

## ANALYSIS OF DIGITAL LITERACY UNDERSTANDING OF STUDENTS OF MAHKOTA TRICOM UNGGUL UNIVERSITY TOWARDS DIGITAL SKILLS AND DIGITAL SAFETY

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### Abstrak

The rapid development of digitalization makes it possible to open up information with various digital communication facilities or digital literacy. In the world of education, universities, especially Mahkota Tricom Unggul University, must be able to keep up with current developments in digitalization to be able to produce quality, professional and innovative graduates with international standard capacity and technology-based entrepreneurship skills. In facing society 5.0, the role of students is really needed to be able to understand digital literacy, digital skills and digital safety. The aim of this research is to see how students' digital literacy understanding of digital skills and digital safety adapts to the era of society 5.0. The research will be carried out with a simple survey by applying a questionnaire as quantitative data and the research results will be described descriptively. The respondents will be taken from all active students of the Faculty of Social Sciences, totaling 110 people. The test results show that digital literacy has a positive and significant effect on digital skills with a percentage of 66.2%. And the test results show that digital literacy has a positive and significant effect on digital safety with a percentage of 72.6%. Thus, it can be said that students' understanding through digital literacy can influence the digital skills and digital safety of students at Mahkota Tricom Unggul University.

Keyword: Literasi Digital, Digital Skill, Digital Safety

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### 1. Introduction

The development of digitalization in recent years in Indonesia has been very significant so that it is able to encourage the creation of a digital economy. In addition, the Covid-19 pandemic that has hit Indonesia since early 2020 has increased internet use and accelerated digital adoption in daily activities. According to reports from HootSuite and We Are Social, active internet users in Indonesia reached 204.7 million people at the beginning of 2022, or an increase of 2.1 million compared to the beginning of the previous year [1]. Higher

Education Institutions must also be able to present digitalization. This is really needed because if it is designed well, it can reduce operational costs and what's more, the resulting innovation and application of digital technology and artificial intelligence can produce efficiency in institutions.

Mahkota Tricom Unggul University currently has a flagship study program from the Faculty of Social Sciences, namely the digital business study program. With the digital business study program, the university hopes that the social sciences faculty can implement digitalization as a whole for students. But the fact is that there are still many students who have not fully implemented digitalization. Besides the infrastructure changes that have occurred at universities, support services in implementing digitalization have not been fully fulfilled. This is one of the difficulties for students in accessing learning easily and daily activities. Some students still cannot implement paperless when submitting assignments, have not implemented cashless as a tuition fee payment system and have not implemented the use of social media. Moreover, for hybrid class students, these students must be able to adapt to existing digitalization developments but have not been able to fully implement digitalization, so there are still many errors in using digitalization.

One of the abilities that must be mastered by students in preparing themselves to face Society 5.0 is the application of digital literacy. Digital literacy is a thinking process, a competency needed to understand the flow of compiling knowledge and building information that can be used as a benchmark from various different sources. Digital literacy in its dimensions includes digital skills and digital safety. Digital skills in the sense are digital skills. While digital safety is digital security. The purpose of digital skills and digital safety is knowledge for users in using digital devices [2]. There are 7 components of digital literacy, namely: (1) Functional skills and beyond. Is a digital literacy component related to expertise in using information technology; (2) Creativity. It is a digital literacy component related to creative thinking utilizing information and communication technology in building knowledge; (3) Collaboration. It is a digital literacy component related to building knowledge through the process of discussion and providing mutual input in the digital space; (4) Communication. Is a component of digital literacy related to the ability to hear, understand, and convey ideas; (5) The ability to find and select information (choose information); (6) Critical thinking and evaluation (critical thinking and evaluation); (7) Cultural and social understanding (understanding of social culture) [3].

Considering the importance of digital literacy in applying student understanding, digital literacy skills need to be developed in order to face the era of society 5.0. Based on the problems that have been described, the aim of the research is to find out the digital literacy, digital skills and digital safety abilities of students at Mahkota Tricom Unggul University.

## 2. Literature Review

### Digital Literacy

Digital literacy is skills, knowledge and ethics in using digital media and the internet. Meanwhile, Martin describes someone who understands digital literacy as someone who has the ability to identify, access, manage, integrate, evaluate, analyze and synthesize digital resources [13]. The definition of digital literacy does not only include the ability to operate technology. Even in several digital literacy frameworks such as DigCom 2.1, technical capabilities related to the operation of this device are no longer an aspect/ dimension/ area of competence in itself [14].

### Digital Skills

Digital skills are digital skills that include all skills related to technology starting from basic skills or literacy, general skills for all workers and specific skills for professionals in the field. The concept of digital skills was developed by Van Deursen which measures digital skills in four dimensions: digital technical skills, digital communication, digital analysis, and digital thinking [15].

