

## Evaluating the Design Standard of UiTM Massive Open Online Courses

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### ABSTRACT

Massive Open Online Course (MOOC) was one of the initiatives of the Malaysia Ministry of Education to ensure the standard of our national education system was at par with the global education trends. This initiative was documented in Malaysian Education Blueprint 2015 -2025 (Higher Education, Shift No.9: Globalised Online Learning). Universiti Teknologi MARA (UiTM) was among the public universities in Malaysia that were seriously involved in MOOC development. Starting with one MOOC in 2014, four MOOCs in 2015, 16 MOOCs in 2016, UiTM embarked into developing 450 new MOOCs in 2017. To ensure UiTM MOOC had achieved the required standard and quality of Malaysian MOOC, an internal guideline for UiTM MOOC Development (i-Learn Centre, 2016) was constructed. The construction of the guideline was based on the standard provided by the Guidelines of Development and Delivery of Malaysian MOOC (KPT, 2017). Some additional elements required by the administrator of UiTM MOOC were also added. The study was interested to determine whether the MOOCs developed by UiTM lecturers complied with the standard of UiTM MOOC and ultimately the Malaysian MOOC. It was also interested to determine the readiness of UiTM MOOC for credit transfer. To do that, a UiTM MOOC Evaluation Checklist was introduced. The checklist consisted of 45 questions which were constructed based on the guideline on UiTM MOOC Development (i-Learn Centre, 2016) and the Guidelines for Credit Transfer for MOOC (MQA, 2016). The study evaluated two active UiTM MOOCs in terms of adherence to the standard of UiTM MOOC. The findings of the study highlighted areas to be improved and provided suggestions to increase readiness for MOOC credit transfer.

**Key words:** Instructional Design, MOOC Design, Learning Materials, Learning Activities, Credit Transfer

### INTRODUCTION

Massive Open Online Course (MOOC) is an online course available for anyone who is interested to learn. The course is open throughout the year for self-paced, and learning is free of charge. MOOC started to gain popularity among higher institutions in Malaysia after the success of the four pilot MOOCs in 2014, in which one MOOC was developed by Universiti Teknologi MARA (UiTM). This pilot project was one of the initiatives of the Ministry of Education Malaysia to ensure the national education system keeps on evolving to stay at par with, if not ahead of, the global trends in education (MOE, 2015). Having a high internet penetration rate of 85.7% in 2016 (Alias, 2018) has enabled Malaysia to “widen the access to good quality content, enhance the quality of teaching and learning, lower the cost of delivery and bring Malaysian expertise to the global community” (MOE, 2015). This MOOC initiative is documented in Malaysian Education Blueprint 2015 -2025 (Higher Education), Shift No.9: Globalised Online Learning (MOE, 2015).

The launching of MOOC Credit Transfer in 2016 (Sani, 2016) marked another accomplishment of Malaysia MOOC

as MOOC was initially used as supplementary resources for teaching and learning. With the possibility of getting a credit transfer, MOOC can assume a new role as a replacement for existing courses offered at the institution. This new role enables students to apply for transfer of credits for courses completed via MOOC.

### MOOC in UiTM

The success of the pilot MOOC in 2014 had motivated UiTM to continue the effort to develop more MOOCs. The number of MOOCs increased slowly for the next two years. However, the year 2017 witnessed a colossal increment of MOOCs in which all 26 faculties and 13 state campuses of UiTM decided to take part and developed about 450 new MOOCs for UiTM. The mass development of MOOCs in 2017 was a result of UiTM Vice Chancellor’s 2017 mandate to develop 450 MOOCs and increase the number of students to 500 students per MOOC. Having this huge MOOC development, the need to ensure the quality of UiTM MOOC and the read-

iness for credit transfer were vital hence an evaluation of UiTM MOOC was required.

UiTM MOOC can be accessed at [www.openlearning.com/uitm](http://www.openlearning.com/uitm). Students are required to register as users at [www.openlearning.com](http://www.openlearning.com) before they can register for the courses. Students can register for as many courses as they want since there is no limit to it and registration is free. The list of UiTM MOOC can be found at <https://www.openlearning.com/uitm> and this list is updated from time to time.

### Significance of MOOC in UiTM

Generally, MOOC can be used to support or replace the conventional face-to-face (F2F) learning (i-Learn Centre, 2016). In UiTM, students can use MOOC as references and materials for revision as the courses are designed based on the courses offered at the university. Students and potential students can preview some of the courses offered by the university even before joining the classes or entering the university. These courses can support independent, face-to-face, blended and flipped learning. Another advantage of MOOC is free learning. Students do not have to pay any registration fee to learn the courses. They can choose any courses they want, when to learn the courses and how fast to complete the courses. However, a small fee may be imposed if the students plan to get a Certificate of Completion to enable them to apply for a credit transfer via MOOC.

