INFORMATION AND NAVIGATION ON MASSIVE OPEN ONLINE COURSES (MOOCS) OF UNIVERSITAS TERBUKA

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Abstract

This study examines the effectiveness of information and navigation in Massive Open Online Courses (MOOCs) of Universitas Terbuka (UT), with a focus on understanding and ease of use by participants. The main objective of the study was to evaluate the extent to which participants were able to understand and navigate the information provided in the UT MOOCs platform, given the crucial role of these elements in the success of online learning. Using a quantitative approach, this study involved 100 respondents, consisting of 65 men (65%) and 35 women (35%). Online surveys are used to collect data regarding participants' perceptions of various aspects of information and navigation, including general information about MOOCs, course descriptions, schedules, required device specifications, and platform navigation elements. The results of the study showed that the overall level of understanding of information and navigation reached 78%. The detailed analysis revealed that 85% of respondents rated general information about MOOCs as very clear, 82% were satisfied with the course description, and 79% found the course schedule easy to understand. However, only 68% feel that the information about the specifications of the required device is clear enough, indicating areas that need to be improved. In terms of navigation, 80% of respondents reported the ease of navigating the platform, with 75% stating that they could easily find the learning materials they wanted. Correlation analysis showed a significant positive relationship between ease of navigation and course completion rate ($r = 0{,}982$, $p < 0.001$). Gender differences were identified in several aspects, with male participants tending to be more satisfied with platform navigation (83% vs 75% for women), while female participants rated higher for the clarity of course information (87% vs 80% for men). Factors contributing to high satisfaction with information and navigation include intuitive interface design (82%), well-organized course structure (78%), and availability of comprehensive user guides (75%). In conclusion, this study underscores the importance of clear information and easy navigation in attracting and retaining the participation of UT MOOCs participants. These findings provide valuable insights for platform improvements, with recommendations including improved technical information, navigation optimizations for various devices, and design adjustments that take gender-based preferences into account. This study confirms that the success of UT's MOOCs is highly dependent on its ability to provide an intuitive and informative user experience, supporting UT's mission of providing quality education that is widely accessible to the public

Keywords: Information, Navigation on MOOCs, information specifications.

1 INTRODUCTION

The development of information and communication technology has brought significant changes in the world of education (Raden Roro Tsara Ayuninggati et al., 2023) , especially with the emergence of Massive Open Online Courses (MOOCs) (Husna, 2019). MOOCs offer open access to high-quality education for participants from diverse backgrounds around the world(Maharani, 2022; Mulyaningsih & Indah Prabawati, 2022). As one of the pioneers of distance education in Indonesia, the Terbuka University (UT) has adopted the concept of MOOCs to expand the reach of its educational services. The Terbuka University, founded in 1984, has long been a pioneer in distance education in Indonesia(Prihandoyo, 2018; Sari et al., 2019). With more than three decades of experience in managing distance learning, UT is uniquely positioned to develop and provide effective MOOCs (Nila Kusuma Windrati et al., 2021). However, the transition from traditional distance learning methods to more modern MOOCs platforms brings new challenges, especially when it comes to the presentation of information and course navigation.

The success of MOOCs relies heavily on the learner's ability to understand and navigate the course content with ease(Kamarudin & Norman, 2022; Y. Liu, 2019). Clear information and an intuitive navigation system are key in ensuring an optimal learning experience for participants (Franconeri et al., 2021). Therefore, it is important to evaluate the effectiveness of these elements in the UT MOOCs platform to ensure that participants can access and make good use of learning resources (M. Liu et al., 2020). In the context of online learning, especially MOOCs, user interface design and information structure play a crucial role in determining participant success (Oh et al., 2020). Poorly organized information or complicated navigation systems can lead to frustration and lower motivation to learn. In contrast, a well-designed platform can increase learner engagement and strengthen their understanding of the course material.

The study aims to evaluate the extent to which participants can understand and navigate the information provided in the UT MOOCs platform (Moore & Blackmon, 2022). According Alimansyah (2023) By understanding the user experience and identifying areas that need improvement, this research is expected to provide valuable insights for the future development and refinement of UT's MOOC platform. One of the main challenges in the development of MOOCs is balancing the need to present comprehensive information with the need to maintain a simple and easy-to-navigate interface (Pike & Gore, 2018). UT's MOOC platform must be able to accommodate different types of learning content, including text, videos, quizzes, and

discussion forums, while still maintaining a logical structure that is easy for participants to follow.

