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# EFFECT OF ABSORPTION AND UTILIZATION OF INFORMATION TECHNOLOGY AGAINST THE TEACHING AND LEARNING PROCESS IN PRIVATE ELEMENTARY SCHOOLS

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#### ABSTRACT

The purpose of this study was to determine the effect of absorption and utilization of information technology on the teaching and learning process. The data used in this study is primary data obtained from distributing 91 questionnaires and returning 74 elementary school students. The data analysis method uses the Package for the Social Sciences Statistical analysis using IBM SPSS version 16 software. The results show that absorption does not have a significant effect on the teaching and learning process and the use of information technology has a significant effect on the teaching and learning process. This concludes that the use of information technology is carried out to support teachers and students in increasing efficiency and effectiveness in learning and has a positive impact. Absorption and Utilization of Information Technology collectively have a significant effect on the teaching teaching and learning process.

**KEYWORDS:** Absorption Capacity, Utilization of Information Technology, Teaching and Learning Process

#### **INTRODUCTION**

In line with the development of the era where technology and information can develop very rapidly in the world of education. This raises the potential to produce good human resources so that human resources that have been formed are able to compete with others. The Ministry of Education and Culture organizes the Teaching Campus program which is part of the Freedom to Learn (Merdeka Belajar Kampus Merdeka) policy. With the Teaching Campus program it is hoped that schools will be able to improve literacy, numeracy, technology adaptation and school administration and be able to develop themselves through activities and creativity outside the scope of lectures (Maliana, 2020).

Educational organizations such as schools have components that make up a unit to achieve the same goal, components consisting of teachers, students, parents of students have a relationship and interest



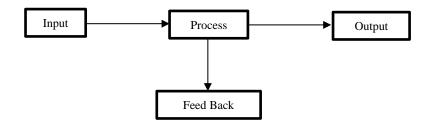
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in learning achievement and learning quality. One of the most important is the influence of absorption and utilization of information technology. The absorption and utilization of information technology is needed by the world of education to fill every line of an organizational structure or arrangement that is in accordance with the goals to be achieved. According to Aunurrahman (2016) the teaching and learning process is a process carried out by individuals to obtain new changes in behavior as a whole, as a result of the individual's own experience in interaction with his environment.

Schools must realize the importance of using information technology in providing great learning for the progress of students. The activities of bad teachers can result in big losses, such as increasing the desire of students to leave the education level or are called dropouts Mc Millen and Whitener in (Purnama, 2019). Therefore, educational institutions must be able to provide equitable learning for every student within the scope of the school.

Several private elementary schools with B accreditation under the auspices of the Central Jakarta Education Office received assistance provided by the Ministry of Education and Culture in the form of Teaching Campus student staff in catching up in learning. Evaluation of the teaching and learning process is an important thing to do because from the teaching and learning process schools can observe students' absorption and utilization of information technology in building good learning activities. The following is a learning schematic component in private elementary schools.

#### Table 1: Private elementary school learning component



From Table 1 it can be seen that the learning components of private elementary schools in central Jakarta require component assessment as a measure of success in the teaching and learning process.

The results of the assessment of the learning component show that the assessment of the learning component in private elementary schools in Central Jakarta is still far from good. These results can be seen and measured from the value of several aspects such as output, process, input, and feedback.



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# Table 2: Assessment of Learning Components of Private Elementary Schools in Central Jakarta

Components	Score	Category
Output	60	Poor
Proses	60	Poor
Input	60	Poor
Feedback	80	Excellent

According to the information obtained, the reason for evaluating the learning component is not optimal because the teacher does not master the technology that exists at this time, the technological facilities of the school also do not meet the needs, and the students' absorption of the material provided by the teacher is also an obstacle. Therefore, there is still a need for an evaluation of learning components that have not reached the good category. So that it can realize absorption, use of technology, and a much better teaching and learning process.

