THE INFLUENCE OF USING E-LEARNING AND SELF-EFFICACY ON STUDENTS' LEARNING ACHIEVEMENT IN THE COVID-19 PANDEMIC

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Abstrak: The Influence of Using E-Learning And Self-Efficacy on Students' Learning Achievement In The Covid-19 Pandemic.
Pandemi Covid-19 mendorong semua sekolah di Indonesia melaksanakan pembelajaran secara online. Penelitian ini bertujuan untuk mengetahui pengaruh: 1) penggunaan e-learning terhadap prestasi belajar siswa pada masa pandemic covid-19; 2) self efficacy terhadap prestasi belajar siswa pada masa pandemic covid-19; 3) penggunaan e-learning dan self efficacy terhadap prestasi belajar siswa pada masa pandemic covid-19. Penelitian ini merupakan penelitian asosiatif kausal menggunakan desain ex post facto dengan pendekatan kuantitatif. Populasi penelitian ini adalah siswa kelas X program studi Otomatisasi dan Tata Kelola Perkantoran SMK Negeri 1 Pengasih sejumlah 72 siswa. Analisis data penelitian menggunakan teknik analisis regresi sederhana dan regresi ganda. Hasil penelitian menunjukkan bahwa: 1) terdapat pengaruh positif dan signifikan penggunaan e-learning terhadap prestasi belajar siswa pada masa pandemi covid-19 sebesar 33,3%; 2) terdapat pengaruh positif dan signifikan efikasi diri terhadap prestasi belajar siswa pada masa pandemi covid-19 sebesar 37,8%; 3) terdapat pengaruh positif dan signifikan penggunaan e-learning dan efikasi diri secara simultan terhadap prestasi belajar siswa pada masa pandemi Covid-19 sebesar 40,4%.

Kata kunci: E-learning; Pandemi covid-19; Prestasi belajar; Self efficacy;

Abstract: The Influence of Using E-Learning And Self-Efficacy on Students' Learning Achievement In The Covid-19 Pandemic.
The Covid-19 pandemic has pushed all schools in Indonesia to carry out online learning. This study aims to determine the effect of 1) the use of e-learning on student achievement during the co-19 pandemic; 2) self-efficacy for student learning achievement during the Covid-19 pandemic; 3) the use of e-learning and self-efficacy on student achievement during the co-19 pandemic. This research conducted with causal associative research using ex post facto design with a quantitative approach. The population of this research was class X students of the Automation and Office Management study program at SMK Negeri 1 Pengasih with a total of 72 students. Analysis of research data using simple regression analysis techniques and multiple regression. The results of the study showed that: 1) there was a positive and significant effect of the use of e-learning on student achievement during the Covid-19 pandemic by 33.3%; 2) there was a positive and significant effect of self-efficacy on student achievement during the Covid-19 pandemic of 37.8%; 3) there was a positive and significant effect of the use of e-learning and self-efficacy simultaneously on student achievement during the Covid-19 pandemic of 40.4%.

Keyword: E-learning; Covid-19 pandemic; Learning achievement; Self efficacy;

INRODUCTION

The impact of the COVID-19 pandemic has not only affected public health but has affected the development of all sectors around the world. The education sector is one of the sectors most vulnerable to this crisis (Anas & Murti, 2021; Xiong et al., 2021), because access to quality education is hampered due to school closures. School closures are considered one of the most efficient interventions to prevent the spread of the virus (Haug et al., 2020). As a result of the school closures, educators are very concerned because this impact has resulted in decreased student academic achievement. Woessmann (2020) explains that student achievement has declined further due to school closures during COVID-19. Added by Kuhfeld et al., (2020), the negative effect of school closures is that student achievement is not good because they are not involved in the learning process. Students also still face several obstacles in participating in online learning (Muslikhah et al., 2022).

Empirically, the impact of COVID-19 on learning achievement has been investigated in the United States (Dorn et al., 2020; Kuhfeld et al., 2020), Belgium (Maldonado & De Witte, 2022), Netherlands (Engzell et al., 2021), and Germany (Depping, Denise; Lücken, Markus; Musekamp, Frank; Thonke, 2021; Förster et al., 2022; Schult et al., 2022). Some of the results of these studies compared student achievement before and after the pandemic. They found lower than expected scores on student report cards.

