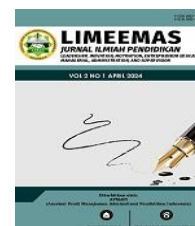


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## The Profile of a Prospective Teacher Candidate's Digital Literacy: A Case Study on Faculty of Teacher Training and Education of PGRI University of Palembang

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**Abstrak:** Tujuan dari penelitian ini adalah untuk mengevaluasi literasi digital calon guru potensial Universitas PGRI Palembang. Kuesioner digunakan dalam studi kuantitatif deskriptif semacam ini. Seratus mahasiswa yang dipilih secara acak dari Fakultas Keguruan dan Ilmu Pendidikan Universitas PGRI Palembang menjadi subjek penelitian. Kuesioner literasi digital dengan indikator untuk mengelola, menghasilkan, mengintegrasikan, menilai, dan mengakses informasi digunakan untuk mengumpulkan data. Momen produk korelasi yang digunakan untuk validasi instrumen dengan hasil setiap item kuesioner adalah signifikan ( $\text{Sig.} < 0,05$ ). Korelasi Pearson positif dan reliabilitas instrumen yang diukur dengan nilai Alpha Cronbach sebesar  $0,750 > 0,50$  menunjukkan validitas dan reliabilitas instrumen. Untuk menemukan persentase dari setiap indikasi, analisis deskriptif dilakukan pada data. Temuan menunjukkan bahwa 80% indikator termasuk dalam kategori keterampilan dasar untuk akses informasi; 75% indikator termasuk dalam kategori manajemen; 74% indikator jatuh ke dalam evaluasi; 73% indikator jatuh ke dalam integrasi; 60% indikator termasuk dalam kategori keterampilan yang tidak memadai; dan 70% indikator jatuh ke dalam komunikasi. Temuan ini menunjukkan bahwa profil literasi digital calon guru PGRI Universitas Palembang termasuk penanda pembuatan informasi. Oleh karena itu, penting untuk mendukung literasi digital siswa.

**Kata kunci:** Literasi Digital, Calon Guru, Studi Kasus

**Abstract:** The purpose of this study is to evaluate the digital literacy of PGRI Palembang University's potential teacher candidates. Questionnaires are used in this kind of descriptive quantitative study. One hundred randomly selected students from the Faculty of Teacher Training and Education at PGRI University of Palembang served as the research subjects. Digital literacy questionnaires with indicators for managing, generating, integrating, assessing, and accessing information were used to gather data. The correlation product moment used for instrument validation with the outcomes of every questionnaire item is significant ( $\text{Sig.} < 0.05$ ). Positive Pearson correlation and instrument reliability as measured by Alpha Cronbach's values of  $0.750 > 0.50$  indicate the validity and reliability of the instrument. To find the percentage of each indication, a descriptive analysis is performed on the data. The findings demonstrated that 80% of indicators fell into the basic skills category for information access; 75% of indicators fell into the management category; 74% of indicators fell into evaluation; 73% of indicators fell into integration; 60% of indicators fell into the

insufficient skills category; and 70% of indicators fell into communication. These findings demonstrate that PGRI University of Palembang prospective teacher candidates' digital literacy profiles included markers of information creation. Consequently, it is essential to support pupils' digital literacy.

**Keywords:** Digital Literacy, Teacher Candidate Students, Case Study

## **INTRODUCTION**

Education in the 21st century today presents more significant challenges to teachers. Teachers must not only have pedagogic, professional, personality, and social competencies but must also have 21st-century skills such as critical thinking, creative, communication, and collaboration skills and have various literacy one of which is digital literacy (Mulyono & Saskia, 2021 Sayaf et al., 2021). This is because learning in this century emphasizes the ability of students to be able to think critically and creatively, master information technology, and have good communication skills and collaboration skills (Astirini Swarastuti et al., 2024; Susanto et al., 2022). Therefore, prospective teacher students must also master various 21st-century skills to help their students have these skills. In addition, in the 21st century, information technology has developed rapidly. Access to information can be done anywhere and anytime. Everything has also gone digital. The education process in the digital era as it is today also provides challenges for prospective teacher students who will later teach the digital native generation (Anaelka, 2018; Karyotaki & Drigas, 2016; Trilling & Fadel, 2009). Especially after the Covid-19 pandemic, like today, the learning process occurs face-to-face (offline) and online (online). The online learning process needs to be supported by the ability of students and teachers to operate digital technology, internet access, access to various applications that support online learning, and the ability to communicate and collaborate online so that it can facilitate the teaching and learning process.

