

EMPOWERING ENGLISH LEARNING THROUGH DIGITAL LITERACY IN THE *MERDEKA BELAJAR* ERA: A CASE STUDY AT UNIVERSITAS AKI

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Abstract

In the era of *Merdeka Belajar*, English lecturers are challenged to adapt their teaching methods to meet student's needs in a rapidly evolving digital world. This study aimed to explore how digital literacy-based English learning is implemented at Universitas AKI, aligning with the objectives of *Merdeka Belajar*. Data was collected through classroom observations, interviews with lecturers and students, and supplementary questionnaires. The research sought to understand how technology enhances students' English skills. The findings revealed that integrating digital literacy into English learning at Universitas AKI was successful, following three key stages of digital literacy development. In the first stage, digital competence, the lecturers and students exhibited strong skills in using internet-connected devices effectively and engaging in respectful online behavior. The second stage, digital usage, highlighted lecturers' frequent incorporation of digital tools to access relevant visual and textual content for teaching. Lastly, the stage of digital transformation was evident in the creative application of technology by both lecturers and students, particularly in the completion of digital-based assignments.

Keywords - Digital Literacy; Empowering; English learning; English lecturers; *Merdeka Belajar*

Introduction

Information is vital in the era of information and knowledge society (Boschele, 2014; Ishola, 2019; Teboura et al., 2019). Therefore, Indonesia must develop a digital literacy culture, be proud of implementing literacy, and apply digital literacy to all lifelines, including in the education sector (Rusydiyah et al., 2020). Every academic community should know that digital literacy is the most crucial thing that will be used to take part and play a role in the digital era, especially after the Covid-19 pandemic, which has forced all lines of education in tertiary institutions to use various internet-based digital devices and carried over to normal era life with digital technology that continues to rush. Therefore, digital literacy needs to be improved, especially for students.

Digital literacy impacts educational institutions. Educational institutions and foundations also integrate various information systems (Miskiah et al., 2019, p. 130). Therefore, university graduates

are prepared to become talents with superior human resources (Mansour & Dean, 2016; Pang et al., 2019; Tayibnapis et al., 2018). With that, all efforts are made by regulating regulations so that digital transformation goals are carried out. At Universitas AKI, the subject of this study, the university has implemented various regulations related to digital transformation with technology and business-based slogans. In addition, Universitas AKI follows government policies that support digital transformation, one of which is MBKM (*Merdeka Belajar Kampus Merdeka*).

One of *Merdeka Belajar*'s focuses is the acceleration of literacy education. The data from the 2019 PISA study revealed dismal performance on international standardized tests by Indonesian students (Puad & Ashton, 2022; Setyowati et al., 2022). Out of 79 countries, Indonesia ranks 74th. Therefore, a way is needed to increase students' literacy in the era of *Merdeka Belajar*. It includes three things:

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standing alone, not depending on others, and being able to manage yourself (Azmi & Iswanto, 2021; Sukmariningsih et al., 2022). Furthermore, the mindset about learning from teacher-centered learning has also changed to student-centered learning (Zhang et al., 2023). Not only that, internet access provides us with millions of digital tools or platforms to learn.

Digital learning challenges English lecturers at Universitas AKI because students are less motivated to study after the pandemic. Interviews with many students have identified why students lose interest in learning. It is because certain conditions are constantly drawing their attention away. In addition, they favour the idea that students may participate in online learning while listening to music or accessing video apps, all from the comfort of their homes, as their lecturers present information via Zoom or Google Meet. Low learning outcomes can be attributed to students' propensity to choose other activities above their study. The lecturers also could not convey the material to the fullest because of the condition of the students who were not focused several times ago. Therefore, lecturers must be more creative in developing media and methods and look for varied learning sources to motivate the students to learn more. Learning in the digital era demands the expertise and skills of lecturers to find and apply the right solutions to various problems, one of which is by implementing digital literacy-based learning. Lecturers must also be able to invite students to adapt to changes in the learning environment which demands more active students who can be independent and learn wherever they are. It is also following the results of previous research, which stated that lecturers must also be able to keep up with the times, be capable of functioning well in today's ever-changing educational setting by playing several roles as change agents,

learning consultants with a strong moral compass, social awareness, and logical, honest thought (Wayan et al., 2022). Some of the weaknesses in the current English learning process are often encountered. Farhana (2021) argued that English instructors do not innovate with the learning resources or teaching materials used. Hence, the material delivered by lecturers is not up to date or out of date. In addition, the lack of competence of lecturers in using appropriate learning methods can also make students easily bored because they are only instructed to record vocabulary, translate, and memorize, then are given homework assignments with unclear instructions so that answers become ambiguous.

This study investigates how digital literacy-based English learning is implemented at Universitas AKI in the *Merdeka Belajar* era, providing insights into how lecturers can adapt their teaching strategies to foster student engagement and independence in learning. The findings are expected to serve as a guide for lecturers in implementing effective digital literacy-based learning, helping students improve their English skills while minimizing the potential negative impacts of technology in education.

