

The Influence of Online Learning Using the Zoom Application Media on the Learning Outcomes of Educational Technology Students Unim Bone

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Abstract

This research aims to determine the effect of online learning using zoom media on student learning outcomes, either partially or simultaneously. This research is quantitative research with an ex post facto design, aiming to determine the influence on economics subjects using an online learning system. The ex post facto method aims to be able to find possible causes of changes in behavior, symptoms, or events caused by an event that can cause changes in variables that have occurred as a whole. Data collection techniques are primary data and secondary data. The technique for analyzing data in this research uses quantitative data obtained from questionnaires, which will be processed using simple regression analysis using SPSS Statistics 24 software. Online learning using zoom media on student learning outcomes has a positive and significant influence with a large influence of $0.001 < 0, 05$. This means that online learning using zoom media has an influence or improvement on learning outcomes in lessons

Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh pembelajaran daring menggunakan media zoom terhadap hasil belajar mahasiswa baik secara parsial ataupun secara simultan. Penelitian ini adalah penelitian kuantitatif dengan desain ex post facto, bertujuan untuk mengetahui pengaruh terhadap mata pelajaran ekonomi dengan menggunakan sistem pembelajaran daring. Metode ex post facto memiliki tujuan agar dapat menemukan kemungkinan penyebab berubahnya tingkah laku, gejala, atau kejadian disebabkan dalam suatu peristiwa yang dapat menyebabkan perubahan variabel yang telah terjadi secara menyeluruh. Teknik pengumpulan data yaitu data primer dan data sekunder. Teknik dalam menganalisis data pada penelitian ini menggunakan data kuantitatif yang diperoleh pada kuesioner, akan diolah menggunakan analisis regresi sederhana dengan menggunakan software SPSS Statistics 24. Pembelajaran daring menggunakan media zoom terhadap hasil belajar siswa memiliki pengaruh positif dan signifikan dimana dengan besar pengaruh $0,001 < 0, 05$. Artinya dalam pembelajaran daring dengan menggunakan media zoom memberikan pengaruh atau peningkatan terhadap hasil belajar dalam pelajaran.

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1. INTRODUCTION

The Reform Era brought the consequences of structural changes in social and state life. Tyrannical and indoctrinative methods in society in exercising government power need to be replaced using democratic methods. Since the Reform Era, there have been structural changes in national life. The 1945 Constitution in this era was amended. The national education system was replaced according to Law no. 02 of 1989 concerning the National Education System using Law no. 20 of 2003 concerning the new National Education System. Major changes to the education system are needed to replace the centralized system with a decentralized system in line with the Government Law in the region, Tilaar and Riant Nugroho, (2009: 321).

National Education System in Law Number 20 of 2003, it is explained that education is a conscious and planned effort to create an atmosphere and learning and learning process for students to actively develop their potential, religious spiritual strength, self-control, personality, intelligence, morals, nobility. and skills needed by himself, the nation's community and the state. (Law No. 20 of 2003).

The impact caused by Covid-19 has created unrest throughout the country. Many fields are affected by the outbreak, such as education. With Covid-19, the Government issued Circular No. 4 of 2020 which states that the learning system is carried out at home (BDR). The outbreak (Covid-19) has occurred in 219 countries in the world, of course this has an impact on various fields, especially education. For this reason, the government urges the public to practice social distancing and maintain physical distance, wear masks and always wash their hands.

The government has stated its policy by requiring online learning at all levels of education. This policy is focused on educational institutions at the central and regional levels. This policy is an effective solution to prevent fellow humans from interacting with each other, even just using various media.

