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The Influence Of Blended Learning on Students Learning Motivation and Outcomes in Digital Simulation Course.

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ABSTRACT

This research aims to find out how the influence of the use of the blended learning model face-to-face driver model on student interest and learning outcomes. And to find out how effective the improvement in learning outcomes and learning interests of students uses blended learning typeface to face driver model. The research method used in this study is an experimental method with the right experimental design research design. The study involved class X TKJ students at SMK Sakti Gemolong as participants selected using cluster random sampling techniques. The treatment given to the experimental class is in the form of a blended learning model face to face driver model, while the control class is done with conventional learning. The research method used is quantitative. Data were collected by questionnaire method and learning achievement test. Analysis of the questionnaire is used to obtain data on student interest in learning. The analysis of the learning outcomes test is used to obtain student learning outcomes data on the blended learning model face to face driver model. This study's results are 1) there is an influence of the use of blended learning models face-to-face driver model on student learning outcomes with a significant level .836. 2) there is an influence of blended learning typeface to meet drive the r model of students' learning interest with considerable cant level. 3) there is the effect in increasing student learning outcomes by using blended learning models face to face driver model with a total score gain of 0.5142 compared to 0.4274 (control class). 4) there is effectiveness in increasing students' interest in learning by using a blended learning model face to face driver model with a total score gain of 0.2131 compared to 0.0740 (control class).

Keywords: Blended Learning, Face to Face Driver Model, Learning Interest, Learning Outcomes

1.   INTRODUCTION

Technology is developing very rapidly from year to year. One of them is computer technology. The development of computer technology influences the world of education, especially in the learning process. To compensate for the rapid development of technology, the learning process is carried out by utilizing computer technology, namely internet technology. One benchmark for the world's current level is an information technology (Barokati & Annas, 2013). To produce competent graduates, teachers are encouraged to be able to utilize super-fast technology for the learning process. The Ministry of Education and Culture stated that digital transformation benefits students with potential negative impacts (Harususilo, 2018).

The teacher should be able to utilize existing technology in the world of education. Utilization can be marked by changing the learning system of conventional or traditional learning patterns into media patterns to bring up e-learning. In addition to the subject matter presented regularly in class, tertiary institutions organize e-learning activities (Indrayani, 2007). A technology-based learning model currently developing is a blended learning model or a learning mix model, which uses technology.

Digital Simulation subjects tend to contain theories rather than practice; therefore, when learning takes place, if students are less active during the learning process, learning will be boring, so the emergence of students' interest in learning is low. So we need the right learning model to increase student interest and learning outcomes in Digital Simulation subjects. Online-based learning models can be a solution to existing problems. In its application, the blended learning model combines conventional learning with online learning, so the blended learning model can be an alternative in solving the above problems. One type of blended learning model is face to face driver model. According to Fauzan (2018), students' cognitive ability increases after using the composite learning model face-to-face driver model. The blended learning typeface to face driver model is a face-to-face learning model in a school environment with traditional teaching that uses online learning as remediation or additional instruction (Malinina, 2012).

An activity that involves someone to gain knowledge, skills and positive values by utilizing various learning resources is the essence of learning (Barokati, & Annas, 2013). In learning in vo education educator whose job is to create useful and quality help. Many teachers are professional, but most of them cannot organize learning and utilize technology to benefit education (Syarif, 2012). Lack of these capabilities, causing several problems that arise when the learning process takes place. So the teacher needs to apply an appropriate learning model to overcome these problems.

2. METHODS

The research method that will be used in this study is an experimental method with a true-experimental design research design, which is an experiment that is actually considered good because it meets the requirements using the experimental group and the control group (Emzir, 2017: 98). The experimental method is a systematic method for building relationships that contain cause and effect (Sukardi, 2013: 179). Experimental research tries to find the effect of a variable on certain variables with tightly controlled conditions (Riduwan, 2010: 50). So that in experimental research conducted experiments on a group called the experimental group. Then the class is given individual treatment with conditions that can be controlled by using another group called the control group.

3. RESULT

Testing the validity of the instrument was given to 35 students. Based on the reality and reliability test of the learning outcomes of 25 pretest questions and 25 posttest questions, there are 18 pretest questions used and 19 posttest questions. While that is not used, there are six pretest questions and 7 posttest questions with a reliability value of 0.841, so it can be categorized as having a high-reliability value. While based on the results of the validity and reliability of the instrument of interest in learning from 30 items, there were 37 valid questions. With a reliability value of 0.975. Then hypothesis testing can be done. In this study, the analysis technique used is the independent sample t-test to test Hypothesis 1 and Hypothesis 2, while the analysis technique used to determine the effectiveness of improving student learning outcomes in the application of blended learning models face to face driver model on digital simulation subjects is to use a gain test. Table 1. is the result of the average learning outcomes of students consisting of 37 statements obtained from the results of the pretest before being given treatment and posttest after treatment in the form of blended learning typeface to face driver.

