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Cross-Culture Learning Via Massive Open Online Courses for Higher Education (Pembelajaran Merentas Budaya Melalui *Massive Open Online Courses* untuk Pendidikan Tinggi)

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ABSTRACT

Cross-cultural learning in higher education involves providing an equitable interaction of diverse cultures and moving towards generation of shared cultural expression through dialogue and mutual respect at local, national, regional, and international levels. This can be achieved via the use of massive open online courses (MOOCs), which has received much interest over recent years. Yet, in designing successful cross-cultural learning via MOOCs, there are three important aspects that are worth to be considered. They are instructional design, learning content and tasks design as well as technological acceptance of MOOCs. This paper focuses its' discussion on these three aspects via a study conducted by online surveys conducted with 135 undergraduates at a local university. Findings indicated that with regards to learning content design, types of video lectures that can enhance MOOC learning are animations and live action videos that are integrated with casual style of communication and humor aspects. Findings also revealed that in terms of learning task design, fully and loose structured learning tasks are both of equal importance and both high and low autonomy are important. The paper concludes with issues and challenges in MOOC development and implementation.

Keywords: MOOCs; cross-cultural learning; higher education; learning content design; learning task design

ABSTRAK

Pembelajaran merentas budaya di peringkat pendidikan tinggi melibatkan penyediaan interaksi saksama pelbagai budaya dan menuju ke arah generasi yang berkongsi melalui dialog di peringkat tempatan, kebangsaan, serantau dan antarabangsa. Hal ini boleh dicapai melalui pengaplikasian massive open online courses (MOOC), yang telah mendapat perhatian kebelakangan ini. Namun, dalam mereka bentuk pembelajaran silang budaya yang efektif melalui MOOC, terdapat tiga aspek penting yang perlu dipertimbangkan. Antara aspek-aspeknya adalah reka bentuk pengajaran, reka bentuk bahan dan aktiviti pembelajaran. Kertas kajian ini menumpukan perbincangan kepada ketiga-tiga aspek ini melalui kajian tinjauan yang dilakukan melalui soal selidik dalam talian bersama 135 pelajar sarjana muda di sebuah universiti tempatan. Dapatan kajian berkaitan dengan rekabentuk bahan pembelajaran menunjukkan bahawa bentuk bahan yang boleh meningkatkan pembelajaran MOOC adalah animasi dan lakonan yang diintegrasikan dengan bahasa komunikasi kasual dan diselitkan dengan unsur jenaka. Dapatan kajian berkaitan dengan rekabentuk tugas pembelajaran juga menunjukkan bahawa kedua-dua jenis tugas pembelajaran, iaitu berstruktur dan tidak berstruktur, serta autonomi pelajar yang tinggi dan rendah adalah penting dalam pembelajaran MOOC. Kertas kerja diakhiri dengan isu-isu dan cabaran dalam pembangunan dan pelaksanaan MOOC.

Keywords: MOOCs, pembelajaran merentas budaya; pendidikan tinggi; reka bentuk kandungan pembelajaran; reka bentuk tugas pembelajaran

INTRODUCTION

UNESCO defines cross-cultural learning or “intercultural education” as the diverse culture of the society in which it encompasses not only ethnic or national culture, but also includes linguistic, religious and socio-economic diversity. The main aim of cross-cultural learning is to provide and equitable interaction of diverse cultures and moving towards generation of shared cultural expression through dialogue and mutual respect. The cross-cultural exchange extends beyond the local and national levels to regional, continental, and international levels. Cross-cultural learning involves more than just a simple integration to the current curriculum – it involves application as a

whole learning environment as well as other aspects such as teacher education, curricula, instruction languages, teaching approaches, student interactions and learning materials (UNESCO 2006; Ahn et al. 2015).

To date, a potential learning environment to implement cross-cultural learning across a massive distributed platform (national and international levels) is by using massive open online courses (MOOCs) (Kop et al. 2011; Daniel 2012; Gore et al. 2014). The past few years have seen the emergence of MOOCs, in which massive numbers of students learn via open online learning environments. In contrast to other online learning environments (e.g. learning management systems), the participants are massive in terms of numbers, and they come from diverse

backgrounds, ranging from people who in academia (e.g. university students, industries (e.g. architects) to people who work at home (e.g. housewives). They can also vary in terms of age and experience ranging from learners who are older with vast experiences to learners who are younger and have lesser experience (Grover et al. 2013; Chin & Zakaria, 2015; Othman 2017). Not only do they vary in backgrounds, age, and experience, MOOC participants vary in terms of their cultures – opening opportunities and an avenue for promoting cross-cultural learning within the learning environment.

