

## THE INFLUENCE OF ONLINE LEARNING ON STUDENT LEARNING OUTCOMES

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### Abstract

#### Article Info

Received : 01/03/2023

Revised : 28/04/2023

Accepted : 23/05/2023

Educational technology is an ever-evolving discipline. The development of educational technology is based on the emergence of problems in the teaching and learning process. During the Covid – 19 pandemic, the government made policies related to the teaching and learning process in Higher Education. Where the face-to-face teaching and learning process was abolished and changed to online. The online teaching and learning process aims to break the chain of the spread of the Covid - 19 outbreak. The online teaching and learning process found several problems such as material not fully conveyed and understood, limited quotas for attending lectures online and network access constraints for small areas. These problems trigger the poor learning outcomes obtained. Therefore it is necessary to evaluate the learning process online on student learning outcomes. With the aim of improving the quality of the quality of learning outcomes and also adjustments to learning outcomes. The results of the research testing conducted found that there was no effect of online learning on student learning outcomes. Where the quality of learning outcomes obtained by students is the same as the quality when learning is done face to face.

Keywords: Educational Technology, Learning, From, Learning Outcomes.

### 1. INTRODUCTION

During the Corona Virus Disease (Covid-19) pandemic from 2019 to the present, the teaching and learning process for all students is carried out from their respective homes. Face-to-face processes and physical contact are carried out to speed up or break the chain of spread of the virus outbreak. Likewise with what was carried out by Budi Darma University where all teaching and learning activities were no longer carried out face to face in accordance with directives and instructions from the government. In order for the teaching and learning process to continue in each semester, the teaching and learning process is changed through distance learning (online). Online distance learning is a policy taken from the government that must be implemented by all tertiary institutions, both private and public.

The learning process using learning media is an alternative solution that is effective enough to reduce face-to-face meetings and the teaching and learning process continues. The teaching and learning process online, the lecturer in charge of the course will provide learning material through learning media in the form of softcopy, video or live lectures through the learning media.

The implementation of online learning at Budi Darma University has been carried out in the past few semesters, of course there are still some obstacles and problems even though online learning is considered effective during the Covid-19 pandemic. Problems that are often encountered such as material not being conveyed completely and clearly by lecturers to students which causes a lack of understanding by students. Another problem that often becomes an obstacle is the limited quota that students have for implementing live online learning and also limited network access in the regions which causes students to be unable to attend these online lectures.

These problems certainly have an impact on the learning outcomes of students. The learning outcomes from students illustrate the quality of the online teaching and learning process. Poor learning outcomes will of course reduce the quality of material absorption by these students, so this needs special attention.

Therefore, this study intends to evaluate student learning outcomes during the Covid-19 pandemic, where the learning process was carried out online.

## **2. METHODS**

### **Education technology**

The use of technology is no stranger to globalization. Including in the world of education, as the birthplace of technology, it is only natural that education also utilizes technology to facilitate the implementation of learning. From here, the term educational technology emerged.

The definition of educational technology has undergone several changes. This shows that educational technology as a scientific discipline continues to grow and be dynamic. Its development is influenced by the emergence of various problems in learning and learning activities in humans which are increasingly complex and demand efficient and effective solutions [1].

Educational technology is a systemic method for planning, using, and assessing all teaching and learning activities by taking into account both technical and human resources and the interactions between the two, so as to obtain a more effective form of education [2]. Therefore educational technology is the study and practice to assist the learning process and improve performance by creating, using, and managing adequate technological processes and resources. In a narrow sense, educational technology is educational media, namely technology used as a tool in education to make it more effective, efficient and effective.

### **Learning**

Learning is a process of student interaction with education and learning resources in a learning environment. Learning is assistance provided by educators so that the process of acquiring knowledge and knowledge can occur, mastering skills and character, as well as forming attitudes and beliefs in students. In other words, learning is a process to help students learn well [3].

Learning is a complex activity. Learning is essentially not just conveying messages but is also a professional activity that requires teachers to be able to use basic teaching skills in an integrated manner and create efficient situations. Therefore in learning it is necessary to create a conducive atmosphere and learning strategies that attract interest.

On the other hand learning has a similar meaning to teaching, but actually has a different connotation. In the context of education, teachers teach so that students can learn and master the content of the lesson until they achieve a specified objective (cognitive aspect), can also influence changes in attitudes (affective aspects), and skills (psychomotor aspects) of a learner, but this teaching process gives the impression that it is only the work of one party, namely the work of the teacher only. While learning implies an interaction between teachers and students.

### **Online**

Online (English: online) and offline (English: offline) have specific meanings in terms of computer and telecommunication technology. In general, online indicates a connected state, while offline indicates a disconnected state. Online can also be interpreted as a state of computers that can exchange information with each other because they are already connected to an internet.