Table 1. Average Learning Outcomes

Data	Kategori	Rata-rata
Pretest	Experiment Class	63,60
	Control Class	59,94
Posttest	Experiment Class	79,14
	Control Class	70,26

Based on table 1 above, the pretest for the experimental class with the number of students, 35 students obtained an average of 63.60, and for the control class, the standard was 59.94. As for the posttest results for the experimental class with the number of students, 35 students obtained an average of 79.14, and for the control class, the standard was 70.26. Pretest student learning outcomes are used to test the balance of the two classes using the independent

sample t-test, which results are sig. 0.631> 0.05, which means far from the level of error. So it can be concluded that both classes have a balanced initial ability.

For data on average learning interest of students consisting of 35 students obtained from the results of the pretest before treatment and posttest after treatment in the form of blended learning typeface to face driver model. Can be seen in Table 2.

Table 2. Average Results of Learning Interests

Data	Kategori	Rata-rata
Pretest	Experiment Class	69,89
	Control Class	68,60
Posttest	Experiment Class	78,11
	Control Class	69,06

Based on table 2, it can be seen that for the pretest results for the experimental class with the number of students, 35 students obtained an average of 69.89, and for the control class, the average was 68.60. As for the posttest results for the experimental class with the number of students, 35 students obtained an average of 78.11, and for the control class, the average was 69.06. Pretest students' learning interest is used to test the balance of the two classes by using the independent sample t-test, which results are sig. 0.83> 0.05, which means far from the level of error. So it can be concluded that both classes have a balanced initial ability. After that, a hypothesis test is carried out with the following results:

Hypothesis Test 1

Ho: There is no influence on using the blended learning model face to face driver model on student learning outcomes in Digital Simulation subjects.

Ha: There is an influence of blended learning typeface to face driver model on student learning outcomes in Digital Simulation subjects.

Table 3. Results of the First Hypothesis Analysis

Variance Equation	Uji Levene's		Uji T	
	F	Sig.	t	Sig (2-tailed)
Assumed	0,43	0,836	2,471	0,016
Not assumed			2,471	0,016

From the first hypothesis test results, the F value is 0.43, and the significance value is 0.836, greater than the significance level (0.05) so that the two classes do not have variance. So the value of sig. (2-tailed) In the assumed line of 0.016, smaller than the significance level, Ho is rejected, and Ha is accepted. There is an influence of blended learning typeface to face driver model on student learning outcomes in Digital Simulation subjects.

Hypothesis Test 2

Ho: There is no influence on using the blended learning typeface to face driver model on student learning interest in Digital Simulation subjects.

Ha: There is an influence of the use of blended learning typeface to face driver model on student learning interest in Digital Simulation subjects.

Table 4. Results of the Second Hypothesis Analysis

Variance Equation	Uji Levene's		Uji T	
	F	Sig.	t	Sig (2-tailed)
Assumed	1,428	0,236	9,297	0,000
Not assumed			9,297	0,000

From the first hypothesis test results, the F value is 1.428, and the significance value is 0.236, more significant than the significance level (0.05) so that the two classes do not have variance. So the value of sig. (2-tailed) in the line is assumed to be 0,000, smaller than the significance level, then Ho is rejected, and Ha is accepted. There is an influence of the use of blended learning typeface to face driver model of student learning interest in Digital Simulation subjects.

The Effectiveness of Using the Face to Face Driver Model of the Blended Learning Model on Student Learning Outcomes of the Experimental and Control Classes

To determine the improvement of student learning outcomes in the experimental and control classes using the Gain Test. Gain Test Results The experimental class's learning outcomes and the control class can be seen in Table 5.

Table 5. Learning Outcomes Test Result Data

Class	Average Pretest	Average Posttest	Gain Score	Remarks
Experiment	63,60	79,14	0,5142	Good
Control	59,94	70,26	0,4274	Good

From the gain test data in Table 5, the experimental class's gain value is 0.5142 and for the control, the class is 0.4272. Both are in a suitable category. However, when compared to the number of Gain scores, the use of face to face driver blended learning models are more effective than conventional learning.

