EFFECT OF E-LEARNING EFFECTIVNESS AND STUDY HABIT ON STUDENT LEARNING OUTCOME IN SENIOR HIGHSCHOOL

Naufal Ammar [1], Tuty Sariwulan [2], Ari Saptono [3]
State University Of Jakarta, Indonesia

ABSTRACT

This study aims to determine the effect of E-Learning Effectiveness (X) and Study Habit (M) on Student Learning Outcome (Y) at 46 & 60 Senior High School. The research method used is a quantitative research method with a descriptive approach. The population in this study amounted to 315 Students. Based on the Slovin formula, the number of samples in this study is 176 respondents. The sampling technique used is purposive sampling technique. The data processing technique used in this study uses SPSS. In this study, the data analysis techniques: (1) hypothesis testing; (2) Path analysis; (3) Sobel Test. The result shows that E-learning Effectiveness and study habit have a positive and significant effect to student learning outcome.

Keywords: *E-Learning Effectiveness, Study Habit, Student Learning Outcome*

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh Efektivitas Pembelajaran Daring (X) dan Kebiasaan Belajar (M) terhadap Hasil Belajar (Y) pada siswa SMAN 46 & 60 Jakarta. Metode penelitian yang digunakan adalah metode penelitian kuantitatif dengan pendekatan deskriptif. Populasi terjangkau pada penelitian ini berjumlah 315 karyawan. Berdasarkan rumus Slovin, maka jumlah sampel pada penelitian ini sebanyak 176 responden. Teknik pengambilan sampel menggunakan teknik purposive sampling. Teknik pengolahan data yang digunakan dalam penelitian ini menggunakan program SPSS. Dalam penelitian ini, teknik analisis data yang dilakukan yaitu: (1) uji hipotesis; (2) analisis jalur; (3) Sobel Test. Hasil menunjukkan bahwa efektivitas pembelajaran daring dan kebiasaan belajar berpengaruh terhadap hasil belajar siswa.

Kata Kunci: Efektivitas E-Learning, Kebiasaan Belajar, Hasil Belajar Siswa

INTRODUCTION

Student Learning outcomes are a very important topic and will never run out to be discussed in education, especially in formal education. This is due to the important role of the student outcomes as a concrete picture of the success of teaching and learning activities in schools. Student outcomes cannot be separated from learning activities because it's a process and student Learning outcomes are the benchmark that refers to the educational taxonomy achievement.

Sari et al., (2021), E-learning is the most effective system and has prospects in the education system to improving student Learning outcomes. E-Learning effectiveness is one of the factors thatdetermine the success of student learning outcomes. E-learning will be very effective if it fulfills with essential components such as discursive, adaptive, interactive, and reflective and be good if student can integrated with. So, it gives a positive feeling and they can improve their learning outcomes (Nuriansyah, 2021). This opinion is in line with research conducted by (Indah & Wulandari, 2021) that show E-learning effectiveness have a positive and significant effect on student learning outcomes.

In addition to the E-learning effectiveness, study habit is also important to increase student learning outcomes (Prihatin, 2017). Learning needs to be carried out regularly so that will become a habit for students. This can help to improve learning outcomes. Students with better strategies and better study habits tend to show higher academic achievement (Aluja & Blanch, 2004). This opinion is in line with research

conducted by (Murni & Helma, 2020) that shows study habit have a positive and significant effect on student learning outcomes.

Clark Hull in Surachman (2016) learning can be interpreted as a process of changing habit towards a better direction, and it can determine how stimulus can evoke a response. Learning activities can change a person's habits according to what they learns. Where when a person gets a stimulus they will digest it and start following it. The hypothesis is that there is an effect of the effectiveness of online learning on study habits.

Previous research from (Misdar, 2020), stated that there is a positive effect E-learning on study habit. (Mandasari, 2020) and (Laksono, 2021) found that E-learning had a significant effect on student performance where all aspect of the assessment show positive result. Ibnu Hajar et al., (2021) in his research stated that the E-learning affected student outcomes by 80,7%. Yensy (2021) stated after doing E-learning there was an increasing result in student score. Beside that, there is research about study habit on student learning outcomes, among others from (Emma et al., 2019) and (Kambiz & Godbole, 2014) they found out that study habit have a significant effect on student learning outcomes. The Research gap in this study is where the variable of study habits become mediating variable (M) for E-learning effectivity (X) and student learning outcomes (Y).

Based on the introduction, This study have hypothesis that will be answer: (H1) There is a positive and significant effect of the E-learning effectivity on study habits; (H2) There is a positive and significant effect of the E-learning effectivity on student learning outcomes; (H3) There is a positive and significant effect of the study habit on student learning outcomes; and (H4) there is a positive and significant effect the E-learning Effectiveness through study habits on student learning outcomes.