One thing that must be considered by private elementary schools in Central Jakarta in the teaching and learning process is the absorption and utilization of technology provided by schools for students. According to Haryani (2021) absorption is a benchmark for an educator to determine the extent to which students are able to master and understand a learning material that has been taught. Meanwhile, the use of information technology put forward by Thompson in (Purba, 2020) the use of information technology is the benefits expected by users of information systems in carrying out their duties or behavior in using technology when doing work. That way, there needs to be cooperation that must be carried out by the school, students and parents of students so that learning can run effectively.

Research conducted by Hadisi (2017) concluded that absorption does not have a positive impact on the teaching and learning process. Kasma (2019) in his research proves that information technology that is used by teachers and students is able to increase efficiency and effectiveness in the learning process. Research by Hasan et al., (2019) proves that academic achievement increases due to the use of information technology during the teaching and learning process which is based on students' absorption abilities. So that the research questions formulated by researchers at Central Jakata private elementary schools are first, does absorption influence the teaching and learning process; second, does the use of information technology affect the teaching and learning process; and lastly, whether these two things both the absorption and utilization of technology together can affect the teaching and learning process



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#### **REVIEW LITERATURE**

Ahmad Fauzi in (Kumalasari, 2019) explains that absorption is the ability to retrieve, store, respond to what is learned from other people, such as teachers and others. The indicators used are physiology, psychology, family, school, and society. Jumali and Supomo in (Lestari, 2015) explain that the use of information technology is the level of information integrity in carrying out tasks. The indicators used are social, complexity, task suitability, long-term consequences, and facilitating conditions. According to Aunurrahman (2016) explains that the teaching and learning process is a process carried out by individuals to obtain changes in new behavior as a whole, as a result of the individual's own experience in interaction with their environment. The indicators used are teachers, satisfaction, students, relevance, self-confidence.

Absorption is the ability to retrieve, store, respond to what is learned from other people, so it will increase students' understanding skills in carrying out learning activities at school (Fauzi in Ira Kumalasari, 2019). Based on previous research by La Hadisi (2017) absorption does not have a positive impact on the teaching and learning process. From the definition above, it relates to previous journals and the first hypothesis is, there is an influence of absorption on the teaching and learning process.

Utilization of Information Technology is a set of tools that help you work with information and perform tasks related to information processing. This information technology is often related to computer technology which is often used to support work activities (Kadir and Triwahyuni in Tarigan, 2020). Based on Kasma's previous research (2019) the use of information technology is carried out to support teachers and students in increasing efficiency and effectiveness in learning and having a positive impact. This study establishes the second hypothesis that there is an influence of the use of information technology on the teaching and learning process.

The absorption and utilization of information technology is useful as the backbone in the world of education run by elementary schools to connect facilities, infrastructure, and understanding of students to teachers which will later become material for evaluation by the school in order to create good learning. Based on Hasan's previous research (2019) information technology has a positive impact on the teaching and learning process which is based on the absorption of each student. This study establishes the third hypothesis that there is influence of the absorption and utilization of information technology on the teaching and learning process.

#### METHODS

The classroom action research method was used in this study. The classroom action research procedure



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was carried out in two stages, and each stage was carried out according to the changes achieved and the design factors studied. To find out the use of technology in the teaching and learning process in private elementary schools in Central Jakarta, observations were made of the learning activities carried out by the teacher. Through this activity, discussions can be held between teachers and researchers to determine the most appropriate actions to increase students' absorption in the teaching and learning process.

Determining the number of observation respondents was carried out using the Slovin formula, where the population used in this study were all private elementary school students in Central Jakarta. Regardless of the number of samples obtained from using the Slovin sampling formula, 74 respondents were carried out using a 5% error rate.

Each sample in this study has the same opportunity for all populations (members) to be used as research samples. The research instrument was carried out by comparing the written test, namely the written test of the material being taught without the help of information technology and the written test of the material being taught with the help of technology and observation. Written tests are conducted to see the absorption of students in mastering the material being taught with the help of information technology and without the help of information technology. In analyzing the research data obtained, testing the coefficients statistics and testing the hypotheses were compiled using SPSS 16. Then the analysis was carried out using multiple linear regression methods with an error rate of 5%.

