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The Influence of Online Learning on Students' Learning Motivation in Study Design and Forming Technology Automotive Body

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ABSTRACT

The purpose of this study in general is to find out whether there is a causal relationship or influence on online learning on students' learning motivation in the Automotive Body Design and Formation Technology course. The method used is quantitative method, this method only to find out the results of the research is numeric then inferred using annotations. The population in this study were students of the Department of Mechanical Engineering Education, automotive concentration, class of 2018 who had taken online lectures on automotive body technology design and formation, so a sample of 30 people was obtained. The research instrument based on the variable is online learning as the independent variable and motivational variables as its dependent variable. This study uses a simple linear regression testing to see t counted to determine whether there is a causal link or influence in a linear manner. Based on the results of the study, it can be concluded that there is a significant positive effect between online learning on student learning motivation, with an influence value of 43.1% in large category.

Keywords: Online Learning, Learning Motivation, Automotive Body, Design and Formating

INTRODUCTION

The Indonesian University of Education campus is in the red zone and then a lockdown or activity restrictions are implemented in certain areas, therefore all courses use online learning methods, both theory and practical. Online learning that uses media contains messages and information that are generally used with the aim of making the learning process effective and efficient [1][2].

Based on Ministerial Decree 109/203 concerning the Implementation of Distance Education in Higher Education, distance education in Indonesia has the characteristics: open nature, independent learning. thorough learning, using information and communication technology, using other educational technology and/or integrated university lessons [3].

Implementation of learning, especially online learning, which pays attention to the quality standards of learning outcomes so as to enable a credit recognition system between universities. The principles of online learning are implemented in five aspects of the online learning process [4][5], namely

- a. Learning planning,
- b. Learning activities,
- c. Learning strategies,
- d. Learning media and technology, and
- e. Learning support services.

These five aspects influence each other, so that no aspect can be eliminated to carry out the online learning process [6][7]. The

Yuga Nugraha, Yusep Sukrawan, Ibnu Mubarak objectives of the online learning process are as follows:

- a. Helping students solve various learning problems through additional explanations, additional information, discussions and other activities online.
- Increasing student motivation to learn and solve problems through various online and offline interactions
- c. Developing students' independent learning abilities
- d. Providing opportunities for students to autonomously participate in various learning activities
- e. Providing opportunities for students to reflect through "self-assessment".

A policy of practical learning at home has been implemented, but there are several practical's that cannot be carried out at home because there are several practical's that require tools and materials that are difficult to obtain and are not affordable for students, there are new rules that allow practical's to be carried out but with accelerated time, at school the practical time is already limited, let alone being carried out at home which is indeed in a state of lockdown [8][9].

Reinforced with the statement [10] which explains that the time provided by the school to carry out practical activities is limited, so practical activities will not run optimally, the practical implementation time, namely 2 x 40 minutes, is only enough to make observations for those who are proficient and not necessarily for students who are not yet proficient.

Skills will be easier to acquire if students' learning motivation is high. [11][12], According to its nature, motivation is divided into two, namely motivation that comes from within the individual (intrinsic motivation) and from outside himself (extrinsic motivation) [13].

Intrinsic Motivation is a change that occurs within a person, in learning activities this motivation is very necessary especially when learning alone, someone who does not have intrinsic motivation will find it difficult to learn, but if they have this motivation, a person will feel like they want to progress and learn, while extrinsic motivation is what a person wants, in the form of goals that become the direction of their behaviour or goals they want to achieve. In this case, learning motivation is said to be extrinsic if students place their learning goals outside the factors of the learning situation (residence some factor outside the learning situation) [14][15]. Both intrinsic motivation and extrinsic motivation function as drivers, motivators and selectors of actions. All three are united in the attitude implied in the action. [14].

Moreover, there is a problem in learning the automotive body design and formation technology course which basically requires practicum because this course relies on hands-on or manual skills that are required to do practicum and also requires many and specific tools, and it is also impossible to do it at home. Therefore, this course only carries out theoretical learning, with online learning

Yuga Nugraha, Yusep Sukrawan, Ibnu Mubarak methods. This is what underlies the author's interest in analyzing whether there is an influence of online learning on student learning motivation in the Automotive Body Design and Formation Technology course [16].

