

The Impacts of Social Media Facebook as Learning Media towards Learning Motivation for Students (A Case Study Approach)

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Abstract— This research discusses the impacts between learning motivation and use of social media Facebook as a learning media. The benefits of this research for educators are expected to give feedback for them on the use of social media Facebook as a media for learning activities. The use of social media Facebook as a learning media will increase the motivation of non-regular students in learning activities. The main objective of this research is to analyze the impacts of the use of social media Facebook as a learning media for learning motivation of non-regular students. Method of data collection is use questionnaires given to 126 respondents to the category of non-regular students and the analysis of data using a single regression model. In this research, the authors tested a model and the results shows that the model receives H1 and reject H0. From the test results it can be concluded that the factor of use of social media Facebook as a learning media can increase learning motivation.

Index Terms— social media; facebook; motivation

I. INTRODUCTION

Internet technologies are increasingly growing, most of all the orientation activities are Internet-based. One of the use of technology in education is the use of E-Learning, E-Learning is a learning way of how to use technology as a means. Many ways of e-learning are made by different shapes. This is done to adapt toward the learning styles which are suitable for the learner [1].

Generation Y is very close to the technology that use the Internet as gadgets, websites, social media, and so on. And most of the students at this time is at Generation Y. Data from the Association of Indonesian Internet Service Provider (APJII) with PUSKAKOM of University of Indonesia stated that Indonesia has a population of 72 millions active accounts in social media. Mostly are Generation Y aged 18-25 years. Some ways to provide learning materials are not only on web-based platform, there is an e-learning such as standalone courses, learning games and simulations, mobile learning, social learning, and virtual-classroom courses. One type of E-Learning is Social

Learning, where the individual can do online learning activities by using social media.

According to the journal entitled An Analysis of E-Learning Impacts and Best Practices in Developing Countries mentioned that it is interesting to note that e-learning can also have a positive impact on the learning aspect, especially the motivation of students. E-Learning also affects students' attitudes toward technology, instruction, and subject matter.

Meanwhile, according to another study, students with low achievement levels are said to have lower study motivation compared to students with good performance [2]. Social media becomes an interesting phenomenon to be analyzed, because along with the development of all sorts of activities and events can be applied, one of them as a medium of education.

E-Learning is the use of information and communication technology for learning. Peoples mostly think that e-learning was limited to the form of web-based learning without requiring the support of software or other learning resources. Some ways to provide learning materials not only web-based form, there is a form of e-learning such as standalone courses, learning games and simulations, mobile learning, social learning, and virtual-classroom courses. Many ways of e-learning method make with a different style. This is done to adapt to the learning styles that suitable for learners. [1].

A book titled E-Learning by Design, described the meaning of E-learning is: "E-learning is the use of electronic technologies to create learning experiences". Where in this meaning, the definition of E-learning is broader than before. It's related about how to formulate, organize, and make the learning experience more freely [1].

II. METHODS

A. Collecting Data Methods

1) Literature Study

The author used the book for collecting materials and theories to support the research process. The author used this method by collecting references closely related to the theme presented by the author.

2) Field Study

The author observed learning activities of students in the class to look for phenomena that support the research. So that author could determine the background in conducting this research. Author made and distributed questionnaires to

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some student of XYZ University that are expected to show the data related to this research.

In determining the sample which was used in this research, the author used non-probability sampling technique in which this technique did not provide an opportunity for each element or member of the population to be selected into the sample.

In analyzing the data, the author used a simple linear regression method by using SPSS Statistic software version 22. Linear regression was used to measure the influence of independent variables toward the dependent variable and predict the dependent variable by using independent variables. According to Gujarati (2006) defined a regression analysis as the study of the relationship of one variable is called as variable which was described by one or two variables explained [3].

Researchers conducted the study at the area of XYZ University. The population in this study were regular students majoring in Information Systems (SI) which were taking practical courses under the guidance of Information Systems Laboratory on 2015/2016 with low achiever category which amounts to 126 students.

For this study, the authors defined the sample size by using the calculus which was formulated by Slovin. Low achiever student population at the Information Systems Program were 126 students. Based on these data, the sample size in this study $n = 95.8$ rounded up to 96 students.

