



Digital Literacy: Perceptions of Primary School Teacher Education Students

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ABSTRAK

Penelitian ini dilatarbelakangi oleh munculnya pandemi Covid-19 yang mengakibatkan berubahnya sistem pendidikan dari konvensional menjadi online. Kondisi ini menuntut mahasiswa untuk mampu beradaptasi dengan perubahan sistem pembelajaran tersebut. Penelitian ini bertujuan untuk menganalisis persepsi mahasiswa PGSD tentang literasi digital di era pandemi Covid-19. Jenis penelitian ini yaitu kuantitatif. Penelitian ini menggunakan pendekatan deskriptif kuantitatif dengan metode survei. Populasi pada penelitian ini adalah seluruh mahasiswa angkatan 2018 dengan sampel sebanyak 76 mahasiswa. Metode pengumpulan data menggunakan kuesioner dengan bantuan google forms. Instrumen yang digunakan untuk mengumpulkan data yaitu kuesioner. Teknik analisis data menggunakan analisis deskriptif dengan bantuan SPSS dan Microsoft Excell. Hasil penelitian menunjukkan secara umum tingkat persepsi mahasiswa PGSD tentang literasi digital di era pandemi covid-19 berada pada kategori "Sedang". Hal ini mengimplikasikan bahwa pihak kampus harus lebih memperhatikan kebutuhan mahasiswanya. Hal yang dapat dilakukan adalah membantu peningkatan literasi digital terutama dalam hal kemampuan memanfaatkan platform-platform online, dan pengooperasian aplikasi-aplikasi pembelajaran.

ABSTRACT

This research is motivated by the emergence of the Covid-19 pandemic, which resulted in a change in the education system from conventional to online. This condition requires students to adapt to changes in the learning system. This study aims to analyze the perceptions of PGSD students regarding digital literacy in the era of the Covid-19 pandemic. This type of research is quantitative. This research uses a quantitative descriptive approach with a survey method. The population in this study were all 2018 class students, with a sample of 76 students. The data collection method uses a questionnaire with the help of Google Forms. The instrument used to collect data is a questionnaire. The data analysis technique uses descriptive analysis with the help of SPSS and Microsoft Excel. The results of the study show that, in general, the level of perception of PGSD students regarding digital literacy in the era of the Covid-19 pandemic is in the "Medium" category. It implies that the campus must pay more attention to the needs of its students. What can be done is to help increase digital literacy, especially by utilizing online platforms and operating learning applications.

1. INTRODUCTION

The current state of the Covid-19 pandemic has brought many changes. This situation impacts the government and education field, especially in the learning system; this situation creates flexibility and results in the use of technology increasingly rapidly (Huertas-Abril, 2021; Krelová et al., 2021). The learning process that switches to all-digital is one of the steps to break the chain of the spread of the Covid-19 virus and be an effort to respond to changes that occur so that the learning process can continue to be carried out (Bird et al., 2022b; Zati et al., 2020). This shift also resulted in a decrease in student academic performance based on research conducted by previous study show that the learning outcomes of students experience a negative impact and are in the moderate category (3% -6%) (Ashida & Ishizaka, 2022; Bird et al., 2022a; Selvaraj et al., 2021). Even though learning doing by online, it still impacts the quality of learning outcomes. Inadequate teacher skills also make the learning process decrease. This

phenomenon also refers to digital literacy skills between lecturers and students. Based on research results by previous studies explained that online learning difficulties arise due to low digital literacy skills possessed, students who do not have convenient access, and campuses that do not pay enough attention to the needs of students and lecturers (Alghamdi et al., 2020; Bacher-Hicks et al., 2021). Even though we know that digital literacy is needed to continue to develop human resources under any conditions (Purnama et al., 2022; Wardhani et al., 2019), digital literacy can also be interpreted as the ability to use technology innovatively to help solve problems in the learning process and make it easier to access information in various ways (Abdulai et al., 2021; Wardhani et al., 2019).

This problem requires attention from various parties. Because this digital literacy can help students operate software, solve cognitive and psychomotor problems, and the ability to evaluate the quality of the information found online (Guess et al., 2020; Lazonder et al., 2020). Furthermore, good digital literacy skills will help students to be more able to adapt to changes in the learning system to become fully online and communicate interactively (Cahyani & Jayanta, 2021; Polizzi, 2020; Vélez et al., 2017). This condition also requires students to master digital literacy to support the success of online e-learning (Guo & Wan, 2022; Purnama et al., 2022; Suarsi et al., 2021). This digital literacy includes ICT, media, and information literacy. Then for aspects of digital literacy, ICT literacy is defined as the ability to use computers; information literacy involves searching the web and critically analyzing information content. Media literacy is related to interpreting relevant messages encountered (Beck et al., 2021; Moreno-Morilla et al., 2021; Wardhani et al., 2019).