In connection with Circular Letter Number 4 of 2020 concerning Education Policy in Emergency Situations of the Spread of Coronavirus Disease (COVID-19), namely due to school closures, the teaching and learning process is carried out from home. In this case, the government recommends each educational institution to adopt or use digital learning technology and distance/online learning. Digital technology-based learning is considered to provide more benefits and convenience for students, because this technology can allow students to study flexibly wherever and whenever needed (Sholikah & Harsono, 2021b). Material that students do not understand at school can be studied again through this technology so that it will make it easier for students to understand material in a longer time because it is not only limited to school. Supported by Rapanta, Botturi, Goodyear, Guàrdia, & Koole (2020), online learning is an option that helps teachers convey material to students (Ramadhan et al., 2022). Other studies, (Acosta et al., 2018), (Leindarita, 2021), and (Shaaban, 2020) reveal that electronic learning (e-learning) is very effective for students, because it is interactive, interesting, and entertaining. In addition, e-learning also opens

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freedom for students to express ideas that do not arise during direct learning because students sometimes feel shy, shy, afraid, and do not have good verbal skills (Butnaru et al., 2021; Chan et al., 2021; Chan et al. al., 2021; Mulyono et al., 2021).

The results of previous research, (Hidalgo-Camacho, Escudero, Villacis, & Varela, 2021) found that online learning had a positive and significant effect on learning achievement during the COVID-19 pandemic. Students stated that the online platform worked well when studying during the pandemic. The students revealed that they studied online as much as they studied in class so that student scores did not show a significant difference when studying at school or studying online. The results of different studies show that online learning does not have much effect on learning achievement (Nurohmat, 2020; Muslikhah et al., 2022). The disadvantages of e-learning are that it requires self-discipline and time management skills, loss of social interaction, is not suitable for all topics, lack of practice-based learning, and dependence on technology. For this reason, the implementation of the learning process through e-learning must pay attention to the quality of the online learning process (Ayu, 2020; Bylieva et al., 2020; Sholikah & Sutirman, 2020). Choosing learning media that suits students' needs will increase student activity (Lubis & Dasopang, 2021; Sholikah & Harsono, 2021b). Therefore, educational institutions are required to provide learning content that is interesting and according to the needs of students so that the quality of learning can be maintained.

Quality learning is effective learning as measured by the level of satisfaction and student achievement (Pham et al., 2019; Razinkina et al., 2018; Dufrene & Young, 2014). Learning achievement is a measure of success which is manifested by grades or numbers based on experience gained after evaluation (Sholikah et al., 2021). Therefore, the identification of factors that influence student achievement has become one of the most important concerns of researchers and educational psychologists (Mega et al., 2014). Self-efficacy is one of the important factors that influence learning achievement. According to Bandura (1997) and Schunk & Ertmer (2000), self-efficacy leads to students' beliefs and attitudes towards their ability to achieve academic success, as well as belief in their ability to fulfill academic assignments and successful learning.

Self-efficacy refers to excellent individual performance through increased commitment, effort, and persistence (Pintrich & De Groot, 2003). Students with a high level of self-efficacy will believe that their failure is due to the effort or effort made that is lower than their abilities. Meanwhile, students with low self-efficacy will think that their failure is due to their low ability (Kurbanoglu & Akin, 2010).

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Research conducted by Alyami et al. (2017) found that self-efficacy has a positive and significant effect on student achievement. Other studies have also found that self-efficacy has a considerable influence on student learning, motivation, and achievement (Doménech-Betoret et al., 2017; Hidalgo-Camacho et al., 2021; Putwain et al., 2013). This statement is reinforced by previous research conducted by Sihaloho (2018) that there is a positive and significant effect of self-efficacy on student learning outcomes of 60.5%. Thus, students who have strong efforts to complete tasks in learning can get good learning achievements.