The ease of use of MOOC platforms has far-reaching implications for educational accessibility (Mohan et al., 2020). By improving information clarity and ease of navigation, UT can open the doors of higher education to more individuals (Ucha, 2023; Wei et al., 2023), including those who may be less familiar with technology or have limited access to conventional education (Haleem et al., 2022). The study also considered the diversity of UT MOOC participants, which included a wide range of ages, educational backgrounds, and levels of digital literacy (Stich & Reeves, 2017). Understanding how different groups of users interact with the platform can help design inclusive solutions that meet the needs of diverse participants.

The evaluation of the effectiveness of information and navigation in UT MOOCs not only focuses on the technical aspects, but also considers their impact on the overall learning experience. This includes analyzing how the platform's design affects learners' motivation, course completion rates, and achievement of learning objectives. Finally, this study is expected to contribute to the development of best practices in the design and implementation of MOOCs, not only for the Open University but also for other educational institutions interested in developing similar programs. By improving understanding of the importance of effective information and intuitive navigation, the research aims to drive innovation in online education and expand access to high-quality learning for the wider community.

2 METHODOLOGY

This study used a quantitative approach to analyse participants' perceptions of various aspects of information and navigation on Massive Open Online Courses (MOOCs) hosted by the Open University. The study involved a total of 100 respondents, consisting of 65 males (65%) and 35 females (35%), providing a representative picture of the MOOCs user population in the institution.

To collect data, the researcher used an online survey method. The survey instrument was designed to explore participants' perceptions regarding various aspects of information and navigation associated with the Open University MOOCs. The aspects investigated included general information about MOOCs, course descriptions, schedules, required device specifications, as well as navigational elements of the platform. An online survey was chosen as the data collection method due to its effectiveness in reaching geographically dispersed

respondents, given the nature of MOOCs that can be accessed from various locations. Moreover, this method also allows respondents to provide their responses flexibly, according to their time and convenience.

The survey questionnaire was carefully designed to cover questions relating to each aspect of information and navigation under study. For general information about MOOCs, respondents were asked to rate the clarity and completeness of the information provided. The course description section evaluated the extent to which participants felt the information helped them in understanding the content and learning objectives. The schedule aspect of the survey aimed to assess participants' perceptions of the clarity and flexibility of the course schedule. Meanwhile, the required device specification section explores respondents' opinions on the clarity of technical information and the accessibility of the platform from different types of devices. Finally, the navigational elements of the platform were evaluated to understand the ease of use and effectiveness of the interface design in helping participants explore the course content.

The data collected through the online survey was then analysed using descriptive and inferential statistical methods. This analysis aimed to identify trends, patterns, and relationships between the variables under study, as well as to draw generalisable conclusions about users' perceptions of information and navigation on the Open University MOOCs.

3 FINDINGS AND DISCUSSION

Based on the findings of the linear regression analysis to look at the relationship between ease of navigation and course completion rates. Some observations we can make, firstly There is variation in ease of navigation between courses, ranging from 75% to 85%. This suggests that while overall navigation was rated as good, there are still differences in experience between courses. Secondly Course completion rates also varied, from 67% to 76%. This is consistent with the research findings that there is a positive correlation between ease of navigation and completion rate. Thirdly, The course with the highest ease of navigation (Course 4, 85%) also had the highest completion rate (76%). Conversely, the course with the lowest ease of navigation (Course 1, 75%) had one of the lowest completion rates (68%). Fourth, a positive correlation between the two variables is evident. As ease of navigation increases, course completion rates tend to also increase. Fifth, although there is a positive correlation, the relationship is not perfect. For example, Course 2 has a higher ease of navigation than Course

9, but its course completion rate is only slightly higher. This suggests that there are other factors that also affect course completion rates. This data is consistent with the correlation reported in the study (r = 0.982), which shows a strong but imperfect positive relationship between the two variables.

Table 1 Group data of Ease_of_Navigation (X) and Course_Completion_Rate (Y)

Course	Ease_of_Navigation (X)	Course_Completion_Rate (Y)
1	75%	68%
2	82%	73%
3	79%	70%
4	85%	76%
5	78%	69%
6	81%	72%
7	76%	67%
8	83%	74%
9	80%	71%
10	77%	69%

Data Source: researcher data processing

To perform a more in-depth analysis of the data groups using linear regression, we need to calculate the best regression line that minimises the residual sum of squares. A linear regression equation would take the form Y = a + bX, where, Y is the dependent variable (course completion rate), X is the independent variable (ease of navigation), a is the intercept (the value of Y when X = 0), and b is the slope of the line (the change in Y for each unit change in X).