### Types of Courses

There are three types of courses for MOOC: general, niche and lifelong learning courses (MOE, 2017). General courses are courses outside the students' main field of study and these courses are requirements of undergraduate degrees. On the other hands, niche courses are specific courses required for the degrees. Lifelong learning courses are courses that enhance skills, social inclusion, personal development, self-sustainability, competitiveness and employability. So far, most of the courses in UiTM MOOC at the OpenLearning platform are in these two categories: general and niche as the main users of the MOOC are university students. The list of courses is available at <https://www.openlearning.com/uitm>.

### Standard Flow of UiTM MOOC

Generally, all UiTM MOOCs follow the flow in Figure 1. All UiTM MOOCs must adhere to the standard of UiTM MOOC Development (i-Learn Centre, 2016). Only MOOCs which have passed the standard are allowed to be published and promoted to the public at [openlearning.com](http://openlearning.com). These MOOCs can be used for self-learning or even to support Blended Learning.

If the MOOCs are to be used for credit transfer purposes, there is another set of guidelines that need to be adhered, the Guidelines for Credit Transfer for MOOC (MQA, 2016). Only MOOCs that fulfilled all the requirements are eligible to be considered for credit transfer.

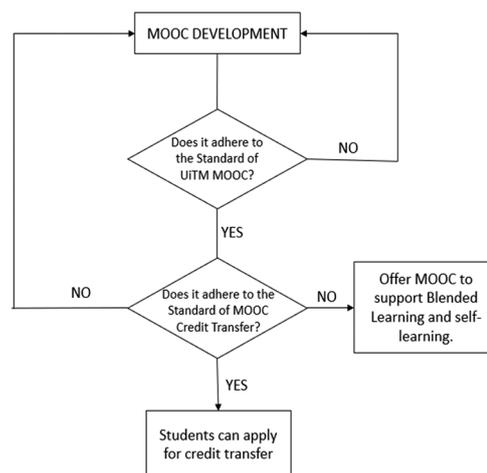


Figure 1. UiTM MOOC – from development to end users

### General Design of UiTM MOOC

All UiTM MOOCs are hosted by OpenLearning platform and currently available at <https://www.openlearning.com/uitm>. The platform is designed in such a way that allows active learning in which students can create, discuss and reflect. As for the MOOC developers, they are provided with tools to create a learning community. Despite giving freedom to create their own MOOC, the design of UiTM MOOC is governed by the Guidelines for Development and Delivery of Malaysia MOOC (MOE, 2017). This guideline is a standard document in which all public universities should adhere when developing MOOC. Generally, there are two main components: a homepage, also referred to as a landing page, and a content page. MOOC developers have the freedom to design the layout of their courses as long as they have the required information stated in the guideline.

Referring to the Guidelines for Development and Delivery of Malaysia MOOC (MOE, 2017), the first component is the homepage or landing page. This page should have an introductory video of the course, course synopsis, course learning outcomes, prerequisite knowledge, course handling information, instructor's information, starting date and duration of the course, FAQs, user ID and password, disclaimer and keywords. The second component is the content page. The page should have a list of sub-topics, topic learning outcomes, learning materials, learning activities, assessment and additional references.

UiTM MOOC had some additional components in the landing page compared Malaysian MOOC. These additional components were added to meet the requirements of UiTM MOOC. Table 1 shows the description of the components in UiTM MOOC homepage/landing page. The components in UiTM MOOC homepage were adapted from the standard guideline of Malaysia MOOC development. There was no specific layout to present this information. MOOC developers were free to design their own homepage or landing page.

Table 2 shows the description of the components in UiTM MOOC Content Page. Layout of the content page is rather fixed as the platform is hosted by the MOOC provider. However, presentation of content, types of activities and assessment items depends on the creativity of MOOC developers.

**Table 1.** Description of components in UiTM MOOC Homepage/landing page

Components of UiTM MOOC	Description
Promotional video	A short course promotional video that shows clips relevant to the courses. This video is used to promote the course in various media. Duration of the video should not exceed 1 minute.
Course introductory video	An introductory video should include the course description, course learning outcomes, list of topics in the course, types of learning activities and other important information in the video. The duration of the video should not exceed 3 minutes.
Course synopsis	Course synopsis should contain between 100-200 words. Content should include general information about the course, delivery format and learning outcomes students will achieve.
Course syllabus	Course syllabus contains detailed information about the course, including the list of topics to be covered in the course, the overall structure of the course, learning activities and assessment.
Course learning outcomes (CLO)	The CLO must be stated clearly so that students are aware of the knowledge and skills they will acquire after they complete the course. A course should have at least two (2) CLOs. The verbs used to describe the CLO must be clear and measurable. Refer to Bloom's Taxonomy for verbs at different cognitive levels.
Student learning time (SLT)	Student Learning Time (SLT) refers to the total learning time required to be completed by students to achieve the learning outcomes. The SLT can be in the form of face-to-face learning, non-face-to-face learning, self-directed learning and formal assessment. The SLT includes formal and informal learning activities such as lectures, tutorials, seminars, self-study, field work, preparation for assignments and sitting for examination.
Prerequisite knowledge	Pre-requisite knowledge of the course needs to be stated clearly. This information is to ensure students equip themselves with the necessary knowledge and skills before they enroll in the course.
Important dates and duration of the course	Starting and ending dates and duration of the course must be stated clearly. The duration of the course can be between 5 – 14 weeks or open throughout the year for self-paced learners.
Instructor's information	Instructor's name, affiliation, picture, academic qualification, email, area of expertise and other relevant information need to be displayed. This information is to promote academic excellence of the instructor.
FAQs	The FAQs are a list of questions students usually ask about the course. Some of the frequently asked questions are: <ul style="list-style-type: none"> <li>• How can I participate in the course?</li> <li>• Do I need to be F2F with the instructor?</li> <li>• Will I be assessed formally?</li> <li>• Will I get a Certificate of Achievement at the end of the course?</li> <li>• Do I have to pay for the certificate?</li> <li>• What can I do with the certificate?</li> </ul>

