

## Analysis of Student Goals in Using E-Learning in Online Learning during the Covid-19 Pandemic in Makassar City

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### Abstract

*This study aims to analyze the quality of information that is present in campus E-Learning and the satisfaction of students as E-Learning users in learning in terms of the quality of information during the covid-19 pandemic in the city of Makassar. By distributing questionnaires to 100 research samples, the results obtained simultaneously or simultaneously all indicators of information quality variables, namely intrinsic view (X1), context-based view(X2), and representational view(X3) significantly and positively affect student satisfaction in using E-Learning on online learning during the covid-19 pandemic.*

### Keywords

e-learning; student satisfaction;  
new media; online learning;  
quality of information



## I. Introduction

The development of Information and Communication Technology (ICT) is one of the tangible products of globalization that cannot be avoided. The rapid development of ICT and the use of the internet brings many changes in the activities of daily human life.

One area that is experiencing changes and developments is in the field of education, in particular how the teaching system takes place. The outbreak of this virus has an impact of a nation and Globally (Ningrum *et al*, 2020). Covid 19 pandemic caused all efforts not to be as maximal as expected (Sihombing and Nasib, 2020). Since the Covid-19 pandemic entered Indonesia on March 2, 2020, the Government through the Ministry of Education and Culture (Kemendikbud) issued Circular Letter Number 15 of 2020 concerning Guidelines for the Implementation of Learning From Home in an Emergency Period of Covid-19 Spread. With the enactment of these regulations, universities in Indonesia, including in Makassar City, immediately changed the learning system from face-to-face (offline) to online or using E-Learning learning media owned by each university has the website official learning.

Online learning by utilizing E-Learning is a form of ICT and internet innovation where users are more flexible in accessing learning materials and can reach wider participants without worrying about distance and time. E-Learning is an official online learning website prepared by each university that contains menus that can make it easier for students to access learning materials, take attendance, collect assignments and even discuss with lecturers and other students.

Students as E-Learning users who are active audiences certainly need to access information and learning materials in the online learning system provided by the campus. This then raises the question of whether the expectations presented by E-learning in online learning can fulfill the wishes of students and achieve a positive response or satisfaction in using the E-Learning.

Based on the building phenomena above, this research was carried out with the formulation of the problem to determine whether the E-Learning provided by each campus

displays the quality of information and whether the quality of the information has an influence on student satisfaction. Furthermore, the purpose of this study is to analyze the quality of information that is present in campus E-Learning and the satisfaction of students as E-Learning users in learning in terms of the quality of the information during the covid-19 pandemic in the city of Makassar.

The dimensions that will be measured to assess student satisfaction are seen from the quality of the information contained in the material in E-Learning. In Pearson's view, information quality can be seen from 3 aspects, namely context-based view (covering relevance, actual and comprehensive), intrinsic view (accuracy, time-saving, and consistency) and the last is a representational view (how information is displayed).

## II. Research Methods

In carrying out this research, research planning is carried out so that it can be carried out properly, systematically, and effectively. This research is descriptive quantitative research using a survey method. This type of survey itself is used to describe the sample being studied, where the focus of the research is the analysis of student satisfaction in using E-Learning in online learning during the Covid-19 pandemic in the city of Makassar. Data was collected by distributing digital questionnaires to obtain information from respondents who were assumed to represent the research population specifically.

The data displayed in this study is divided into two, namely:

1. Primary data is data obtained from distributing questionnaires to predetermined research samples.
2. Secondary data is data obtained based on a scientific literature review and is relevant to this research.

The objects in this study were students from universities in the city of Makassar, while the research subjects were student satisfaction in using E-Learning in online learning during the Covid-19 pandemic.

By referring to Sugiyono's opinion, the research sample is part of the number and characteristics possessed by the population. To determine the research sample, a technique used non-probability sampling with the type of convenience sampling technique. Convenience sampling itself can be understood as a collection of information and population members that are easily obtained and able to provide that information. However, it should be noted that the number of students in the city of Makassar is quite large so that a large population with an unknown total population can use the following formula:

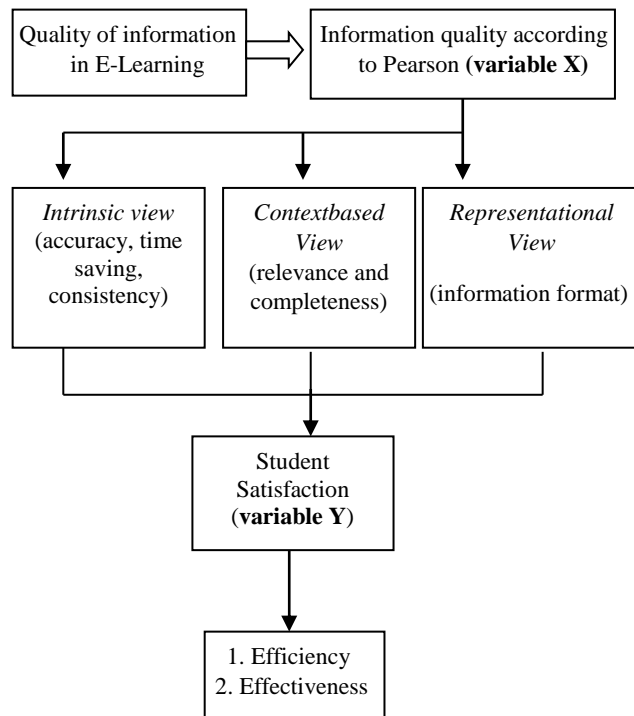
$$n = \frac{Z^2}{4(\text{Moe})^2}$$

$$n = \frac{1,96^2}{4(0,1)^2}$$

$$n = 96,04$$

Based on the above calculation, the number of research samples was 96 respondents, and in this study, it was fulfilled to 100 respondents to facilitate the processing of research data.

Further, the framework of thought in this research can be seen in the image below:



## 2.1 Information Quality

Delone & McLean (Eneng 2020) defines information quality as a measurement of the quality of information systems, especially from the form of its reports. Several factors for measuring the quality of information can be seen from the accuracy, completeness of information, format or form of presentation, timeliness, and relevance of information.

In this study, the researcher refers more to the opinion expressed by Pearson et al where the quality of information can be seen from three points of view, namely:

1. Intrinsic view, namely the quality of information is assessed based on the actual condition of power and is understood as accuracy (accuracy), time-saving (timeless), and consistency (consistency).
2. Context-Based view, which is defined as the quality of information seen from the elements of relevance and completeness of information to be an important factor
3. Representational view related to how information is conveyed

From the definition above, the quality of information can be understood that the integrated part with all kinds of features provided in the E-Learning menu is a source of information. Accuracy of information is an important point to understand the truth of information, in this case, the learning materials presented in E-Learning. In addition, information also requires consistency to support the accuracy of information. Accuracy, consistency, and momentum are the main foundations in the perspective intrinsic view.

Next is the connection of information with its audience. This is intended as an information relevance, where the source of information (E-Learning) adjusts to the condition of the audience. Furthermore, when relevance is obtained, the framing of the information in the form of editorials, or images or audio-visual formats that are integrated with Pearson's three perspectives becomes the standardization of how the quality of information can bring audiences or students as E-Learning users to trust and satisfaction.

## 2.2 Student Satisfaction

Satisfaction in this study has a meaning as a conscious evaluation or cognitive assessment regarding the relatively good or bad E-Learning performance. Student satisfaction is an important pillar for the sustainability and evaluation of the existing learning system.

In simple terms, student satisfaction can be interpreted as a response or feedback felt by students in using E-Learning during online learning. The indicators used in measuring student satisfaction in this study are efficiency and effectiveness.

## 2.3 Testing

After distributing the questionnaires to the research sample, the next step is to test the data that has been collected. By using the multiple regression data analysis methods to test the quality of information on E-Learning on student satisfaction in online learning during the Covid-19 pandemic using the following formula:

$$Y = a + b_1X_1 + b_2X_2$$

Data obtained using software SPSS 23 for windows will be used to assist researchers in describing or describing the data that has been collected and making conclusions that are generally accepted or can be generalized. The hypothesis of this study is:

H<sup>a</sup>: There is a significant direct effect between the quality of the information in E-Learning and student satisfaction when using it for online learning.

H<sup>o</sup>: There is no significant direct effect between the quality of the information in E-Learning and student satisfaction when using it for online learning.

## III. Results and Discussion

### 3.1 Data Interpretation Results Respondents' Answers Regarding Information Quality in E-Learning (Variable X)

As discussed in the previous section, the dimensions in the variable x are divided into 3 parts, namely:

- a. *Intrinsic view* refers to the quality of information that is seen in the actual condition of the data and is understood as accurate, time-saving, and consistent.
- b. *The context-based view* is the value of the quality of information where the elements of relevance and completeness of information are crucial.
- c. *Representational view* relates to how the information is conveyed.