Literature Review

What is digital literacy? According to *Gerakan Literasi Nasional* (GLN) book published by The Ministry of Education and Culture of Indonesia, digital literacy is knowledge and skills to use digital media, communication tools, or networks in finding, evaluating, using, creating information, and use it positively, wisely, intelligently, carefully, precisely, and comply with the law to foster communication and interaction in everyday life (Nasrullah et al., 2017). It combines technical and cognitive abilities to use information and communication technologies to create, evaluate, and share information (Laar et al., 2020). Digital

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literacy is very suitable to be applied in the era of *Merdeka Belajar*, which is also adapted from the era of Society 5.0. The basic schema of Society 5.0 is that data is collected from the "real world" and processed by computers, with the results being applied in the real world (Deguchi et al., 2020). All generations who live in Society 5.0 are the Baby Boomers, X Generations, Y Generations, Z Generations, and Alpha Generations (Putra, 2016). The baby boomers, The X, and The Y / Millennial Generation have entered the 21st century. Therefore, people nowadays must have skills mostly in digital literacy, namely 4C; Communication, Collaboration, Critical Thinking and Problem-Solving, and Creativity and Innovation (Mansyur et al., 2023; Sunardi & Doringin, 2020). As the nation's next generation, students need to improve their abilities so they are not left behind by other countries competing for digital transformation.

Table 1. Digital literacy across generations (Putra, 2016).

Generations	Born
Baby Boomers	1946 - 1964
X Generations	1965 - 1980
Y Generations	1981 - 1995

Z Generations	1996 - 2010
Alpha Generations	2011 - Now

For this reason, the Indonesian government is taking various steps to accelerate digital transformation, accelerating the expansion of access and increasing the availability of digital infrastructure and internet services. Digital transformation roadmaps in all sectors, especially education, are made in various policies. There are three levels of digital literacy (Martin, 2009; Nasrullah et al., 2017). First, digital competence includes skills, concepts, approaches, and behaviors. Second, digital use refers to applying digital competencies to a particular context. The third, digital transformation requires creativity and innovation in the digital world. According to Mayes and Fowler (2006), the principle of developing digital literacy is tiered. There are three levels of digital literacy. First, digital competence includes skills, concepts, approaches, and behaviors. Second, digital use refers to applying digital competencies to a particular context. The third is digital transformation which requires creativity and innovation in the digital world.

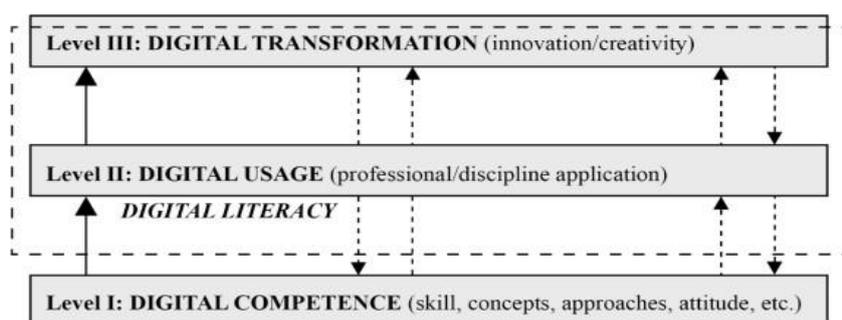


Figure 1. The theoretical framework of digital literacy was adapted from A. Martin (2009)

According to the findings of many studies, digital literacy has been helpful in the EFL setting lately. There have been several studies on the topic of digital literacy in English language learning and instruction (Arsari, 2022; Hamidah, 2021; Iskandar et al., 2022; Khairunnisa et al., 2022; Melliyan & Mardiyanti, 2022; Pudjiati &

Fitria, 2022; Razak et al., 2022; Roche, 2017). Research in this area has concentrated chiefly on the role of technology in EFL classrooms. Students' linguistic abilities in the digital age can benefit from digital literacy. Furthermore, Chatwattana (2021) stated that in digital universities, the instructors are responsible

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for setting up a conducive learning environment and developing relevant course materials using the available technology. Furthermore, Pertiwi (2022) stated that students should be familiar with the term "information literacy," which calls for them to be able to locate relevant information quickly (in terms of both time and sources) and accurately (in terms of both accuracy and relevance), as well as to evaluate that information critically and competently and to use and manage it accurately and creatively. Then, Madsen et al. (2019) suggested one strategy to assist in the growth of teachers' digital fluency in a collaborative, student-centered setting: a digital literacy indicator in its reporting. It was noted in the other research that the increasing prevalence and pervasiveness of digital technology have made digital literacies increasingly crucial in modern society (Alamsyah & Purnama, 2017; Arafah & Hasyim, 2022; Fadli & Dwiningrum, 2021; Hayati & Arini, 2021; Maya & Suseno, 2022; Valentina et al., 2022). Meanwhile, Al-Qallaf and Al-Mutairi (2016) students' digital compositions can help them acquire skills in digital literacy such as critical thinking, creativity, information construction and evaluation, and the efficient use of digital media, as indicated in the study.

