Learners’ Perception on Learning Materials and Tasks of a Massive Open Online Course

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Abstract

Recent years have seen massive open online courses (MOOCs) emerge as one of the most trending online learning environments. Malaysia has also embarked on MOOCs with its’ Malaysia MOOC initiative, which is a collaboration between the Ministry of Education Malaysia with 20 public universities. In the initiative, Universiti Malaysia Kebangsaan (UKM) has developed a MOOC for ethnic relations. This study investigates learners’ perception of MOOC learning materials based on: type of video lectures; (ii) communication style in video lectures; and humor effect (speech ballons) in video lectures. The study also studies MOOC learning tasks according to the factors which are: structure of learning tasks, learner autonomy in learning tasks, and social settings of learning tasks. A survey is distributed to 104 undergraduates studying in an ethnic relation at UKM. The MOOC is used as learning resource. The study is conducted in a period of four months. The findings indicate that with regards to MOOC learning materials, live action videos and animations, informal communication style and integration of human elements (speech ballons) are preferred by learners. The findings also indicated that for MOOC learning tasks, learners prefer unstructured learning tasks rather than structured ones and they prefer to learn in groups rather than individually. Mixed results were obtained for learner autonomy where half of the learners preferred student-center learning while the other half preferred teacher-based instruction.

Keywords: massive open online courses; MOOC learning perception; MOOC learning material; MOOC learning task; Malaysia MOOC

INTRODUCTION

Massive Open Online Courses (MOOCs) have emerged as one of the trending learning environments for online learning (7,13). MOOCs differ from prior online learning environments due to their massive number of students – scaling up to thousands of students (12). Yet, this mode shifts the learning dynamics as learners in MOOCs are required to be more student-centered and independent as the teacher-learner ratio is quite huge (6).

In line with these rapid-growing trend, the Ministry of Higher Education Malaysia, in collaboration with 20 public universities, have launched the Malaysia MOOC initiative. It was launched in September 2014 in line with the Malaysia e-Learning policy. The policy states in order for a course to be considered as “blended” course (course that adopt blended learning), at least 30 percent of the courses are required to be conducted online. In addition, one of the aspirations (shifts) of the Malaysia Education Blueprint 2015-2025 aspires “globalized online learning” in its ninth shift. As such, to realize both the e-Learning as well as Malaysia blueprint
policy, Malaysia MOOCs was initiated. To date (June 2016), Malaysia MOOCs has currently 63 MOOCs with over 147,000 students. The learning platform for Malaysia MOOCs is the OpenLearning platform and can be accessed via https://www.openlearning.com/malaysiamoocs (8).

One of the MOOC developed by the National University of Malaysia (UKM) is the Ethnic Relations course (Kesepaduan dan Hubungan Etnik di Malaysia). The Ethnic Relations course is a foundation course to be completed by all undergraduate students in public universities where it aims in to give exposure to issues related to ethnic relations from the view of social cohesion. The MOOC learning material and tasks are developed in Bahasa Melayu (Malay Language). The overall enrolment for the MOOC is approximately 48,000 students while the current enrolment for this semester is around 10,200 students (8).

RESEARCH METHOD
Factors of MOOC Learning Materials and Tasks Studied
This study was conducted to investigate learners’ perception of the MOOC’s learning materials and tasks. The study adopts the factors in the development of MOOC learning content and tasks by Nordin et al. (8). However, in this study we only focus on the following factors for learning content (i.e. learning material): (i) type of video lectures; (ii) communication style in video lectures; and (iii) humor effect (speech ballons) in video lectures. Meanwhile, the proposed factors for learning tasks, are: (i) structure of learning tasks; (ii) learner autonomy in learning tasks; and (iii) social settings of learning tasks.

MOOC Participants, Learning Activity and Research Approach
The study’s participants are undergraduates studying the Ethnic Relations course in the National University of Malaysia. The students come from various backgrounds and different faculties, namely: The Faculty of Science and Technology, Faculty of Education, Faculty of Engineering and Architecture, and Faculty of Social Sciences and Humanities. The total number of students of the class was 150 students – and 104 of the students participated in this study. The students were aged from 20 to 25 years old.

The MOOC was used as a learning resource for learning about Ethnic Relations and consisted of 11 modules, as illustrated in Fig.1. The modules were carried out according to weeks, where each module was accessed from Week 1 to Week 11. After Week 11, all the learning modules were made accessible to the students. The learning materials consisted of video lectures in live action and animated video while the learning tasks consisted of closed-structured tasks (e.g. quizzes) (Fig. 2) and open-structured tasks (e.g. self-reflections).
RESULTS AND DISCUSSION

Demography
The respondents consisted of 104 students, where 83.7% were female while the remaining 16.3% of them were male. The ages ranged around 20 to 25 years old and were from four different faculties, which are the Faculty of Science and Technology, Faculty of Education, Faculty of Engineering and Architecture, and Faculty of Social Sciences and Humanities. All of the respondents perceived that they were competent in using ICT tools. With regards to their MOOC learning experience, a quarter of them have not used MOOC for learning while the rest have used it for learning purposes.