The results of observations that researchers conducted on UAD PGSD students also showed that there were still many students who were less capable of digital literacy and could not take advantage of online platforms to do assignments, lacking the ability to make learning videos and having difficulties in using online learning applications. Students are still taboo and pay little attention to the importance of digital literacy. So, students have difficulty in the online learning process. Knowledge, motivation, and ability in digital literacy also determine the success of student learning (Kumar et al., 2022; Zhu et al., 2022). In line with the results of the above observations of research conducted by previous study that show digital literacy possessed by students also depends on the management of educational institutions or institutions, besides the balance between student motivation and performance influences the perception of this digital literacy (Le et al., 2022; Rinekso et al., 2021). With the gaps and problems above, it is necessary to survey to find out how the perceptions of PGSD UAD students in order to help students improve their digital literacy skills. This perception diagnosis can also be input and advice for educators and campus managers to pay more attention to students and maximize the improvements provided (Razak et al., 2022; Ussarn et al., 2022).

The importance of digital literacy, it is necessary to have coordination and cooperation from various elements of education to maximize these skills (Ayvaz-Tuncel & Tuncel, 2019; Tungpalan & Antalan, 2021). The importance of perception also shows in the research conducted by previous study state that all teachers consider using digital literacy critical and help the learning process during the current covid-19 situation (Rizaldi & Yana, 2022). Furthermore, perception also determines one's belief in something (Al Hashimi et al., 2022; Alaswati et al., 2016; Singh et al., 2021) A perception also describes the extent to which a person believes in something. So, this research is essential to do to explain the level of Primary School Teacher Education students' perception at Ahmad Dahlan University about digital literacy in the Covid-19 pandemic era so that results can obtaining and using as consideration and input for campuses in organizing learning and education processes that focus on increasing student digital literacy. The data about student perceptions can make it easier for lecturers to determine models, media, and learning strategies to make them more meaningful, even online. The aim of this study is analyses primary school teacher education student's perceptions of digital literacy in the Covid-19 pandemic era.

2. METHOD

This research uses a quantitative descriptive approach to the survey method. Quantitative descriptive research aims to make pictures or descriptions of phenomena or conditions objectively using numbers starting from data collection, interpretation, and explanation of results (Morissan, 2016; Musrifah et al., 2022). This research describes the phenomena or circumstances that will describe the PGSD students' UAD perceptions of digital literacy. Furthermore, the survey method or research takes samples from one population and uses a questionnaire or questionnaire as a data collection tool (Sugiyono, 2019). Researchers collected data using a questionnaire through google forms. The population in this study were all PGSD University Ahmad Dahlan (UAD) students, class of 2018. The sampling technique used purposive sampling with a total of 76 students. Purposive sampling is a way of taking samples with specific criteria. Furthermore, the instruments used to collect data in this study were

modified from (Wardhani et al., 2019). The following research instruments has been modified is show in Table 1.

Table 1. Research Instrument Grid

Variable	Dimension	Indicator
Literasi Digital	ICT Literacy	1. Ability to use various digital devices to access information
		2. Ability to use various software
		3. Ability to create images through online facilities
		4. The ability to produce videos with online facilities
		5. Knowledge of website design
		6. Knowledge of the different types of licenses that apply to online content
		7. Knowledge of applications/software that is safe to download
		8. Ability to write comments on blogs, websites, or forums
		9. Knowledge of information that can be shared online
		10. Be careful when commenting online
		11. Understanding how to protect privacy when doing online activities
		12. Able to maintain ethics when communicating online
		13. Balancing time for activities with and without digital devices
Media Literacy	Media Literacy	1. Skills in using information from various media
		2. Ability to understand the meaning and messages presented by various media
		3. ability to use devices (tablet phones, laptop computers)
Information Literacy	Information Literacy	1. Ability to identify required information
		2. Ability to compile a variety of information and write it down in their language
		3. Ability to distinguish facts or opinions
		4. Ability to write online references in the correct format

Furthermore, after the data is collected, it is analyzed and grouped into five categories adapted from (Sudijono Anas, 2011) as show in Table 2.

Table 2. Category of Student Perception Level

No	Score Range	Category
1	$X \geq M + 1,5 SD$	Very high
2	$M + 0.5 SD \leq X < M + 1.5 SD$	High
3	$M - 0.5 SD \leq X < M + 0.5 SD$	Medium
4	$M - 1.5 SD \leq X < M - 0.5 SD$	Low
5	$X < M - 1.5 SD$	Very low

Additionally, descriptive data analysis was finished, and the findings apply to the level of perspective that PGSD UAD students have about digital literacy. In order to calculate the percentage level of student perception, the data analysis findings will be searching for the mean (average) and standard deviation using Microsoft Excel.