Students today need to be computer literate since they grew up with computers. Those who grow up with computers and other digital technologies are called "digital natives." The findings presented here should serve as a call to action for that designing and delivering e-learning courses to ensure their students acquire the digital literacy and self-regulated competence necessary for long-term success (X. Wang et al., 2022). It helps present EFL instructors to educate the next generation better. Moreover, Atmanegara et al. (2013) demonstrated the beneficial effects of online materials on EFL students' digital literacy due to their use in classroom teaching. Then, Almusharraf

and Engemann (2020) suggested that students who engage in multimodal digital literacy activities can better acquire the modern-day literacy abilities they need. To better prepare students from culturally and linguistically diverse backgrounds for undergraduate study, further research into the connection between digital literacy and academic success can be conducted at the institutional level to help students learn how to effectively access, evaluate, and incorporate online resources into their work (Ahmed & Roche, 2021). These findings lay the groundwork for further study and incorporating digital literacy into the classroom.

Using information and communication technology to create, evaluate, and share knowledge requires a blend of technical know-how and critical thinking. In higher education, "digital literacy" is only one of many catchphrases, ideas, and terminology widely accepted and used. The term now appears alongside others like "disruptive innovation," "student-centered learning," "blended and flipped learning," and "student engagement." (Walton, 2016). Like traditional literacy, digital literacy encompasses the abilities and attitudes necessary to effectively utilize digital tools for various tasks, including but not limited to the following (Nguyen & Habók, 2022). From these criteria, we may infer that digital literacy is the ability to use digital technology for effective and crucial information navigation, evaluation, creation, and communication. Accessing information, interacting with others, solving problems, expressing oneself creatively, and using digital tools, resources, and platforms are all part of this.

Methodology

This study uses a qualitative descriptive method that reveals problems, circumstances, or events as they occur to find facts in the field. This study aims to show events, facts, and circumstances that

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describe the teaching and learning activities process in digital literacy-based English learning in the *Merdeka Belajar* era at Universitas AKI. This research was conducted from May to June 2024. Data collection techniques in this study used observation, questionnaires, and interview techniques. The observations were made on English learning, which was held face-to-face and online. Then the researcher interviewed seven English lecturers and the students of Universitas AKI. The researcher also distributed questionnaires to forty Universitas AKI students using Google Forms. This study performed qualitative data analysis following the Creswell framework (Creswell & Creswell, 2018). Data gathering, data reduction, data presentation, and conclusion drawing/verification make up the stages (conclusion and verification).

Finding and Discussion

Several engaging and enjoyable approaches to learning English were given. Since the *Merdeka Belajar* era marked a policy shift into the digital and autonomous transformation era, it was worthy of special consideration. The lecturers and students benefited greatly from widespread familiarity with and the facility to use digital technologies, including computers, the web, and cell phones. Support books in electronic form, digital tools, and some platforms could be easily accessed using the internet. Those digital tools are gradually in demand along with the massive screen culture. This study describes learning English based on digital literacy at Universitas AKI. The learning process was developed based on the principle of developing digital literacy, which is tiered with three levels, digital

competence, digital usage, and digital transformation.

Digital Competence

Digital competence includes skills, concepts, approaches, and behaviours. In this study, the results of observations and interviews with lecturers conducted on May 17, 2024, obtained information that seven English lecturers at the university had excellent digital competence. The lecturer has attended several trainings on digital literacy-based learning. The training includes training organized by the Government, *LLDikti*, and various webinar organizers by inviting expert presenters and participating in YouTube rebroadcasts about the application of digital literacy in learning.

The lecturer's digital competence was also seen during the learning process. The lecturers were skilled in using digital devices and the internet for learning and supporting learning resources. Apart from that, the lecturer also told the students to use the internet wisely and continue to prioritize courtesy when communicating through social media. The lecturers were also very selective in finding English reading materials appropriate to the student's age and the Indonesian people's moral values. Digital literacy-based English learning allowed the lecturers to take several texts, images, and videos relevant to the material on internet sites, where it would be easy to find various learning resources that were appropriate to the context based on keywords of what the students wanted. Online learning media was also available, with various images or videos expected to motivate students to study harder.

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The students download essential learning apps and supplementary tools to support digital literacy-based English learning in Merdeka Belajar era
40 responses

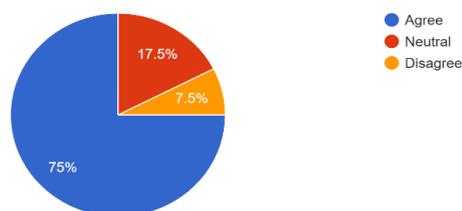


Figure 2. Questionnaire results from the students related to the tools to support digital literacy-based English learning in the *Merdeka Belajar* era.

The survey findings from this study revealed that every single student had excellent digital competency. It demonstrated that students already used computers and the internet to supplement their English language training. The students downloaded essential learning apps like WhatsApp, Zoom, and Google Classroom and supplementary tools like Google Translation, an online dictionary, the BBC's Learning English, Duolingo, Wordwall, Cake, and several English-language video games. In addition, the students also understood that they had to be selective in choosing information and learning resources. Sometimes, the students had to ask their lecturers several times about the truth of news or information about learning English. When the lecturers or the students have such skills, they could use digital media to carry out activities that produce and enrich self-knowledge and not use it for destructive or wasteful activities.