Prospective teacher students must have digital literacy in order to meet the needs of students in the digital era and be able to guide and direct students to be wise in facing technological advances (Duerr et al., 2018a, 2018b; Mulyono & Saskia, 2021). Digital literacy is a person's ability to use information communication technology (ICT) to search, find, evaluate, utilize, create, create, and communicate information that requires cognitive and technical skills (Dede, 2008; Hargreaves, 1994; Malik, 2018). Someone good at using social media can operate computers well and access various things through the internet, but they cannot be said to be digitally literate (Kessler, 2018; Lo et al., 2013). Digital literacy is a life skill that involves not only the ability to use technology, information, and communication devices (Chang & Hsu, 2011) but also information management skills, critical thinking skills, and appropriate online behavior (Abd Rahman et al., 2021; LEVY,

2009; Li et al., 2020). The essence of a digitally literate person is not only being able to operate a computer or be good at using social networks and accessing the internet but also being good at accessing, managing, integrating, analyzing, evaluating information, compiling new information, communicating with others using digital media, and being able to maintain the security of his online data.

Digital literacy has a vital role in education, including being able to help students search and select valid and credible literature from various sources (Liu et al., 2019); it can protect students from various cyber threats, including preventing students from fake news (Pannu, 2015), can help students understand the right to privacy and security of online data, and can help students communicate and collaborate with friends or with their teachers through digital media (Yanhua, 2020). Digitally literate students will avoid plagiarism (Pankratova, 2019), have exemplary achievements, and have a greater chance of getting a job (Alex., 2019). Based on the many essential roles of digital literacy in the realm of education, especially in today's digital era, students are required to have digital literacy as one of the skills of the 21st century. As future educators, prospective teacher students must first have good digital literacy to teach their students so that they can also have good digital literacy. Therefore, prospective teacher students' digital literacy profile analysis needs to be carried out as a basis for decision-making or policy improvement in the learning process in universities, especially at the Faculty of Teacher Training and Education, PGRI University of Palembang. The results of this research can also be used as consideration in determining learning strategies that can empower digital literacy to prepare graduates as prospective future educators who are digital literate.

## **METHODOLOGY**

The PGRI University of Palembang's prospective teacher students' degree of digital literacy was assessed using questionnaires as part of a quantitative descriptive research design. Using a random sample technique, 100 students from the Faculty of Teacher Training and Education served as the research subjects. An online questionnaire with a Likert grading system of 1-4 was used to gather data. The development of the questionnaire items was done using markers of digital literacy, according to Agustin et al. (2023), which cover information access, management, evaluation, integration, creation, and communication. The validity and reliability of the questionnaire instrument have been confirmed by experts and through product moment correlation validation, wherein all item results are significant ( $\text{Sig.} < 0.05$ ), positive Pearson correlation, and an Alpha Cronbach reliability test result ( $0.867 > 0.50$ ). The descriptive analysis of the data yields the percentage of each indicator. Furthermore, the percentage of each indicator is averaged and

matched with criteria to determine students' digital literacy level. Students' digital literacy levels are determined based on criteria according to the ECDL Foundation (Davis & Cleere, 2011; Miesenberger et al., 2004; Petz & Miesenberger, 2016), as seen in Table 1.

**Table 1.** Digital Creation Criteria

Percentage Indicator	Criterion
> 90	Digital Literacy
70 - 90	Basic Skills
< 70	Inadequate Skills

**Source:** ECDL Foundation. Digital Literacy Report

## RESULT AND DISCUSSION

As shown in Table 2, the study's findings were determined by calculating the percentage of each digital literacy indicator among PGRI University of Palembang's prospective teacher students.

