yuen (Eds), Proceedings from the 28th Annual Conference of the Asian Association of Open Universities, 476-485. Hong Kong: OUHK
- Lin, J. (2017) Exploring the experiences of instructors teaching massive open online courses in tourism and hospitality: A mixed methods approach. Unpublished doctoral dissertation, Universitàdella Svizzera Italiana, Lugano, Svizzera
- Melicherikova, Z & Piovarci, A. (2016). Experience with massive open online courses in Slovakia. *Journal of e-Learning and Knowledge Society*, 12(1), 150-155. https://doi.org/10.20368/1971-8829/1048
- Muin, N. A. (2021). Supporting and engaging isolated language learners in open and distance learning (ODL) classes: A comparative study between a Malaysian and an Indonesian university undergraduate students. Proceedings from *International Conference on Language, Education, Humanities & Social Sciences* (i-LEdHS2021). 420-410. https://ir.uitm.edu.my/id/eprint/45121/1/45121.pdf
- Mohammad Reza, A. (2018). The use of technology in English Language Learning: A literature review, *International Journal of Research in English Education*, 3(2), 115-125. https://ijreeonline.com/article-1-120-en.pdf
- Shah, D. (2016). By the numbers: MOOCs in 2015. *Class Central MOOC Report*, https://www.classcentral.com/report/moocs-2015-stats/.
- Solano L., Cabrera, P., Ulehlova, E. & Espinoza, V. (2017). Exploring the use of educational technology in EFL teaching: a case study of primary education in the south region of Ecuador. *Teaching English with Technology*. 17(2), 77-86. https://files.eric.ed.gov/fulltext/EJ1140683.pdf.
- Zare, M., Sarikhani, R., Salari, M., & Mansouri, V. (2016). The impact of e-learning on university students' academic achievement and creativity. *Journal of Technical Education and Training*. 8(1), 23-33. http://penerbit.uthm.edu.my/ojs/index.php/JTET/article/view/1152/894