Solid State Technology
Volume: 63 Issue: 4
Publication Year: 2020

Analysis of Student Behavior on E-Learning Due to Covid 19 Pandemic

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Abstract

In 2020, all countries are no exception including Indonesia in the event of coronavirus outbreak (Covid-19) starting in Wuhan City, China. Coronavirus affects activities that are usually carried out outdoors. One of the activities that became disrupted was face-to-face learning that is usually done on campus now being online conducted at home with e-learning media. This research is to find out if there are behavioral changes during e-learning due to the Covid 19 pandemic. The method used is the quantitative method. The data was collected by handing out questionnaires to Students of the Department of Management S1 class of 2017 Regular A Universitas Widyatama as many as 300 respondents. Data analysis is conducted using validity test, reliability test, classic assumption test, hypothesis test, and determination coefficient test. The results showed 71.2% variation in E- learning variables can be explained by student behavior variables while the remaining 28.8% is explained by other variables not proposed in the study. The results of this study based on simultaneous and partial testing show that there is a significant influence between student behavior variables (X) on E-learning Learning (Y).

Keywords: *Student Behavior, E-learning, Covid 19.*

INTRODUCTION

No one expected the sudden covid-19 pandemic around the world including Indonesia. Corona virus disease or abbreviated to covid and occurs in 2019 becomes a very big change in both health and the economy. Many of the victims died from the virus. The world of education has also undergone a major change. Students who used to go to college since the pandemic had to go through e-learning.

This global pandemic occurred also in Indonesia one of the impact of Covid 19 on education such as the closure of schools, universities, madrassas and all outside learning activities. According to data from the UNESCO website on Tuesday, August 4, 2020 more than a billion students in the world are affected by the closure of schools in various countries.

About 60.5% of the world's students are affected so far at least 105 countries are still enforcing full closures of their schools. From March 4, 2020 UNESCO recommends the use of distance learning or online learning that can be used by schools and teachers to reach students remotely and limit educational disruption (UNESCO, 2020).

With the distance learning system, students are not required or required to come to school or campus to carry out learning. Many facilities are ultimately applied by educators to carry out teaching activities remotely. Such means of distance learning are inevitable from the development of information and communication technology.

These learning tools include google meet app, zoom app, google classroom, YouTube, and WhatsApp social media. Indonesian Vice President Ma'ruf Amin acknowledged that the online learning system implemented during the Covid-19 pandemic was considered

ineffective. He revealed that the system of teaching without face-to-face between teachers and pupils for three months using online media is not maximal. One of them is due to the limited internet connection in a number of areas. In addition, each student's technological and economic abilities vary. Not all students have facilities that support this distance learning activity. Unsociable connections, inedible gadgets, and expensive internet quotas are real obstacles. Based on the incident, it is suspected that there was a change in behavior to students during e-leaning learning. This research is to find out if there is a change in behavior during e-learning due to covid-19 pandemic.

LITERATURE REVIEW

Human behavior is all human activities or activities, either observed directly, or that cannot be observed by outsiders (Kholid, 2015). Behavior is a form of response or reaction to stimulus or stimuli from outside the organism (person) but in providing a response depends heavily on the characteristics or other factors of the person concerned (Azwar, 2016).

In the world there are many higher education institutions that use the internet as well as digital technology to be developed in teaching and learning activities (Harsasi, 2015). ELearning stands for electronic learning, where the learning process of teaching that uses electronic media specifically the internet as its learning system (Komendangi, 2016).

Quality standards for organizing courses with stale e-learning (longing et al.,2015) from several components: Planning, Design and Manufacture of Materials, Delivery, Interaction, and Evaluation

The Covid 19 pandemic has impacted various sectors of life ranging from economy, health, social, and education. In the education sector to stop the spread of Covid 19 a number of countries must close educational facilities in both schools and universities. This is because 663.339.947 students are potentially exposed to the virus. Therefore, to prevent the greater spread of the number of countries having to close schools and universities will have an impact on the learning process of hundreds of millions of students in the world. (Purwanto et al., 2020).

At the time of the Covid 19 pandemic online learning was the only solution to keep the learning process going. This is in accordance with the direction of the Minister of Education that during the pandemic the teaching learning process is moved to a good home.

METHODOLOGY

The method used is the quantitative method. Quantitative methods are numerical data, can be used to answer the proposed hypothesis. Quantitative analysis is used by researchers to find out the results of respondents' answers with the help of statistical tools through the SPSS (Statistic Package and Social Science) 20 for Windows Software program.

The data used in the study came from the results of a questionnaire consisting of several questions. Indicators are measured using ordinal scale based on likert scale technique. According to Sugiyono (2016), understanding the scale of likert as follows: "The likert scale is the scale used to measure the attitudes, opinions, and perceptions of a person or group of people about social phenomena".