Several previous studies that are relevant to this study are used as references for the author, several relevant studies are as follows:

- Research conducted by Adhetya Cahyani, et al. in 2020 with the title "motivasi belajar siswa SMA pada pembelajaran daring di masa pandemik COVID-19". This study uses a quantitative approach, with the sampling technique used being accidental sampling. The population in this study were all high school students who took part in the learning process with an online system. This study uses the Mann Whitney U method of data analysis, this type of research uses the theoretical basis of learning motivation and aspects of the Chernis & Goleman (2011) theory. The results of this study indicate that the Mann Whitney U significance value is 0.000, which means that the learning motivation of students who take part in online learning in the midst of the COVID-19 pandemic situation has decreased, because the significance value of 0.000 is less than 0.05 (p < 0.05).
- Research conducted in 2020 by Azizah
 Nurul Fadlilah with the title "strategi menghidupkan motivasi belajar anak

usia dini selama pandemi COVID-19 melalui publikasi" research using a descriptive qualitative approach with research subjects namely class teachers and Playgroup (KB) students at Al-Huda Kindergarten, Malang City. The results of the study showed that the form of teacher strategy to revive student learning motivation in the SFH policy in the midst of the COVID-19 outbreak was by publishing the results of student assignments which were proven to be able to revive student learning motivation.

Research conducted by Yani Fitriyani, et al. in 2020 on "motivasi belajar mahasiswa pada pembelajaran daring selama pandemik COVID-19". This study uses a quantitative approach with a survey method. The study was conducted at Kuningan University involving 80 6th semester students in School the Elementary **Teacher** Education study program. The results of this study indicate that the learning motivation of 6th semester students in the elementary school teacher education study program at Kuningan University is very good, this is obtained from the percentage score of the motivation which is 80.27% [17].

The difference in research that will be conducted by the author lies in the variables to be studied, namely the variables of learning influence and learning motivation. Several classes in the mechanical engineering

Yuga Nugraha, Yusep Sukrawan, Ibnu Mubarak education study program have used online learning methods, but it is still unknown what the level of learning motivation is, as in vocational students, especially mechanical engineering, automotive concentration requires practical learning.

RESEARCH METHOD

This study uses a quantitative approach, the variables used in this study are online learning as the independent variable and student learning motivation as the dependent variable. The participants who are the population are all students of the Department of Mechanical Engineering Education, automotive concentration, class of 2018, people who have taken online learning in the Automotive Body Design and Formation Technology course.

Steps in quantitative research, including:

- a. Problem, it is clear that the principle of research is to answer the problem, the problem is a deviation from what should be with what actually happens. The problem must be sought through a preliminary study through empirical facts.
- b. Problem formulation, to answer the problem of course there must be a problem formulation so that it is more formulated and more specific, and is generally made with a question sentence.
- c. Hypothesis submission, based on answers to the problem formulation supported by relevant theories but there has been no empirical evidence.

- d. Selection of ideal research methods and considered practical.
- e. Preparation of research instruments that have been validated by expert judgment first.
- f. Data collection, carried out on certain objects in the form of populations or samples.
- g. After the data is collected, it is then analyzed to answer the problem formulation and test the hypothesis proposed with certain statistical techniques.
- h. Conclusion, the last stage is to conclude the research results on the problem formulation.

Based on research, it appears that quantitative research is linear, the steps are clear, starting from formulating the problem, theorizing, hypothesizing, collecting data, analyzing data, and making conclusions and suggestions.

High learning motivation in online learning will certainly not be a problem with learning outcomes, but if the lack of learning motivation in online learning is caused by the learning process, students can become less active in conveying their opinions and thoughts, thus causing a boring learning process, then it will achieve lack of progress in learning outcomes [18][19].

Based on the explanation above, the following hypotheses can be obtained:

a. H_0 : There is no significant influence between online learning and student learning motivation.

Yuga Nugraha, Yusep Sukrawan, Ibnu Mubarak

b. H_1 : There is a significant influence between online learning and student learning motivation.

The instrument used in this study is a questionnaire or survey validated by an expert or judgment expert. The existence of this instrument aims to make it easier to conduct research so that the results are better, more complete and systematic so that they are easier to manage [20].