METHOD

The research method used is a survey method with multiple linear regression analysis with two predictors. The research approach used is a quantitative approach where quantitative research is used to provide an overview of an object through certain analytical techniques. This study aims to determine the effect of E-Learning Effectiveness (X) and Study Habit (M) on Student Learning Outcome (Y) at 46 & 60 Senior High School. The population in this study amounted to 315 Students. Based on the Slovin formula, the number of samples in this study is 176 respondents. the data analysis techniques: (1) hypothesis testing; (2) path analysis; and (3) sobel test.

RESULT AND DISCUSSION
Data Descriptive

Table 1 The Indicators

No	Indicators	Statement Items
1	Learning objectives (X)	3
2	Provide attractive learning (X)	3
3	Facilities and infrastructure utilize (X)	4
4	Read and take notes (M)	3
5	Repeat the lessons (M)	3
6	Concentrate (M)	3
7	Completing homework (M)	3

Table 1 are indicators used in this study, there are 3 indicators for E-learning effectiveness and 4 indicators for study habits and report value for student learning outcomes.

These indicators have passed the normality, linearity, validity and reliability tests.

Table 2 Description of student learning outcomes

No	Score Interval	Categorize	F	Percantage (%)
1	≥ 87	Sangat Baik (Very good)	33	18.75
2	81-86	Baik (Good)	104	59.09
3	< 81	Cukup Baik (Pretty Good)	39	22.16
	Total		176	100

The highest percentage score is the interval mode of the student learning outcomes variable, where it is included in the good category. This shows obtain student learning outcomes in good categories.

Table 3 Description of E-learning effectiveness

No	Score Interval	Categorize	F	Percentage (%)
1	≥ 50	Sangat Baik (very good)	45	25.57
2	42 – 49	Baik (good)	110	62.5
3	< 42	Cukup Baik (pretty good)	21	11.93
	Total		176	100

The highest percentage score is the interval mode of the E-learning Effectiveness variable, where it is in the good category. This means that the E-learning effectivenesse in this study has been going well.

Table 4 Desciption of study habit

No	Score Interval	Categorize	F	Percentage (%)
1	≥ 60	Sangat Baik (very good)	24	13.64
2	50 – 59	Baik (good)	130	73.86
3	< 50	Cukup Baik (pretty good)	22	12.5
	Total		176	100

The highest percentage score is the interval mode of the Study habit variable, where it is in the good category. This means that the Study habit in this study has been going well.

1. **Hypotesis Test**

Table 5 t-Test Correlation ELE & SH

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	7.488	2.703		2.77	.006
	EPD (ELE)	1.027	.058	.801	17.674	.000

a. Dependent Variable: Study Habit

Based on the table 2, it can be seen that the significant value of E-learning effectiveness is 0.000 < 0.05 and the calculated T count is 17.674 > T table 1.960. Beside that, Standardized coeffisien beta show a positive value. So it can be concluded that E-learning effectiveness partially has a positive and significant effect on study habit (**H1 accepted**).

Table 6 t-Test ELE & SH on SLO

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	52.955	1.603		33.037	0
	EPD (ELE)	.118	.056	.144	2.088	.038
	Kebiasaan Belajar (SH)	.460	.044	.720	10.452	.000

a. Dependent Variable: Hasil Belajar (SLO)

Based on the table 3, it can be seen that the significant value of E-learning Effectiveness is 0.038 < 0.05 and the calculated T count is 2.088 > T table 1,960. Standardized coeffisien beta show a positive value too (0.144). So it can be concluded that E-learning effectiveness partially has a positive and significant effect on student learning outcomes (**H2 accepted**). It is also seen in the table that the significant value of study habit is 0.000 < 0.05 and the calculated T count is 10.452 > T table 1.960. Standardized coeffisien beta show a positive value too (0.720). So it can be concluded that study habit have a positive and significant effect on student learning outcomes (**H3 accepted**).

2. Path Analysis

Table 7 Coefficient Path Model I

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	7.488	2.703		2.77	0.006
	EPD (ELE)	1.027	0.058	0.801	17.674	0

a. Dependent Variable: Kebiasaan Belajar (SH)

The coefficient value of the variable E-learning effectiveness (X) on the study habit variable (M) is 0.801 with constant value 7.488.

Table 8 Model Summary Path I

Model		R	R Square	Adjusted R Square	Std. Error of the Estimate
1		.801[a]	.642	.640	3.089

a. Predictors: (Constant), EPD (ELE)

Based on the output from the model summary table 7, where R square (R^2) value is 0.642, this shows that the contribution of the influence of the E-learning effectiveness (X) on study habits (M) is 64.2% while the rest (36,8%) is influenced by other variables which were not included in the study. Meanwhile, the value of e_1 can be found using the formula $e_1 = \sqrt{(1-0.642)} = 0.598$. Thus the diagram model path I is obtained as follows:

Figure 1 Diagram Model Path I

The coefficient value of the variable E-learning effectiveness (X) on the study habit variable (M) is 0.801 (look at table 6) with an e_1 value is 0.598. abased on that, the structural equation of the regression model I is M = 7.488 + 0.801X + 0.598e_1.