The ability to use technology and read and write digital content is becoming increasingly important and sought after in today's classrooms. This finding aligns with Pratolo and Solikhati (2021), who stated that it is important for educators to be technologically literate to help their students. Teachers who are comfortable with technology tend to be more at ease in the classroom. Technology in the classroom helps students become more technologically literate by enhancing their technical competence, problem-solving

abilities, digital communication skills, and adaptability to new platforms and software.

Digital Usage

The term "digital usage" describes the implementation of context-specific digital skills. This research originates from using digital in English learning activities at Universitas AKI, carried out on a digital literacy basis. The most important thing in learning English is developing students' language skills, both in spoken and written forms. Digital literacy-based English learning in practice takes the form of teaching where lecturers use computers or laptops connected to the internet network when teaching, for example, in teaching listening and speaking skills in English. In the old learning process, the lecturers only gave an example of reading a conversation in the textbook with the correct pronunciation and intonation and then asked their students to imitate.

With digital literacy-based learning, speaking learning could be done by taking conversational dialogues in English-language films or downloading material on YouTube or Podcasts. Then after the lecturer gave examples of how to pronounce the words in the conversation, the lecturer also played audio of the correct pronunciation using an application on the internet so that the students could listen directly to how native speakers pronounce certain words or even read conversations presented by the lecturer. It was hoped that

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the students could more easily and correctly understand English conversations from native speakers and be

able to pronounce English vocabulary more precisely and approach the way of native speakers.

I prefer to use dictionaries, apps, and other online books compared to the printed version
40 responses

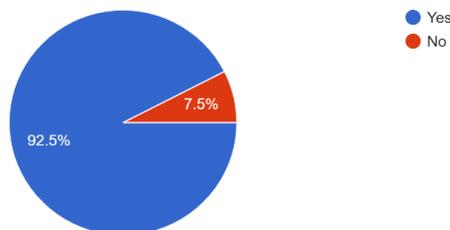


Figure 3. Questionnaire results gathered from the students related to their preferred materials.

In all English skills, the lecturers took several English texts from the internet, then asked the students to read with the correct pronunciation and look up the meaning of words they did not know in the dictionary. Lecturers complemented the text with attractive images, such as graphs or concept map charts, that helped the students understand the text's contents. After the lesson, the lecturers uploaded the material they made online to become a reference for lecturers in other areas. In reading and writing lessons, around 92.5% of students preferred dictionaries, apps, and other online books to printed ones because printed books are heavy and take up space. Even so, lecturers still required their students to bring dictionaries and printed versions of their books to class. It was done because the students were too much in using their cell phones in class. Some students did not focus because of other activities on the phone. It also aimed to familiarize the students so they did not depend on all their learning on digital devices and were too lazy to read printed versions of books. In addition, the lecturers uploaded assignments on the Google Classroom platform for the students to work on at home after returning from class.

The ability to operate digital devices could support the learning process in facilitating achieving learning goals. Data from the

lecturers' interviews showed that at the higher education level, the students were no longer allowed to rely only on material from lecturers but could already be asked to find learning resources on their own on the internet. Some students could find ways to understand the material more quickly when they watched videos online. The data also showed that most students preferred reading e-books to printed books. The students grew up in the digital world, resulting in little reading and writing on paper. The students liked to write on digital-based electronic devices. The students' responses to digital literacy-based English learning were also excellent. Most students stated that they were delighted and more enthusiastic in participating in learning when lecturers used digital literacy-based learning. The students became more motivated to develop their knowledge from sources on the internet. They could upload their writings on their social media accounts to exchange opinions with students from other universities.

Those skills are essential for progress in college and various careers. There is more to digital literacy than just knowing how to use a computer efficiently. It is in line with Brandtzaeg & Lüders' findings. Everything about media and computer use in a social context is covered (Brandtzaeg & Lüders, 2018). Knowing how to utilize

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digital technologies responsibly, lawfully, and ethically is known as "digital literacy." It includes knowing how to be safe and secure online and behave well when using the internet. Incorporating digital literacy into the classroom helps students become aware of and prepared for the risks inherent in the online environment. Technology is essential to modern life and will continue to shape the future. To better prepare students for the challenges of an increasingly digital world, we must integrate technology into the classroom and promote digital literacy. They will be more equipped to take advantage of digital literacy-based learning opportunities and contribute to the evolution of technology.