The biggest influence of Covid-19 felt by the world of education in Indonesia is the policy to change the learning system from normal face-to-face to online (on the network). This policy is an implementation of the Minister of Education and Culture's Circular Letter Number 3 of 2020 concerning the prevention of Covid-19 in Education units, and Circular Number 4 of 2020 concerning the implementation of Education policies during the emergency period for the spread of the Corona Virus Disease (Covid-19). Online learning has been implemented throughout the world, it's just that the application is being carried out in stages Nengrum et al., (2021)

Regarding the online implementation process, regional schools in Bone Regency, especially at the Bone Muhammadiyah University campus, which is also feeling the impact of the pandemic, will not give up on the situation. They are looking for ways so that students can still learn and interact directly with teachers who are also at home while teaching and learning activities are taking place. One way is to use applications that already exist at that time, for example the Zoom Meeting application, Classroom, and so on.

The low learning outcomes of students are due to students' lack of interest in repeating lessons at home. Students' daily test results do not reach completion. This is a complaint made by educators and even by students' parents themselves, because their children or students do not pass or are incomplete, especially in subjects in educational technology. Seeing the low condition of student learning outcomes, several efforts were made, one of which was the teacher using e-learning media which had been implemented at the school. For distance learning, the teacher explains that the e-learning media has teaching materials, to give assignments to students and has learning videos.

Based on the background description above, the author is interested in conducting research with the title "The Effect of Online Learning Using the Zoom Application Media on the Learning Outcomes of Educational Technology Students".

Based on the background description above, the formulation in this research is: Does online learning using zoom media have a positive and significant effect on the learning outcomes of Educational Technology Students? Based on the formulation of the research problem put forward, the aim of this research is to determine the partial effect of online learning using zoom media on the learning outcomes of Educational Technology Students.

2. RESEARCH METHOD

This research is quantitative research with an ex post facto design, aiming to determine the influence on economics subjects using an online learning system. The ex post facto method aims to be able to find possible causes of changes in behavior, symptoms, or events caused by an event that can cause changes in variables that have occurred as a whole.

The research was carried out at the Muhammadiyah University Bone Campus, carried out precisely in May 2023. According to Rismawati, (2021) Population is a generalized location consisting of objects/subjects that show certain qualities and characteristics determined by the researcher to be studied and drawn conclusions. To be clearer can be seen in the following details:

Table 3.1

No.	Gender	Amount
1.	Man	10
2.	Woman	13
Amount		23

Source: Educational Technology Student Data Class of 2021/2022

According to Rismawati, (2021) a sample is part of a population unit that is selected using selected procedures so that it can represent the population. The sampling method used in this research was the Purposive Sampling method. Purposive sampling is a sample determination method with selected considerations. Where this consideration looks at the average value of the learning outcomes of each class. The next consideration is the use of purposive sampling due to limited time so by using this sample it is hoped that the number of respondents will not be too large.

There are 2 variables used in this research, namely:

The independent variable (X) or independent variable is online learning using zoom media with indicators; 1) Student responses when making it easier to access the Zoom application as an online learning medium. 2) The effectiveness of using the zoom application for online learning media. and 3) Motivate students to take part in learning using zoom as a learning medium. The dependent variable (Y) or dependent variable is learning outcomes with indicators; 1) Cognitive domain, focuses on how students gain knowledge at school through lesson plans or conveying information. 2) Effective Domain, refers to attitudes, values and beliefs that play an important role in changing student behavior. And 3) Psychomotor Domain, skills and self-development in the practice of performing skills and mastery of skills. This research design uses quantitative research regarding the influence of online learning using zoom media on student learning outcomes. This means that in this research the researcher wants to know how online learning using zoom media affects student learning outcomes during the Covid-19 pandemic. This research uses two variables, namely one independent variable, namely online learning using zoom media and the dependent variable, namely learning outcomes. The method used is ex post facto. This research uses a research instrument, an open questionnaire. In other words, answer choices are already available on the questionnaire sheet. Answer question items by giving a score to each answer. 1) answer strongly agree, weight 5,

The classification regarding the questionnaire value for each question can be seen in the table below:

Table 3.2.