After counting then the author obtained the required number of samples is 96 students. Based on the problems and hypotheses to be tested, then the analyzed variables were as follows:

1. Variables (Independent Variable). In this study, the independent variable is the use of social media Facebook as a medium of learning (X).
2. Variable Bound (Dependent Variable). In this study, the dependent variable is the student learning motivation (Y).

B. Research Model and Methods

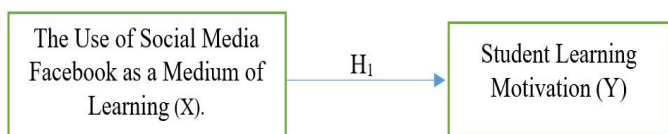


Fig. 1. Research Model

Based on the formulation of the problem, a hypothesis which would be tested in this study are as follows:

- H_0 : The use of Facebook social media does not affect the learning motivation
- H_1 : The use of Facebook social media influence learning motivation

Questions in the questionnaire which were distributed by researcher drawn from previous studies which are described in Table I and Table II below:

TABLE I. OPERATIONAL VARIABLE OF THE USE OF SOCIAL MEDIA

Variable	Dimension	Indicator	Symbol	Source
Use of Social Media Facebook as a medium of learning	Learner Interface	Ease of use	C1	(Daniel Y.Shee, 2008)
		User-friendliness	C2	
		Ease of understanding	C3	
		Operational stability	C4	
	Learning Community	Ease of discussion with other learners	C5	
		Ease of discussion with teacher	C6	
		Ease of accessing shared data	C7	
		Ease of exchanging learning with others	C8	
	System Content	Up to date content	C9	
		Sufficient content	C10	
		Useful content	C11	
	Personalization	Capability of controlling learning progress	C12	
		Capability of recording learning performance	C13	

TABLE II. OPERATIONAL VARIABLE OF STUDENT LEARNING MOTIVATION

Variable	Indicator	Symbol	Source
Student Learning Motivation	Feeling happy to join a lesson	M1	(Saefurrohman, 2012)
	Being enthusiastic to follow the lesson	M2	
	Being active in the class	M3	
	Do not feel bored to join a lesson	M4	
	Following every stage in learning	M5	
	Having a big interest in learning	M6	
	Feeling confident in learning	M7	
	Getting much knowledge	M8	
	Developing the skill of learning	M9	
	Building a good communication with teacher and friends	M10	
	Easily to do every task given	M11	
	Submitting assignment on time	M12	

Issues that would be examined are the learning motivation from the non-regular students and it was suspected that the use of the social media Facebook could help to improve non-regular student learning motivation. Therefore, we conducted an experiment by designing a learning media and using Facebook which had already made previously. Then we conducted a research on the use of social media Facebook to non-regular student learning motivation.

III. ANALYSIS AND RESULTS

Respondents in this study were regular students which were majoring in Information Systems (IS) who got practicum courses under the guidance Information System Laboratory on odd semester 2015/2016 with non-regular category.

The questionnaires which had obtained, the next process was validity test to any questions contained in the questionnaire. By using error signification of 5%, based on table R was 0.195 so validity test of each question are considered valid if it had a value greater than the value of table R. In the following is the validity test results on each variable.

TABLE III
TEST VALIDITY USING SOCIAL MEDIA FACEBOOK

Indicator	R Calculated	Table R
C1	,604	,195
C2	,532	,195
C3	,546	,195
C4	,421	,195
C5	,490	,195
C6	,725	,195
C7	,560	,195
C8	,662	,195
C9	,455	,195
C10	,456	,195
C11	,631	,195
C12	,580	,195
C13	,643	,195

From the results in Table III and IV, shows that all of the statements submitted to the questionnaire had R calculated value is greater than the value of R table. So all of the statements were legitimate and could be used in this research.