The learning process in Indonesia during the COVID-19 pandemic was carried out online by utilizing various digital media such as Zoom, Google Meet, WhatApps, and other applications. These conditions require educators and students to master how to use learning media so that the learning process can run well and smoothly. During the pandemic, the learning process was carried out in accordance with the government's recommendations contained in the Circular of the Minister of Education and Culture Number 4 of 2020. The government made a policy so that learning during the COVID-19 pandemic was carried out through online learning. As a result of the online learning process, many students experience a decrease in learning achievement. This happened because of the low confidence of students in completing learning assignments during the pandemic. Therefore, this study identified factors that influenced student achievement during the COVID-19 pandemic, namely learning media (e-learning/online) and self-efficacy. The two factors above, namely learning media (e-learning) and self-efficacy are the most crucial factors influencing student achievement. For this reason, the purpose of this study was to determine the effect of using e-learning and self-efficacy on student achievement.

METODE

A quantitative approach with the ex post facto method was carried out in this study. The purpose of this study was to determine and analyze the effect of the variables using e-learning and self-efficacy on learning achievement during the COVID-19 pandemic. The sample of this study consisted of 72 students from two public vocational high schools in Kulon Progo and Bantul Regencies, Special Region of Yogyakarta, Indonesia.

Research data were collected using a closed questionnaire. The questionnaire was made in the form of a Google form which was shared with 72 respondents via the WhatApps Group. Prior to analysis, this study conducted trials on 72 respondents with the same criteria as the research sample. The first test is the validity test using the Product Moment correlation formula. The results of the validity and reliability tests of this study are shown in table 1.

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Table 1. Validity Test Results

Variables	Indicators	Item	r count	r table	a
Use of e-learning (Riyanto, 2011)	Assessment (PE1)	PE1.1	0,654	0,227	0,915
		PE1.2	0,640	0,227	
		PE1.3	0,551	0,227	
		PE1.4	0,634	0,227	
	Community (PE2)	PE2.1	0,623	0,227	
		PE2.2	0,496	0,227	
		PE2.3	0,650	0,227	
		PE2.4	0,616	0,227	
	Online teacher (PE3)	PE3.1	0,578	0,227	
		PE3.2	0,645	0,227	
		PE3.3	0,616	0,227	
		PE3.4	0,648	0,227	
	Opportunity to collaboration (PE4)	PE4.1	0,608	0,227	
		PE4.2	0,702	0,227	
		PE4.3	0,703	0,227	
		PE4.4	0,698	0,227	
	Multimedia (PE5)	PE5.1	0,427	0,227	
		PE5.2	0,685	0,227	
		PE5.3	0,669	0,227	
		PE5.4	0,685	0,227	
Self-efficacy (Bandura, 1997)	Difficulty (SE1)	SE1.1.	0,635	0,227	0,924
		SE1.2	0,740	0,227	
		SE1.3	0,675	0,227	
		SE1.4	0,694	0,227	
		SE1.5	0,713	0,227	
		SE1.6	0,653	0,227	
		SE1.7	0,476	0,227	
	Freedom (SE2)	SE2.1.	0,794	0,227	
		SE2.2	0,800	0,227	
		SE2.3	0,702	0,227	
		SE2.4	0,730	0,227	
		SE2.5	0,768	0,227	
		SE2.6	0,610	0,227	
	Strength (SE3)	SE2.1.	0,447	0,227	
		SE3.2	0,717	0,227	
		SE3.3	0,765	0,227	
		SE3.4	0,642	0,227	
		SE3.5	0,637	0,227	
		SE3.6	0,523	0,227	
		SE3.7	0,513	0,227	
Student learning achievement (Sholikah et al., 2021)	Daily Assessment (PB1)	PB1.1.	0.563	0,227	0.744
	Mid Semester Assessment (PB2)	PB2.1	0.583	0,227	
	End of Semester Assessment (PB3)	PB3.1	0.564	0,227	

Source: Processed primary data

This study examines three variables, namely the use of e-learning, self-efficacy, and student achievement which are formulated in the following hypothesis. H1: The use of e-learning has a positive and significant effect on learning achievement during the Covid-19 pandemic. H2: Self-efficacy has a positive and significant effect on learning achievement during the Covid-19 pandemic. H3: The use of e-learning and self-efficacy has a positive and significant effect on learning achievement during the Covid-19 pandemic. Data analysis in this study used Multiple Regression Analysis with the help of the IBM SPSS Statistics 26 for Windows program to test the proposed research model. The use of multiple regression analysis is because this technique functions to investigate and model the relationship between variables, so this analysis is very interesting theoretically because the mathematical concept or calculation of the correlation coefficient has a close relationship between variables (Draper & Smith, 1992). In data analysis, this study conducted a description of the data (mean, median, mode, and standard deviation and frequency distribution), analysis prerequisite tests, and hypothesis testing.