The Ministry of Education Malaysia (MOE) recently produced the Malaysia Education Blueprint 2015-2025 (Higher Education) and the Ministry aspires to increase the number of student enrolment, enhance the quality of teaching and learning, as well as globalize Malaysian higher education institutions. In order to achieve these aspirations, MOE has introduced MOOCs to be integrated in the higher educational system. The drive for using MOOCs is threefold. First, MOOCs are capable of reaching a much more diverse and wider audience – with the capability of attracting students from all ages as well as students who are not currently enrolled in any higher educational institution. This facilitates equality in terms of access to local and international learning content and knowledge. Second, as MOOCs are open and can be globally accessed, this allows Malaysian universities to enhance their global brand and visibility that in turn could encourage universities to further increase their quality standards to an international level. Lastly, implementation of MOOCs is projected to reduce costs of delivering teaching and learning while maintaining its quality (Ministry of Education Malaysia 2015).

In line with the advancement, the Ministry of Education Malaysia has initiated Malaysia MOOCs in collaboration with all 20 public universities in Malaysia. In Malaysia, the MOOCs are regulated by the Malaysian e-Learning policy, whereby all courses in public universities are to be carried

out in the blended learning mode, where at least 30 percent of the curriculum is implemented online. Here, MOOCs are implemented, as the online learning environment is moving towards realizing the policy. As of November 2017, there are a total number of 226 MOOCs and a number of almost 250,000 users enrolled in Malaysia MOOCs. OpenLearning is the learning platform chosen for implementation of Malaysia MOOCs and the courses can be found at <https://www.openlearning.com/malaysiaMOOCs>.

METHODOLOGY

SELECTION OF ETHNIC RELATIONS COURSE FOR CROSS-CULTURAL LEARNING

In implementing cross-cultural learning, an undergraduate course was chosen. The course is the ethnic relations course, which is a course that is undergone by undergraduates in all local public universities. The course is aimed in creating awareness on the diversity of ethnics in Malaysia and building and maintaining relationships between the ethnics. As the course itself is cross cultural in terms of its content, it was identified as a potential avenue in implementation of cross-cultural learning.

MOOC DEVELOPMENT PROCESS

The MOOC development process was conducted as follows. First, the instructional design was selected and integrated to assist instructional and content designers in development of the MOOC. In our development of MOOCs, the Iterative ADDIE (analysis, design, development, implementation, and evaluation) instructional design framework was applied, as in Figure 1. The approach consists of two iterations of ADDIE, in which two version of a MOOC prototype is developed before the final version is deployed (Nordin et al., 2016a).

