



The Relationship between University Support and Students' Digital Competence

Intan Islamia^{1*}, Andry Rahman Arif²

¹UIN Raden Intan Lampung

²Universitas Tulang Bawang

*intanislamia@radenintan.ac.id

ABSTRACT

The advancement of technology in the 5.0 era necessitates that students develop strong digital literacy skills. This study examines the relationship between university support and students' digital literacy levels. Utilizing a quantitative research approach, data were collected from 99 respondents through two structured questionnaires: one measuring digital literacy and the other assessing university support. The data were analyzed using descriptive and correlational techniques with SPSS software. The findings reveal a significant positive correlation between university support and students' digital literacy. These results highlight that enhanced university support is associated with improved digital literacy skills among students. This study underscores the critical role of universities in delivering quality educational services that foster students' digital competence.

This is an open access article under [CC-BY-NC 4.0](https://creativecommons.org/licenses/by-nc/4.0/) license.



ARTICLE INFO

Keywords:

digital era;
digital literacy;
higher education;
quality education

Article History:

Received: 2 November 2024

Revised: 1 December 2024

Accepted: 4 December 2024

Published: 6 December 2024

How to Cite in APA Style:

Islamia, I., & Arif, A. R. . (2024). The Relationship between University Support and Students' Digital Competence. *IJLHE: International Journal of Language, Humanities, and Education*, 7(2), 213–222.

<https://doi.org/10.52217/ijlhe.v7i2.1614>

INTRODUCTION

The integration of information technology and the internet into daily life has significantly transformed how individuals access and utilize information (Zan, et al., 2020). This transformation underscores the need for individuals to develop advanced competencies to thrive in the modern world. The World Economic Forum's 2020 report highlighted several critical skills essential for success by 2025, including active learning, innovation, effective learning strategies, and technological proficiency. These skills encompass the ability to design, organize, and monitor the use of technology effectively.

Against this backdrop, higher education institutions play a pivotal role in preparing individuals equipped with the knowledge and skills required to navigate the complexities of contemporary life (Sutiyono et al., 2022).

The increasingly rapid flow of information at both national and global levels presents both opportunities and challenges. Lecturers and students must continuously adapt to these dynamic changes, particularly to contribute meaningfully to enhancing the quality of Indonesian human resources. The COVID-19 pandemic further highlighted the importance of digital skills, as digital spaces became essential substitutes for in-person interactions (Hastomo & Septiyana, 2022). This shift underscored the urgency of equipping individuals with the digital competencies necessary for effective participation in the digital age.

Literacy, at its core, represents a set of foundational skills that enable individuals to read, write, and solve problems within various contexts, such as work, family, and society. However, in the digital era, literacy has evolved to encompass digital literacy—the ability to communicate, think critically, and interact effectively within digital environments (Jones & Hafner, 2012). Digital literacy is not merely about accessing information; it also involves interpreting, analyzing, and creating multimodal content using various digital technologies (Istiara & Hastomo, 2023). This broader definition emphasizes the importance of equipping individuals with the skills needed to navigate the complexities of digital platforms and tools.

The importance of digital literacy has been increasingly recognized by various stakeholders, including governments, educational institutions, and industries (Oktarin & Hastomo, 2024). Governments around the world have launched initiatives to promote digital literacy, recognizing its potential to drive economic growth and social development. In Indonesia, several programs aim to enhance digital literacy among students, who represent the future workforce and leaders. These initiatives highlight the critical role of digital literacy in fostering qualities such as digital resilience and constructive interactions. Digital resilience enables individuals to adapt to and overcome challenges in digital environments, while constructive interactions promote positive and productive engagement within the global digital community (Harmoko, 2021).

Students with strong digital literacy skills are better equipped to achieve personal and professional success (Rinekso et al., 2021). They can leverage digital tools to access and analyze information, collaborate with others, and create innovative solutions to complex problems. Moreover, digital literacy contributes to the development of quality human resources, which is essential for national progress. As a result, higher education institutions bear a significant responsibility to ensure that their graduates are not only academically proficient but also skilled in digital literacy.