RESULTS AND DISCUSSION

Result

The description of the research data includes descriptive statistics, analysis of prerequisite tests, hypothesis testing, and analysis of relative contribution (SR) and effective contribution (SE) tests. The first step in the analysis of this data is descriptive statistics. Descriptive data about the use of e-learning, self-efficacy, and learning achievement are shown in table 2.

Table 2. Data Description

Variables	Learning achievement	Use of *e-learning*	*Self-efficacy*
Max.	96	78	79
Min.	24	49	46
Mean	79,38	62,15	61,53
Modus	66	62,5	62,5
Median	81	63	49
SD	11,46	7,22	8,45
Class Intervals	7	7	7
Class Range	72	29	33
Class Length	10,286	4	5

Source: Processed primary data

Table 2 explains that the learning achievement variable has the lowest value of 24, the highest value of 96 with an average value of 79.38, and a standard deviation value of 11.46. The variable using e-learning has the lowest score of 49, the highest score of 78 with an

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average value of 62.15, and a standard deviation value of 7.22. The self-efficacy variable has the lowest value of 46, the highest value of 79 with an average value of 61.53, and a standard deviation value of 8.45. Meanwhile, the results of testing the frequency distribution for each variable are described in the following table 3.

Table 3. Frequency Distribution of Learning Achievement Variables

Intervals	Frequency	Percentage
24 – 33	1	1%
34 – 43	0	0%
44 – 53	2	3%
54 – 63	1	1%
64 – 73	13	18%
74 – 83	25	35%
84 – 93	30	42%

Source: Processed primary data

Table 3 identification of tendencies or high and low learning achievement in this study used the Minimum Completeness Criteria (KKM) value that had been set by the school, namely 75. The categorization of tendencies was divided into two categories, namely the Mastery category = $X \geq 75$ and the Not Mastery category = $X \leq 75$. Based on previous calculations, the categorization of Learning Achievement variables can be seen in table 4.

Table 4. Categorization of Archival Learning Achievement Values

Intervals	Frequency	Percentage	Category
≥ 75	52	72%	Mastery
< 75	20	28%	Not Mastery

Source: Processed primary data

Table 4 explains that the frequency of student achievement variables is 52 students (72%) in the complete category, while 28% of students are in the incomplete category. Thus, the biggest trend in this variable is in the Mastery category.

Table 5. Variable Frequency Distribution of E-Learning Use

Intervals	Frequency	Percentage
53 - 55	5	7%
56 - 58	6	8%
59 - 61	6	8%
62 - 64	27	38%
65 - 67	12	17%
68 - 70	15	21%
71 - 73	1	1%

Source: Processed primary data

The distribution of the frequency of the variable use of e-learning is shown in table 5. The highest frequency is 27 or 38% with a score interval of 62-64. Next, identify the tendency of high and low use of e-learning using the ideal mean value and ideal standard

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deviation with four categories, namely very high $\{X \geq (M_i + 1{,}5SD_i)\}$, high $\{M_i < X < (M_i + 1{,}5SD_i)\}$, low $\{(M_i - 1{,}5\,SD) < X < M_i\}$, and very low $\{X < (M_i - 1{,}5SD_i)\}$. The results of these calculations can be seen in table 6.

Table 6. Variable Tendency Categories of E-Learning Use

Intervals	Frequency	Percentage
65 - 80	28	39%
50 - 64	44	61%
35 - 49	0	0%
0 - 34	0	0%

Source: Processed primary data

Table 6 shows that the tendency to use e-learning in the very high category is 39%, and the high category is 61%. The data illustrates that the greatest tendency in this variable is in the high category.

