The Design Challenges and Challenges of MOOCs: A Case Study of Indonesian and Malaysian MOOCs

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Background

- During the past few years, MOOC courses have been increasingly designed and delivered in countries outside of U.S. and Europe including SE Asian countries.
- The growth of MOOC development in Malaysia has fostered growing research interest in Malaysian MOOCs (e.g., Al-Atabi & DeBoer, 2014); however, there remains a lack of research focused on Indonesian MOOCs.

Research Questions:

1. How do instructors design their MOOC?
2. What challenges do instructors experience in designing their MOOC?

Key Terms

MOOCs = online course that is based on self-motivated learning, and flexibility (Israel, 2015).

The openness = no specific requirements regarding academic qualification, fees, and course completion (Liyanagunawardena, 2015).

The massiveness = the large number of students (Anderson, 2013).

Method

- Research Design: mixed method design (Creswell, 1999)
- Data Collection: Survey, interview
- Participants: 46 survey participants (15.6%) and 9 interviewees (3 Malaysian + 6 Indonesian)
Data Analysis

<table>
<thead>
<tr>
<th>RQ</th>
<th>Data Sources</th>
<th>Data Analysis</th>
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<tbody>
<tr>
<td>RQ1</td>
<td>Survey multiple-choice questions</td>
<td>Descriptive Statistics (Knapfel &amp; McLellan, 1996)</td>
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<td>Interview</td>
<td>Content analysis (Vaismoradi, Turunen, &amp; Bondas, 2003)</td>
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<tr>
<td>RQ2</td>
<td>Survey multiple-choice questions</td>
<td>Descriptive Statistics</td>
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<td>Interview</td>
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Findings-Demographics

**Primary Discipline Affiliation (n=46)**

- Education: 10
- Social Sciences: 9
- Mathematics, Statistics, and Computer Sciences: 4
- Business and Management: 4
- Engineering and Architecture: 4
- Health Sciences: 4
- Other: 4
- Humanities: 2
- Law: 2
- Agriculture: 1
- Natural Sciences: 1

Findings-Demographics

**The Number of Participants (n=46)**

<table>
<thead>
<tr>
<th>Number of Participants</th>
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<tbody>
<tr>
<td>Less than 1,000</td>
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<tr>
<td>1,001-5,000</td>
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<tr>
<td>5,001-10,000</td>
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<tr>
<td>10,001-20,000</td>
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<tr>
<td>20,001-50,000</td>
</tr>
<tr>
<td>More than 50,000</td>
</tr>
</tbody>
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Findings-RQ1

**Preparation:**

- Build a team work
- Familiarize myself with various design tools
- Join in other MOOC courses
- Investigate MOOC environment
- Seek advice from any MOOC or regular online course instructor

Findings-RQ1

**Attraction:**

- Provide course information
- Offer recognition (e.g., certificate, badge, points, credits)
- Design a list of steps to complete the course
- Provide welcoming lectures
- Lay out instructor's expectations
Findings-RQ1

In order to attract students to enroll in the course, one interviewee uses course information:

"I explain what content will be discussed in this course, and the goal of this course. Sometimes students send email to me, and ask about the course or certificate."

Participation:
- Certificate/badge
- The use of multimedia
- Assign optional readings, video, other materials
- Attempt to create learning communities
- Provide quizzes

How to track: Self monitoring, learning analytics, personal tracking from instructors

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Findings-RQ1

One of the interviewees stated that his MOOC course is equipped with learning analytics to track students’ progress:

"We are equipped our LMS with Learning Analytics. Learning Analytics (LA) is currently being widely used by online learning providers to enhance learning process and to boost student engagement and interaction. The LA can be used as both a prescriptive tools and predictive measures. It collects information about the student access to learning resources, interactions and activities. LA provides real-time visual image of student learning behaviors. It is easy to manage and operate."

Assessment:
- Quiz/test
- Student portfolio
- Student presentation
- Student log data
- Papers

How do participants obtain feedback?
- Instructor
- Peer
- Moderator/Tutor/TA

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Findings-RQ1

One interviewee mentioned several ways to assess students’ learning:

"we provide ......... and varieties of ways for measuring participants learning result such as participation in guided discussions, quizzes, essay writing, involve in individual or group projects, etc.

Findings-RQ2

RQ2: What challenges do instructors experience in designing their MOOC?

- participant engagement,
- encouraging collaboration
- video development, and
- time constraints
- Assess participants’ learning

Help for solutions: Other instructors, provider, institution
Findings-RQ2
One interviewee mentioned that student engagement is challenging and crucial:
“Students engagement is vital... to engage in a meaningful learning is a challenge especially with an instructor, peers and course content.”

Regarding time constraint, another interviewee stated that:
“First of all this project is conducted at the same time we all have to complete our regular job so sometimes time management can be an important issue.... There are moments we cannot reach one or two of the developers because they were too busy with their work or they feel that this program does not provide strong financial support for them.”

Discussion
During the preparation, attraction, participation, and assessment stages, instructors used several strategies in their design
The 5 top design challenges for instructors in MOOCs include encouraging collaboration, participant engagement, video development, time constraints, and assessment

→ Pedagogical and technological challenges are still the common challenges to be handled.

Implication
* The findings of this study give an implication that MOOC course design needs full support from the entire MOOC team as well as their institution.

The work sharing, availability of various content and technology resources, and the legal, administrative, and instructional design support can ease the instructors’ responsibilities.

Limitation & Future Direction
The MOOC course design strategies is approached from the perspectives of instructors only.

→ Future research can expand these findings by adding more perspectives from students, affiliated institutions, and MOOC providers.

This study only focuses on MOOCs developed by Indonesian and Malaysian instructors.

→ There is now an opportunity to extend the study to a bigger context such as to additional countries in southeast Asia or perhaps the world community.

Implication
• It is important for the institution to provide guidance and training to these instructors, or assign a video maker professional to support MOOC instructors in designing their course (Ritcher & Krishnamurthi, 2014).

References
Thank you.
Questions and Comments?