#### **RESULT AND DISCUSSION**

The first hypothesis in this study is H1: Absorption (X1) of the Teaching and Learning Process (Y). The Coefficients table shows that the calculated T value: 1.358 < 1.96 or Significant: 0.179 > 0.05 (Not Significant). So, Absorption has no significant effect on the Teaching and Learning Process. Thus, H1 is rejected, this is in accordance with the calculation of the table above that the lower the absorption power obtained by students, the more difficult it is to follow the teaching and learning process.

The second hypothesis in this study is H2: Utilization of Information Technology (X2) on the Teaching and Learning Process (Y). The Coefficients table shows that the calculated T value: 9.731 > 1.96 or Significant: 0.000 <0.05 (Significant). So, the Utilization of Information Technology has a significant effect on the Teaching and Learning Process. Thus, H2 is accepted, this is in accordance with Utin Kasma's previous research (2019) that the use of information technology is carried out to support teachers and students in increasing efficiency and effectiveness in learning and having a positive impact. So that the higher the understanding of information technology obtained by students and teachers, the easier it is to carry out the teaching and learning process.



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Coefficients <sup>a</sup>							
				Standardized			
Unstandardized Coefficients		Coefficients					
Model		В	Std. Error	Beta	t	Sig.	
1	(Constant)	18.088	2.632		6.873	.000	
	X1	.166	.122	.158	1.358	.179	
a. Dependent Variable: Y							

## **Table 3: Output SPSS for First Hypothesis**

## Table 4. Output SPSS for Second Hypothesis

Coefficients <sup>a</sup>							
				Standardized			
		Unstandardized Coefficients		Coefficients			
Model		В	Std. Error	Beta	t	Sig.	
1	(Constant)	4.083	1.811		2.254	.027	
	X2	.802	.082	.754	9.731	.000	
a. Dependent Variable: Y							

The third hypothesis in this study is the absorption and utilization of information technology together in the teaching and learning process. Significant value 0.000 <0.05 (Significant) as evidenced by the value of F: 47,285. Thus, H3 is accepted, this is in accordance with Nur Hasan's previous research (2019) that information technology has a positive impact on the teaching and learning process which is based on the absorption capacity of each student. So the higher the absorption and utilization of information technology, the teaching and learning process activities can run well.

Table 5. Outpu	t SPSS for	Third Hypothesis
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ANOVA <sup>a</sup>						
		Sum of				
Model		Squares	df	Mean Square	F	Sig.
1	Regression	159.281	2	79.640	47.285	.000 <sup>b</sup>
	Residual	119.584	71	1.684		
	Total	278.865	73			
a. Dependent Variable: Y						
b. Predictors: (Constant), X2, X1						



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## CONCLUSION

The following is a conclusion and at the same time an answer to the problems that exist in this study. In accordance with the data analysis that has been done, it can be concluded that from the results of testing the first hypothesis, it was found that absorption does not significantly influence the teaching and learning process. This proves that the lower the absorption power obtained by students, the more difficult it is to follow the teaching and learning process. The results of testing the second hypothesis, it was found that the use of information technology has a significant effect on the teaching and learning process. This proves that the higher the understanding of information technology obtained by students and teachers, the easier it is to carry out the teaching and learning process. The results of testing the students is to carry out the teaching and learning process. This proves that the higher the absorption and utilization of information technology together have a significant effect on the teaching and learning process. This proves that the higher the absorption and utilization of information technology together have a significant effect on the teaching and learning process. This proves that the higher the absorption and utilization of information technology together have a significant effect on the teaching and learning process. This proves that the higher the absorption and utilization of information technology, the teaching and learning process can run well. The results of this study suggest that private elementary schools in Central Jakarta need to innovate learning by utilizing information technology in order to increase the absorption capacity of each student.

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