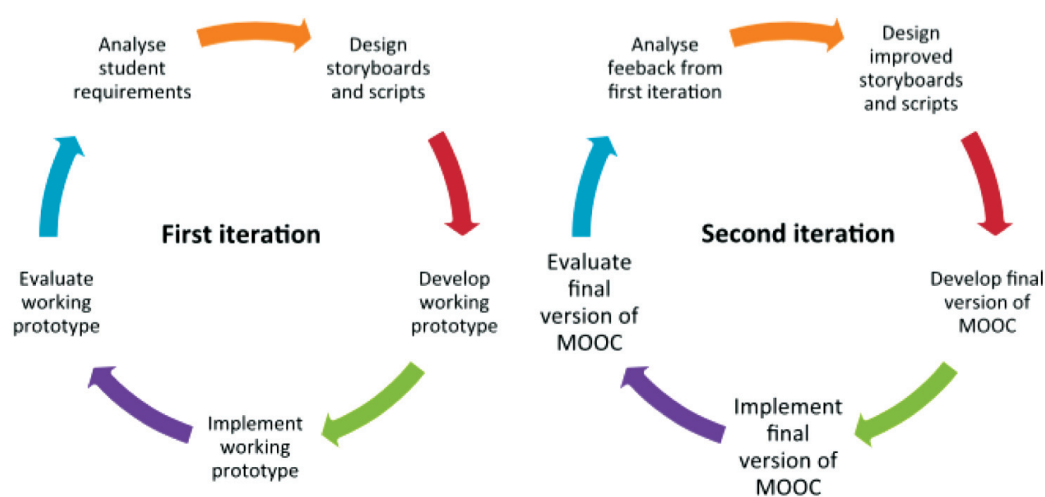


FIGURE 1. Iterative instructional design framework

TABLE 1. Factors of MOOC learning content design

Factor	Type				
	1	2	3	4	5
1 Type of MOOC	cMOOC	xMOOC	-	-	-
2 Type of video lectures	Fully animated video	Mainly animated video	Semi-live action and semi-animated video	Mainly live action video	Fully live action video
3 Integration of cultural aspects in video lectures	Full integration of local cultural aspects	High integration of local cultural aspects	Semi-integration of local and non-cultural aspects	High integration of non-cultural aspects	Full integration of non-cultural aspects
4 Communication style in video lectures	Fully informal language	Mainly informal language	Semi-informal and semi-formal language	Mainly formal language	Fully formal language
5 Humor effect (using speech balloons) in video lectures	Smooth-styled speech balloons	Wavy-styled speech balloons	Zigzag-styled speech balloons	-	-

Second, the learning materials (i.e. learning content) and tasks in MOOC were designed via MOOC factors learning content and task design by Nordin et al. (2016b). For content development, the factors are: (i) type of MOOC, (ii) type of video lectures, (iii) integration of cultural aspects in video lectures, (iv) communication style in video lectures;

and (v) humor effect in video lectures, as shown in Table 1. With regards to learning tasks, the factors are: (i) structure of learning tasks; (ii) dialog in learning tasks; (iii) learner autonomy in learning tasks; (iv) social settings of learning tasks; and (v) transactional distance of learning tasks, as shown in Table 2.

TABLE 2. Factors of MOOC learning task design

Factor	Type				
	1	2	3	4	5
1 Structure of learning tasks	Fully structured	Mainly structured	Semi-structured	Mainly loose structured	Fully loose structured
2 Dialog in learning tasks	Fully instructor-to-learner dialog	Mainly instructor-to-learner dialog	Semi instructor-to-learner dialog and learner-to-learner dialog	Mainly learner-to-learner dialog	Fully learner-to-learner dialog
3 Learner autonomy in learning tasks	Fully instructor controlled	Mainly instructor controlled	Scaffold	Mainly learner controlled	Fully learner controlled
4 Social setting of learning tasks	Individual learning	Paired learning	Cooperative learning	Collaborative learning	-
5 Transactional distance of learning tasks	Very low transactional distance	Low transactional distance	Medium transactional distance	High transactional distance	Very high transactional distance

Finally, after development of the MOOCs, technology acceptance of the MOOCs were investigated in assessing the developed MOOCs. In analyzing our MOOCs, we used the UTAUT (Unified Theory of Acceptance and Use of Technology) model in combination with three other factors. The factors of UTAUT were performance expectancy, effort expectancy, social influence, facilitating conditions, and behavioral attention, and the other three factors were attitude, self-efficacy and anxiety (Nordin et al. 2016a).

ANALYSIS

The data was collection was carried out by using online surveys with 135 undergraduates taking the ethnic relations course at a local university. The survey was distributed at the end of the semester (four-month semester) where the surveys investigated students' perception on MOOC learning content and tasks design. The factors related to learning content design were *type of video lectures*, *integration of*

cultural aspects in video lectures, communication style in video lectures, humor effect in video lectures, while factors on learning task design were *structure of learning tasks, dialog in learning tasks, learner autonomy in learning tasks*, and *social settings in learning tasks* (refer to Table 1 and 2).

RESULTS

DEMOGRAPHICAL RESULTS

The demographical results showed that most of the respondents were female (85.9%) while the remaining were male. The respondents' age was ranged from 20 to 23 years and were undergraduates in a local university. Most of the respondents (91.6%) technological competencies were high and the majority of them (93.3%) of them have never used MOOCs for learning purposes.

RESULTS ON MOOC LEARNING CONTENT DESIGN

The first factor investigated was *type of video lectures*, where preference over animated video or live action video was studied. The results showed that both types of video were preferred, where 97.1% of the respondents preferred animations to be integrated in video lectures, while 95.5% of them preferred live action videos to be used. The second factor was *integration of cultural aspects in video lectures*. Figure 2 shows that 130 out of 135 respondents agreed that cultural aspects were important in to be integrated in video lectures.