In addition, there are two data sources obtained by researchers are primary data and secondary data by using the population of Students and Students of the Department of Management S1 Class of 2017 Widyatama University, with a sample of 956 and calculated using the Slovin Formula, then:

$n = N/(1+(N\times e^2))$
$= 956/(1+(956\times 0.05^2))$

= 282 respondents

In anticipation of invalid data, the researchers rounded the respondents into as many as 300 respondents. In this study the authors used non-probability sampling with purposive sampling types.
As for how to obtain data and information in this research, as follows:

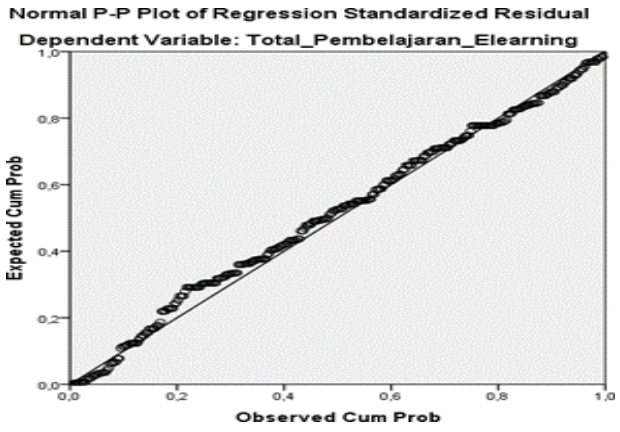
1. Library Research
2. Field Research
a. Questionnaire
b. Observation

The data analysis techniques used in this study are validity tests, reliability tests, classic assumption tests. Classic assumptions on simple linear regression include: Linearity, Normality, and Heteroscedastic. Then, the Hypothesis Test, for the T test if the value of the significance > real level (0.05), then Ho is accepted and Hα is rejected and if the significance value > real level (0.05), then Ho is rejected and Hα is accepted. For test F if the value of significance > real level (0.05), then Ho is accepted and Hα is rejected if the value of significance > real level (0.05), then Ho is rejected and Hα is accepted. Then test the determination coefficient to find out how much influence Student Behavior (X) has on E-learning (Y).
Validity tests are performed by correlated each statement with the total score on each variable, and used to find out the validity of a statement in the questionnaire, a questionnaire is asked valid if the statement on the questionnaire is able to reveal something that will be measured by the questionnaire.
To assess whether the above values are valid and reliable, compare them with Table R at DF=N-2 and Probability 0.05. DF value: sample count (300) – 2
= 298. R Table on DF 298 Probability 0.05 is 0.113.
From the reliability results can be known that each variable has Cronbach's Alpha > 0.600. Thus, the variable behavior of students towards E-learning can be said to be reliable.

Classic Assumption Test

a. Normality Test

Normality tests are used to determine whether the data obtained is normal distribution or not. Normality tests can be performed using a p-plot that is provided that if the dot is visible close to the diagonal line then the distribution of data is considered normal.

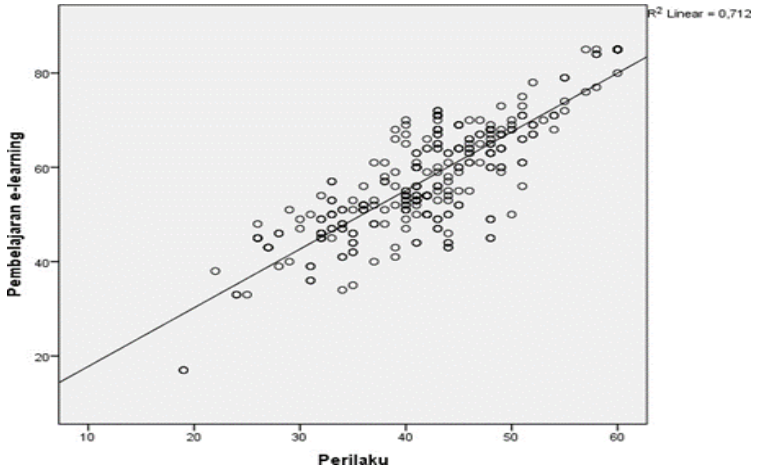


It can be seen from the chart above showing that the dots spread around the diagonal line

and spread close to the diagonal line so that it can be concluded that the distribution of data in this study is normal.

b. Linearity Test

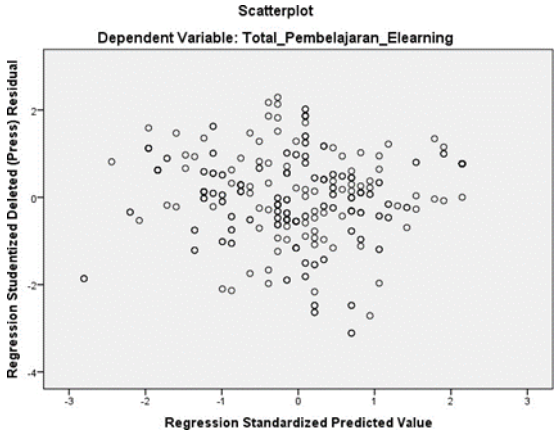
Linearity testing is performed in the test of a Y variable regression equation model over variable X. Linearity test is used to meet the requirements of regression analysis that requires a functional relationship between X and Y in linear populations. The linearity test aims to find out whether two variables of significance have a linear influence or not. One way to detect the presence of linear relationships between these variables can be done with scatter-plot charting techniques.