Table 7. Frequency Distribution of Self-efficacy Variables

Interval	Frequency	Persentase Frekuensi
46 - 50	15	21%
51 - 55	5	7%
56 - 60	5	7%
61 - 65	22	31%
66 - 70	17	24%
71 - 75	5	7%
76 - 80	3	4%

Source: Processed primary data

The frequency distribution of the self-efficacy variable is shown in table 7. Table 7 shows the highest frequency, which is 22 or 31% in the score interval of 61-65. Next, identify the tendency for high and low self-efficacy using the ideal mean value and ideal standard deviation with four categories, namely very high $\{X \geq (M_i + 1{,}5SD_i)\}$, high $\{M_i < X < (M_i + 1{,}5SD_i)\}$, low $\{(M_i - 1{,}5\,SD) < X < M_i\}$, and very low $\{X < (M_i - 1{,}5SD_i)\}$. The results of these calculations can be seen in table 8.

Table 8. Variable Tendency Categories of E-Learning Use

Intervals	Frequency	Percentage
65 - 80	31	43%
50 - 64	29	40%
35 - 49	12	17%
0 - 34	0	0%

Source: Processed primary data

Table 8 presents information that the tendency of students' self-efficacy in the very high category is 43%, the high category is 40%, and the low category is 17%. Thus, the tendency of self-efficacy in this study is in the very high category.

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Before the data obtained was analyzed descriptively and statistically, a normality test was first performed to find out whether the data was normally distributed through the Kolmogorov-Smirnov test. If the normality distribution $p > 0.050$, then the data is said to be normal. Meanwhile, if $p < 0.050$, then the data is considered abnormal (J. Pallant, 2005). The normality test results are shown in table 9.

Table 9. Summary of Normality Test Results

Variables	One-Sample Kolmogorov-Sminorv Test				
	N	Normal parameters		Kolmogorov-Smirnov Z	Asym. Sig. (2-tailed)
		Mean	SD		
Use of *e-learning*	72	62.15	7.271	0.089	0.200
Self-efficacy	72	61.53	8.513	0.137	0.052
Learning achievement	72	79.38	11.537	0.103	0.058

Source: Processed primary data

Table 9 shows the Kolmogorov-Smirnov significance value of the three variables in this study. The results of the normality test show that each is more than 0.050, so the research data meets the assumptions of normality. In addition to testing for normality, linearity and multicollinearity are also carried out (Denis, 2018). The linearity criterion is that data is considered linear if the calculated F value is smaller than the F table. While the multicollinearity criteria can be seen from the Variance Inflation Factor (VIF) value. If the VIF value is less than 4, then the research data meets the multicollinearity test requirements. The two tests are presented in table 10.

Table 10. Summary of Linearity and Multicollinearity Test Results

		Use of *e-learning*	*Self-efficacy*
Linearity test	F count	1.114	1.161
	F table	1.853	1.725
	Sig.	0.366	0.324
Multicolinearity test	VIF	2.498	2.498
	Tolerance	0.400	0.400

Source: Processed primary data

Table 10 shows that the calculated F value is smaller than the F table. Therefore, the research data has met the requirements of linearity. Meanwhile, the table also explains that the VIF value is less than 4, so the research data passes the multicollinearity test. After obtaining data on student achievement, use of e-learning, and self-efficacy, researchers try to find correlations between these variables. Therefore, the main objective of this study is to determine the effect of these three factors.

Table 11 explained the first hypothesis is that the use of e-learning has a positive and significant effect on student achievement during the COVID-19 pandemic. The results of the

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analysis found that the calculated t value is greater than t table (5,905 > 1,667). Therefore, the first hypothesis is supported in this study. Judging from the value of the correlation coefficient, the use of e-learning variable has a value of 0.577 and the correlation level is positive. From the value of the coefficient of determination, the use of e-learning variables affects student achievement by 33.3%. Thus, the regression equation on this variable is $Y=-16.719+1.513X\_1+\varepsilon$.