Adapted from guidelines for development and delivery of Malaysia MOOC (MOE, 2017)

Table 3 refers to the criteria for a course to be considered for credit transfer as stated in the Guidelines for Credit Transfer for MOOCs (MQA, 2016). It is stated that a course must be accredited by MQA or any quality assurance agency. If the MOOC is not accredited, it should have all the core elements listed in Table 3. The next element is the 80% content equivalent. Course equivalent is measured by looking at the CLO, list of topics, duration of the MOOC and compares them with the course to be credit transferred. Lastly, the credit equivalent that is determined by the Student Learning Time (SLT). The basis of the calculation is 40 hours of SLT is equivalent to 1 credit and the duration of the course is 14 weeks.

### Principles Guiding the Design of Content and Activities in UiTM MOOC

The general structure of UiTM MOOC adheres to the standard of Malaysia MOOC. However, in terms of the design for content delivery and activities, Gagne's Nine Events of Instruction (Gagne, Briggs & Wager, 2005) was adopted.

Gagne's Events of Instruction comprises nine steps of events that could help course developers structure their content so that the students could get the most from their learning opportunities. A lesson on Pragmatics was chosen to illustrate the steps. References used to develop the lesson were from Yule (2015) and Steiner (2014). Each step was required for effective learning and the steps are shown in Figure 2. The following nine steps have been adapted from Gagne, Briggs and Wager (2005).

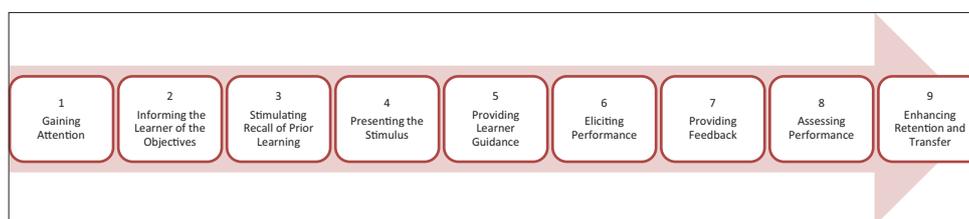
#### Step 1: Gaining Attention

Begin the learning experience by gaining the attention of the students. Make sure the students are ready to learn and participate in the learning process. When they are ready, they will be more involved in the learning process. Some of the ways to gain attention of the students are by posing thought-provoking questions, showing pictures and stimulate students with novelty, uncertainty and surprise. A sample instruction of gaining attention of the students is shown

**Table 2.** Description of components in UiTM MOOC content page

Components of UiTM MOOC	Description
Sub-topics	Each topic can be broken into a few sub-topics. Minimum sub-topics for each topic are three (3) sub-topics.
Topic learning outcomes (TLO)	The TLO must be stated clearly so that students are aware of the knowledge and skills they will acquire after they complete the topic. A topic should have its own TLOs and the TLO must be aligned with the CLO. The verbs used to describe the TLO must be clear and measurable. Refer to Bloom's Taxonomy for verbs at different cognitive levels.
Learning contents	Learning contents refer to the instructional content of the course. The contents will help to increase students' knowledge, skills and values. The content of the course can be in the form of videos, Podcast, Wiki/Blog, interactive content, e-book, Web 2.0 applications, .pdf, .doc, .ppt, links, etc., 70% of the contents are in a video format, while the remaining 30% is in other formats. There are two types of instructional video: Original and Reusable Videos. Original videos can be in several forms such as recording of teaching videos and expert interviews, fieldwork, videos, animation and slide presentation with narration. Videos should be broken into a few short videos of around 5 minutes each to facilitate learning. Reusable video refers to existing videos created by others and are being shared on the Internet. Based on the guideline of Malaysia MOOC Development and Delivery (MOE, 2017), 10 minutes of video is equal to one hour of face-to-face meeting.
Learning activities	Learning activities are aligned to the TLO and these activities are meant to enhance students' understanding, skills and values. These activities can also be part of the assessment. Activities can be in the forms of discussion, forum, quiz, case studies, problem solving, e-portfolio, or any Web 2.0 tools. Course facilitators must play their roles to ensure outputs of the discussion contribute to the achievement of the TLO.
Assessment	Assessment must be aligned to the CLO. It is to measure whether students have achieved the learning outcomes successfully. Assessment items can be placed together within the content (formative) or at the end of the course (summative). Grading of assessment is done by the course facilitator after the completion of at least 80% of the course.
Additional references	A minimum of two (2) additional references related to the course contents must be provided so that students can gain more knowledge from different perspectives. These references can be in the forms of videos and links to websites.