Learners’ Perception of MOOC Learning Material
For type of video lectures, most of the respondents (91% of 104 respondents) preferred using both live action and animations for video lectures. This infers that both types of videos are important to be used in development of video lectures in MOOCs. This is line with the findings of Zhang et al. (2014), where they found out that live action videos can be effective in learning – in their case, cultural competency training. Our findings also highlight the importance of using animations to extend explanations that cannot be explained by live action videos (8,2,11). Although positive results were gained for both live action and animations, it would be worth to investigate on the other types of videos that could increase level of learner retention (i.e. bounce rate) of a video lecture.

With regards to communication style in video lectures, whether formal or informal, we discovered that most of the respondents prefer informal style of communication (86 respondents) as compared to formal style (18 respondents), as illustrated in Fig. 2. This corroborates with the finding of Guo et al. (2014) where they discovered that informal learning style of communication are more engaging rather than a formal one. In terms of integration of humor (with speech balloons) in MOOC learning material, 62.5% of the respondents strongly agreed to integrate humor in video lectures, 29.8% agreed, while the remaining 7.7% disagreed. This shows that the integration of humor elements could increase MOOC engagement and
learning retention rates as reported by Hew (4). Nevertheless, appropriate levels of humor elements should be carefully investigated further, as extensive humor may cause learning to be disrupted.

![Fig. 2: Learners’ perception of communication style in video lectures](image)

**Learners’ Perception of MOOC Learning Task**

With regards to structure of learning tasks, it was discovered that 70% of the 104 respondents perceived that unstructured learning tasks assisted them in learning as compared to the remaining 30%. Yet, when inquired about learner autonomy, mixed results were achieved as 50.9% of the students (53 respondents) preferred that learner autonomy as opposed to 49.1% (51 respondents) that preferred less learner autonomy, as shown in Fig. 3. This could link to different learning styles of learners, where some learners prefer student-centered learning (more autonomy to learners) where other would prefer teacher-centered learning (more autonomy to instructors) (3,10). This finding is also echoed in a study by Kop et al. (5), where they discovered that the high level of autonomy given to learners in MOOC have been reported to cause confusion to learners. Thus, it would be interesting to further study whether high or low levels of autonomy would enhance/disrupt learning in MOOCs. In terms of social settings of learning tasks, 86 out of the 104 respondents preferred to work in groups as compared to working individually. This indicates that future MOOCs could benefit from the inclusion of cooperative and collaborative learning tasks (8).

![Fig. 3: Learners’ perception of communication style in video lectures](image)

**CONCLUSIONS**

The study has investigated learners’ perception of factors for MOOC learning materials and tasks. We discovered that:

1. Live action videos and animations could be used in video lectures in MOOCs.
2. Informal communication style in MOOC video lectures are preferred as compared to formal ones.
3. Integration of humor elements (speech balloons) could increase learners’ attention towards video lectures in MOOCs.
4. Unstructured MOOC learning tasks are preferred by learners as opposed to structured ones.
5. Some learners prefer a higher level of autonomy for learning tasks while other prefer low levels of autonomy.

6. Learners in MOOC prefer learning in groups rather than to learn individually.

Based on these findings, we propose some future directions such as follows. First, the usage of live action videos and animations could be investigated further. Tailoring types of video with appropriate learning content could be essential for MOOC learning to be effective. Second, future research could be conducted in identifying whether informal communication style in video lectures are appropriate for different age groups. Although MOOC learners in this study preferred an informal style, learners with a different age group could prefer a more formal communication approach. Third, further investigation in humor elements could be conducted. This includes elements such as “line of actions” that are humorous or virtual character gesture exaggerations (1). Fourth, it would be worth to investigate whether unstructured or structured learning tasks are appropriate with technical-based learning tasks. Since ethnic relations is a social science-based course, the findings of this study could differ for technical subjects such as engineering. Finally, levels of learner autonomy provided in MOOC learning tasks could be studied by future researchers. It would be interesting to identify whether a higher level of learner autonomy vs instructor autonomy would enhance or disrupt MOOC learning in different learning domains. In sum, it is hoped that the study’s findings could be used for educators interested in development of learning materials and tasks for future MOOCs.

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REFERENCES