Table 11. Summary of Hypothesis Testing Results

Hypothesis		H1	H2	H3
r value	r	0,577	0,615	0,635
	r^2	0,333	0,379	0.404
t value	**t-count**	5,905	6,534	
	t-table	1,667	1,667	
F value	**F-count**			
	F-table			3.130
Coefficient		1,513	0,834	0,656
				0,572
Constanta		-16,719	28,040	2,545
Information		Positive	Positive	Positive

Source: Processed primary data

Table 11 explained the first hypothesis is that the use of e-learning has a positive and significant effect on student achievement during the COVID-19 pandemic. The results of the analysis found that the calculated t value is greater than t table (5,905 > 1,667). Therefore, the first hypothesis is supported in this study. Judging from the value of the correlation coefficient, the use of e-learning variable has a value of 0.577 and the correlation level is positive. From the value of the coefficient of determination, the use of e-learning variables affects student achievement by 33.3%. Thus, the regression equation on this variable is $Y=-16.719+1.513X\_1+\varepsilon$.

The second hypothesis is that self-efficacy has a positive and significant effect on student achievement during the COVID-19 pandemic. Table 11 explains that the calculated t value is greater than t table (6,534 > 1,667), so the second hypothesis is supported in this finding. The correlation coefficient value on the self-efficacy variable is 0.615 and the correlation is positive. this means, the higher the student's self-efficacy, the better the learning achievement. In influencing learning achievement, this variable only contributes 37.9%. the regression equation for this variable is $Y=28.040+0.834X\_2+\varepsilon$.

The third hypothesis is that the use of e-learning and self-efficacy has a positive and significant effect on student achievement during the COVID-19 pandemic. Testing the third

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hypothesis uses the F value. The calculated F value in this study is greater than the F table (23,369 > 3,310), so the third hypothesis is supported in this study. The multiple correlation coefficient values in table 11 show that this study has a value of 0.635 with a positive correlation. This means that, simultaneously, the use of e-learning and self-efficacy have a positive and significant effect on student achievement during the COVID-19 pandemic. Judging from the value of the coefficient of determination, the use of e-learning and self-efficacy has an effect of 40.4% on student achievement during the COVID-19 pandemic. The multiple regression equation for this hypothesis is $Y=2.545+0.656X_1+0.572X_2+\varepsilon$.

Table 12. Summary of Relative Contribution and Effective Contribution Test Results

Variables	Relative Contibution	Effective Contibution
X_1	35.7%	14.4%
X_2	64.3%	26.0%
	100%	40.4%

Source: Processed primary data

Table 12 shows that the use of e-learning (X1) made a relative contribution of 47.78% and self-efficacy (X2) made a relative contribution of 52.22% to student achievement during the COVID-19 pandemic (Y). The effective contribution in research is 25.99% for the use of e-learning (X1) and 28.40% for self-efficacy (X2). These independent variables together have an effective contribution of 54.39% while the other 45.61% are variables not examined.

Table 13. Hypothesis Test Results

Hipotesis	β	t	F	Sig.	Correlation	Status
H1: $X_1 \rightarrow Y$	-16.719	5.905	34.869	0.000	0.577	Evidently
H2: $X_2 \rightarrow Y$	28.040	6.534	42.692	0.000	0.615	Evidently
H3: X_1 dan $X_2 \rightarrow Y$	2.545	-	23.369	0.000	0.653	Evidently

Source: Processed primary data

Discussion

The results of the study show that there is a positive effect of the use of e-learning on learning achievement. This finding is supported by research conducted by (Suprianto, Arhas, & Salam, 2018) entitled "The Influence of Learning Media and Classroom Management on Student Achievement at State Vocational School, Tanete Riattang District, Bone Regency", namely that there is a positive and significant effect of learning media on learning achievement as indicated by the value of the correlation coefficient (rx1y) of 0.412, the coefficient of determination (r2x1y) of 0.170, F-count of 35.379 with a significance value of 0.000 <0.05. Another study conducted (Erdawati & Sartika, 2022) found that there was a

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positive and significant effect of the use of e-learning on learning achievement as indicated by a t-count of 5.205 > t-table of 1.986 and a significant level of 0.000 <0.05.