**Table 2.** Results of Digital Literacy Analysis of Prospective Teacher Students at Univ. PGRI Palembang

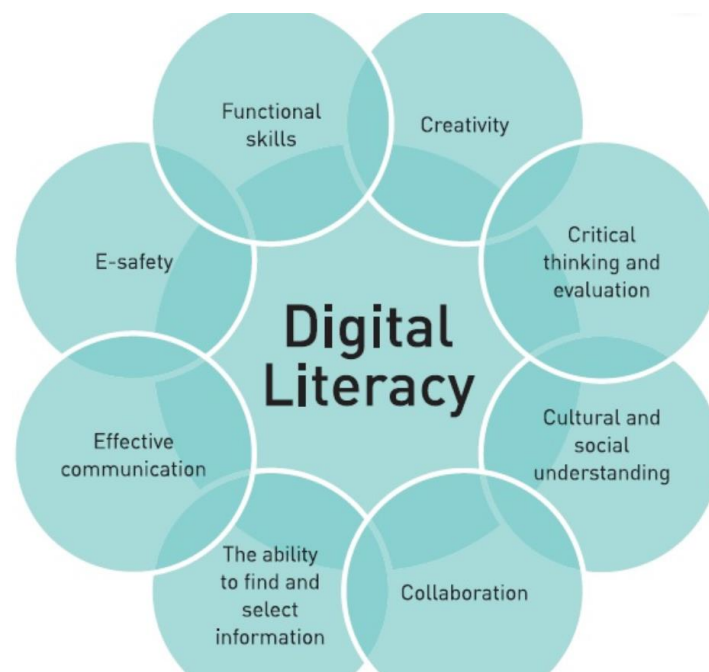
Indikator	Percentage (%)	Criteria
Accessing Information	80%	Basic Skills
Managing Information	75%	Basic Skills
Evaluating Information	74%	Basic Skills
Integrating Information	73%	Basic Skills
Creating Information	60%	Inadequate Skills
Communicating Information	70%	Basic Skills
<b>Average</b>	<b>72%</b>	Basic Skills

According to Table 2's survey results, PGRI University of Palembang's aspiring teachers are still classified as having a rudimentary understanding of digital literacy. One indicator, creating information, remains in the category of insufficient skills, while five of the six digital literacy indicators—accessing, managing, evaluating, integrating, and communicating information—remain in the basic skills category.

This finding indicates that there is still room for improvement and empowerment in the digital literacy of PGRI University of Palembang's prospective teaching students, particularly when it comes to information creation. Based on research findings show that the digital literacy of students and teachers at PGRI University of Palembang still needs to be improved or higher. Some factors that can cause low digital literacy in students include universities that have not facilitated digital literacy empowerment, learning strategies used by lecturers that have not directed students

to hone their digital literacy, and students who need more time to take advantage of technology. Teacher practices and school facilities are critical in implementing digital literacy (Yeşilyurt & Vezne, 2023).

In addition, student readiness for using technology is also essential in empowering digital literacy. Some students who do not have technological devices such as laptops or smartphones can hinder the development of digital literacy. No matter how good the learning strategy designed by teachers to hone students' digital literacy, it will only be effective if students are interested in using digital media and have technology that can support the development of their digital literacy. Students' economic backgrounds are very supportive of facilitating the development of their digital literacy (Anaelka, 2018).