The population is all students of the Department of Mechanical Engineering Education, automotive concentration, class of 2018 who have taken online learning in the Automotive Body Design and Forming Technology course.

The larger the sample from the population, the better, but there is also a minimum limit that must be taken by researchers, which is 30 samples [20][21]. The sample in this study were students of the Department of Mechanical Engineering Education, automotive concentration, class of 2018, people who had taken online learning in the Automotive Body Design and Formation Technology course.

RESULT AND DISCUSSION

Based on the results of the research that has been conducted, the researcher obtained data that will then be analyzed in this study, namely online learning instrument data and learning motivation instruments. This study uses validity and reliability tests as instrument tests, then prerequisite tests as requirements using linear regression tests

19 0,679 0,361 V

including normality, linearity, and heteroscedasticity tests [22].

The data discussed here describes the findings from the results of the questionnaire distribution that has been carried out by the researcher. Previously, the researcher had modified 19 statements about online learning and 21 statements about learning motivation. The data was distributed using Google form and obtained 30 respondents.

Validity and Reliability Testing

Questionnaires have an important role in determining the accuracy of the data obtained in each study. The accuracy of the data obtained is determined by the quality of the instrument used [23][24]. Therefore, before conducting the analysis test, it is necessary to test its validity and reliability.

1. Validity

Table 1. Results of online learning validation

tests					
No Item	R _{count}	R _{table}	Valid/Not		
1	0,429	0,361	V		
2	0,627	0,361	V		
3	0,594	0,361	V		
4	0,54	0,361	V		
5	0,559	0,361	V		
6	0,483	0,361	V		
7	0,804	0,361	V		
8	0,691	0,361	V		
9	0,613	0,361	V		
10	0,442	0,361	V		
11	0,453	0,361	V		
12	0,686	0,361	V		
13	0,756	0,361	V		
14	0,543	0,361	V		
15	0,511	0,361	V		
16	0,566	0,361	V		
17	0,621	0,361	V		
18	0,739	0,361	V		

Based on the results of the data above, it can be seen that all statements used by comparing Rount and Rtable are valid.

2. Reliable

Table 2. Results of online learning reliability

	tests Validation 1			Validation		
No	Rcount	Rtable	V/Not	Rcount	R _{table}	V/Not
Item						
1	0,35	0,361	T	0,59	0,361	V
2	0,37	0,361	V	0,56	0,361	V
3	0,16	0,361	T	0,57	0,361	V
4	0,72	0,361	V	0,59	0,361	V
5	0,66	0,361	V	0,56	0,361	V
6	0,53	0,361	V	0,57	0,361	V
7	0,56	0,361	V	0,59	0,361	V
8	0,54	0,361	V	0,56	0,361	V
9	0,61	0,361	V	0,57	0,361	V
10	0,65	0,361	V	0,59	0,361	V
11	0,51	0,361	V	0,56	0,361	V
12	0,45	0,361	V	0,57	0,361	V
13	0,69	0,361	V	0,59	0,361	V
14	0,66	0,361	V	0,56	0,361	V
15	0,67	0,361	V	0,57	0,361	V
16	0,52	0,361	V	0,59	0,361	V
17	0,57	0,361	V	0,56	0,361	V
18	0,52	0,361	V	0,57	0,361	V
19	0,56	0,361	V	0,59	0,361	V
20	0,52	0,361	V	0,56	0,361	V
21	0,58	0,361	V	0,57	0,361	V

Based on the test results of the data above, 19 of the 21 questionnaires used were good or reliable.

Analysis Testing

The type of associative hypothesis (relationship) used in this study, of course, requires a regression test. The form of the relationship between independent variables

and dependent variables, a simple causal relationship like this usually uses a simple regression analysis [25].

In the linear regression test, the focus is on the t-test. The t-test (Partial) is conducted to see each independent variable against the dependent variable, if the t-count > t-table or the significance value < 0.05 then it is concluded that individually the independent variables have a significant effect on the dependent variable [26].

Therefore, it is necessary to conduct a determination coefficient test which shows the extent to which the contribution of the independent variables in the regression model is able to explain the variation of the dependent variables and also a regression coefficient test to see the static size used to measure the average functional relationship between the variables [26] [27].