Digital Transformation

The lecturers' ability to use technology was central to this research. The PowerPoint presentation files used for teaching English had a colorful display that could be quickly accessible through Canva; they had moving visuals to draw the student's attention, and they were loaded with animated films to enhance the content explanation. The lecturers also created exam questions and posted them online so all students could view them. Online tools like Google Forms, Kahoot, WordWall, and Plagiarism Checker were also used. Below are the specifics of digital literacy-based English learning used:

Table 2. Digital literacy-based English learning conducted in Universitas AKI in *Merdeka Belajar* Era

Lecturers	Subjects	Skill(s) used	Digital tools used	The arguments from the interview's results
Lecturer 1	Discourse Analysis	5	YouTube, Soc Media, Online News	YouTube for learning communicative ability, online news for analyzing the speech actions utilized, and social media with controversial topics for discussing ideology used.
	Method of Language Research	5	OJS, Mendeley, Grammarly	OJS (Online Journal System) as a research study resource, Mendeley for teaching students how to cite better, and Grammarly to check their draft of research.
Lecturer 2	Translation	2,4	OJS, Grammarly, Translation Tools, Quillbot	Based on OBE (Output-Based Education) in the <i>Merdeka Belajar</i> curriculum, the students were asked to make a project, such as translating from recent discoveries from OJS using tools like Grammarly and translation tools to be more effective.
	Listening Skills	1	YouTube, TEDx Talks, Movies / Songs Clips	The students would be more interested. It fostered their motivation by using YouTube and those clips/videos.
Lecturer 3	Language Assessment	5	Duolingo, Wordwall, Google Form, Kahoot	Duolingo is one of the newest assessment models, even as an innovative standardized test would show them how to make a terrific assessment. They were also challenged to construct tests or assessments with other platforms.
	Public Speaking	3	TEDx Talks, Podcasts, YouTube	TEDx Talks would be a good example for students to learn public speaking. Podcasts and other YouTube channels could also show students how to speak publicly and build confidence.
Lecturer 4	Paragraph-Based Writing	4	Grammarly, Plagiarism X Checkers, ChatGPT	ChatGPT is AI controversial nowadays. However, it could allow students to engage with learning with AI. It still needed a human touch. The lecturer could check the students' results using Grammarly and the plagiarism checker.
	English for Informatics	5	Canva, Duolingo, YouGlish	Canva was used because it was easy to use. Students were also challenged to use Duolingo to reach a certain level, and YouGlish was used to develop their skills.

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Lecturer 5	Reading for Media and Technology	2	Blogs, E-books, Webtoon	Students, as digital natives, would be bored reading old-fashioned books. Blogs, e-books, and webtoons with English text could interest them in learning English.
	English for Business	5	Social media, CapCut, Canva	The purpose of English for Business was to improve students' business-related English skills. Social media was also used to observe the development of advertising nowadays. Students were also asked to make a video using CapCut and a Canva poster.
Lecturer 6	World Literature	5	YouTube, E-books, Movies	The students could listen to and watch the history of literature anytime from YouTube and e-books. Movies were also used as contemporary literature.
	Literary Criticism	5	YouTube, webnovel.com, movies	Literary Criticism can be done using several digital tools. YouTube, webnovel.com, and movies were practical for this class.
Lecturer 7	Intermediate Structure	2,4	Duolingo, Cake, Grammarly	Students were challenged to reach a certain level using those platforms. Grammar was used as contextual learning. Grammarly often helped the lecturer check students' errors.
	Sociolinguistics	5	YouTube, E-books, Blogs	Sociolinguistics analysis would be interesting if the lecturers showed the current phenomena using those tools.

Note:

- Skills explanation: 1 (listening), 2 (reading), 3 (speaking), 4 (writing), and 5 (Integrated skills).
- Sometimes, the lecturers conducted online meetings via Zoom or Google Meet.
- The lecturers used Google Classroom as the LMS (Learning Management System).
- WhatsApp Groups were also used to communicate with the students as part of mentoring them.

Source: Faculty of Language and Culture, Universitas AKI

The lecturers did not just rely on textbooks when planning reading and writing activities. The lecturers put their imagination to work to develop lesson plans and exercise books (worksheets) that fit the personality and set of their students. The materials and learning tools synthesized the lecturer's ideas and online resources. The lecturers were not dated since they were approachable and enjoyed sharing their knowledge. To counter claims that online resources were more accessible and user-friendly than in-person instruction, some lecturers saw videos on the subject before teaching it.

In digital literacy-based learning, English lecturers at Universitas AKI asked the students to make videos when they practiced reading conversations or news, subsequently sharing them online using a platform like YouTube, Instagram, or Facebook. Happiness for the students came from having their work appreciated by others. They expected this to inspire them to step up their academic performance. The students whose projects

did not resonate with others or are not very fascinating might also benefit from the lecturer's guidance by offering suggestions for other resources, such as the written or video works of students from other institutions in Indonesia and worldwide. The lecturers showed gratitude by helping the students refine and submit their creations to contests and publications, including seminars, websites, journals, conferences, and social media. These ways helped the students to be more modern, initiative, practical, and optimistic. They could self-learn due to the digital literacy components like literacy, learning, and digital skills.