**Figure 1.** Digital Literacy

As times change, job models are becoming more diverse and adaptable. Within the next 20 years, it is predicted that 90% of all jobs will include using digital technology. Many businesses are still looking to hire individuals with digital expertise. In order to thrive in today's digital world, students need to acquire not only the technical skills that employers need, but also the deeper self-assurance and skills that will help them grow in their professions and keep up with emerging technologies. It is common knowledge that students anticipate receiving those skills from their college or university in addition to their degree or occupational training. (Budiyanto et al., 2024; Hidayad et al., 2023). The abilities needed to live, learn, and work in a society where digital technologies like social media, mobile devices, and internet platforms are quickly improving

communication and information access is known as digital literacy. An essential component of digital literacy is communication. Just as important as it is to be able to ask pertinent questions, show respect, build trust, and articulate your ideas clearly when interacting in a virtual setting is being able to do so (Marisya et al., 2023; Nasar et al., 2023; Purwanto, 2020).

In order to access, manage, change, and produce knowledge in an ethical and sustainable manner, you also need to possess practical technological abilities. The digital world is changing at a quick pace; thus, learning is ongoing. Increasing your understanding of digital literacy will pay off in the long run. These days, digital literacy is crucial, particularly for students. In a similar vein, you will be expected to work with others in virtual settings, use knowledge responsibly, and cooperate to generate new concepts and goods. Because the digital landscape is changing quickly, it is important for users of digital media to maintain their digital identities and well-being.

Digital literacy empowerment needs to be done immediately, especially within the scope of prospective teacher students who will later train digital literacy in students classified as digital natives. Efforts to empower digital literacy in universities need support from the campus, lecturers, and students. Digital literacy can be empowered through learning activities facilitating students' access to digital media. Digital literacy empowerment can be started by shifting traditional learning methods from print to digital media (Purwanto, 2023; Purwanto & Al Firdaus, 2023). Higher education can play a role in increasing the number of electronic learning resources, providing infrastructure such as WIFI networks and computers, or granting permission to students to use smartphones and laptops in the college environment to support the development of student digital literacy. Teachers can also do digital literacy empowerment through learning activities. Teachers have an essential role as teaching planners and class organizers; therefore, teachers are important in empowering students' digital literacy in the classroom (Iqbal, 2021; Rifai & Susanto, 2018).

Teachers can design learning activities that can empower students' digital literacy by applying learning models that involve students accessing digital media. Some learning activities that can support the empowerment of digital literacy include information search activities on the internet, reading electronic learning resources or information from the internet, making presentation media assisted by digital media such as power points, Prezi, digital main maps, or digital concept maps, assigning tasks to make videos, web blogs, podcasts, and other types, using reference management like Mendeley or Zotero and applying plagiarism detectors to stop plagiarism while respecting other people's work the usage of numerous digital platforms for discussion boards, information sharing, communication, and student assignment collection, such as Facebook, Instagram, Telegram, Edmodo, Google Classroom, Google Meet, Zoom, and so on.

Dede, (2009). Soruç & Griffiths, 2021 suggest that using WhatsApp to share student

assignments also supports the development of students' digital literacy. Liton, 2015 also mentioned that Students can learn digital literacy by using multi-application platforms like Facebook, WhatsApp, Skype, blogs, and closed groups. The empowerment of digital literacy will be strengthened by students' increased use of digital media. Students can acquire the knowledge, abilities, and attitudes necessary to survive, contribute, and prosper in the digital environment of the twenty-first century by engaging with digital media more frequently (Agustiah et al., 2020). Applying blended learning, such as learning management systems (LMS), can also train students' digital literacy (Bonar Siagian & M Bambang Purwanto, 2023; Hidayad et al., 2023). In addition, writing scientific papers such as papers, practicum reports, or field study reports that emphasize citation writing also supports the empowerment of students' digital literacy.

## CONCLUSION

At PGRI University of Palembang, prospective teachers still need to have minimal levels of digital literacy (only knowing the fundamentals). This low digital literacy of students can be caused by universities that do not facilitate the development of digital literacy, lecturer learning that has not directed students to develop digital literacy, and student motivation that needs to be improved in developing digital literacy. It is advised that colleges empower students' digital literacy by enabling their access to digital media both within and outside of the classroom. Lecturers can apply various learning activities that can facilitate students' access to digital media, such as using discussion group applications, finding and reading electronic reference sources, assignments by utilizing the internet and digital media, and the application of blended learning.

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