Universities are uniquely positioned to play a transformative role in fostering digital literacy among students. As centers of learning and innovation, they can provide the resources, support, and opportunities necessary for students to develop and apply

digital skills. University support can take various forms, including access to technological infrastructure, curriculum development that integrates digital competencies, and training programs that enhance students' proficiency in using digital tools. By investing in these areas, universities can help bridge the gap between academic knowledge and practical skills, ensuring that graduates are well-prepared to meet the demands of the modern workforce (Zhang & Zhang, 2024).

This study seeks to explore the relationship between university support and students' digital literacy levels. Specifically, it examines how various forms of institutional support, such as technological facilities, curriculum enhancements, and training programs, influence students' ability to develop and apply digital skills. Understanding this relationship is crucial for designing effective strategies to improve digital literacy among students and, by extension, the broader population.

The findings of this study are expected to provide valuable insights into how university support can enhance students' digital literacy levels. A positive relationship between these variables would highlight the importance of institutional investment in digital education. Moreover, the results could inform the development of targeted strategies and policies to improve digital literacy in higher education settings.

METHOD

This study employs a quantitative research method with a population consisting of students from various regions across Indonesia. A random sampling technique was utilized to ensure a representative selection of participants, allowing for broader generalizations of the findings. A total of 99 respondents participated in the study, completing the research questionnaire distributed online. The online distribution facilitated access to respondents in diverse locations, overcoming geographical barriers and ensuring an efficient data collection process. This approach aligns with the growing reliance on digital platforms for academic research, reflecting the study's focus on digital literacy.

The instruments used in this study were carefully designed to capture the variables of interest effectively. Two questionnaires were implemented to gather comprehensive data: a digital literacy questionnaire and a university support questionnaire. The digital literacy questionnaire, developed by Nugroho and Nasionalita (2020), was based on the measurement components outlined in the Digital Literacy Across the Curriculum framework (Hague & Payton, 2010). This tool assessed various dimensions of digital literacy, ensuring a nuanced understanding of respondents' skills and competencies. Meanwhile, the university support questionnaire, created by Rosalina et al. (2021), explored the types and levels of institutional support provided to students, including resources, training, and curriculum adjustments aimed at enhancing digital literacy.

The collected data were subjected to rigorous statistical analysis using SPSS software. Descriptive analysis was performed to summarize the key characteristics of

the data, providing insights into the general trends and patterns observed among the respondents. Additionally, correlational analysis was conducted to examine the relationship between university support and students' digital literacy levels. This analytical approach allowed the researchers to determine the strength and significance of the association between the two variables, contributing to a deeper understanding of how institutional factors influence digital competency. The methodological rigor of this study ensures the reliability and validity of the findings, which have important implications for educational practices and policy-making.

RESULTS AND DISCUSSION

Table 1. Distribution of Digital Literacy Skills Categories

Category	Norms	Total (n)	Percentage (%)
High	X > 106	16	16%
Medium	71-106	72	73%
Low	X < 71	11	11%
Total		99	100%

The study results, as shown in Table 1, reveal that the digital literacy skills of students are predominantly at a moderate level, accounting for 73% of the sample. This indicates that the majority of students possess foundational digital literacy skills, enabling them to engage effectively in digital environments. These findings align with previous research by Sánchez-Caballé et al. (2020), Sumadi et al. (2023), and Yoleri & Anadolu (2022), which similarly observed that students generally exhibit satisfactory levels of digital literacy. However, despite this positive outlook, the study also highlights a concerning gap: 11% of the students are categorized as having low digital literacy skills. This subgroup represents a critical area where improvement is necessary to ensure that all students can navigate and contribute to digital spaces effectively. A closer examination of this group reveals that they are often limited to passive online activities and perceive social media as irrelevant to their academic or professional development (Dennen et al., 2023). This underscores the importance of targeted interventions to equip these students with the skills required to leverage digital platforms more actively and meaningfully.