The dimension intrinsic view consists of three statements, each of which gets a high scale with an agreeable opinion. For the first statement, which is about students being able to find information about online learning (can be in the form of lecture assignments, lecture materials, or exams) that is accurate on E-Learning, 68 respondents (43.7%) agreed and only 5 respondents strongly disagreed. (1.4%). Furthermore, in the second statement, where the researcher asked the opinion of respondents who did not have to wait a long time to be able to access or get information on learning materials on E-Learning owned by the campus, it was approved by 70 respondents (51.4%). This answer dominates when compared to respondents who gave an answer that did not agree that they could save time by accessing E-Learning, as many as 6 respondents (1.7%). The last statement in this dimension relates to the consistency of information. It is known that 56 respondents (48.7%) stated that they agreed that the material they received was consistent in E-Learning. Thus, it can be interpreted that the learning materials presented in E-Learning have displayed accurate, time-saving, and consistent information.

The second sub-variable in variable X is a context-based view, which means that in this element the information must be relevant and the information displayed must be complete. As with the previous dimensions, this section also consists of three statements where as many as 68 respondents (50.6%) expressed their opinion that they agree that E-Learning displays relevant information according to the subject area or courses studied by students. Furthermore, in the second statement regarding the completeness of information such as the deadline for collecting assignments, systematic learning materials received an agreed response by 59 respondents (53.2%). This can be a reference that when students are looking for information related to learning materials, they simply access E-Learning and get complete answers on the website. And the last statement is related to information accompanied by clear information to minimize bias in its acceptance. A total of 79 respondents (51.4%) agreed. From the description above, it can be seen that the material presented in E-Learning meets the indicators of context-based view.

The last indicator in measuring the quality of information is the representational view which in this dimension will be described in the form of statements that have been answered by students as research respondents related to the presentation of information in E-Learning. From the statements given to 100 respondents, 80 respondents (62.1%) agreed that the material presented in E-Learning is displayed in a language that can be easily understood by students. Furthermore, 73 respondents (54%) agreed that the information contained in E-Learning can be easily understood. By looking at the data which shows the agreed scale, it can be interpreted that the material presented in E-Learning has met the elements of information quality in it.

### **3.2 Results of Data Interpretation Respondents' Answers Regarding Consumer Satisfaction (Variable Y)**

In measuring student satisfaction, this study refers to indicators of efficiency and effectiveness.

In the efficiency dimension, respondents are stated the completeness of the facilities in E-Learning. A total of 52 respondents (49.7%) of respondents agreed. This indicates that not only to access learning materials, in E-Learning students also get various other facilities such as facilities to discuss or collect lecture assignments.

Then the last is the dimension of effectiveness. This indicator will measure the satisfaction of respondents who have used E-Learning as a learning medium and also as a website official to access lecture materials while online learning is applied. This indicator obtained a positive response from respondents by seeing as many as 73 respondents (54.7%) assessed agreeing to the statement.

### **3.3 Multiple Regression Analysis**

Linear regression analysis is defined as a linear relationship between two or more independent variables and the dependent variable. By using this analysis, it will be known the direction of the relationship between the independent variable and the dependent variable whether each of these variables has a positive or negative relationship. Furthermore, to predict the value of the dependent variable if the value of the independent variable increases or decreases.

Based on the results of data processing using the SPSS 23 program, the results of the simple linear regression test in this study are as follows:

**Table 1.** Calculation results of simple linear regression analysis  
**Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
(Constant)	9,528	,983	
X1	,764	,108	,358
X2	,659	,117	,298
X3	,630	,172	,191

a. Dependent Variable: Y

1. The constant value of 9.528 indicates that if it is assumed that the independent variables, namely X1, X2, and X3 do not exist or have a value of 0 then the participation value is 9.528
2. The magnitude of the regression coefficient of the variable X1 has a positive and unidirectional effect on Y of 0.764. This shows that if there is a change in the Xvariable1 by 1%, the Y variable will increase to 7.64%
3. The magnitude of the regression coefficient of the variable X2 has a direct effect on Y of 0.659. this shows that if there is a change in the variable X2 1%, the variable Y increases to 6.59%
4. The magnitude of the regression coefficient of the variable X3 has a positive and unidirectional effect on Y by 0.630%. This shows that if there is a change in the Xvariable3 by 1%, the Y variable increases to 6.30%.