 Results of The Determination Coefficient Table

Table 3. Results of the determination coefficient table

Model Summary ^b					
Model	R	R-	Adj R-	Std.	
Model		Square	uare Square		
1	.657a	.431	.411	7.987	
a.	Predictors: (Constant), Online Learning				
b.	Dependen	t Variabl	e: Motiva	tion to	
	learn				

The table above explains that the magnitude of the correlation / relationship value (r) is 0.657 or 65.7%. From this output, a determination coefficient (r Square) of 0.431 is obtained which can be explained by

Yuga Nugraha, Yusep Sukrawan, Ibnu Mubarak the understanding that the influence of the independent variable (Online Learning) on the dependent variable (Learning Motivation) is 43.1%, while the remaining 56.9% of learning motivation is influenced by other factors including intrinsic factors and extrinsic factors that are not included in this study.

2. Results of The Regression Coefficient
Table

Table 4. Results of the regression coefficient table

	Coefficients ^a						
	Model	Unstd Coeffi		Std. Coeff	t	Sig.	
		Beta					
	Cnstant	25.8	10.4		2.481	019	
1	Online	628	.136	.657	4.60	00	
	learning						
a. Dependent Variable: Motivation to learn							

Based on the processing of simple linear regression data analysis, the results obtained are as stated in the table above, which can be explained as follows:

- a. The constant number of unstandardized coefficients, with a value of 25.808. Explaining this constant number means that if there is no online learning (X) then the value of learning motivation (Y) is 25.808.
- b. The regression coefficient number, with a value of 0.628, this number explains that for every 1% increase in online learning (X), learning motivation (Y) will increase by 0.628.

Yuga Nugraha, Yusep Sukrawan, Ibnu Mubarak

The value of the regression coefficient is positive, so it can be said that online learning (X) has a positive effect on learning motivation (Y). So the regression equation is Y = 25.808 + 0.628X.

The success of tutors in the teaching process, such as the use of media, plays a big role in the process of motivating students to learn [18][28]. In this case, media is interpreted as online learning, which can be concluded that if online learning is better, it will increasingly motivate students to learn.

This is also supported by several previous studies with the title "student learning motivation in online learning during the COVID-19 pandemic", 2020, that the independent variable has a positive and significant influence and influence. [29][30].

T-test results

The t-test is conducted by looking at the coefficient table, as listed in table 4 above. The t-test is conducted to determine whether the independent variable (online learning) on the dependent variable (learning motivation) has a real influence or not.

Based on the data in table 4.10, the t-count is 4.606 at the Sig. level of 0.00. In the probability level table (real) 0.05 (95%), the real level = 5%, degrees of freedom (df) = n-2 = 30-2 = 28, 28 = 2.048. From the calculation results, the following are known:

- a. The t-count value is 4.606, which means that 4.606 is greater than the t-table of 2.048.
- b. The significance value is 0.00, which means that it is less than 0.05.

Based on the two explanations, this means that H0 is rejected and H1 is accepted. This significance implies that online learning has a real effect on students' learning motivation in the automotive body design and formation technology course [31].

Based on the results of this study, it shows that online learning has a positive and significant influence on students' learning motivation, this is obtained from the results of the t-test listed above, these results are relevant to previous studies which explain that online learning is often required to be more motivating because good learning outcomes usually depend on motivation and related characteristics of curiosity and selfregulation to engage in the learning process [32][33], However the success of a learning model or media depends on the characteristics of the students [29], that all the literature indicates that not all students will be successful in online learning, this is due to differences in learning environment factors and student characteristics.

CONCLUSION

Based on the results of research on the influence of online learning on students' learning motivation in the automotive body design and formation technology course, online learning has a real positive effect on students' learning motivation, which means that the hypothesis H₁ It is accepted that online learning has an impact on students' learning motivation.

Yuga Nugraha, Yusep Sukrawan, Ibnu Mubarak

The results of this study are in the form of an explanation of the real influence of online learning on students' learning motivation in the automotive body design and formation technology course and a positive influence with a category of having a large influence, which is expected to be a consideration to be continuously improved and used in learning.

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