The significance of digital literacy extends beyond mere technical ability, as it is closely tied to broader competencies such as self-regulation. Research by Kayaduman et al. (2022) suggests a positive correlation between students' digital literacy skills and their capacity for self-regulated learning. This implies that students who are more digitally literate are better equipped to plan, monitor, and assess their own learning processes. Such skills are crucial in today's educational landscape, where digital tools and platforms play a central role in learning and information dissemination. Therefore, addressing the digital literacy gap is not only a matter of enhancing technical proficiency but also fostering the cognitive and metacognitive skills that underpin independent and

effective learning.

The detailed distribution of digital literacy skills is presented in Table 1. Among the participants, 16% demonstrated high levels of digital literacy, characterized by scores above 106. These students likely engage in advanced digital activities such as content creation, critical analysis of online information, and collaborative digital projects. The majority, 73%, fall into the medium category, with scores ranging from 71 to 106, indicating a competent but not advanced level of digital literacy. Finally, the 11% in the low category, with scores below 71, represent a segment that may struggle with basic digital tasks and require additional support. These statistics provide a clear roadmap for educators and policymakers to allocate resources and design interventions that address the specific needs of each group, particularly those at the lower end of the spectrum.

Table 2. Correlation Test Results

Variable	R	Sig.	Explanation
X-Y	0.339	0.000	Positive - significant

In addition to evaluating students' digital literacy levels, the study explored the relationship between university support and digital literacy competencies. Table 2 presents the results of the correlation analysis, which revealed a significant positive relationship between the two variables ($R = 0.339$, $Sig. = 0.000$). This finding underscores the critical role that higher education institutions play in fostering digital literacy among students. Consistent with prior studies by Rosalina et al. (2021), the data demonstrate that robust institutional support positively influences students' ability to develop and apply digital skills. Such support may include access to technological resources, the integration of digital literacy into the curriculum, and training programs that equip students with practical competencies for the digital age.

Further research by Jang (2023) and Nailala et al. (2022) highlights the importance of interactions between students and lecturers in shaping digital literacy outcomes. Meaningful engagement with faculty members can enhance students' understanding of digital tools and their applications. For instance, lecturers can guide students in developing critical digital skills such as digital writing, reading, content design, and the cultivation of social and digital competencies. These interactions provide opportunities for mentorship, feedback, and collaborative learning, all of which are vital for deepening students' digital literacy. Therefore, universities should prioritize fostering strong, collaborative relationships between students and faculty to maximize the impact of their digital literacy initiatives.

The findings also emphasize the need for universities to adopt a structured and comprehensive approach to digital literacy development. Gutiérrez-Ángel et al. (2022) argue that digital literacy programs in higher education should encompass a wide range of competencies, including self-efficacy in using digital tools, the ability to analyze and create digital content, and the development of social skills for navigating digital

environments. Addressing these areas requires a multi-faceted strategy that integrates digital literacy into academic curricula while also providing extracurricular opportunities for skill enhancement. Stakeholders, including university administrators and policymakers, must collaborate to design and implement frameworks that address the digital literacy needs of both students and lecturers.

Workshops and training programs represent an effective avenue for improving digital literacy across university communities. As noted by Weber, Hilmert, and Rott (2018), such initiatives can provide students and lecturers with hands-on experience in using digital tools and platforms. These programs should be tailored to address the specific challenges faced by different groups, ensuring that they are accessible and relevant. For students, workshops might focus on areas such as digital security, content creation, and critical evaluation of online information. For lecturers, training could emphasize integrating digital tools into teaching practices and leveraging technology to enhance student engagement and learning outcomes. By investing in these professional development opportunities, universities can build a digitally competent academic community capable of meeting the demands of a rapidly evolving digital landscape.

Finally, the findings underscore the importance of bridging the gap between institutional support and individual competencies. While university support plays a pivotal role, students must also take an active role in their own digital literacy development. Encouraging self-directed learning and fostering a culture of digital curiosity can empower students to explore and master new digital skills independently. Moreover, collaboration between universities, industry partners, and government agencies can further strengthen digital literacy initiatives by aligning educational programs with the skills required in the workforce. Such collaborative efforts can ensure that graduates are not only academically prepared but also digitally proficient, contributing to their success in an increasingly digitalized world.