The ability to find, evaluate, and share knowledge via digital media platforms is all part of what we mean when discussing digital literacy. These findings align with four parts of a person's digital literacy: initiative, modernity, practicality, and an optimistic outlook (Khlaisang & Yoshida, 2022). Therefore, self-learning should be prioritized alongside smart peripheral devices to support flexible learning while

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building learning or learning tools to enhance digital literacy. In addition, three core strands encompass essential components of digital literacy: literacy, learning, and 21st-century digital skills (Audrin & Audrin, 2022). Technological and informational foundations underpin these three avenues. Those results lay the groundwork for further study and incorporating digital literacy into the educational system. Proven by these findings, digital literacy-based English learning supported the policy of *Merdeka Belajar* Kampus Merdeka.

Conclusions

The implementation of digital literacy-based English learning in the *Merdeka Belajar* era at Universitas AKI shows that the three tiers of digital literacy development have been successfully addressed. First, in terms of digital competence, both lecturers and students demonstrated a solid understanding of how to effectively use internet-based digital devices in the classroom, along with appropriate online conduct, including social media use. Second, both lecturers and students increasingly utilized digital resources, such as photos, videos, and texts, to enrich classroom lectures and maintain student engagement. Lastly, digital transformation was evident through the lecturers' creative development of instructional media and resources, which improved students' comprehension of course materials. Additionally, students demonstrated digital innovation by publishing their work on platforms such as YouTube, academic journals, and social media. These findings suggest that the integration of digital literacy into English learning is in line with the objectives of the *Merdeka Belajar* policy, fostering a learning environment that encourages creativity, independence, and the effective use of technology in education.

References

- Ahmed, S. T., & Roche, T. (2021). Making the connection: Examining the relationship between undergraduate students' digital literacy and academic success in an English medium instruction (EMI) university. *Education and Information Technologies*, 26(4), 4601–4620. <https://doi.org/10.1007/s10639-021-10443-0>
- Alamsyah, & Purnama, D. H. (2017). Digital literacy among Sriwijaya University lecturers. *INFORMASI Kajian Ilmu Komunikasi*, 47(2), 243–254. <https://doi.org/10.21831/informasi.v47i2.15816>
- Almusharraf, N. M., & Engemann, J. F. (2020). Postsecondary instructors' perspectives on teaching English as a foreign language by means of a multimodal digital literacy approach. *International Journal of Emerging Technologies in Learning*, 15(18), 86–107. <https://doi.org/10.3991/ijet.v15i18.15451>
- Al-Qallaf, C. L., & Al-Mutairi, A. S. R. (2016). Digital literacy and digital content support learning: The impact of blogs on teaching English as a foreign language. *Electronic Library*, 34(3), 522–547. <https://doi.org/10.1108/EL-05-2015-0076>
- Arafah, B., & Hasyim, M. (2022). Social media as a gateway to information: Digital literacy on current issues in social media. *Webology*, 19(1), 2491–2503. <https://doi.org/10.14704/web/v19i1/web19167>
- Arsari, M. H. A. (2022). The importance of digital literacy to enhance student's ability. *Jambura Journal of English Teaching and Literature*, 3(1), 12–18. <https://doi.org/https://doi.org/10.37905/jetl.v3i1.13939>
- Atmanegara, Y., Agustina, S., & Tiara, D. (2013). Web-based resources in EFL learning: An enhancement of students' digital literacy. *Advances in Language and Literary Studies*, 4(2), 117–123.

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<https://doi.org/10.7575/aiac.all.v.4n.2p.117>

Audrin, C., & Audrin, B. (2022). Key factors in digital literacy in learning and education: A systematic literature review using text mining. *Education and Information Technologies*, 27(6), 7395–7419. <https://doi.org/10.1007/s10639-021-10832-5>

Azmi, F., & Iswanto, J. (2021). Merdeka Belajar. *International Journal of Islamic Education, Research and Multiculturalism IJIERM*, 3(3), 157–172. <https://doi.org/https://doi.org/10.47006/ijierm.v3i3.90>

Boschele, M. (2014). The "information society" and the role of knowledge in society. *Online Academic Journal of Information Technology*, 5(14), 7–13. <https://doi.org/10.5824/1309--1581.2014.1.001.x>

Brandtzaeg, P. B., & Lüders, M. (2018). Time collapse in social media: Extending the context collapse. *Social Media and Society*, 4(1), 1–10. <https://doi.org/10.1177/2056305118763349>

Chatwattana, P. (2021). Massive open online courses model with self-directed learning to enhance digital literacy skills. *International Journal of Engineering Pedagogy*, 11(5), 122–137. <https://doi.org/10.3991/IJEP.V11I5.22461>

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches (fifth edition)*. SAGE.