3. RESULT AND DISCUSSION

Result

From the process of analyzing the answers to the PGSD UAD student questionnaire of as many as 76 people with 30 questionnaire items, the results of the perceived level of PGSD UAD students are show in Figure 1. Base on Figure 1 show the results of the level of perception of UAD PGSD students about digital literacy in the Covid-19 pandemic era. The pie chart above shows that the level of student perception is in the medium category, with a percentage of 37.66%. These results appear based on the analysis of the dimensions of digital literacy itself, including ICT literacy, media literacy, and information literacy contained in the questionnaire. Students' perceptions can be said to be quite good because they are in the moderate category, meaning that there are still students who still consider digital literacy less critical. This study's results can be used as input for education providers, especially at the campus concerned, to increase student perceptions of digital literacy. Because the current era is very close to technology, students must have good digital literacy skills.

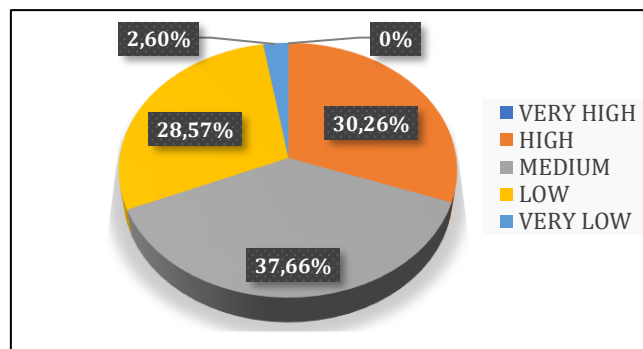


Figure 1. Pie Chart PGSD Student's Perceptions Level at UAD

From the results of the questionnaires that students filled out, it was also seen in indicators of ability to use digital devices to access information from 76 students on average filling in ranges 4 and 5; that is, only five people filled out ranges 2 and 3. After that, the indicators are mostly filled with ranges 2 and 3 in questions about the ability to cite information from online media. Students still struggle distinguishing facts and opinions and are less proficient in cross-checking. Furthermore, the indicators of media literacy in the section on accessing the information needed are following the direction of the task; out of 76 students, on average, they fill in ranges 3 and 4 so that we can say that there are still students who find it challenging to align between assignments and the information presented.

Furthermore, the presentation of the percentage level of perception of digital literacy based on the three aspects of digital literacy itself, namely ICT literacy, media literacy, and information literacy, is show in Figure 2.

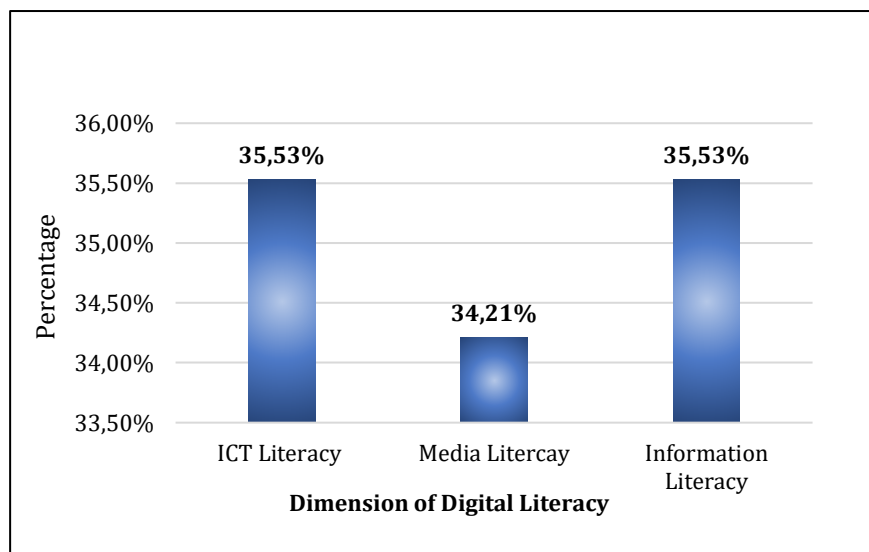


Figure 2. Bar Diagram of level Perceptions Seen from Dimension

Base on Figure 2 shows that the percentage level of students' perceptions of ICT literacy is 35.53%, media literacy is 34.21%, and information literacy is 35.53%. Moreover, the highest level of student perception is on ICT and information literacy.