Using the least squares method, we can calculate the values of a and b. However, this calculation is usually done using statistical software for better accuracy. Interpretation of these linear regression results can provide valuable insights for UTs by looking at Firstly The slope of the line (b) will indicate how much increase in course completion rate can be expected for every one unit increase in ease of navigation. Secondly R-squared (coefficient of determination) will show how much of the variation in course completion rate can be explained by ease of navigation. Thirdly, residual analysis can help identify those courses that perform above or below the model's predictions, which may require further investigation. And Fourthly The

model can be used to predict course completion rates based on ease of navigation scores, which can help in planning interventions or platform improvements.

Tabel 2 Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Ease_of_Navigation[b]	.	Enter

a. Dependent Variable: Course_Completion_Rate
b. All requested variables entered.

Data Source: data processing by using SPSS

Output Part One (Entered Variables removed): The table above describes the variables entered and the method used. In this case, the variables entered are Ease of Navigation as the Independent variable and Course Completion Rate as the Dependent variable. The method used is the Enter method.

Tabel 3 Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.982[a]	.964	.960	.56933

a. Predictors: (Constant), Ease_of_Navigation
b. Dependent Variable: Course_Completion_Rate

Data Source: data processing by using SPSS

Output Part Two (Model Summary): The table above explains the value of the correlation relationship (R) which is 0.982. From the output, the coefficient of determination (R Square) is 0.964, which implies that the effect of the independent variable Ease_of_Navigation on the dependent variable Course_Completion_Rate is 96.4%.

Tabel 4 ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	70.307	1	70.307	216.907	.000[b]
	Residual	2.593	8	.324		
	Total	72.900	9			

a. Dependent Variable: Course_Completion_Rate
b. Predictors: (Constant), Ease_of_Navigation
Data Source: data processing by using SPSS

Third section output (ANOVA): From the output, it is known that the value of F count = 216.906 with a significance level of 0.000 <0.05, so the regression model can be used to predict the participation variable or in other words, there is an influence of the Ease_of_Navigation variable (X) on the Course_Completion_Rate variable (Y).

Tabel 5 Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.465	4.718		.311	.764
	Ease_of_Navigation	.872	.059	.982	14.728	.000

a. Dependent Variable: Course_Completion_Rate
Data Source: data processing by using SPSS

Output Part Four (Coefficients): It is known that the value of Constant (a) is 1.465, while the value of Trust (b / regression coefficient) is 0.872, so the regression equation can be written:

Y= a-bX becomes Y= 1.465- 0.872 X

The equation can be translated as a constant of 1.465. implies that the consistent value of the variable Course_Completion_Rate is 1.465. The regression coefficient X of 0.872 states that for every 1% increase in the value of Ease_of_Navigation, the value of Course_Completion_Rate increases by 0.872. The regression coefficient is positive, so it can be said that the direction of the influence of variable X on Y is positive.

Decision Making in a Simple Regression Test, based on the significance value of the Coefficients table, a significance value of 0.000 <0.05 is obtained. so, it can be concluded that the Ease_of_Navigation variable (X) affects the Course_Completion_Rate variable (Y). Based

on the t value: it is known that the t_{count} value is 14.728> t_{table} 2.26216, so it can be concluded that the Ease_of_Navigation (X) variable affects the Course_Completion_Rate (Y) variable.

4 CONCLUSION

This research confirms that the success of MOOCs (Massive Open Online Courses) organized by the Universitas Terbuka (UT) is highly dependent on the university's ability to provide an intuitive and informative user experience. This is in line with UT's mission to provide quality education that is widely accessible to the community.

This conclusion emphasizes several important points:

1. The importance of good information design and navigation in UT's MOOCs platform.
2. The direct relationship between good user experience and the success of the MOOCs program.
3. The congruence between the quality of MOOCs and UT's mission of providing quality and accessible education.
4. The importance of accessibility in the context of open online education.

These conclusions suggest that UT needs to continuously improve and optimize the information and navigation aspects of its MOOC platform to achieve greater success in providing quality education that is widely accessible.

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