TABLE IV
TEST VALIDITY MOTIVATION

Indicator	R Calculated	Table R
M1	,649	,195
M2	,702	,195
M3	,670	,195
M4	,671	,195
M5	,486	,195
M6	,599	,195
M7	,652	,195
M8	,531	,195
M9	,639	,195

M10	,631	,195
M11	,640	,195
M12	,623	,195

Reliability Test Results

Reliability test was conducted to test the reliability of the research instruments used. In this study, the reliability test was conducted by test of Cronbach's alpha in SPSS Statistic software version 22. The reliability testing was conducted by looking at the coefficients of Cronbach's alpha should be greater than or equal to 0.70 which in this case the greater Cronbach's alpha, the better the level of precision of the research instruments so that the generated data in this research is trustworthy [4]

TABLE V
RELIABILITY TEST USING SOCIAL MEDIA FACEBOOK

Cronbach's apla	N of item
0,745	14

In the table above shows the reliability test for the use of social media Facebook as a medium of learning had Cronbach's alpha of 0.745 which has a higher value than 0.70, so that the reliability test for these variables can be trusted and appropriate to be used in the study.

TABLE VI
RELIABILITY TEST MOTIVATION

Cronbach's apla	N of item
0,757	13

In the table above shows the reliability test for the learning motivation has Cronbach's alpha of 0.757 where the value has a higher value than 0.70, so that the reliability test for these variables can be trusted and still can be used in research.

Normality test on the regression model used to determine whether the value of the model are normally distributed or not. In the good regression model, residual values should be normally distributed. Basis for decision making within the normality test is if the significance value > 0.05 then the data are normally distributed. Meanwhile, if the significance < 0.05 then the data, it is not normally distributed [3]. In this research, the Kolmogorov-Smirnov normality test using SPSS Statistic software version 22.

TABLE VII
NORMALITY TEST

One -Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		98
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.33508065
Most Extreme Differences	Absolute	.075
	Positive	.049
	Negative	-.075
	Test Statistic	.075
	Asymp. Sig: (2-tailed)	.200 ^{c,d}

- A. Test distribution is Normal.
- B. Calculated from data.
- C. Liliefors Significance Correction
- D. This is a lower bound of the true significance.

From table above shows significant value = 0.200, the value is greater than 0.05 so it can be concluded that the data were normally distributed tested.

Hypothesis testing

Coefficient of Determination

The coefficient of determination in linear regression can be interpreted as how much ability of all independent variables in explaining the variance of the dependent variable.

It can be seen in Table above Adjusted R Square = 0.331, this value shows that 33.1% of the dependent variable of motivation can be influenced by independent variables Facebook social media use, while the remaining 66.9% is influenced by other variables outside the model.

T-Test

T-Test is also known as a partial test is used to determine the effect of independent variables on the dependent variable. Significance level used in this study was $\alpha = 5\%$ (0.05). So the basis for a decision that will be used in this test is that if the significance value < 0.05 , then it can be said that there is significant influence between independent variable on the dependent variable. Meanwhile, if the significance value > 0.05 , it can be said there is no significant relationship between the independent variable on the dependent variable [3]. Here are the results of the test T of independent variables on the dependent variable:

Hypothesis 1 :

H_0 = There is no influence between social media Facebook on motivation to learn.

H_1 = There is the influence of social media Facebook on motivation to learn.

Conclusions:

Based on test T results, it can be seen in table 5.7 is above sig = 0.000, so the significance value < 0.05 , then H_0 rejected and H_1 accepted. So it can be concluded that the use of the social media Facebook influenced the motivation to learn.

IV. SUMMARY

The final result of this research activity is aiming to examine the influence of social media Facebook as a medium of learning for student learning motivation. From the results of hypothesis testing on the model, the hypothesis being tested is receiving H_1 result which was in line with research that had been done by Lam (2012), Karen Neville (2013), Dunn (2012) and rejected H_0 [7], [8], [9]. So it can be said that social media Facebook as a medium of learning has a positive influence on student learning motivation [5], [6], [7] and rejected H_0 . So it can be said that social media Facebook as a medium of learning has a positive influence on student learning motivation.

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TABLE VIII
COEFFICIENT OF DETERMINATION

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	Df1	Df2	Sig.F Change
1	.576 ^a	.331	.324	4.03581	.331	47.589	1	96	.000

TABLE IX
T-TEST

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std.Error				Lower Bound	Upper Bound
1 (Constant)	10.543	3.432		3.072	.003	3.731	17.356
c	.587	.085	.576	6.898	.000	.418	.755