Deguchi, A., Hirai, C., Matsuoka, H., Nakano, T., Oshima, K., Tai, M., & Tani, S. (2020). What is Society 5.0? In *Society 5.0: A People-centric Super-smart Society* (pp. 1–23). Springer Singapore. https://doi.org/10.1007/978-981-15-2989-4_1

Fadli, M. R., & Dwiningrum, S. I. A. (2021). Pesantren's digital literacy: An effort to realize the advancement of Pesantren education. *ULUL ALBAB*

Jurnal Studi Islam, 22(2), 338–359. <https://doi.org/10.18860/ua.v22i2.14221>

Farhana, F., Suryadi, A., & Wicaksono, D. (2021). Pengembangan bahan ajar berbasis digital pada mata pelajaran bahasa Inggris di SMK Atlantis Plus Depok. *Jurnal Instruksional*, 3(1), 1–17. <https://doi.org/https://doi.org/10.24853/instruksional.3.1.1-17>

Hamidah, N. (2021). Digital literacy in EFL teaching. *ELTALL (English Language Teaching, Applied Linguistics, and Literature)*, 2(2), 90–102. <https://doi.org/https://doi.org/10.21154/eltall.v2i2.3213>

Hayati, N., & Arini, F. D. (2021). Strengthening digital literacy during and post-pandemic Covid-19. *Proceeding of Non-Formal Education International Seminar 2021*, 7, 1–6. <https://doi.org/10.29037/digitalpress.47403>

Ishola, O. S. (2019). Information society: Its meanings and implications. *Science Education and Learning Technology (JOLSELT)*, 1(1), 181–191. <https://www.alhikmah.edu.ng/jolselt/index.php/ajemc/article/view/32>

Iskandar, I., Sumarni, S., Dewanti, R., & Asnur, M. N. A. (2022). Infusing digital literacy in authentic academic digital practices of English language teaching at universities. *International Journal of Language Education*, 6(1), 75–90. <https://doi.org/10.26858/ijole.v6i1.31574>

Khairunnisa, N. A., Rahman, M. A., & Handrianto, C. (2022). English digital literacy practices inside and outside class to develop students' speaking skills. *Pedagogy: Journal of English Language Teaching*, 10(1), 13–24. <https://doi.org/10.32332/joelt.v10i1.3790>

Khlaisang, J., & Yoshida, M. (2022). Empowering global citizens with digital literacy: Modeling the factor structure. *International Journal of Instruction*, 15(4), 577–594. <https://doi.org/10.29333/iji.2022.15431a>

July 6, 2024

- Laar, E. van, Deursen, A. J. A. M. van, Dijk, J. A. G. M. van, & Haan, J. de. (2020). Determinants of 21st-Century skills and 21st-Century digital skills for workers: A systematic literature review. In *SAGE Open* (Vol. 10, Issue 1, pp. 1–14). SAGE Publications Inc. <https://doi.org/10.1177/2158244019900176>
- Madsen, S. S., Archard, S., & Thorvaldsen, S. (2019). How different national strategies for implementing digital technology can affect teacher educators. *Nordic Journal of Digital Literacy*, 13(4), 7–23. <https://doi.org/10.18261/ISSN.1891-943X-2018-04-02>
- Mansour, B. El, & Dean, J. C. (2016). Employability skills as perceived by employers and university faculty in the fields of Human Resource Development (HRD) for entry level graduate jobs. *Journal of Human Resource and Sustainability Studies*, 04(01), 39–49. <https://doi.org/10.4236/jhrss.2016.41005>
- Mansyur, F. A., Arsad, A., Suherman, L. O. A., Himah, I., Zaka, I., Zilani, Z., & Syarifuddin, I. (2023). Language learning adaptation model in the era of Society 5.0. *ELS Journal on Interdisciplinary Studies in Humanities*, 5(4), 686–693. <https://doi.org/10.34050/elsjish.v5i4.21499>
- Martin, A. (2009). Digital literacy for the third age: Sustaining identity in an uncertain world. In *MERLOT Journal of Online Learning and Teaching (JOLT)*. . www.elearningpapers.eu.
- Maya, L., & Suseno, M. (2022). Investigating the incorporation of digital literacy and 21st-Century skills into postgraduate students' learning activities. *Reviews: English Language Education Reviews*, 2(1), 13–27. <https://doi.org/https://doi.org/10.22515/elereviews.v2i1.5121>
- Melliyani, & Mardiyanti. (2022). Digital literacy using Twitter for learning English vocabulary and grammatical. *International Journal of Education, Information Technology and Others (IJEIT)*, 5(2), 1–9. <https://doi.org/https://doi.org/10.5281/zenodo.6400026>
- Miskiah, M., Suryono, Y., & Sudrajat, A. (2019). Integration of information and communication technology into Islamic religious education teacher training. *Cakrawala Pendidikan*, 38(1), 130–140. <https://doi.org/10.21831/cp.v38i1.23439>
- Nasrullah, R., Aditya, W., Satya, T. I., Nento, M. N., Hanifah, N., Miftahussururi, & Akbari, Q. S. (2017). *Materi pendukung literasi digital*. Kementerian Pendidikan dan Kebudayaan .
- Nguyen, L. A. T., & Habók, A. (2022). Digital literacy of EFL students: An empirical study in Vietnamese Universities. *Libri*, 72(1), 53–66. <https://doi.org/10.1515/libri-2020-0165>
- Pang, E., Wong, M., Leung, C. H., & Coombes, J. (2019). Competencies for fresh graduates' success at work: Perspectives of employers. *Industry and Higher Education*, 33(1), 55–65. <https://doi.org/10.1177/0950422218792333>
- Pertiwi, I. (2022). Digital literacy in EFL learning: University students' perspectives. *JEES (Journal of English Educators Society)*, 7(2), 197–204. <https://doi.org/10.21070/jees.v7i2.1670>
- Pratolo, B. W., & Solikhati, H. A. (2021). Investigating teachers' attitude toward digital literacy in EFL classroom. *Journal of Education and Learning (EduLearn)*, 15(1), 97–103. <https://doi.org/10.11591/edulearn.v15i1.15747^97>
- Puad, L. M. A. Z., & Ashton, K. (2022). A critical analysis of Indonesia's 2013 national curriculum: Tensions between global and local concerns. *The Curriculum Journal*, 1–15. <https://doi.org/10.1002/curj.194>
- Pudjiati, D., & Fitria, T. N. (2022). Digital literacy in learning listening skills