No.	ANSWER	INFORMATION	MARK
1.	SS	Strongly agree	5
2.	S	Agree	4
3.	CS	Simply Agree	3
4.	T.S	Don't agree	2
5.	STS	Strongly Disagree	1

Data collection technique

Primary data is in the form of student answers regarding online learning using zoom media which was obtained through distributing questionnaires to research respondents and carried out offline. Secondary Data This data was obtained from a documentation study of educational technology students. In the form of a general description of the research location.

Data analysis technique

The technique for analyzing data in this research uses quantitative data obtained from questionnaires, which will be processed using simple regression analysis using SPSS Statistics 24 software.

Data were analyzed according to descriptive statistics through frequency tables. The formula for this analysis is:

$$Y = a + bx$$

Y = ResultStudy

X =Online Learning Using Zoom Media

a =Intercept

b =Regression coefficient

3. RESEARCH RESULTS AND DISCUSSION

On the characteristics of these respondents, the researcher wrote according to field data. From table 4.1 below, it shows that the number of respondents with male gender is more dominant, namely 43.5%, then female respondents are 56.5%. This means that there are fewer male respondents than female respondents.

Table 4.1

Gender	Person	Percent (%)
Man	10	43.5
Woman	13	56.5
Amount	23	100%

Instrument Testing

Validity test

It is known that the value of the r table is 23 from the data of class x students studied. So, the formula for determining the r table value is $df (n-2) = 23-2 = 21$ so, the value is 0.433 with a significance level of 5%. Below are the values from the table based on the calculation results of the SPSS application. Where the statement item is said to be valid if the calculated r is greater than the r table. As can be seen in the test results below:

Table 4.2

Zoom media validity test results and learning outcomes

Question items	R count	R table	information
Medium zoom .1	,735	0.433	Valid
Medium zoom .2	,741	0.433	Valid
Medium zoom .3	,728	0.433	Valid
Medium zoom .4	,724	0.433	Valid
Medium zoom .5	,723	0.433	Valid
Medium zoom .6	,716	0.433	Valid
Medium zoom .7	,730	0.433	Valid
Learning outcomes .1	758	0.433	Valid
Learning outcomes .2	,715	0.433	Valid
Learning outcomes .3	,751	0.433	Valid
Learning outcomes .4	,706	0.433	Valid
Learning outcomes .5	,716	0.433	Valid

Based on the data in table 4.2 above, it can be seen that the significance value used is 0.05 with a total of N=23, so $df (23-2) = 0.433$ for each statement item score obtained on variable x and variable y. From all statement items, the calculated r value > r table is produced. So, all of the items in the research variable x and y variable statements are considered valid.

Reliability test

In a reliability test instrument, if the coefficient is closer to the value of 1.0, it is said to be getting better. Meanwhile, in general, if the value is less than 0.6, it is said to be bad. A value between 0.6 - 0.7 can only be accepted and if it is more than 0.8 then the value is good. Below is the table value of Cronbach's alpha for each of the following instruments:

Table 4.4
Zoom Media Reliability Test Results and Learning Results

Question Items	Cronbach's alpha	information
x.1	0.825	Reliable
x.2	0.828	Reliable
x.3	0.825	Reliable
x.4	0.823	Reliable
x.5	0.823	Reliable
x.6	0.817	Reliable
x.7	0.825	Reliable
y.1	0.834	Reliable
y.2	0.818	Reliable
y.3	0.830	Reliable
y.4	0.812	Reliable
y.5	0.817	Reliable

The reliability test results in the table above show that each variable has an alpha coefficient value of no more than 0.80. So it is said that all the variables in the questionnaire are not reliable, the questionnaire in all statements is said to be unreliable because for each variable, looking at the Cronbach's alpha value is smaller than 0.80.

