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THE INFLUENCE OF DIGITAL LITERACY ON STUDENT LEARNING

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ABSTRACT

This study aims to determine the influence of digital literacy on the learning outcomes of students of the Educational Technology study program at the Indonesian Christian University of Toraja. Research is a quantitative research type of experiment. This research was conducted at the Indonesian Christian University of Toraja Education Technology Study Program. The sample of this study is all Educational Technology students class of 2021 consisting of 49 students. The total number of samples used was 49 students, using non-random sampling techniques. The results of this study used descriptive analysis and inferential analysis using SPSS 22. The results obtained in this study that in the use of digital literacy of students in producing learning is very releva. From the results of this research, it can be stated that it is significant for student learning outcomes.

Keywords : Digital Literacy, Learning Outcomes

INTRODUCTION

Easier Access to Information allows students to quickly access information from various sources in cyberspace. With easier access to information, students can gain a more comprehensive understanding of the topic being studied. Technology skills and digital literacy can also influence student preferences and learning styles. The ability to critically assess the truth and quality of information in the digital world is becoming increasingly important. Digital literacy allows for more active and collaborative interaction between students and also with lecturers. Digital literacy has changed the way students access information and the learning process. This includes the use of technology, access to more diverse resources, and the use of online learning platforms (Study et al., 2022) The effect of this change in learning patterns on student learning outcomes can be the focus of innovative research. Digital literacy allows students to use new media such as videos, animations, simulations, and other interactive

content as part of learning. Digital literacy is a person's ability to use information and communication technology effectively to access, evaluate, and process information in various digital forms. (Manubey et al., 2022).

The influence of digital literacy on student learning outcomes has been the focus of much research in recent years. Some positive influences of digital literacy on student learning outcomes keep in mind that digital literacy is not the only factor that affects student learning outcomes, because there are still other factors such as motivation, learning environment, and teaching quality. Several studies have shown that digital literacy can help students obtain the information they need to learn, improve critical thinking skills, and improve communication skills.

Digital literacy allows the use of technological tools in the learning process, such as e-books, learning videos, simulations, and online learning platforms (Deja et al., 2021). This technology-based learning approach can increase student engagement and make learning more engaging. Students who have good digital literacy tend to participate more actively in online group discussions, forums, and other collaborative platforms. These interactions can strengthen understanding and learning through the exchange of ideas with classmates and lecturers. Digital literacy can also help students develop critical skills in critically evaluating information, distinguishing between credible and non-credible sources, and recognizing the truth of information (Wang et al., 2023)

Students who are tech-savvy tend to be better prepared to face technological changes in the world of work and are able to integrate technological developments in their academic activities. However, although digital literacy has positive potential in improving student learning outcomes, there are also several challenges that need to be overcome, such as:

1. Information Overload: The availability of abundant information in the digital world can make it difficult for students to sort and filter relevant information.
2. Digital Divide: Not all students have equal access to technology and the internet. This difficulty of access can hinder their ability to make optimal use of digital literacy.
3. Disruption and Dependence: The use of technology in everyday life can lead to distraction and dependence. If not managed properly, this can have a negative impact on student learning outcomes.

In facing this challenge, it is important for educational institutions and lecturers to pay attention to how digital literacy can be strengthened and integrated into the learning process. Increasing digital literacy not only includes mastery of technology, but also the ability to manage information wisely and critically, as well as developing collaboration and communication skills in a digital environment (Lingga et al., 2022). Here are some research results that show the influence of digital literacy on learning outcomes:

1. Research conducted by Abdul Latip (2020) shows that information and communication technology literacy has an important role in distance learning during the COVID-19 pandemic. Students who have good digital

literacy tend to be better able to overcome the challenges of distance learning and obtain better learning outcomes

2. Research conducted by Kajin (2018) shows that digital literacy-based learning can improve student motivation and cognitive learning outcomes in MTs N Mojosari and MTs N Sooko Mojokerto
3. Research conducted by Liansari and Nuroh (2018) shows that digital literacy has an important role in improving students' information and communication skills at FKIP Universitas Muhammadiyah Sidoarjo.
4. Research conducted by Rodin and Nurrizqi (2020) shows that students majoring in library science who have a high level of digital literacy tend to be better able to utilize e-resources and obtain better learning outcomes.
5. Research conducted by Lingga (2022) shows that digital literacy has a positive effect on the learning outcomes of Gen-Z students during the COVID-19 pandemic at PGRI Madiun University.
6. Research conducted by Sari (2021) shows that digital literacy and student learning discipline have a positive influence on student achievement in online learning during the COVID-19 pandemic.

From the results of the research above, it can be concluded that digital literacy has a positive influence on student learning outcomes. However, keep in mind that digital literacy is not the only factor that affects student learning outcomes, because there are still other factors such as motivation, learning environment, and teaching quality. One way to measure a person's level of digital literacy is through face-to-face surveys. This survey can be done by giving questionnaires to respondents containing questions about their ability and experience in using digital technology, and Learning outcomes tests are tests designed to measure a person's ability to use digital technology to search, evaluate, and manage information on certain subjects. This test can be done online or offline.