Adapted from guidelines for development and delivery of Malaysia MOOC (MOE, 2017)

**Figure 2.** Steps in Gagne's nine events of instruction (Gagne, Briggs & Wager, 2005)

in Figure 3. The example can be in the form of a short video or a picture with instruction.

### Step 2: Informing the Learner of the Objectives

Next, inform the students about the objectives or the outcomes of the lesson to help them understand what they will learn and why they need to learn the lesson. When the students understand what they are doing, they will be more motivated and receptive towards this new information. Figure 4 shows an example how to inform learners of the course objectives.

### Step 3: Stimulating Recall of Prior Learning

After that, help the students to make sense of what they learn. Relate the new information to something they already

know or something they have already experienced. This can be done by reviewing previous lessons or ask them if they have any previous experience with the topics. After that, make connections between what they are learning to the previous experience. Figure 5 shows how to stimulate recall of previous learning.

### Step 4: Presenting the Stimulus

Present the new information in an effective manner. Organize and chunk the new information in a meaningful way. Provide examples, explanation after the demonstration, and present multiple version of the same content. Use different types of media to address different learning preferences. Figure 6 shows a sample sub topic, relevant concepts to be introduced and choices of content delivery modes.

**Table 3.** Quality, adequacy of content of MOOC for credit transfer**Description**

1. MOOC is part of a program accredited by Malaysia Quality assurance (MQA) or any international quality assurance agency or if not, -

It should have the following core elements:

- Course learning outcomes
- Course description/course synopsis
- Course content
- Learning activities
- Course duration
- Course assessment
- Course instructors
- Course grade (where available)

2. Mapping of the course content equivalent of 80% and the level of the study is established. The credit is applied based on the following elements:

- Course learning outcomes
- List of topics/sub-topics
- Course duration

3. Credit equivalent of MOOC is determined based on student learning time (SLT). As a guide, 40 hours of SLT=1 credit.

Example for a 1 credit hour course held over 14 weeks:

40 hours SLT=2.86 hours of SLT per week

14 weeks

For every F2F meeting, students must complete 2.86 SLT hours.

Adapted from Guidelines for MOOC Credit Transfer (MQA, 2016)

*Have you ever been in a situation where a stranger was asking you for something, but the way he said it was rude and inappropriate? You might be wondering why the person could not ask nicely.*

*Speaker A: Pass me the newspaper. You are sitting on it.*

*Speaker B: Excuse me! I bought this newspaper!*

**Figure 3.** Attention getter to start a lesson on pragmatics

*Do you know there is a better way to ask someone for something? Even a stranger would be willingly assisting you if you know how to ask nicely and appropriately. In this module, you will learn to:*

- Use language appropriately in a conversation for a variety of functions such as requesting, greeting, commenting, helping; and
- Read eye contact, facial expression, body language and even tone of the voice during a conversation.

**Figure 4.** Informing learners the objective of the course

*Let's look at the example given at the beginning of the module. In the example, someone was instructing you to give him the newspaper that was under your lap. You must be baffled, wondering who the man was and why he was instructing you to give your personal belonging to him who was obviously a stranger to you. Have you had any unpleasant experience like this? Do you have any suggestions for the man? Please share.*

**Figure 5.** Stimulating Recall of Prior Learning

*Sub-topic: Politeness*

*Relevant concepts to be introduced:*

- *General meaning: the idea of being tactful, modest and nice to other people.*
- *Pragmatics: Politeness can be defined as showing awareness and consideration of another person's face (self-image).*
- *Saying something that represents a threat to another person's self-image is known as the face-threatening act. Provide examples.*
- *Saying something that lessens the possible threat to another person's self-image is known as the face-saving act. Provide examples.*
- *Negative face – the need to be independent and free from imposition. Provide examples.*
- *Positive face – the need to be connected, to be a member of the group. Provide examples.*
- *A face-saving act that emphasizes on the person's positive face will show solidarity and draw attention to a common goal. Provide examples.*
- *A face-saving act that emphasizes on the person's negative face will show concern of imposition. Provide examples.*

*Modes of Presenting the Content:*

- *A video explaining the concept*
- *Slides with narration*
- *Infographic*
- *Text*
- *A combination of modes*

**Figure 6.** Presenting content of the lesson**Step 5: Providing Learner Guidance**

The next step is to assist students learn and retain the information. Use examples and non-examples to help students understand what to do and what not to do. Besides that, a concept map can also be used to visualize information. Other than that, instructors can use case studies, analogies, metaphor or make some visual association to support learning. Figure 7 shows an example of providing learner guidance using example and non-example.