In conclusion, this study sheds light on the current state of digital literacy among students and the factors that influence its development. While most students possess moderate digital literacy skills, a significant minority requires targeted support to bridge the gap. The positive correlation between university support and digital literacy levels highlights the critical role of higher education institutions in equipping students with the skills needed for the digital era. By addressing these challenges through comprehensive strategies, workshops, and stakeholder collaboration, universities can foster a digitally literate generation capable of thriving in the 21st century.

CONCLUSION

This study examines the relationship between university support and students' digital literacy levels. The findings reveal that the majority of students exhibit moderate digital literacy skills. Additionally, university support is positively correlated with students' digital literacy levels, affirming the results of several previous studies. These findings suggest that increased institutional support is

associated with improved digital literacy among students. This highlights the critical role of universities in providing quality educational services that foster the development of students' digital literacy skills.

Despite these significant insights, the study has several limitations. First, the sample size is relatively small and restricted to a single institution, limiting the generalizability of the findings to other contexts or regions. Second, the study relies primarily on self-reported data, which may be subject to social desirability bias. Third, the study does not explore specific components of university support, such as the quality of digital resources, faculty engagement, or access to professional development opportunities, which might provide a deeper understanding of the mechanisms influencing digital literacy.

The findings carry important implications for educational institutions. Universities should prioritize initiatives that enhance digital literacy by offering workshops, integrating digital skills into the curriculum, and providing access to modern technological tools. Furthermore, they should foster a supportive environment where faculty members actively engage with students to guide them in developing these skills. By doing so, universities can bridge the gap between students with varying levels of digital literacy and prepare them for the demands of the digital age.

For future research, several directions are suggested. First, larger and more diverse samples should be utilized to enhance the generalizability of the findings across different educational and cultural settings. Second, qualitative approaches, such as interviews or focus groups, could provide deeper insights into the specific types of university support that most effectively enhance digital literacy. Third, longitudinal studies could investigate how digital literacy evolves over time with varying levels of institutional support. Lastly, future research should explore the impact of digital literacy development programs on academic performance and employability, providing a comprehensive understanding of their long-term benefits.

ACKNOWLEDGMENTS

Thank you to LP2M UIN Raden Intan Lampung for funding this research through the 2022 Capacity Development Research Scheme.

REFERENCES

- Ahmed, S. & Roche, T. (2022). Digital Literacy and Academic Staff in an English Medium Instruction University: A Case Study. *International Journal of Computer-Assisted Language Learning and Teaching (IJCALLT)*, 12(1), 1-20. <https://doi.org/10.4018/IJCALLT.301197>
- Dennen, V., He, D., Shi, H., & Adolfson, D. (2023). College Students, Networked Knowledge Activities, and Digital Competence. *Online Learning*. <https://doi.org/10.24059/olj.v27i4.4046>.