Based on the scatter-plot chart above, visible data plot points form a straight line pattern from the bottom left up to the top right. This indicates a linear and positive relationship between student behavior variable (X) and E-learning (Y). This positive relationship can mean that if student behavior improves then E- learning will improve.

c. Heteroscedasticity Test

A good regression model is not the case of Heteroskedastic. From the scatterplot chart view, it shows that the spread between the predicted value of a variable bound to its residue does not form a definite pattern, or that there is a spread that does not break into an orderly pattern. The results of heteroscedasticities test are as follows:



Looking at the chart above, it is clear that there is no specific pattern because the point

spreads irregularly above and below the 0 axis (zero) on the Y axis.

Hypothesis Test

a. Partial Test (T-test)

Statistical tests are also called individually significant tests. This test shows how far independent variables partially affect dependent variables. In the end, a ho conclusion will be rejected or Hα accepted from the formulated hypothesis. Significant test against a hypothesis that has been determined using the t test. The value of the table t with alpha 5% and the number of samples n minus k the number of variables used then obtained t table by 1,650. Testing is carried out by looking at the level of significance:

1. If the value of the significance > is real level (0.05), then Ho is accepted and Hα is rejected.
2. If the value of the significance < real level (0,05), then Ho is rejected and Hα is accepted.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5,346	1,971		2,712	,007
	Total_Perilaku	1,244	,046	,844	27,159	,000

a. Dependent Variable: Total_Pembelajaran_Elearning

In the table above is known t value count 27.1592 > t table 1,650 or sig value. 0.000 > 0.05, then Ho was rejected and Hα was accepted, which means that the Student Behavior variable (X) had a significant effect on the E-learning Learning variable (Y). b. Simultaneous Test (F-test) Statistical test used in simultaneous testing is Test F or commonly referred to as Analysis of variants (ANOVA). Comparison of significance value to real level:

a. If the value of significance > real level (0.05), then Ho is accepted and Hα is rejected.
b. If the value of the significance < real level (0.05), then Ho is rejected and Hα is accepted.

Here's the calculation of the F table:

N1 = K – 1 = 2 – 1 = 1
N2 = N – k = 300 – 2 = 298

Then the F table is located in row 1 column to 298 of 3,873.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig
Regression		31733,323	1	31733,323	737,618	,000[b]
1	Residual	12820,357	298	43,021		
	Total	44553,680	299			

a.Dependent Variable: Total_Pembelajaran_Elearning
b.Predictors: (Constant), Total_Perilaku

Statistical F test results showed a value of 737,618 with a significant value of 0.000. The significant value of the F was smaller than 0.05, thus Ho was rejected and Ha accepted. This means that the simultaneous testing shows that there is a significant influence between the Student Behavior variable (X) on E- learning (Y).

Determination Coefficient Analysis

To find out how much influence Student Behavior (X) has on E-learning (Y), statistical calculations are performed using the Determination Coefficient.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,844[a]	,712	,711	6,559	,712	737,618	1	298	,000	1,846

a. Predictors: (Constant), Total_Perilaku

b. Dependent Variable: Total_Pembelajaran_Elearning

The result of the regression calculation can be known that the coefficient of determination (R Square) obtained is 0.712. This means that 71.2% of the variation in E-learning variables can be explained by the Student Behavior variable while the remaining 28.8% is explained by other variables not proposed in the study.

CONCLUSION

The change in learning from face-to-face to fully e-learning is a state never predicted before. In the midst of covid-19 pandemic, e-learning is an alternative given throughout the university for students. Undeniably, there is a change in student behavior during the defense of e-learning. If in e-learning, students do not get learning and experience on one such material, but when face-to-face learning in the classroom usually lecturers provide material associated with a real example of their experience. Then if there is material that students do not understand can ask directly and can discuss with friends, whereas when e-learning students receive material online through their respective smartphones, or if there is material that is not understood can only ask through the platform provided, and online learning is done individually cannot meet with friends.

In addition, the tasks given at the time of e-learning tend to be more numerous than those given during lectures face-to-face. Based on the results of the research and discussions that have been conducted, the conclusion that can be drawn from this study is that Student Behavior partially affects E-learning Learning. Student Behavior simultaneously affects E-learning. The results of the regression calculation are known to mean that 71.2% variation of the E-learning variable can be explained by the Student Behavior variable while the remaining 28.8% is explained by other variables not proposed in the study.

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