8 Design recommendations to address cultural issues in multicultural MOOCs: a systematic literature review

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Abstract

One of the goals of Massive Open Online Courses (MOOCs) is to democratise education. With their unique openness feature, courses are offered to global learners with diverse backgrounds and cultures. This research has conducted a systematic literature review to identify the cultural aspects of multicultural learning environments and MOOCs, and what strategies, approaches, and dimensions have been implemented to deal with cultural challenges in relation to learning and teaching. The results showed how cultural differences on many levels are an influential factor on learning and teaching. Several pedagogical, contextual, and behavioural strategies have been implemented to overcome cultural differences in learning. In conclusion, this report presents an inventory of suggestions for a MOOC development team to consider when they are designing and delivering MOOC courses for multicultural audiences.

Keywords: massive open online courses, MOOC, multicultural, cultural challenges, systematic, literature review.

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1.   Introduction

MOOCs held the promise of democratising education and benefitting learners from diverse global backgrounds and cultures on a massive scale. However, they fail to manage culturally diverse learners' understanding, perceptions, and expectations (Dennen & Bong, 2018).

This research aimed to examine the importance of cultural differences from an educational perspective. It identified the gaps in research approaches and strategies regarding cultural issues in current MOOCs, and used the information learned to make some suggestions to facilitate globalisation in MOOC design.

Two research questions were defined to guide the research inquiry and these are mentioned in the *Results and discussion* section.

2.   Method

This research carried out a systematic literature review of published literature about MOOCs between 2016 and 2018. It used an established procedure for systematic literature reviews in social sciences (Siddaway, 2014), which suggests six stages of reviewing: scoping; planning; identification; screening; eligibility; and performing quantitative and qualitative research synthesis.

Terms relating to the research questions were established, and initial searches were conducted using the keywords 'MOOC' or 'massive open online course' and 'culture' or 'culture*', to balance between getting as many papers as possible and ensuring the relevance of these papers. Only empirical studies were included.

The language was limited to English and filtered according to the availability of full text in these databases. Electronic databases were selected for use in the research according to their relevance to the focus of the topic and the scope (Scopus, Web of Science, Eric).

3. Results and discussion

3.1. RQ1 – How diverse are the cultural origins of online learning environments and MOOCs compared to the cultural origins and expectations of learners?

In order to examine cultural origins, we attempted to discover the country of origin and language of each of the MOOCs described in the literature. The results are shown in Figure 1 and Figure 2.
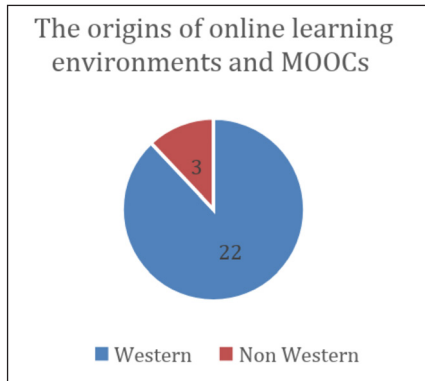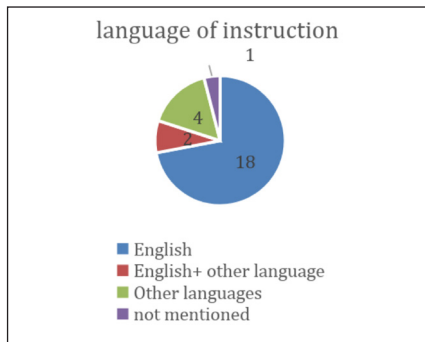
Figure 1.   The cultural origins of MOOCs

Figure 2.   The language of instruction in MOOCs

The origins of the MOOC country were not always referred to. Therefore, the origins of platforms were classified according to the platform provider and the origin of the institution which constructed the course.

