

Comparison of Mooc Application User Experience in Indonesia (Case Studies: Ruang Guru and Zenius)

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Abstract. The development of science and technology affects various learning media, one of which is distance learning such as the Massive Open Online Course (MOOC). The characteristics of the MOOC Platform are the system is open for public, users can choose a specific topic, the entire learning process is carried out online and the video-based learning materials. Some well-known MOOC's are the Coursera and Udemy apps. The MOOC applications that have developed in Indonesia are Ruang Guru and Zenius, but it is not yet known how the user experience (UX) in MOOC applications in Indonesia. This study aims to find out how the user experience (UX) response in the Ruang Guru and Zenius applications. This research method uses a moderated remote usability test with seven aspects of Honeycomb UX. The stages of the method carried out consist of facilitator (researcher), task, and participant (user). The research subjects consisted of five student participants from several Universities in Indonesia. The result obtained is that users feel more comfortable using the Zenius application. This is because the Zenius application design system is more integrated, the navigation is easier to understand, and the buttons and the text have good readability.

Keywords: *application, massive open online learning (MOOC), user experience, usability testing.*

1 Introduction

The current development of learning has developed very rapidly. Learning is not only carried out face-to-face, but also remotely using additional devices. Learning using additional devices as a link for the delivery of learning materials began in the 19th century, which was delivered by Pomerol et al., in [1]. One of learning model that uses other tools to deliver material is Massive Open Online Courses (MOOC's). Millennials aged 25-39 years in Indonesia have the motivation to use MOOC's to increase their skills, and than to achieve their career or educational goals based by Nurhudatiana in [2]. Stephen Downes and George Siemens in [3] posit that the MOOC is based on a distributed learning model or 'connectivist'.

MOOC-based learning is online learning that arises and is disruptive from traditional education. The basic characteristics of the Massive Open Online Courses (MOOC) platform on learning are in the number of users, systems and channels on the learning process. Pomerol et al in [1] their book entitled *MOOC: Design, Use and Business Models*, explain the characteristics of Massive Open Online Courses (MOOCs) as follows.

Massive; has the characteristic of "Large", which means there are no specific prerequisites regarding the number of learners joining or using the MOOC platform. Although it is attended by tens or hundreds of thousands of people, it does not apply to all the learning offered. Open; refers to the fact that enrollment is unlimited, open to all audiences, and is not conditioned by enrollment in any particular university. However, "open" in MOOC's does not mean Open Source or Open Access, in other words software and content are not necessarily open. Online; means that all courses and exercises are organized within the Internet network, both on the placement of online class content and on the distribution of content. Course; meaning that teaching on MOOC,s is available not only to a half users and limited portion, but to students around the world. On the other hand, the teaching does not only focus on the relationship between teacher and student but more than that students can interact with each other.

The obstacle that arises from the characteristics of MOOCs that have been described above is that many students who use a MOOC application do not complete their learning in MOOC's. Some MOOC platforms are aware that there are factors that cause low study completion or not to reach the end. One such the factor is, the user's discomfort with the appearance of an incomprehensible interface or training program, based by Gamage et al., in [4]. Florjan and Gamage conducted research on user subjects or students outside Indonesia. Florjan in [5] states that MOOC's have a bad reputation because only 10% of users are able to complete learning. Meanwhile, Gamage et.al in [4] stated that poor interface design is one of the causes of users not completing their learning in MOOC applications.

Nurhudatiana & Caesarion in [2] conducted research on the user experience of using the Coursera and Udemy applications in Indonesia. The results of the research obtained are, according to users, Coursera is a credible MOOC platform and has a simple and clean user interface design. The user's opinion about Udemy is that Udemy is identified as a less formal platform with a colorful user interface design. Users tend to prefer a simple interface design, based by Korableva et al., in [6]. Research conducted by Sethi in [7] on the problem of learning dropouts on healthcare through MOOC's with improved interface design, shows that changing the appearance of the interface through iterations can improve users.