- Gutiérrez-Ángel, N., Sánchez-García, J., Mercader-Rubio, I., García-Martín, J., & Brito-Costa, S. (2022). Digital literacy in the university setting: A literature review of empirical studies between 2010 and 2021. *Frontiers in Psychology, 13*. <https://doi.org/10.3389/fpsyg.2022.896800>.
- Harmoko, D. D. (2021). Digital Literacy As A Solution To Improve The Quality Of Indonesia's Human Resources. *Research and Development Journal of Education, 7*(2), 413. <https://doi.org/10.30998/rdje.v7i2.10569>
- Hastomo, T., & Septiyana, L. (2022). The investigation of students' engagement in online class during pandemic COVID-19. *Jurnal Penelitian Ilmu Pendidikan, 15*(2). <https://doi.org/10.21831/JPIPFIP.V15I2.49512>
- Istiara, F., & Hastomo, T. (2023). Exploring lecturers and administrative staffs' strategies to hone EFL students' digital literacy. *JOALL (Journal of Applied Linguistics and Literature), 8*(1), 151–172. <https://doi.org/10.33369/JOALL.V8I1.25568>
- Jang, N. (2023). Exploring Factors Influencing College Students' Digital Literacy. *The Korean Association of General Education*. <https://doi.org/10.46392/kjge.2023.17.5.93>.
- Jones, R., & Hafner, C. (2012). Understanding Digital Literacies: A Practical Introduction. In *Understanding Digital Literacies: A Practical Introduction*. <https://doi.org/10.4324/9780203095317>
- Kayaduman, H., Battal, A., & Polat, H. (2022). The relationship between undergraduate students' digital literacy and self-regulation in online interaction. *Innovations in Education and Teaching International, 60*, 894 - 905. <https://doi.org/10.1080/14703297.2022.2113113>.
- Nalaila, S., Wawire, V., & Gathara, P. (2022). Classroom support for students' digital literacy skills for learning in Tanzania's public universities. *Development in Practice, 32*, 867 - 878. <https://doi.org/10.1080/09614524.2022.2104219>.
- Nugroho, C., & Nasionalita, K. (2020). Digital Literacy Index of Teenagers in Indonesia. *Journal Pekommas, 5*(2), 215. <https://doi.org/10.30818/jpkm.2020.2050210>
- Oktarin, I. B., & Hastomo, T. (2024). Utilizing Critical Discourse Analysis on Developing Students' Digital Literacy Skills: An Action Research. *Premise: Journal of English Education, 13*(1), 90. <https://doi.org/10.24127/pj.v13i1.8758>
- Prasad, N. V., Balraj, S., Pandian, A., & Nordin, M. Z. (2016). Literacy, Skills and Perception of Young Children on Media Matters. *Researchers World, 7*(1), 62
- Rinekso, A. B., Rodliyah, R. S., & Pertiwi, I. (2021). Digital literacy practices in tertiary education: A case of EFL postgraduate students. *Studies in English Language and Education, 8*(2), 622–641. <https://doi.org/10.24815/siele.v8i2.18863>
- Rosalina, D., Yuliani, K., Setianingsih, D., & Zati, M. R. (2021). Faktor – Faktor Yang Berpengaruh Terhadap Kompetensi Literasi Digital Mahasiswa di Era Revolusi Industri 4.0. *EKONIKA Jurnal Ekonomi Universitas Kadiri, 6*(2), 294. <https://doi.org/10.30737/ekonika.v6i2.1996>
- Sánchez-Caballé, A., Gisbert-Cervera, M., & Esteve-Mon, F. M. (2020). *The digital competence of university students: a systematic literature review*. <https://api.semanticscholar.org/CorpusID:219463448>

- Sumadi, S. W., Wahyuni, S., Program, S. /, Program, P. /, Doktoral, S. P., Negeri Makassar, U., Nurhayati,), Program, B. /, Pendidikan Biologi, P. /, & Makassar, U. N. (n.d.). *Inovasi Sains dan Pembelajarannya: Tantangan dan Peluang Makassar (Vol. 23)*.
- Sutiyono, A., Hastomo, T., & Tanod, M. J. (2022). Educators' perception towards early childhood education in technology integration: A case study. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 6(6), 7323–7333. <https://doi.org/10.31004/obsesi.v6i6.3837>
- Umut Zan, B., Çolaklar, H., Altay, A., & Taşkın, N. (2020). A Study on Digital Literacy Skills of Faculty of Letters Students: Use of University Library. *International Journal of Emerging Technologies in Learning*, 16(1), 152–171. <https://doi.org/10.3991/IJET.V16I01.16567>
- Weber, H., Hillmert, S., & Rott, K. (2018). Can digital information literacy among undergraduates be improved? Evidence from an experimental study. *Teaching in Higher Education*, 23, 909 - 926. <https://doi.org/10.1080/13562517.2018.1449740>.
- Yoleri, S., & Nur Anadolu, Z. (2022). Examination Of Digital Literacy Skills Of Undergraduate Students According To Various Variables. *Advanced Education*, 121–134. <https://doi.org/10.20535/2410-8286.262190>.
- Zhang, J., & Zhang, Z. (2024). AI in teacher education: Unlocking new dimensions in teaching support, inclusive learning, and digital literacy. *Journal of Computer Assisted Learning*, 40(4), 1871–1885. <https://doi.org/10.1111/jcal.12988>