**Step 6: Eliciting Performance**

The next thing is that students need to demonstrate what they have learned. If they understand the lesson, they should be able to show evidence of the acquisition of new knowledge. This is also a way to confirm that the students have a correct under-

**Example of a face-threatening act:**

Speaker A: Pass me the newspaper. You are sitting on it.

Speaker B: Excuse me! I bought this newspaper!

Explanation: Speaker A is behaving as if he has more social power than Speaker B. If Speaker A does not have the social power (e.g. not a military officer, warden), Speaker A is performing a face-threatening act.

**Non-example a face-threatening act** (This is an example of a face-saving act)

Speaker A: Excuse me. Is that your newspaper? May I borrow it?

Speaker B: Yes. Sure. Here you go.

Explanation: Speaker A is merely requesting if it is possible for him to borrow the newspaper. Making a request like this removes the social power and lessens the possible threat to Speaker B's face. In this case, Speaker A is performing a face-saving act.

**Figure 7.** Providing learner guidance using example and non-example

**Guided task:**

Give the students a picture of two people having a conversation. Ask the students to explain the concept of politeness based on the dialogue in the picture.

**Original Task:**

Ask the students to create a hypothetical dialogue between two people that contains elements of face-saving and face threatening acts.

**Figure 8.** Stimulating recall of prior learning

standing of the lesson. Some of the strategies to elicit students' performance are by asking the students to reiterate information they have learned, perform activities related to the knowledge learned or integrate new knowledge with real life examples. Figure 8 shows examples to elicit performance of the students.

**Step 7: Providing Feedback**

Provide immediate feedback and reinforce any points as necessary after the students demonstrated their learning of new knowledge. Feedback can be in the form of confirmatory feedback which is to inform the students that they understand the lesson correctly. Another form is corrective feedback which is to inform the students the accuracy of their responses or performance. Remedial feedback is a feedback form that will bring the students to the right direction to find the answers without revealing the answers. Next is informative feedback which is to provide additional information related to the responses of the students. Lastly, analytical feedback which is used to provide suggestions, recommendations and information for the students to correct their performance. Figure 9 shows the different types of feedback instructors can use with the students.

**Step 8: Assessing Performance**

The next step is to assess the students' performance. This is to evaluate the effectiveness of the instructional events and

• **Confirmatory feedback:** Good. That is correct. You understand it well.

• **Corrective feedback:** Your answer is incorrect. This is the correct answer.

• **Remedial feedback:** Your answer is incomplete. The first part of your answer is correct, but the second part is not accurate. Please change this part. Refer to the textbook to guide you make the changes.

• **Informative feedback:** This is good. If you want to know more about this topic, please go to this website.

• **Analytical feedback:** Please revise your answer. You are not answering the question. Why don't you go to this website and read about this topic? Then, prepare an infographic of the characteristics and explain it. Make sure you focus on the characteristics of the group mentioned in the question only.

**Figure 9.** Types of feedback

**Multiple Choice Question:**

Which one of the following utterances shows an example of a face-saving act that emphasizes on a person's negative face?

A. Print a copy of the data now so that I can start preparing the report.

B. Could you please print a copy of the data so that I can start preparing the report?

C. Print a copy of the data now so that we can start preparing the report.

D. Could you please print a copy of the data so that we can start preparing the report?

**Short Answer:**

Explain the differences between positive and negative face.

Create a dialogue between two people that contains elements of the face-saving act focusing on a person's positive and negative face.

**Figure 10.** Different ways of assessing performance of the students

to determine whether the learning outcomes are achieved. There are various ways to assess performance of the students such as using a pretest to check mastery of prerequisite or endpoint knowledge and skills, a posttest to check mastery of new knowledge and skills. Tests, short quizzes and essays are other forms of assessment that can be used (Stiggins, 2005). The assessment items must be aligned to the topic/course learning outcomes stated at the beginning of the lesson/course. Figure 10 shows two different ways of assessing performance of the students.

**Step 9: Enhancing Retention and Transfer**

The final step is for students to show that they have retained and able to transfer the knowledge and skills they have learned to new or different situations. Some of the methods that can help students internalize new knowledge are by paraphrasing contents, create concept maps or outlines and create infographics. Figure 11 shows examples of enhancing retention and transfer.

**Group Task:**

Create a poster that captures the concept of the polite community. Prepare a poster of a Do's and a Don'ts of one of the following language functions:

- To request
- To decline
- To persuade
- To clarify

**Individual Task:**

Create a mind map on the topic of Politeness. Provide one example to illustrate each concept.

**Figure 11.** Examples of enhancing retention and transfer of knowledge/skills

**Statement of the Problem**

MOOC developers were given a freedom to the layout of their MOOC. They could design their MOOC according to their preferences as long as all the standard requirements of UiTM MOOC were adhered. The non-adherence may affect the quality of MOOC and might jeopardize the success rate for students applying for a credit transfer for the course. Therefore, there was a need to evaluate the MOOC to determine whether the non-adherence problem existed and suggest possible solutions (if required) to prevent/solve the problem from occurring again in the future. A random check on UiTM MOOC was conducted to determine whether UiTM MOOC adhere to the guidelines stated earlier.