This concept has been extended from the meaning of computing and telecommunications into the realm of human interaction and conversation, in such a way that even offline can be used in contrast to the common usage of online. For example, discussions that occur during a business meeting can be considered online, while issues that are not related to all meeting participants must be carried out offline - continued outside the meeting[4].

### Learning outcomes

Learning outcomes are the abilities possessed by students after receiving their learning experience. These abilities include cognitive, affective and psychomotor aspects. Learning outcomes can be seen through evaluation activities that aim to obtain evidentiary data that will indicate the level of ability in achieving learning objectives. The learning outcomes examined in this study are cognitive learning outcomes which include three levels, namely knowledge, understanding, and application. The instrument used to measure student learning outcomes in the cognitive aspect is a test.

### 3.RESULTS AND DISCUSSION

This research is based on quantitative research using primary data taken from related respondents. Respondents in this study amounted to 30 people. The data that has been collected is then processed using SPSS and tested by T-test and F-test. T-test and F-test are carried out to test the hypothesis. The hypothesis in this research is:

H1 = There is an influence of X1 on Learning Outcomes

H2 = There is an influence of X2 on learning outcomes

H3 = There is a stimulant effect of X1 and X2 on learning outcomes

The initial step taken in the research was to first carry out a validity test and also a reliability test for the instrument to be used before distributing it to respondents. The results of the validity test and also the reliability of the instrument are.

Table 1. Validity and Reliability Test

Variable	Coefficient	R Table	validity	Cronbach's Alpha	Reliability
X1	0.776	0.361	Valid	0.873	Reliable
X2	0.873		Valid		

In the study the number of respondents was 30 people, so the R table value was 0.361. In table 1. above it is clear from the results of the Validity Test and Reliability Test. For X1, the coefficient was  $0.776 > 0.361$ , so it can be said that the research instrument for X1 was declared valid. Then for X2 the coefficient is  $0.873 > 0.361$ , so it can be said that the research instrument for X2 is declared valid. Then the reliability measurement was carried out and the coefficient value was  $0.873 > 0.361$ . So it can be stated that the results are reliable and can be disseminated to respondents and data collection is carried out. After testing the validity and reliability of the research instrument. Next is to test the T test and F test. T-test and F-test were carried out to test the hypothesis. Can the hypothesis that has been described be accepted or rejected? As for the T test can be seen in the following table

Table 2. T test  
Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.721	1.019		2.669	.013
	X1	.258	.180	.267	1.437	.162
	X2	.104	.193	.100	.540	.593

a. Dependent Variable: HasilPembelajaran

Based on the T-Test table above, it can be tested on the hypothesis:

### First Hypothesis Testing (H1)

Sig value is known. for X1 to Y is  $0.162 > 0.05$  and the value of T count is  $1.437 < T$  Table 2.052. So it can be concluded that H1 is rejected, which means that there is no effect of X1 on learning outcomes (Y)

### Second Hypothesis Testing (H2)

Sig value is known. for X2 to Y is  $0.593 > 0.05$  and the value of T count is  $0.540 < T$  Table 2.052. So it can be concluded that H2 is rejected, which means that there is no effect of X2 on learning outcomes (Y).

After testing the T test, then testing for H3 is carried out by conducting the F test. As for the F test, it can be seen in the following table

Table 3. F test  
ANOVA<sup>a</sup>

Model		Sum of	df	MeanSquare	F	Sig.
		Squares				
1	Regression	2069	2	1035	1.122	.340b
	residual	24,898	27	.922		
	Total	26,967	29			

a. Dependent Variable: Learning Outcomes

b. Predictors: (Constant), X2, X1

Based on the output of the F test results above, it is known that the significant value for the effect of X1 and X2 simultaneously on Y is  $0.340 > 0.05$  and the calculated F value is  $1.122 < F$  Table 3.34.

## DISCUSSION

So it can be concluded that H3 is rejected, which means that there is no stimulant effect of X1 and X2 on Y. Furthermore, the stimulant variables X1 and X2 are measured on Y.

#### 4. CONCLUSIONS

Based on the research conducted, the results show that the test is based on H1, H2 and H3 for all hypotheses, which means that it has no effect on student learning outcomes. Which means that the quality of learning outcomes obtained from students is still the same as when lectures are held face-to-face. This can be seen from H1 being rejected where the value of Sig. for X1 to Y is  $0.162 > 0.05$  and the value of T count is  $1.437 < T \text{ Table } 2.052$ . For the H2 test it was rejected because the value was  $0.593 > 0.05$  and the T count value was  $0.540 < T \text{ Table } 2.052$ . For the variable stimulation test on H3, it was found that H3 was rejected where the Sig value was  $0.340 > 0.05$  and the F Count value was  $1.122 < F \text{ Table } 3.34$ .

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