Discussion

The results of the research above show that the level of perception of UAD PGSD students in general in terms of digital literacy is in the medium or quite good category. This result is inseparable from the influence of digital literacy dimensions, including ICT, media, and information literacy. Furthermore, this illustrates that students perceive digital literacy relatively positively. Moreover, this also shows that students have a reasonably good view and acceptance of digital literacy and can adapt to using a whole online learning system

This is also in line with the results of research conducted by previous study which focuses on explaining the level of teacher perception in online learning in the era of the Covid-19 pandemic (Fadhilah et al., 2022; Putra & Wulandari, 2021). The results show that the teacher's level of perception is positively

influenced by the teacher's ability to adapt to changes in the learning system from conventional to entirely online. This kind of research has also been carried out by previous researcher, with research results showing that basic computer literacy owned by students is still low due to the lack of supporting facilities, such as the location of residence, which is far from signals and family finances which are still low (Ferrer & Corres, 2022). From the research results and previous research, it can be generalized that various internal and external factors influence a person's perception. Internal comes from the students themselves, and then external can be in the form of influences from teachers, the environment, and learning systems that implementation by online (Aya Pastrana & Sriramesh, 2014; Chandrasiri & Weerakoon, 2022). Internal factors can be in the form of low student motivation and self-confidence, making the process of mastering digital literacy skills slow (Rumata & Nugraha, 2020; Zamecnik et al., 2022). Furthermore, it can also conclude that skills in operating computers and digital devices greatly support the success of online learning (Al-Kahtani, 2022; Yao et al., 2022).

This research also benefits students, lecturers, and educational institutions. In terms of students, the discussion in this research makes them more aware and willing to improve their digital literacy skills. Self-awareness regarding abilities or deficiencies can motivate us to be better and learn to improve our abilities (Parker et al., 2021; Widiani & Istiqomah, 2021; Zamecnik et al., 2022). Benefits for lecturers or teachers, this research makes it easier to determine the suitable learning media and models according to the needs and perceptions of students. The success of online learning also depends on the media and models applied (Gustari & Widodo, 2022; Staddon, 2022; Syahrastani, 2022). Thus, in general research, this perception brings many benefits both in terms of students, lecturers, and educational institutions and aims to improve the quality of education provided. The results of this study also provide benefits for educational institutions, in this case, Ahmad Dahlan University, to provide learning platforms that suit the needs of students. Educational institutions play an essential role in providing learning facilities that are comfortable and able to improve the skills of their students. So the quality of the students determines the educational process in an institution (Sjahrudin et al., 2022; Trinova et al., 2022) and the level of perception of students in this medium category must increase immediately. If this condition is allowed without action, then this will have an impact on the quality of the learning process that students receive. In addition, the quality of graduates from an educational institution is of minimal quality and quality (Falch et al., 2022; Hermanto, 2022).

Action that campuses, especially educational institutions, can take can focus on the following things, 1) the ability to interpret information from various media; students can join the training or workshops on how to analyze and explain facts or information that support learning. 2) the ability to determine the quality of fact and opinion information; this is still very low so that students can be given socialization in healthy and good digital literacy. Moreover, this also can include seminars or literacy talk shows. 3) the ability to convey information to others. To improve this ability, the lecturer can be in the classroom, emphasizing consistency and verifying any information or facts obtained (Anggito & Sartono, 2022; Boyd-Swan & Herbst, 2020; Brooks, 2021). 4) the ability to access various useful educational sites, 5) the ability to operate applications that are useful for learning in PGSD, such as Mendeley and Macromedia flash, and 6) the ability to find out the license of each website in online media. The implication of this study providing information that will be able to improve and provide more significant opportunities for students to improve their digital literacy skills. Campuses can hold workshops or special training for students in digital literacy and can use as mandatory courses in each generation. Management and development of the campus curriculum are necessary to achieve the learning and educational goals, one of which is to give students good digital literacy. Because when their perception is good, it will be easy to improve these skills. This research falls short since it primarily examines student perspectives, leaving out too much of what we know about professors' and the campus' perceptions. Therefore, it envisaged that future studies could explain how the opinions of professors and campuses as academic institutions would be fully satisfied to conclusions.

4. CONCLUSION

The level of perception of UAD PGSD students in digital literacy is in the medium or quite good category. With this research to find out student perceptions, it will make it easier for related parties to increase their awareness regarding the importance of digital literacy. The subsequent generalization regarding actions that campuses can take as actions after the results of this research in order to improve students' digital literacy skills is to focus on providing services or seminars to students related to 1) the ability to interpret information from various media, 2) the ability to determine the quality of information facts and opinions, 3) the ability to convey information to others, 4) the ability to access various kinds of useful educational sites, 5) the ability to operate applications that are useful for learning in PGSD such as

Mendeley, Macromedia Flash, 6) the ability to know license for every website in the online media. The role of all lecturers and campus officials is needed in this regard.

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