The existence of a MOOC application is inseparable from the word of user. User experience is the totality of effects felt by users before, during, and after interaction with a product or system, based on by Rex Hartson, in [8]. User and system interaction in a feature can be recognized and known for its success through usability tests. The identification of usability can be seen from several user situations such as: the user expresses frustration, impatience, uncertainty, interest and needs when completing his tasks, Hertzum, in [9]. User Experience honeycomb written by Peter Morville in [10] offers seven aspects to identify a good user experience.

Seven aspects of Honeycomb's user experience are based on by Morville, in [10] are usefulness, usability, desirability, findability, accessibility, credibility, and value. Usefulness means that the feature or product can be well received by the user. Usability means, the interface design displayed must have usability and provide convenience to the user. Desirability is the knowledge of what the user attracts, thus motivating them to continue using the product. Findability, pay attention to whether the user can navigate, access and find the location of the feature properly. Accessibility indicates whether users with sensory impairments can access the application properly. Credibility, which is the user's trust that needs to be explored for the interface design presented. Value, indicates whether the product used provides an impact and benefit to the user or related agency. According to Mansson et al., in [11] honeycomb's UX model works well to organize participant input to understand the existing value of the smartphone application.

Ruang Guru and Zenius applications are MOOC-based applications that are developing in Indonesia, but research on user experience (UX) on the MOOC platform has not been studied in detail. Based on the description above, the formulation of the problem that can be drawn from this study is. 1) How user needs and user pain points in the Ruang Guru and Zenius applications. 2) Are there any differences in user experience towards the interface design of the Ruang Guru and Zenius applications. The findings in this study can be useful for MOOC providers, as knowledge in the field of educational technology, and can be used by professional designers application as a consideration when designing MOOC-based applications in Indonesia.

2 Method

The method used in this study is the Remote Usability Test. The method is one of remote testing (synchronous). It means that the user and evaluator are in different physical locations and conduct testing sessions via video link, based on by Hertzum, in [9]. Researchers as evaluators can assign tasks to users, observe users while working on assignments, and listen the feedback given during or after

working on a given task. Users will be given the task of trying out the application and providing feedback. This research approach was used to consider pandemic conditions in Indonesia. The purpose of using the Remote Usability Test is to find out user behavior, user needs, and user pain points. Some studies have concluded that remote usability testing is effective, leading to user behavior and usability findings similar to other standardized tests, based on by Mcfadden et al., in [12], Sauer & Sonderegger, in [13].

The respondents of this study were five (5) students who came from different universities in Indonesia in the pharmaceutical field and were between the ages of 21 to 25 years old. Data collection was carried out on February 20, 2022. The characteristics of these respondents were selected to find out how the user experience in the segmentation was. All respondents as users are given the following tasks. 1) Users are confirmed to have installed the Ruang Guru and Zenius applications and are using a personal smartphone. 2) Users are given the first task to open the main page and try the "Learning Strategies" feature on the Ruang Guru application. 3) Users are given the task to trying out the "English" feature on the Zenius app. 4) Users are requested to try different things they like on the main page of both Apps. This testing process is carried out with the help of the Zoom application and users share a smartphone interface display so that researchers can observe what the user is doing. Data collection is carried out by recording the feedback submitted by users and observations to users when carrying out the assigned tasks. The data obtained were then analyzed with criteria as in Table 1.

Table 1 The Ux Honeycomb Dimensions.

Variabel	Deskripsi
<i>Usefulness</i>	Users feel easy or well-received to the subject matter.
<i>Usability</i>	Users can use the buttons smoothly, Users can adjust the video display well.
<i>Desirability</i>	Users feel comfortable and interested in using the MOOC platform.
<i>Findability</i>	Users know the various features of the application, for example, knowing the material page or knowing how to answer the questions presented in the feature.
<i>Acessibility</i>	Users can listen and read from the learning video display well.
<i>Credibility</i>	Users feel that the materials, instructors, and teaching materials contained in the features are already credible.
<i>Value</i>	Users can receive the costs incurred in the MOOC learning package according to what is obtained or used.

(source: Morville, 2004)

3 Result and Discussion

Based on the method and process of taking data from the research conducted, the following results were obtained.