METHODS

This research uses a quantitative approach The type of research used is experimental research. Quantitative research is a research method based on the philosophy of positivism used to examine certain populations or samples, while data collection uses research instruments and quantitative statistical data analysis by testing hypotheses that have been set by researchers. two types of variables, namely digital literacy as an independent variable and student learning outcomes as a dependent variable (H. et al., 2021) For indicators that exist in the independent variable, digital literacy, will be developed into an instrument, questionnaire, using the Likert scale and for the dependent variable will use Final Semester Exam scores. The research location will be carried out at the Indonesian Christian University of Toraja, Faculty of Teacher Training and Education, Educational Technology Study Program. The polpulation in this study is all 49 students of the educational technology study program class of 2021. The sampling of this study used non-random sampling, namely educational technology students totaling 49 students. Data collection instruments using questionnaires and

documentation. The measurement of this research instrument will use a Likert scale, with the aim of measuring variables and converting them into variable indicators. Then the indicators are used as tool items for preparing questionnaires. The answer to each instrument item that uses the Likert scale has a gradation from very positive to very negative, namely Strongly Agree (SS), Agree (S), Disagree (TS) and Strongly Disagree (STS) with a score scale of 1-4. This research uses two data analysis techniques, namely descriptive statistical analysis and inferential analysis. Inferential analysis was used to determine the effect of digital literacy on student learning outcomes using SPSS 22.

FINDINGS AND DISCUSSION

Findings

Simple Regression

Simple linear regression analysis is a linear relationship is a linear relationship between digital literacy variables and educational technology student learning outcomes variables The analysis is to determine the direction of the relationship between variables. The following are the results of linear relationships between variables contained in the following table.

Table 1. The result of linear relationships between variables

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.810[a]	.765	.760	4.997

Based on the results of data processing with SPSS version 22 *for windows*, it can be explained that the value of R is a symbol of the coefficient. In table 1. Above it can be seen that the correlation value is 0.810. From this value, it can be interpreted that the relationship between the two research variables, namely digital literacy variables and learning outcomes of Educational Technology students, is in the sufficient category. From the table above can also be obtained the value of R square or coefficient of determination which shows that the regression model is formed by the interaction of independent variables from the dependent variable. Then the value of the coefficient of determination obtained is 0.7%. So it can be said that the digital literacy variable has a contribution influence of 0.7% on the variable learning outcomes of Educational Technology students.

Tabel. 2

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3071.941	1	3071.941	123.037	.350[b]
	Residual	1547.996	62	24.968		
	Total	4619.938	63			

In the table above, those treated with SPSS version 22 *for windows* are used to determine the degree of significance or linearity of regression. The criteria can be determined based on the significant value test (sig), provided that the value of sig>0.05. Based on table 2 above, the sig value is obtained. 0.350. Thus the regression equation model based on the research data is significant, or the regression equation model meets the criteria.

Tabel 3
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	79.426	4.237		17.994	.000
	Y	.056	.099	-.81	-.092	.351

Based on the table above, it shows that the regression coefficient above shows the value of the constant coefficient is 79.426 the coefficient of the digital literacy variable is 0.056. So the regression equation Y=79.426+0.05X is obtained.

From the equation above, it can be known that the value of the constant is 97.874. Mathematically, values

These constant states that at digital literacy of 0.056, the learning outcomes of Educational Technology students have a value of 97,874. Furthermore, a positive value of 0.056 contained in the regression coefficient of the digital literacy variable illustrates that the direction of the relationship between the variables of learning outcomes of Educational Technology students is in the direction that every increase in one unit of the litimation variable will cause an increase in the learning outcomes of Educational Technology students of 0.053.

Based on the results of data processing using SPSS version 22 with 49 respondents, the correlation value is 0.810. So in interpreting the relationship between digital literacy variables and Educational Technology learning outcomes, it is carried out by looking at the correlation coefficient of calculation results using the interpretation of r values as follows:

0 : There is no correlation between two variables
>0 – 0.25 : Very weak correlation
>0.25 – 0.5 : Correlation is sufficient
>0.5 – 0.75 : Strong correlation
>0.75- 0.99 : Very strong correlation
1 : Perfect correlation

Based on the above, it can be concluded that between digital literacy variables and learning outcomes of Educational Technology students have a very strong relationship because it has a correlation value of 0.810.

Discussion

Digital literacy can have a significant influence on a person's learning outcomes. Individuals' ability to understand, use, and interact with digital and information technologies effectively can influence the extent to which they can achieve success in learning (H. Su, 2021). It is important to remember that digital literacy is a skill that continues to evolve as technology evolves. Therefore, continuous education and learning are important factors in improving an individual's digital literacy in order to remain relevant and competent in an increasingly digital world. Digital literacy supports the concept of lifelong learning. Individuals can keep their knowledge updated through online courses, webinars, and other digital learning resources, without being limited by physical and time constraints (Y. Su, 2023).

Digital literacy can encourage creativity and problem-solving in learning. Students with good digital skills may be more likely to use digital tools to create creative projects, visual presentations, or innovative solutions to given tasks (Deja et al., 2021). Digital literacy plays an important role in shaping the way a person learns and interacts with knowledge in a digital environment. Digital literacy plays an important role in shaping the way a person learns and interacts with knowledge in a digital environment. To achieve optimal learning outcomes, it is important for individuals to develop their digital literacy skills as technology evolves and changes in ways of learning (Nika et al., 2022)

The influence of learning outcomes on digital literacy refers to how a person's level of understanding and mastery of digital technology and information in general is influenced by the level of education and learning that has been undertaken. Digital literacy includes the ability to access, analyze, evaluate, use, and participate effectively with digital technology (Lingga et al., 2022). Digital literacy allows easier access to various sources of information and learning materials through the internet. Students and teachers can access course materials, e-books, scientific journals, learning videos, and various other learning resources quickly and efficiently (Durán et al., 2021). Students who have good digital literacy can also develop problem-solving skills. They can seek solutions, identify problems, and look for alternatives through the use of technology.

Overall, digital literacy has changed the way we learn and teach. Its positive impact on student learning outcomes can open doors to innovation, inclusivity, and skill development relevant to an increasingly connected and digital world.

CONCLUSION

Based on the results of research and test results, it can be concluded that there is an influence between digital literacy on the learning outcomes of students of the Educational Technology Study Program of Toraja Christian University of Indonesia which is seen from a very strong correlation relationship.

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