We can see that the majority of MOOCs originate from Western counties and are implemented primarily in English. These results are not surprising given that:

- MOOCs originally stemmed from the West;

- four out of five top MOOC providers in the world, according to enrolments, are Western (Shah, 2017);

- famous Western platforms have partnerships with top ranked universities, facilitating research on these platforms; and

- English is commonly the 'lingua franca' and a bridging language in global education.

It is challenging for learners from different cultures to fit in with the unfamiliar Western centric course design and execution. However, the majority of learners prefer to learn and communicate with diverse learners in English. It is important to go beyond language level into depth to resolve and design courses that support diverse cultures with different pedagogical needs.

3.2.   RQ2 – What strategies have been applied in online learning environments and MOOCs to overcome cultural challenges in previous studies?

3.2.1.   National or individual level of culture

The results of the literature survey identified a two-sided discussion in relation to cultural differences. On one side, more than half of the publications were exploring the effects of cultural differences on a *national* level. This research treats nationality as a proxy for the learner's culture and compares the experience

of students from different countries (Che, Luo, Wang, & Meinel, 2016), and also looks at the experience of students who are from a different culture than the MOOC's origin when considering the content and services of the MOOC (Phan, 2018).

The other papers stressed the importance of investigating cultural differences on an *individual* level. Diversity in perception of MOOC content and activities are stemmed from the combined effect of the physical world, experiences, and course design influencing learners in various degrees. Expectations about the course and instructors significantly varies even with the same learning culture (Loizzo & Ertmer, 2016).

Culture is not equivalent to countries and nations; it has undetermined boundaries that have to be studied carefully in respect to different levels of culture and with consideration to the global nature of MOOCs that affect participants in various degrees.

3.2.2. *Internationalisation versus localisation*

Analysing the literature sample, two approaches were identified to overcome cultural differences; *internationalisation* and *localisation* in multicultural learning environments.

On one hand, *internationalisation* as a discipline specific term refers to creating learning and assessment materials that incorporate international themes or perspectives (Mittelmeier et al., 2018).

It was supported by many studies such as Dennen and Bong (2018), and Bozkurt and Keefer (2017), and suggested that the following features can enrich the overall learning experience:

- implementing flexible content with multiple updated versions;

- opening the learning space for participation and editing; and

- offering variety of learning options and facilities.

On the other hand, the other literature proposed *localisation* of MOOCs to overcome cultural challenges by adapting content and services to suit a specific cultural characteristic (Krasny et al., 2018).

In the MOOC context, balancing between the two strategies can be pedagogically beneficial in overcoming cultural challenges. This suggested approach can be produced as a spectrum adjusted according to the nature of learning elements and inputs with efforts from both course designers and diverse learners.

4. Conclusions and recommendations

In this paper we have shown that the 'one-size-fits-all' model does not work for multicultural environments. Using the results of the research above, we have derived the following recommendations for MOOC designers and facilitators, which we believe balance the different strategies to allow learners from multiple cultures to take control of and optimise their learning.

- Dynamic design: course design has to be changed and updated frequently (Dennen & Bong, 2018) as a substantial number of culturally diverse learners with different perceptions, expectations, and points of view join the course and can enrich the learning experience.

- Flexible pathways: give the learners control over their learning process by offering multiple culturally sensitive options that may match learners' cultural characteristics and their preferred learning culture.

- Flexible content: adjusting the content making it culturally relevant to learners' diverse local contexts and backgrounds as it boosts learners' engagement (Mittelmeier et al., 2018). Sophisticated concepts can be explained in multiple contexts. Developers are encouraged to adjust

activities, assignments, and examples making them culturally related to learners' local worlds.

- MOOCs as an assemblage point: designers can enhance globalisation and multiculturality of MOOC courses by opening the learning space for participants to construct knowledge depending on their own lifeworld experiences, engaging instructors to support learners by managing and updating these spaces, and, in addition, provide several options of technological tools and services to attract a wider range of diverse learners.

- Adopting innovative pedagogical and instructional strategies such as personalised learning and context-based learning.

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