Variable Description Analysis

Online Learning Using Zoom Media which provides distance services by combining video conferencing, online meetings, chat, and being able to collaborate with mobile so as to achieve a teaching and learning process between lecturers and students. In knowing the respondent's assessment of alternative student answers to variable x, namely online learning using zoom media, you can pay attention to table 4.5 below:

Table 4.5
Respondent assessment
In online learning using zoom media

No.	indicator	Answer Frequency (people/%)				
		STS	T.S	CS	S	SS
1.	Students use the zoom application easily in the learning process	-	-	2 8.7	11 47.8	10 43.5
2.	Students access the Zoom application well in online learning	-	-	2 8.7	13 56.5	8 34.8
3.	Students use zoom media in online learning	-	-	4 17.4	13 56.5	6 26.1
4.	Students know the material presented by lecturers in online learning	-	-	7 30.4	14 60.9	2 8.7
5.	It is easier for students to understand the material by using the zoom application	-	-	3 13.0	11 47.8	9 39.1
6.	Zoom media is very effective in online learning	-	2 8.7	14 60.9	6 26.1	1 4.3
7.	Since using Zoom media, students have become more enthusiastic about learning	-	1 4.3	4 17.4	13 56.5	5 21.7

Learning outcomes

Learning is a change in behavior that is relatively permanent, and results from past experience or from planned learning.

Similar to Nana Sudjana's opinion, learning outcomes are abilities or skills that can be achieved by students after undergoing a learning process planned and implemented by teachers at school and in certain classes. Nurrita, (2018).

To find out the respondents' assessment of the learning outcome variables, you can look at table 4.6 below:

Table 4.6
Respondent assessment
On student learning outcome variables

No.	Indicator	Answer Frequency (people/%)				
		STS	T.S	CS	S	SS
1.	I try to complete the tasks given	-	-	2 8.7	15 65.2	6 26.1
2.	I enjoy doing assignments	-	-	12 52.2	8 34.8	3 13.0
3.	I still study regularly even though learning is done online	-	-	4 17.4	12 52.2	7 30.4
4.	I understand learning even though there is no direct face-to-face interaction	-	-	4 17.4	8 34.8	11 47.8
5.	I learned the zoom application to follow the learning process	-	2 8.7	14 60.9	6 26.1	1 4.3

Discussion

The aim of this research is to determine the effect of online learning using zoom media on student learning outcomes. In economic learning during Covid-1. Online learning using zoom media is measured by 3 indicators achieved in the learning process, namely student responses regarding the ease of accessing the zoom application as an online learning media, the effectiveness of using the zoom application as an online learning media, and motivating students to take part in lessons using zoom as a learning media. Meanwhile, student learning outcomes are measured by 3 indicators, namely: Cognitive Domain, focusing on how students gain knowledge at school through planning implementation of learning or conveying information, Effective Domain, referring to attitudes, values,

The research was carried out at the Muhammadiyah University Bone Campus in two stages. The first is to hold a meeting with the school to apply for a research permit, including with the students who will be used as samples, and explain the research system that will be carried out. The second stage is the implementation stage of distributing questionnaires to students who are used as samples.

Based on the results of the t test, it shows that the online learning variable using zoom media (X) has a positive and significant influence on learning outcomes (Y). Because the significance value is $0.001 < 0.05$ or hypothesis 1 is accepted, in other words H_0 is rejected and H_a is accepted. This research is in line with research by Amaliyyah (2021), explaining that online learning using zoom media has an effect on learning outcomes.

As for data analysis and simple regression calculations for online learning using zoom media (X) with learning outcomes (Y) obtained the regression equation $Y = 1.807 + .616 X$, this shows that variable X on variable Y has a positive and significant influence.

Then, from the results of the coefficient of determination test, it is explained that the relationship value (R) is 0.645. The output of the coefficient of determination (R square) obtained a value of 0.4.16. This means that the influence of online learning using zoom media has a learning outcome of 41.6%. Meanwhile, the remainder is influenced by variables other than online learning using zoom media, namely $100\% - 41.6\% = 58.4\%$.

4. CONCLUSION

Based on the discussion and results of the research, it can be concluded that online learning using zoom media on student learning outcomes has a positive and significant influence with an influence size of $0.001 < 0.05$. This means that online learning using zoom media has an influence or improvement on learning outcomes in the learning of educational technology students at UNIM Bone

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