The results of the study (Ibrahim & Suardiman, 2014) also support this study where they found that there is a positive effect of using e-learning on student achievement. Other findings also agree that online learning has a positive impact on student achievement (Ferdian & Suyuthie, 2022; Sasmita et al., 2020). This is because learning with e-learning is more effective because it can be done anywhere and anytime by utilizing modern, developing technologies (Ismiyati et al., 2021; Sholikah & Harsono, 2021a, 2021b; Sholikah & Sutirman, 2020). The use of technology in learning during a pandemic is expected to improve the skills of educators and students so that learning can be more effective, and objectives are achieved properly (Ni, 2013). Supported by (Dhawan, 2020) and (Tsay, Kofinas, & Luo, 2018), the use of e-learning in learning can improve student achievement because learning can create a fun, student-centered, and flexible learning process. In addition, online learning with e-learning media can improve students' critical thinking skills, creative thinking skills, and improve problem solving skills (Fadde & Vu, 2014; Mufidah et al., 2018)

The findings of this study are also supported by the theory put forward by Usman (2009) that learning achievement is influenced by several factors both internal or from within a person, as well as external or from outside a person where learning media is one of the external factors that affect learning achievement. The use of e-learning learning media, namely BeSmart, especially in utilizing various features that can be accessed anytime and anywhere, is expected to make it easier for students to understand the material so that good learning achievements are obtained even though students' study independently online during the Covid-19 pandemic.

The results of the study show that there is a positive effect of self-efficacy on learning achievement. These findings support research (Agung, Wulandari, Suastra, Bagus, & Arnyana, 2022) namely that there is a significant effect on self-efficacy on learning achievement. added by (Alafgani & Purwandari, 2019), self-efficacy has a large role in behavior or learning patterns in students, especially in learning achievement. Students with a high level of self-efficacy will believe that they can go through the learning process well, and can even do all the assignments given to them. In addition, they are confident that they will be able to achieve good results. For this reason, students with high self-efficacy will feel confident in their ability to organize and complete tasks to achieve the desired results at a certain time with a level of difficulty. In other words, this condition can affect the pattern of

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independence in student learning. Therefore, students with high self-efficacy can manage their learning experiences effectively to achieve optimal learning outcomes.

Almost the same as (Sufirmansyah, 2015), self-efficacy affects learning achievement because strong self-efficacy in students will build an effective learning experience so that they can achieve learning goals perfectly. From previous research, self-efficacy is an effort to improve student achievement because there are three underlying dimensions, namely magnitude level, strength, and discretion. The first level, namely the magnitude level, can be seen from the tasks that can be completed properly, ranging from simple to difficult tasks without hesitation. The second dimension can be identified through the mastery of various subjects and in completing a task, and the third dimension is the stability of students in completing the assigned task properly. These three dimensions are a benchmark for increasing student achievement (Khayati & Bachelor, 2015; Sholikah et al., 2021).

Self-efficacy can affect student achievement because self-efficacy or belief in individuals can foster high motivation to achieve goals in the learning process. Individuals with high self-efficacy will drive their motivation to excel using their skills, efforts, and abilities. Therefore, before achieving these goals, they must believe in their abilities (Sholikah et al., 2021). In fact (Bandura, 1997) revealed that self-efficacy is an important factor in determining learning achievement, but the influence that can be given can be in the form of direct or indirect influence. In this case, individuals who have a high level of confidence in their abilities will try to master and complete the exam questions given. This belief is based on other efforts such as learning strategies and learning regulatory patterns. This self-confidence must be strengthened by learning efforts, so that it will increase learning achievement. However, if individuals have self-confidence and are not matched by real effort or effort, it will not affect learning achievement (Santrock, 2012).

In addition, the results of this study are also in line with the theory put forward by (Slameto, 2015) that there are two factors that can affect learning achievement, namely internal and external factors where self-efficacy is one of the external factors that can affect learning achievement. Students with low self-efficacy tend to avoid learning assignments, especially those that have challenges, while students with high self-efficacy tend to have an interest in learning assignments so that they will put more effort and last longer in working on learning assignments even though they study and do assignments on their own without assistance. friends during online learning during the Covid-19 pandemic.