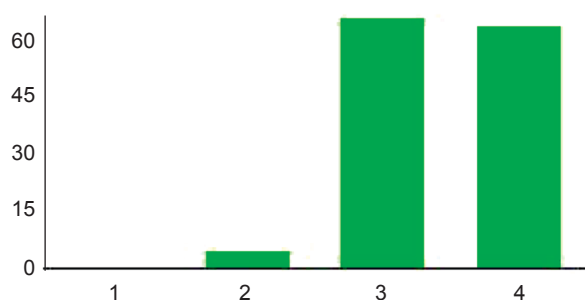


FIGURE 2. Integration of cultural aspects in MOOC video lectures

Communication style in video lectures was the third aspect studied. The majority (over 90%) of the respondents preferred a more casual style of communication to be used as compared a formal style of communication. The final aspect of MOOC learning content design was *humor effect in video lectures*, in which 131 of 135 respondents agreed that "humor" elements are important to be integrated in video lectures.

RESULTS ON MOOC LEARNING TASK DESIGN

With regards to learning task design, the first factor investigated was the *structure of learning tasks*, where half of the students preferred fully structured tasks while the other half preferred loosely structured tasks. For the second factor, *dialog in learning tasks*, a high number of respondents (66.7%) preferred that students control dialogs (i.e. communication among students) rather than instructors. *Learner autonomy in learning tasks* was the third factor investigated. Figure 3 illustrates that half of the respondents preferred to more autonomous in learning while the other half preferred to receive a higher level of intervention from instructors.

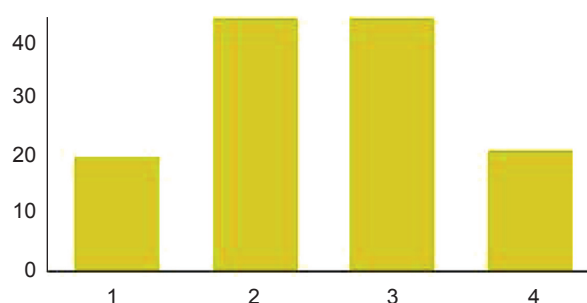


FIGURE 3. Learner autonomy in MOOC learning tasks

The final factor of MOOC learning task design was *social settings in learning tasks*. Here, the majority of the respondents (113 of 135) preferred to carry out group tasks as compared to individual tasks.

DISCUSSION

In the development of MOOCs for cross-cultural learning, several issues were raised as the following. First, several aspects can be considered when designing MOOC for cross-cultural learning which include instructional design, learning content and task design as well as technology acceptance of MOOCs. All three aspects are worth investigating before a MOOC is developed, as the factors are crucial in making sure the MOOCs developed move towards the intended aims of learning. Failing to consider such aspects could disrupt learning or failure in achieving meaningful learning (Nordin et al. 2015).

Second, integration of contextual cultures could play a major role in designing cross-cultural learning via MOOCs. Here, it could be interesting to find out whether this aspect is important for learning or not and to what extent its integration could affect learning (Nordin et al. 2016b). For example, in the context of Malaysia MOOCs, some of the learning content and tasks are tailored for local MOOC participants. This would become a critical issue as some culture values differ from one country/continent to another.

Third, with regards to MOOC learning content design, findings indicated that animations as well as live action

videos can be used to engage learners in MOOCs. In addition, humor aspects can be potential included to attract learners towards the video lectures. Furthermore, the findings also suggest that a more casual style of learning could be used in video lectures to make learning more informal. Yet, although findings these settings could enhance MOOC learning, integration of these aspects should be considered with care as respondents of the study were undergraduates – and findings with a different age group could alter the results.

Fourth, in terms of MOOC learning task design, findings indicated that fully structured and loosely structured tasks are of equal importance in task design, as well as learner autonomy in learning, where half of the respondents preferred to be autonomous while the other half preferred to receive a higher intervention level from instructors. These are important aspects to be considered in learning task design as a high structure would disrupt learners who prefer more autonomy in learning, while loose structured learning would disrupt learners who prefer a more intervened learning task. Use of social network analysis (Norman et al. 2015) to monitor level of MOOC learning activity would be interesting, as such analysis could assist instructors in providing well-timed learning interventions.

Finally, there is the issue of policies for integration of MOOCs in the educational system, in which some countries/continents are driven by top-down policies whereas other regions deploy MOOCs via a bottom-up one. This would have a huge impact on MOOCs' development and implementation, as in one hand, the MOOC that has a top-down policy would be heavily driven by centralized policies, whereby MOOCs that apply a bottom-up would be unbounded by top-down policies.

CONCLUSIONS

In sum, despite several issues and challenges of implementing cross-cultural learning via MOOCs, integration of appropriate approaches in instructional design, learning content and tasks design, as well as technology acceptance models could lead to better MOOCs aimed in achieving meaningful learning.

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