**Purpose of the Study**

The purpose of the study was to evaluate the structural design of courses in UiTM MOOC in terms of the adherence to the standard of UiTM MOOC Development and the compliance to the MQA requirements for credit transfer.

**Objectives of the Study**

- a) To determine the availability of the elements in the course landing page
- b) To determine the availability of the elements in the course content page
- c) To determine readiness of the MOOCs for credit transfer

**Scope of the Study**

For the purpose of this study, two courses were analyzed. The titles of the courses were English for Academic Reading and Introductory Arabic offered by Akademi Pengajian Bahasa (APB). The courses are available at UiTM MOOC at <https://www.openlearning.com/uitm>. The two courses were selected because these courses were among the first four MOOC to be developed after the success of the pilot MOOC in 2014. The study focused on the structural design of MOOC in terms of the developers adherence to the standard guidelines provided. No in-depth study on the effectiveness of the contents, students' engagement in learning activities or instructors' feedback were included in the study.

**METHODS**

This was a case study on the design standard of UiTM MOOC and its compliance with MQA requirements for credit transfer. The study selected two (2) MOOC from the same faculty. The MOOC were English for Academic Reading and Introductory Arabic. Data of the study was gathered using a question checklist known as the UiTM MOOC Evaluation Checklist (Appendix), for the availability of the elements in the landing page and content page of the courses and the crucial elements to qualify these courses for credit transfer. When evaluating the presence of the elements, the researcher also looked at how Gagne's Nine Events of Instruction were being applied.

The question checklist had a total of 45 questions and it was divided into three different sections: the Landing Page (25 questions), the Content Page (8 questions) and Credit Transfer Readiness (12 questions). The items in the question checklist were adapted from the Guidelines for UiTM MOOC Development (i-Learn Centre, 2016) and the Guidelines on Credit Transfer for MOOCs (MQA, 2016). Elements in the checklist are shown in Appendix. Besides using this question checklist to obtain the data, the statistics provided by the OpenLearning system were also used to provide the profile information for the MOOC. The data gathered was analyzed descriptively. The results of the analysis were compared to the standard scoring band for accepting/rejecting e-content materials. Table 4 shows the scoring band of UiTM e-C Development.

**FINDINGS**

The findings of the study were presented according to this order, starting from the profile of the course and users, components of course landing page, components of the course content page and readiness of the courses for credit transfer.

**Course Profiles and Users**

Table 5 and Table 6 show the profile of the two courses. Information for the profile was obtained from the statistics provided by the OpenLearning system itself. Both courses were offered to the undergraduate students at the university.

The English for Academic Reading course had 1030 students in 2018. Although the majority of the students came from Malaysia, there were also students from 48 different countries. Students who joined the course were from at least 26 different universities and the highest completion rate was 78%.

The Introductory Arabic course had 1626 students in 2018. Although the majority of the students came from Malaysia, there were also students from 77 different countries. Students who joined the course were from 29 different universities from all over the world. The highest completion rate was at 77%.

**Components of Course Landing Page**

Table 7 shows the summary of the components of the landing page for the courses. There were 25 questions for this

section. The English for Academic Reading course had all the components except for information on the course SLT (all the 3 questions) and the frequently-asked-questions section (1 question). The English for Academic Reading course fulfilled 84% of the requirements of the landing page.

On the other hand, Introductory Arabic had five components available on the landing page that were the promotional video, course introductory video, instructor's information, course synopsis and course learning outcomes (a total of 15 questions). The rest of the components: the course syllabus, SLT hours, pre-requisite knowledge, and duration of the course (a total of 10 questions) were not available anywhere in the course. Introductory Arabic course fulfilled 60% of the requirements of the landing page. Table 8 shows the components which were available/not available on the landing page of the courses.

### Components of the Course Content Page

There were 8 questions on the availability of items in the Course Content Page. Table 9 shows the summary of the available components of the content page of the English for Academic Reading course. Based on the evaluation, the course fulfilled all the 8 questions (100%). The course had a standard structure for all the modules. Each module began with a set of learning outcomes, instruction for students and activities. The course also had topic learning outcomes (TLO) which were presented within the instructional videos. All contents of the course were presented using videos and there were between 2-4 learning activities in almost all modules in the course. There were some links to related websites that students could click directly. However, some of the links

were broken and access to the videos or website was no longer possible at the time of the evaluation. The researcher still considered the course had the required links to additional resources as there were comments posted by the students for the resources provided by the links. This indicated that the links worked well before the evaluation took place.

Table 10 shows the summary of the available components of the content page of the Introductory Arabic course. Based on the evaluation, the course fulfilled all the 8 questions (100%). The course began with an ice-breaking activity. The structure of the modules was standard. Every module began with the learning outcomes (LO), followed by two instructional videos, class notes, activities and quizzes. Learning activities and assessments were available in all modules. There were also links to other websites related to the course.