Table 9 Coefficient Path Model II

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	52.955	1.603		33.037	0
EPD (ELE)	.118	.056	.144	2.088	.038
Kebiasaan Belajar (SH)	.460	.044	.720	10.452	.000

a. Dependent Variable: Hasil Belajar (SLO)

The coefficient value of the variable E-learning effectiveness (X) and study habit on student learning outcomes variable (Y) are 0.144 and 0.720 with constant value 52.955.

Table 10 Model Summary Path II

Model		R	R Square	Adjusted R Square	Std. Error of the Estimate
	1	.840[a]	.706	.703	1.792

a. Predictors: (Constant), Kebiasaan Belajar (SH), EPD (ELE)

Based on the output from the model summary table 5, where R square (R^2) value is 0.706, this shows that the contribution of the influence of the E-learning effectiveness (X) and study habit (M) on study habits (M) is 70,6% while the rest (29,4%) is influenced by other variables which were not included in the study. Meanwhile, the value of e_1 can be found using the formula $e_1 = \sqrt{(1-0.706)} = 0.542$. Thus the diagram model path II is obtained as follows:
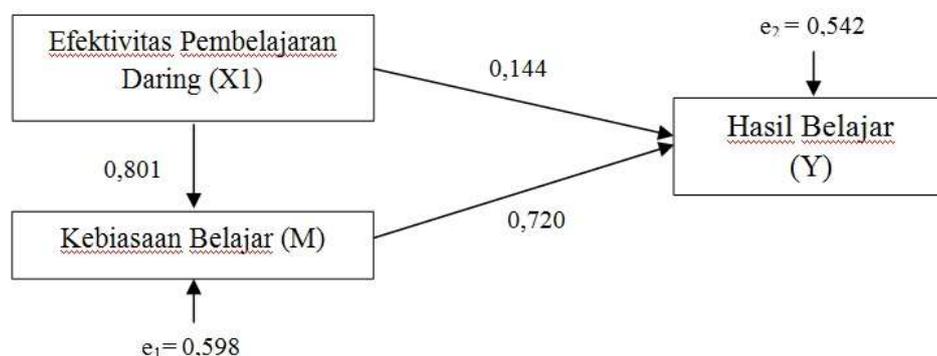

Figure 2 Diagram Model Path II

Based on the figure, the coefficient value of the online learning effectiveness variable (X) on the study habits (M) is 0.801 with an e_1 value 0.598, the coefficient value (X) to Y is 0.144 and the coefficient value of the variable (M) to (Y) is 0.720.

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Therefore, we can find the value of the coefficient of the indirect influence of (X) on (Y) through (M) by multiplying the coefficient (X) of (M) x the coefficient of (M) on (Y). So the value of the coefficient of the indirect effect of X on Y through M is 0.801 x 0.720 = 0.577. So, the structural equation II is $\hat{Y}$= 52.955 + 0.144X1 + 0.720M + 0.542e$_2$.

3. Sobel Test

To find out the significancy value of the indirect effect, Sobel test must be carried out. The Z count value will be compared with the Z absolute with value 1.96. If zcount > zabsolute then it can be concluded that M can be a mediating variable and if zcount < zabsolute then M cannot be a mediating variable. This is the result of the sobel test calculation:

Table 11 Sobel Test

Variable	Unstandardized	Std. Error	Z count	P-Value
E-Learning effectiveness on Student learning outcome	1.027 (a)	0.058 (Sa)	9.002	0,000
Study habit on Studen learning outcome	0.460 (b)	0.044 (Sb)		

Based on the test results, it is known that the Zcount value is greater than the Ztable which is (9.002 > 1.96) and the P-value is 0.000 <0.05. It can be concluded that the study habits variable can be a mediating variable. The conclusion from these results is that the E-learning effectiveness through study habits have a positive and significant effect on student learning outcomes (**H4 accepted**).

CONCLUSIONS AND SUGGESTIONS

(**H1 accepted**), there is a positive and significant effect the E-learning effectiveness (X) on study habits (M). (**H2 accepted**), there is a positive and significant effect E-learning effectivity (X) on student learning outcomes (Y). (**H3 accepted**), there is a positive and significant effect the study habits (M) Student learning outcomes (Y). (**H4 accepted**) there is a positive and significant effect the E-learning effectiveness (X) through study habits (M) on learning outcomes (Y); and also, all of the variables in this study has been going well.

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