The results of the study showed that there was a positive and significant influence on the use of e-learning and self-efficacy together on student archiving achievement during the

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Covid-19 pandemic. This is indicated by the value of the correlation coefficient or ry(1, 2) of 0.635 so that it can be seen that the use of e-learning and self-efficacy together have a positive influence on learning achievement. The coefficient of determination for y or r2y(1, 2) is 0.404 so that it can be seen that the use of e-learning and self-efficacy simultaneously influences learning achievement by 40.4% while 59.6% is influenced by other factors or variables . Based on the f test, an fcount of 23.369 is obtained at an error level of 5%, which means that fcount > ftable (23.369 > 3.310) which means that H0 is rejected, and Ha is accepted, namely the use of e-learning and self-efficacy together have a positive and significant effect on achievement study.

This is reinforced by the results of multiple regression analysis calculations that the use of e-learning provides a relative contribution of 35.7% and self-efficacy of 64.3%. The effective contribution given by the variable use of e-learning is 14.4% and self-efficacy is 26.0%. The total effective contribution is 40.4%, which means that the use of e-learning and self-efficacy together makes an effective contribution of 40.4% to learning achievement while 59.6% of other variables not examined in this study.

The two factors that affect learning achievement above are actually factors that influence learning itself as described by Usman (2009) and Slameto (2010) that there are two main factors that can affect learning achievement, namely internal factors that come from oneself including physical conditions. and psychological (self-efficacy), then external factors that come from outside oneself include the family environment, residential environment, and school environment (learning media). Therefore, both factors need to be considered to improve student learning achievement.

The implication of this finding is that educators need to maximize the use of features in e-learning (BeSmart) such as uploading material in the form of videos or audio presentations so that students can more easily understand the material. With this form, they don't just read, but see and hear explanations about the material. In addition, IT teams in educational institutions also need to improve server quality so that BeSmart can be accessed smoothly by all students and teachers at the same time. This research has been carried out according to scientific procedures, but there are still limitations, namely first, the Learning Achievement variable is only assessed from a cognitive perspective, while affective and psychomotor aspects are not included in this study. The cognitive scores used are the average Daily Assessment, Middle Semester Assessment, and Final Semester Assessment odd semester 2021/2022 Academic Year. Second, the research instrument used was a questionnaire which was given to respondents online through the WhatsApp Group so that

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researchers were not able to supervise each respondent one by one in filling out the questionnaire according to their own circumstances.

CONCLUSION

This study found that the use of e-learning had a positive effect on student achievement during the COVID-19 pandemic. This is because the use of digital technology in learning makes it easier for students to learn. For example, students immediately know their results or grades after working on assessment questions. The speed and accuracy of the results or value information in the learning process is the most dominant factor in influencing the use of e-learning. Even though the use of e-learning results in accuracy and speed in obtaining value information, students feel that the discussion forums in the media are not optimally utilized because only a few students join the forum.

The results of this study also reveal that self-efficacy has a positive effect on student achievement. This is because students have an unyielding attitude even though the test scores are below the standard of completeness, they will still try to get better grades according to their target. One of the students' disappointment, with their learning achievement is when the teacher gives an assessment that is not in accordance with the grid given. Therefore, the teacher must conduct an assessment transparently.

The final finding in this study is that the use of e-learning and self-efficacy has been shown to have a joint effect on student achievement during the Covid-19 pandemic by 40.4%, which means that for every one unit increase in the use of e-learning and self-efficacy together will be followed by an increase in learning achievement of 40.4%. The use of e-learning makes a relative contribution of 35.7% and self-efficacy of 64.3%. For further research, researchers can find other factors that affect learning achievement.

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PROFIL PENULIS

Sutirman, merupakan dosen jurusan pendidikan administrasi, fakultas ekonomi, universitas negeri yogyakarta. Memiliki latar belakang pendidikan S1 pendidikan administrasi perkantoran, S2 teknologi pembelajaran dan S3 pendidikan teknologi kejuruan. Muslikhahdwihartanti juga merupaan dosen jurusan pendidikan administrasi, fakultas ekonomi,Universitas Negeri Yogyakarta. Memiliki latar belakang pendidikan S1 ilmu administrasi negara dan S2 teknologi pembelajaran. Yuliansah merupakan dosen jurusan pendidikan administrasi, fakultas ekonomi, universitas negeri yogyakarta. Memiliki latar belakang pendidikan S1 pendidikan administrasi perkantoran, S2 pendidikan teknologi dan kejuruan.