Based on the evaluation, it was found that both MOOCs showed a consistent presentation of content. In general, both courses fulfilled almost all the steps in Gagne's nine events of instruction. Both courses had their own way to gain attention of the students. It was done at the beginning of the courses and some of the topics had their own attention getter. As for the second step, informing learners the objectives of the course, the CLO and TLO were clearly stated for both courses. The next step which was stimulating recall of prior learning, it was found that some modules presented this element directly while some modules presented this element in a subtle way. Both courses presented the learning stimulus either in a video format, PDF files or both. A new format of presenting content via animation was found in both courses. Guidance was provided in the form of examples for both courses, while eliciting performance was done via the learning activities. All modules had between 2-4 learning activities. The next step was assessing the performance. Multiple choice questions (MCQ) were the preferred mode of assessment as it could be automatically marked by the system itself. The final step was enhancing retention and transfer of learning. It was found that both courses were without this element.

### Readiness of the Courses for MOOC Credit Transfer

Table 11 shows the findings on the quality and adequacy of

**Table 4.** General scoring band for UiTM e-content development (i-Learn Centre, 2016)

Band	Score range	Description
1	75%-100%	Accept as it is.
2	50%-74%	Accept with minor changes.
3	25%-49%	Make changes and resubmit
4	1%-24%	Reject.

**Table 5.** Course profile users for English for Academic Reading

Course description	No of students	Countries of users	Universities	Highest completion rate
English for academic reading This course was designed to develop students' basic and advanced reading skills necessary for understanding academic texts at tertiary level. It focused on building and enhancing students' ability to interpret the content and analyses the organization of ideas in reading texts. It was also designed to develop students' ability to read texts analytically and critically.	1030	48	26+others (not stated)	78%

**Table 6.** Course profile and users for Introductory Arabic

Course description	No of students	Countries of users	Universities	Highest completion rate
Introductory arabic This course was the first part of the Introductory Level of the Arabic Language programme. Students taking this course were exposed to the vocabulary, grammar and Arabic phrases as well as introductory conversational Arabic in daily situational contexts. Cultural elements were also incorporated in the course. Emphasis was given to consolidate the four communication skills, namely listening, speaking, reading and writing. The course aimed to equip students with the ability to communicate using simple Arabic phrases relevant to foundation level.	1626	77	29+others (not stated)	77%

**Table 7.** Summary of the available components of the landing page

Landing page	English for Academic Reading	Introductory Arabic
Availability of landing page components	84%	60%

**Table 8.** Components of the landing page

Landing page	English for Academic Reading	Introductory Arabic
Promo video (Montage) (<1 min)	Available	Available
Introductory video (3 minutes)	Available	Available
Course synopsis	Available	Available
Course syllabus/list of modules	Available	Not available
Course learning outcomes	Available	Available
Student learning time (SLT)	Not available	Not available
Pre-requisite knowledge	Available	Not available
Duration of the course/important dates	Available	Not available
Instructor's information	Available	Available
FAQs	Not available	Not available

**Table 9.** Summary of the available components of the course content page for the English for Academic Reading Course

Components	Availability of components	Findings of evaluation
Sub-topics	100%	All modules had sub-topics.
Topic learning outcomes (TLO)	100%	All modules have the TLO stated.
Learning contents	100%	Modules were presented using videos, animation and pdf.
Learning activities	100%	All modules had between 2-4 learning activities.
Graded assessment	100%	All 8 modules had assessments.
Additional references	100%	All modules provided references in the forms of links.

**Table 10.** Summary of the available components of the course content page for the Introductory Arabic course

Components	Availability of components	Findings of evaluation
Sub-topics	100%	All modules had sub-topics.
Topic learning outcomes (TLO)	100%	All modules have the TLO stated.
Learning contents	100%	Modules were presented using videos, animation and pdf.
Learning activities	100%	All modules had learning activities.
Graded assessment	100%	All modules had assessments.
Additional references	100%	All modules provided references in the forms of links.

content of MOOC for credit transfer. There were 12 questions on the criteria of concern. Both courses fulfilled 8 of 12

required components, hence making both MOOCs not ready for MOOC credit transfer. The percentage of the required

**Table 11.** Quality, adequacy of content of MOOC for credit transfer

Description	English for Academic Reading	Introductory Arabic
Availability of required components	66.7%	66.7%

**Table 12.** Availability of components for the quality, adequacy of content of MOOC for credit transfer

Description	English for Academic Reading	Introductory Arabic
1. MOOC is accredited by MQA/any international quality assurance agency.	Available	Available
or if not, it should have the following core elements:		
• Course learning outcomes	Available	Available
• Course description/course synopsis	Available	Available
• Course content	Available	Available
• Learning activities	Available	Available
• Course duration	Not Available	Not Available
• Course assessment	Available	Available
• Course instructors	Available	Available
• Course grade (where available)	Not Available	Not Available
2. Content equivalent	Insufficient information	Insufficient information
a. Min 80% similarity		
b. MQF level is established	Yes	Yes
3. Credit equivalent of MOOC	Insufficient information	Insufficient information

**Table 13.** Summary of the design evaluation of the English for Academic Reading and Introductory Arabic courses

Description	English for Academic Reading	Introductory Arabic
Availability of required components of the course landing page	21/25 (84%)	15/25 (60%)
Availability of required components of the course content page	8/8 (100%)	8/8 (100%)
Total	29/33 (87.9%)	23/33 (69.7%)

components for quality, adequacy of content of MOOC for credit transfer was 66.7% for both courses.