### Digital Safety

Digital safety is the user's ability to recognize, model, apply, analyze, consider and increase awareness of personal data protection and digital security in everyday life [16]. Digital Safety is the understanding that a person must protect themselves and their digital property when in a digital environment. Consequently, it can be used for digital data management and many online forums. Apart from that, hacking, fraud, theft, data breaches and other cybercrimes continue to increase because digital devices are becoming more common and capable of being used to deceive someone [2].

## 3. Methods

This research is ex post facto research using a simple survey method. Ex post facto research is research in which variable events have occurred before the research is carried out. The approach used for data analysis is a quantitative approach, namely research that uses numbers, starting from data collection, data interpretation, and representation of the results. Then the results of these findings will be described descriptively [4]. Regression analysis is a method for determining cause and effect relationships between one variable and another variable. Regression analysis is concerned with the study of the dependence of one variable, namely the dependent variable, on one or more independent variables. Apart from looking at the relationship between the independent variable and the dependent variable, regression analysis also aims to look at the relative contribution of each

independent variable to the dependent variable and make predictions about the value of the dependent variable with the known independent variables [5].

#### 4. Results and Discussion

##### Validity test

The validity test is used to determine whether a questionnaire is valid or valid. A questionnaire is said to be valid if the questions in the questionnaire are able to reveal something that the questionnaire will measure [11]. The validity test on the results that has been carried out in this research uses the IBM SPSS Statistics 24 application. The criteria for determining the validity of a questionnaire are as follows: If the correlation is positive and  $r > 0.186$  which is determined from the number of respondents, namely 110 respondents, then the instrument items are declared valid . Invalid question items are not included in hypothesis testing [12]. The results of the validity test on the three variables in digital literacy, digital skills and digital safety can be reviewed in the following table:

**Table 1.** Digital Literacy Variable Validity Test Results

No	Correted item Total Correlation	r tabel	Ket
1	0,788	0,186	Valid
2	0,919	0,186	Valid
3	0,933	0,186	Valid
4	0,892	0,186	Valid
5	0,898	0,186	Valid
6	0,932	0,186	Valid
7	0,579	0,186	Valid
8	0,618	0,186	Valid
9	0,665	0,186	Valid
10	0,750	0,186	Valid
11	0,851	0,186	Valid
12	0,743	0,186	Valid
13	0,677	0,186	Valid
14	0,610	0,186	Valid

Source : Research Results, 2023 (data processed)

**Table 2.** Digital Skills Variable Validity Test Results

No	Correted item Total Correlation	r tabel	Ket
1	0,746	0,186	Valid
2	0,778	0,186	Valid
3	0,574	0,186	Valid
4	0,747	0,186	Valid
5	0,708	0,186	Valid
6	0,603	0,186	Valid
7	0,752	0,186	Valid
8	0,741	0,186	Valid

Source : Research Results, 2023 (data processed)

**Table 3.** Digital Safety Variable Validity Test Results

No	Correted item Total Correlation	r tabel	Ket
1	0,833	0,186	Valid
2	0,852	0,186	Valid
3	0,836	0,186	Valid
4	0,919	0,186	Valid
5	0,825	0,186	Valid
6	0,871	0,186	Valid
7	0,674	0,186	Valid
8	0,647	0,186	Valid

Source : Research Results, 2023 (data processed)

Based on Tables 1, 2, and 3, it can be seen that the variable instrument testing shows that all calculated r values are > from r table 0.186. This shows that all research instruments are said to be valid and can then be used in research.

### Reliability Test

Reliability testing is a tool that measures a questionnaire which is an indicator of a variable or construct. A questionnaire is said to be reliable or reliable if a person's answers to questions are consistent or stable over time. The significance test was carried out at a significance level of 0.05, meaning that a variable is said to be reliable if it gives a Cronbach's Alpha value  $> 0.60$ . A good Cronbach's Alpha is one that is closer to one [11].

**Table 4.** Reliability Test Results

Variable	N of Item	Cronbach's Alpha	Minimum Cronbach's Alpha	Keterangan
Literasi Digital	14	0,8845	0,60	Reliabel
Digital Skill	8	0,852	0,60	Reliabel
Digital Safety	8	0,917	0,60	Reliabel

Source : Research Results, 2023 (data processed)

Based on Table 4, it can be seen that the reliability test on the research variable instruments shows that all Cronbach's Alpha values are greater than 0.60. This shows that the research instrument is said to be reliable.

### Structural Equation Classical Assumption Test 1

To see the magnitude of the influence on structural equation 1, namely the effect of digital literacy on digital skills, it can be seen in Table 5 below:

**Table 5.** Model Summary Structural Equation 1

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.789 <sup>a</sup>	.622	.611	2.007

a. Predictors: (Constant), Literasi\_Digital

b. Dependent Variable: Digital\_Skill

Source : Research Results, 2023 (data processed)

Based on Table 5, it can be seen that the coefficient of determination (R Square) is 0.662 or 66.2%, meaning that the influence of digital literacy on digital skills among students at Mahkota Tricom Unggul University is 66.2% and the remaining 33.8% is influenced by other factors that are not examined in this study.