July 6, 2024

- between English and Non-English Department students through educational video. *LEKSIKA*, 16(1), 33–42. <https://doi.org/10.30595/lks.v%vi%i.13016>
- Putra, Y. S. (2016). Theoretical Review: Teori Perbedaan Generasi. *Among Makarti*, 9(2), 123–134. <https://doi.org/http://dx.doi.org/10.52353/ama.v9i2.142>
- Razak, H. M., Razak, N. A., & Krish, P. (2022). Enhancing students' digital literacy at EFL classroom: Strategies of teachers and school administrators. *Cakrawala Pendidikan*, 41(3), 653–664. <https://doi.org/10.21831/cp.v41i3.43107>
- Reis, S. C. dos, & Gomes, A. F. (2014). Podcasts for teaching English as a Foreign Language: Analysis and digital literacy practice. *Calidoscopio*, 12(3), 367–379. <https://doi.org/10.4013/cld.2014.123.11>
- Roche, T. (2017). Assessing the role of digital literacy in English for academic purposes university pathway programs. *Journal of Academic Language & Learning*, 11(1), 71–87. <https://journal.aall.org.au/index.php/jall/article/view/439>
- Rusdiyah, E. F., Purwati, E., & Prabowo, A. (2020). How to use digital literacy as a learning resource for teacher candidates in Indonesia. *Cakrawala Pendidikan*, 39(2), 305–318. <https://doi.org/10.21831/cp.v39i2.30551>
- Setyowati, F. A., Kristiani, & Murwaningsih, T. (2022). The effectiveness of visual picture economics textbook based on problem-based learning in improving reading literacy skills. *Journal of Education Technology*, 6(3), 380–389. <https://doi.org/10.23887/jet.v6i3.4>
- Sukmariningsih, R. M., Nursanty, E., & Englishtina, I. (2022). International transfer credit: Indonesia international MBKM curriculum based on authenticity. *Budapest International Research and Critics Institute (BIRCI-Journal)*, 5(1), 7693–7706. <https://doi.org/10.33258/birci.v5i1.4508>
- Sunardi, S., & Doringin, F. (2020). The 4Cs learning model in teacher professional development program. *Humaniora*, 11(2), 151–157. <https://doi.org/10.21512/humaniora.v11i2.6508>
- Tayibnapis, A. Z., Wuryaningsih, L. E., & Gora, R. (2018). Indonesia's efforts to achieve globally competitive human resources. *International Journal of Humanities and Social Science Invention (IJHSSI)*, 7(8), 1–6. www.ijhssi.org
- Teboura, A. B., Kesba, B., & Gamouh, N. (2019). Integrating Knowledge Society: A Survey Led in Three Universities. *European Journal of Education*, 2(1), 37–42. <https://doi.org/https://doi.org/10.26417/ejed-2019.v2i1-52>
- Valentina, T. F., Arifani, Y., & Anwar, K. (2022). Can digital literacy practices motivate international students to upgrade their English as a second language (12): An ethnography case study. *Academic Journal Perspective: Education, Language, and Literature*, 9(2), 99–115. <https://doi.org/10.33603/perspective.v9i2.6085>
- Walton, G. (2016). Digital Literacy (DL): Establishing the boundaries and identifying the partners. *New Review of Academic Librarianship*, 22(1), 1–4. <https://doi.org/10.1080/13614533.2015.1137466>
- Wang, X., Hui, L., Jiang, X., & Chen, Y. (2022). Online English Learning Engagement among Digital Natives: The Mediating Role of Self-Regulation. *Sustainability (Switzerland)*, 14(23), 1–21. <https://doi.org/10.3390/su142315661>
- Wayan, N., Astuti, W., Murniasih, N. N., & Westra, I. K. (2022). The role and challenges of lecturers in learning in the digital era during the Covid-19 pandemic. *PROSPEK* 1, 46–54.

July 6, 2024

<https://ojs.mahadewa.ac.id/index.php/prospek/article/view/1721>

Zhang, X., Zhang, B., & Zhang, F. (2023). Student-centered case-based teaching and online–offline case discussion in postgraduate courses of

computer science. *International Journal of Educational Technology in Higher Education*, 20(1), 1–20.

<https://doi.org/10.1186/s41239-022-00374-2>