Both courses fulfilled the first criteria as the courses were part of the programs accredited by Malaysia Quality Assurance (MQA). Secondly, the MQF level of the courses was clearly established as both courses were offered to the undergraduate students at the university. As for the credit equivalent, calculation of credit could not be done due to insufficient information. The types of information required for the calculation of the total number of credits to be transferred were the duration of the course (e.g. 14 weeks) and the actual contact hours of the face-to-face course (e.g. 2 contact hours) were not stated. Duration of the videos which would determine the SLT of the course was not provided. Beside duration of the videos, the estimated time to complete the activities were required in the calculation of the SLT. Without this information, calculation of how much credit could be transferred could not be suggested. Table 12 shows the detail of the availability of the components required for the quality, adequacy of content of MOOC for credit transfer.

Table 13 shows the summary of the evaluation for the Landing Page and the Content Page of the two MOOCs. It shows that both MOOCs were not fully adhered to the design standard of UiTM MOOC as English for Academic Reading course achieved 87.9%, while Introductory Arabic course

achieved 69.7%. Despite of this, both MOOC could still be used to support the learning of the courses as the components of the course content were fully adhered. These missing/incomplete elements could be rectified easily by making sure that all elements on the landing page were stated in the MOOC.

## DISCUSSION AND CONCLUSION

Based on the evaluation on the design of UiTM MOOC, it was found that the standards were not fully adhered by the MOOC developers. Based on the analysis of the elements in the course landing page, there was no information on the SLT of the course, instructors' information and the FAQs for the English for Academic Reading course. As for the Introductory Arabic course, there were a few more missing/incomplete elements on the landing page such as the course syllabus, pre-requisite knowledge, course duration, SLT and instructors' information. Despite these missing elements, the courses were offered to the public and the content of the courses including the learning activities was designed according to the stated the CLO of the courses. Even though the courses were designed based on the actual syllabus of the courses, it was not necessarily for the courses to cover the whole syllabus. Only 80% of content and learning activities were required to be in the course to be eligible for credit transfer. Students were using the courses

for self-learning, blended learning or as their supplementary materials to support formal learning that they had in their institutions. It could be seen from the number of students from universities from various countries registered the courses.

Another reason could be due to the availability of the standard guidelines when the courses were developed. The courses were among the first few to be developed in 2015 which was earlier than the standard guidelines (2016). There was no standard guideline to refer to at that time. The missing elements would not affect learning as the elements were on the design of the landing page only. These missing/incomplete elements could be rectified easily by making sure that all elements on the landing page were present in the courses.

However, the situation is different for course for credit transfer. The content of course must fulfill 80% of the content of the actual course to be eligible for credit transfer. Apart from that, the duration of the instructional videos and the activities in the courses could also affect the credit to be transferred. The duration of videos and activities was included in the calculation of the SLT of the course. Information on the total learning hours for the videos and activities was not found in the evaluations. Therefore, if the total number of hours of the videos and activities was insufficient/not stated, equivalent of credit may not be established. As a result, only part of/none of the credit could be transferred.

Based on the analysis, it could be concluded that both course could be offered to the public to support blended learning, self-learning or general learning. However, the course were not ready for credit transfer. Both course must adhere to the standard Guidelines of UiTM course and the Guidelines on Credit Transfer for course (MQA, 2016) for students to apply for credit transfer.

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(Continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Topic learning outcomes (TLOs)														
• Are TLOs stated in each module?	<input type="checkbox"/>													
• Are the TLOs clear and measurable?	<input type="checkbox"/>													
Learning activities														
• Are the activities aligned to the TLOs?	<input type="checkbox"/>													
• Is there a variation in the types of activity?	<input type="checkbox"/>													
Graded assessment														
• Are there assessments for the courses?	<input type="checkbox"/>													
• Are the assessments aligned to the CLO?	<input type="checkbox"/>													
Additional references														
• Are there links to additional references provided for each module?	<input type="checkbox"/>													

Credit transfer readiness	Check (✓) for Yes, (X) for No	
Basic Requirements		
• Has the MOOC been accredited by MQA/any international quality assurance agency?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Or if not, it should have the following core elements:		
• Are the CLOs stated in the course?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
• Is there a course description/course synopsis provided?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
• Are the course content broken down into several topics / modules?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
• Are there learning activities for each topic/module?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
• Is the course duration stated?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
• Is there any course assessment provided?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
• Is the course instructors' information provided?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
• Is there a course grade? (Pass/Fail or Grade A, B, etc.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Content Equivalent		
• Does the MOOC meet a minimum of 80% coverage of the actual course content?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
• Is the MQF level established?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Credit equivalent		
• Is the total SLT of the MOOC provided?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