**Table 6.** F Test Results (Simultaneous) Structural Equation 1

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	470.075	1	235.037	58.361	.000 <sup>b</sup>
	Residual	285.939	71	4.027		
	Total	756.014	73			

a. Dependent Variable: Digital\_Skill

b. Predictors: (Constant), Literasi\_Digital

Source : Research Results, 2023 (data processed)

Based on Table 6, it is found that the value of  $F_{hitung} > F_{tabel}$  ( $58.361 > 3.08$ ) and is significantly less than  $0.000 \alpha = 5\%$  ( $0.05$ ). It can be concluded that the results of the study rejected  $H_0$  and accepted  $H_1$ . Thus, digital literacy has a positive and significant effect on digital skills for students at Mahkota Tricom Unggul University.

**Table 7.** Structural Equation t Test Results 1

		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	5.663	2.689		2.106	.039
	Literasi_Digital	.453	.109	.423	4.222	.018

a. Dependent Variable: Digital\_Skill

Source : Research Results, 2023 (data processed)

Based on Table 7, it can be seen that  $t_{hitung} > t_{tabel}$ , namely  $4.222 > 1.98$  and the significance of  $0.018$  is smaller than  $\alpha = 5\%$  ( $0.05$ ). It can be concluded that the results of the study rejected  $H_0$  and accepted  $H_1$ . Thus, digital literacy has a positive and significant effect on digital skills for students at Mahkota Tricom Superior University. The magnitude of the influence of digital literacy on digital skills in Mahkota Tricom Unggul University students is seen in the standardized coefficient (beta) of  $0.423$  or  $42.3\%$ , meaning that increasing digital literacy will increase students' digital skills by  $42.3\%$ .

## Structural Equation Classical Assumption Test 2

To see the magnitude of the influence on structural equation 2, namely the effect of digital literacy on digital safety, it can be seen in Table 8 below:

**Table 8.** Model Summary Structural Equation 2

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.852 <sup>a</sup>	.726	.715	1.773

a. Predictors: (Constant), Literasi\_Digital  
b. Dependent Variable: Digital\_Safety

Source : Research Results, 2023 (data processed)

Based on Table 8, it can be seen that the coefficient of determination (R Square) is 0.726 or 72.6%, meaning that the influence of digital literacy on digital safety among students at Mahkota Tricom Unggul University is 72.6% and the remaining 27.4% is influenced by other factors that are not examined in this study.

**Table 9.** F Test Results (Simultaneous) Structural Equation 2

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	583.691	1	194.564	61.922	.000 <sup>b</sup>
	Residual	219.944	70	3.142		
	Total	803.635	73			

a. Dependent Variable: Digital\_Safety

b. Predictors: (Constant), Literasi\_Digital

Source : Research Results, 2023 (data processed)

Based on Table 9, it is found that the value of Fhitung > Ftabel ( $61.922 > 3.08$ ) and is significantly less than  $0.000 \alpha = 5\%$  (0.05). It can be concluded that the results of the study rejected H0 and accepted H1. Thus digital literacy has a positive and significant effect on digital safety for students at Mahkota Tricom Superior University.



**Table 10.** Structural Equation t Test Results 1

Model	Coefficients <sup>a</sup>		Standardized Coefficients Beta	t	Sig.
	Unstandardized Coefficients B	Std. Error			
1 (Constant)	1.712	2.448		.699	.487
Literasi Digital	.395	.322	.376	3.737	.037

a. Dependent Variable: Digital\_Safety

Source : Research Results, 2023 (data processed)

Based on Table 10, it can be seen that  $t_{hitung} > t_{tabel}$ , namely  $3.737 > 1.98$  and a significance of 0.037 is smaller than  $\alpha = 5\%$  (0.05). It can be concluded that the results of the study rejected  $H_0$  and accepted  $H_1$ . Thus digital literacy has a positive and significant effect on digital safety for students at Mahkota Tricom Superior University. The magnitude of the influence of digital literacy on digital safety in Mahkota Tricom Unggul University students is seen in the standardized coefficient (beta) of 0.376 or 37.6%, meaning that increasing digital literacy will increase student digital safety by 37.6%.

## 5. Conclusion

Based on the results of the research and discussion that have been described, it can be concluded that in the variables of digital literacy, digital skills and digital safety, researchers measured the results they wanted to know using the IBM SPSS Statistics 24 application. The test results show that digital literacy has a positive and significant effect on digital skills by percentage 66.2%. And the test results show that digital literacy has a positive and significant effect on digital safety with a percentage of 72.6%. Thus, it can be said that students' understanding through digital literacy can influence the digital skills and digital safety of students at Mahkota Tricom Unggul University.

Suggestions that can be given especially to students at Mahkota Tricom Unggul University are that students must be able to learn and understand more deeply about digital literacy so that they can improve students' digital skills and digital safety in facing the era of society 5.0.

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