3.1 Usefulness

Users on the MOOC platform, Ruang Guru and Zenius applications have the same feel. Users feel that both applications make them easier to learn and they can improve their skills through learning videos and materials followed by question and discussion features. Both applications based on their usefulness, have successfully assisted the users in understanding the material.

3.2 Usability

The usability element in the MOOC platform of the Ruang Guru and Zenius applications tends to be different. Users feel more comfortable and quicker to understand the buttons presented on the interface design of the Zenius application compared to the Ruang Guru application. The existence of advertising content on the MOOC platform is very much a consideration for users. Users tend to be more comfortable using interface designs with ad layouts that tend to be one place compared to appearing in several places. In addition, the repetitive feature page sharing structure is less preferred by users.

3.3 Desirability

Users tend to have almost the same interest in presenting the material on MOOC Platform for the Ruang Guru and Zenius applications, but there are differences in the interface design, especially the layout. Users more like the systematic and structured sharing. This makes most users feel interested and facilitated in accessing the application. Users also feel challenged by the existence of features that get rewards. For example: if they completed a task well, then they will get a good score. In the interface design or user interface (UI), the user is more helped by a cleaner appearance with a simple shape. Overall, users feel that the interface on the Zenius application has the same color and is simpler when compared to the Ruang Guru application which is more colourful and has buttons with different styles.

3.4 Findability

Users confused when looking for one of the features presented in the assignment the MOOC platform on the Ruang Guru application. Users feel that the Ruang Guru application has too many ads, so that it covers the part of the features that

will be searched for. The arrangement of content on the features on the homepage or main page is an important point (start point) for users in accessing the application. If the user is confused at the initial stage, it will affect the next result. Content placement that is a priority for user needs is taken into consideration, for example, advertisements and key features. Users feel that the features in the Ruang Guru application appear simultaneously, while in the Zenius application on the homepage it is less and more focused.

3.5 ***Acessibility***

In terms of acessibility, users of the Ruang Guru and Zenius applications feel that the readability of the application is clear, and the sound produced can be heard well. Users can adjust the appearance of the application, either portraits or landscapes. All users report, when accessing learning materials there are no obstacles about the internet network, but some users feel confused when learning videos have usage restrictions because some users are users in the free package. Some users also give appreciation to both applications for providing a learning summary feature that is presented in a structured manner and writes down important points. Users have also suggested that explanations using pointers can make it easier to understand the material rather than seeing the tutor's posture directly.

3.6 ***Credibility***

All users agree that Ruang Guru and Zenius have credible materials and professional teachers. Both applications are also the most downloaded online learning applications in Indonesia. This makes users feel safe in installing and accessing both applications.

3.7 ***Value***

Users feel enthusiastic, interested and some want more information about Ruang Guru and Zenius applications. Just one of the seven users who were respondents in this study used paid services from the Zenius application. Price or paid content in Indonesia is still one of the considerations and it's sensitive. This opinion is in line with the research conducted by Nurhudatiana & Caesarion, in [2] about MOOC's in Indonesia, that most users still want a certain discount from the features offered. Pricing considerations on online learning are still not the main users need. On the other hand, Meng in [14] there was an increase in the field of electronic needs in Indonesia. This is an indication that in the future there will be an increase in the need for online-based learning.

4 Conclusion

Based on the research that has been done, it can be concluded that the usefulness aspects of the Ruang Guru and Zenius applications based on the MOOC platform are successfully used well by users. However, in terms of the usability aspect, users are more comfortable using the Zenius application because the buttons and icons used are easier to understand, this is in line with similar research conducted by Kusuma et al., in [15] on Ruang Guru application, that the desirability aspect has the lowest value caused the community in Ruang Guru has not been fully formed, so the users not many understand the features presented. In terms of accessibility, credibility, and value, the two applications tend to have similarities. Users of the MOOC platform in the application tend to be more comfortable using features with structured materials, there are learning challenges, easy recognize buttons with clean layouts and simple shapes, and there are not too many colors.

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