The Effectiveness of the Use of Blended Learning Model Face to Face Driver Model for Student Interest in Experiment and Control Class Students

To find out the increase in learning interest of students in the experimental and control classes using the Gain Test. The results of the Gain Test of learning interest from the experimental class and the control class can be seen in Table 6.

Table 6. Learning Interest Test Results Data

Class	Average Pretest	Average Posttest	Gain Score	Remarks
Experiment	69,89	78,11	0,2131	Enough
Control	68,60	69,06	0,0740	Less

From the gain test data in Table 6. it can be seen that the gain value in the experimental class is 0.2131 with the Fair category. And for the control class is 0.0740 with the category Less. When compared to the number of Gain scores, the use of face to face driver blended learning models is more effective than conventional learning.

4.   DISCUSSION

The influence of using blended learning typeface to face driver model on student learning outcomes.

Based on the first hypothesis testing using the t-test by using the value of experimental class learning outcomes, it was found that there is an influence of the use of face to face driver type blended learning model learning outcomes of students. The final score (posttest) of students is higher than the initial value (pretest) of students. And this indicates that there is a significant increase in student learning outcomes.

In the t-test results, the probability value (significant 2-tailed) <0.05 so that Ho is rejected, and Ha is accepted. Then it can be concluded that there is an influence of the use of blended learning typeface to face driver model on learning outcomes and student interest in Digital Simulation subjects.

This study's results are supported by research conducted by Raafi Imam Fauzan (2018), who uses a blended learning model face-to-face driver model in his study. His study results stated that students' cognitive abilities improved after using the blended learning model face-to-face driver model. Based on Cheng Li et al. (2019) research, the blended learning model of learning can effectively increase students' knowledge.

Using the blended learning model face to face driver type in this study, experimental class students can learn independently and manage their own learning. Before face-to-face learning is done, they can learn to advance the material given in an online class called SMK Spada, which is based on moodle. Unlike the control class that only gets material when face to face learning only. In the online class, given additional materials that will support learning. Unlike the control class that only gets material when face to face learning only. The effect of the blended learning model can be seen from the value of students who increased when giving posttest. Their posttest scores are higher than the pretest scores.

The influence of using blended learning typeface to face driver model on student learning interests.

Based on the results of data analysis, the results showed that the average value of the pretest of student interest in learning increased significantly. In the t-test results, the probability value (significant 2-tailed) <0.05 so that Ho is rejected, and Ha is accepted. Then it can be concluded that there is an influence of the use of the blended learning model face to face driver model on student learning interest in Digital Simulation subjects.

Based on research conducted by Feby, Acep and Taufiqulloh (2019) regarding the use of blended learning models, there is an average increase in learning interest of students who use blended learning models. Student learning interest is extreme after using the blended learning model; the statement is one of the research results conducted by Mega, Rini and Ira (2018).

The effect of the blended learning model can be seen in students' interest in digital simulation subjects. The feelings of students become happy when learning digital simulations. Many students open lessons first at night before face-to-face learning begins.

The effectiveness of the blended learning typeface to face driver model of learning outcomes of students.

Based on the average learning outcomes calculation using the gain test, there is a difference between the class using the blended learning model face-to-face driver type and the class using conventional learning. From the test results obtained, an average gain index for the experimental class is 0.5142. And for the control class, the average gain index is 0.4274. Thus, the use of face-to-face driver blended learning models is more effective in student learning outcomes.

The results of research from Muluneh Yiqzaw et al. (2019) show that the application of the blended learning model has a positive impact on student achievement. There are statistically significant differences between the experimental and control classes. Based on Ahmad Kholiqul Amin (2017) research that with blended learning, learning will become more effective and efficient, and that is one of the advantages of blended learning.

The effectiveness of the blended learning typeface to face driver model of learning interests of students.

Based on the calculation of the average interest in learning using the gain test, there is a difference between the class using the blended learning model face to face driver model and the class using conventional learning. From the results of the gain test, the average gain index for the experimental class was 0.2131. And for the control class, the average gain index is 0.0740. Based on these results, the average value of the gain index for the experimental class is higher than the control class. Thus, the use of the blended learning model face to face driver model is more effective on student learning outcomes.

5. CONCLUSION

Based on data analysis and the discussion carried out in the previous discussion, referring to the hypotheses that have been formulated, it can be concluded that there is an influence of the use of the blended learning model face to face driver model of learning outcomes and student interest in learning in Digital Simulation subjects. Based on students' learning outcomes and interests, the use of face to face driver blended learning models is more effective compared to conventional learning. After being given treatment in the form of a blended learning model, the average value of students face-to-face driver model is higher than the average value of students before being given treatment in the form of a blended learning typeface to face driver model.

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