### 3.4 Hypothesis Testing

#### a. Test Partial (T-Test)

A t-test will be used to test the significance of the correlation coefficient of the independent variable with the dependent variable. To test whether the value of the correlation coefficient (r) obtained is significant or not, it is necessary to test the significance first. In the Spearman rank correlation significance test, it can be done directly by comparing the t product moment distribution table with the following conditions:

1. When  $t < t_{table}$  then  $H_0$  is accepted and  $H_a$  rejected
2. When  $t > t_{table}$  then  $H_0$  is rejected and  $H_a$  accepted

Based on the count on the existing data, partial test(t) in this study is as follows:

**Table 2.** Partial test results

#### Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9,528	,983		9,892	,000
	Intrinsic_View	,764	,108	,358	7,278	,000
	Conten_Base_View	,659	,117	,298	5,525	,000
	Representational_View	,630	,172	,191	3,604	,000

a. Dependent Variable: Student Satisfaction

Based on the results in the table above shows that,

1. Variable X1 has count which is 7,628 with  $t_{table} = 1,967$  So  $t_{count} > t_{table}$ . This means that the variable X1 has contributed to Y. positive t value indicates that the variable X1 has a direct relationship with the Y. So we can conclude that X1 significant effect on Y means  $H_a$  received and  $H_0$  is rejected
2. Variable X2 has count which is 7,825 with  $t_{table} = 1,967$  So  $t_{count} > t_{table}$ . This means that the variable X2 has contributed to the positive Y. t value indicates that the variable X2 has a direct relationship with the Y. So we can conclude that an X2 significant effect on Y means  $H_a$  received and  $H_0$  is rejected
3. Variable X3 has a count that is 3.702 with  $t_{table} = 1,967$  So  $t_{count} > t_{table}$ . This means that the variable Y. Xmemiliki contributed to the positive t value indicates that the variable X3 has a direct relationship with the Y. So we can conclude that an X3 significant effect on Y means  $H_a$  received and  $H_0$  is rejected.

### b. Simultaneous Test (F test)

Simultaneous test (F test) about multiple linear regression analysis has the aim of knowing whether the independent variable (X) simultaneously or simultaneously affects the dependent variable (Y). The F test itself can be done by two methods, namely if the F value calculated  $> F_{table}$  then the independent variable (X) affects the dependent variable (Y). On the other hand, if the F value calculated  $< F_{table}$ , the independent variable (X) does not affect the dependent variable (Y).

The second is referring to the significant value of the SPSS output results. If the value of Sig.  $< 0.05$  then the independent variable (X) has a significant effect on the dependent variable (Y). If the value of Sig.  $> 0.05$  then the independent variable (X) has no significant effect on the dependent variable (Y). Based on the results of calculations using the SPSS 23.00 program, the Partial Test (arithmetic) in this study can be seen in the following table:

**Table 3. Results of ANOVA**

ANOVA					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	3635,028	3	1178,343	143,450	,000 <sup>b</sup>
Residual	2525,719	344	8,214		
Total	6860,747	347			

a. Dependent Variable: Student Satisfaction

b. Predictors: (Constant), Representational\_View, Intrinsic\_View, Content\_Base\_View

Based on the research data in the table above, it can be seen that:

1. Variable X has F calculated which is 143.450 while  $F_{table}$  is 2.630792. It shows that  $F_{count} > F_{table}$ . This means that the X variable together (X1, X2, and X3) has a contribution to Variable Y. A positive F value indicates that variable F has a unidirectional relationship with Y. So it can be concluded that Variable X has a significant effect on the variable **Y means  $H_a$  received and  $H_0$  rejected**
2. The significance value is 0.000. This value is smaller than the probability value of 0.05. It can be concluded that the variable X significant effect on variable Y, which means that  **$H_a$  received and  $H_0$  is rejected.**

## V. Conclusion

Looking at the results and discussion of the data processing, it can be concluded the study is in response to the identification of the research problem. The conclusions are as follows:

1. E-Learning at student universities in the city of Makassar has displayed quality information following the information quality criteria according to Pearson. The learning materials presented in E-Learning have fulfilled every dimension of information quality, both from the intrinsic view, context-based view, and representational view.
2. Together or simultaneously, all indicators of information quality variables, namely intrinsic view (X1), context-based view(X2), and representational view(X3) significantly and positively affect student satisfaction in using E-Learning in online learning during the COVID-19 pandemic

Based on the conclusions described above, the researcher can put forward suggestions that are expected to be useful for further research, including:

1. More research on the quality of information has been carried out, especially the quality of the information in online learning systems. Considering that the covid-19 pandemic has not ended, this can be an evaluation material for universities in developing online learning systems in the form of their respective E-Learning.
2. Although the results of this study indicate that students are satisfied with using E-Learning during online learning, universities need to continue to update their facilities and appearance and increase the ease of accessing E-Learning to support online learning which is expected to run effectively.

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