Digital Literacy in Language Learning: A Qualitative Synthesis

Akmal Khairani[1*], Olivia Feby Mon Harahap[2]

[1]Language Center (UPT Bahasa), UIN Syahada Padangsidimpuan, Indonesia

[2] Vocational Fashion Design Education Study Program, Universitas Aufa Royhan, Padangsidimpuan, Indonesia

Correspondence: [khairani.akmal05@gmail.com]

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Abstract

The development of digital technology has brought fundamental changes to language-learning practice—in the ways learners obtain information, interact, communicate, and develop language skills. In this context, digital literacy is no longer limited to the ability to use technological devices but encompasses the ability to access, understand, evaluate, produce, and use digital information critically, ethically, and responsibly in support of language learning. This article aimed to describe the role of digital literacy in language learning and to identify its contribution to language skills, learning engagement, self-efficacy, autonomous learning, and learner-teacher interaction. The study used a qualitative method with a descriptive approach through library research. The data came from twenty scholarly articles addressing digital literacy, technology-based language learning, digital reading, automated writing evaluation, digital storytelling, digital games, personalized language learning, and teachers' digital literacy. The analysis identified, grouped, compared, and interpreted the findings of the various studies to obtain a comprehensive picture. The results indicate that digital literacy contributes to the improvement of language ability through access to diverse learning resources, digital reading and vocabulary learning, technology-supported writing practice, multimodal communication, and more personal, flexible learning. Digital literacy is also related to increased engagement, enjoyment of learning, self-efficacy, and the ability to learn autonomously. The effectiveness of technology integration, however, depends heavily on teacher support, teachers' digital competence, learner readiness, the quality of digital sources, and the ability to use technology critically. Digital literacy therefore needs to be placed as an integral part of language learning rather than a merely technical skill.

Keywords: *digital literacy; language learning; digital technology; foreign language learning*

1. INTRODUCTION

The development of digital technology has changed various aspects of human life, including the fields of education and language learning. The presence of the internet, digital devices, learning applications, social media, online learning platforms, digital

games, automated writing evaluation (AWE), and technology based on artificial intelligence has broadened the space for language learning beyond the boundaries of the conventional classroom. Learners can now obtain reading material, listen to various forms of audio material, watch learning videos, communicate with other language users, produce digital texts, and obtain feedback through various devices and applications. This change shows that language learning in the digital era no longer relates only to the mastery of language structure and vocabulary but also to learners' ability to use technology effectively in order to reach learning goals.

In this context, digital literacy becomes one important competence in language learning. Digital literacy does not merely mean the ability to operate computers, smartphones, applications, or other digital devices. In language learning, it encompasses learners' ability to find and access information, understand the content of digital information, judge the credibility of sources, communicate using digital media, produce various forms of text, and use technology appropriately to support the development of language competence. Hafner, Chik, and Jones (2015) placed digital literacy as an important part of language-learning practice because language activity increasingly takes place through digital environments. The change in the communication environment therefore also demands a change in the way language is taught and learned.

The relationship between digital technology and language learning has been the concern of various studies. Alakrash and Razak (2021) showed that digital-based technology is closely related to the language-learning process and to the development of learners' digital literacy. Technology provides various possibilities for broadening the language-learning experience, but its use requires certain competence so that learners do not merely become users of technology but are able to use it as a meaningful means of learning. This view becomes increasingly relevant because language learning today takes place in an environment full of digital information.

Digital literacy is also related to learners' psychological experience of language learning. Feng (2023), for example, examined the contribution of digital literacy to foreign-language enjoyment and self-efficacy in online learning. That finding shows that digital ability relates not only to the technical aspect of learning but also to how learners view their learning experience and their own ability. With adequate digital literacy, learners have a greater opportunity to explore learning resources, organize their learning activities, and interact more actively with learning material and the learning environment.

The role of digital literacy is also visible in language learning that takes place informally. Barkati et al. (2024) showed the connection among digital literacy, self-efficacy, second-language (L2) grit, and the informal digital learning of English. This

shows that language learning does not always occur in formal learning activities; learners can develop language ability through everyday digital activities such as reading foreign-language content, watching videos, playing digital games, using social media, or communicating through various platforms. The digital environment can thus become a space for continuous learning.

In addition to learners, teachers hold an important position in the development of digital literacy. Research on teacher support shows that the support of teachers can influence how learners use the digital environment to learn language. The study by L.-H. (2025) of digital literacy and engagement among learners of English as a foreign language (EFL) in China showed the importance of teacher support in the relationship between digital literacy and learning engagement. Zheng, Yuan, and Pan (2024) likewise placed perceived teacher support as a factor in the relationship between learners' digital literacy and online learning power. Technology therefore cannot be regarded as a substitute for the teacher; rather, the teacher remains an important part of directing, facilitating, and giving meaning to the use of technology in learning.

The development of technology also demands an increase in teachers' digital literacy. Mullen (2025) emphasized the importance of equipping language teachers with digital literacy so that they can support learners' learning inside and outside the classroom. Xue (2024) showed the importance of developing teachers' digital literacy through a professional learning community, particularly in facing developments in technology such as large language models (LLMs). Jiang (2025), through a systematic review of the development of the digital literacy of foreign-language teachers in Chinese universities, showed that the enhancement of teachers' digital competence is an important part of the transformation of technology-based language learning.

Digital literacy also has a direct relationship with particular language skills. In reading, Rochanaphapayon (2023) showed the relevance of digital literacy to the improvement of English reading comprehension. Zhu, Zhang, and Irwin (2023), through a meta-analysis of digital reading, also provided a picture of the potential of digital reading in the development of second- and foreign-language vocabulary. In writing, Zhang and Hyland (2023) examined the role of digital literacy in learners' engagement with automated writing evaluation feedback. Technology can thus provide new mechanisms for learners to obtain feedback, undertake revision, and develop writing ability.

The use of digital technology also opens opportunities for more creative and multimodal language learning. Hanghøj, Kabel, and Jensen (2022) discussed the relationship among digital games, literacy, and language learning in first-language (L1) and second-language contexts. Kendrick et al. (2022) revealed the potential of digital storytelling in developing language learning and digital literacy for learners from refugee backgrounds. Pennington et al. (2024) extended that discussion by

examining the intersection of multilingual teaching, new media literacies, and language learning. These studies show that technology can enrich the forms of language-learning activity while presenting more complex forms of literacy.

In the context of higher education, Iskandar et al. (2022) showed the importance of integrating digital literacy into authentic academic digital practices in English-language teaching at universities. Wahyuddin, Yanti, and Hermansyah (2024) also showed the application of digital literacy integrated with blended learning in improving university students' English skills. These findings show that technology integration can be developed not only as an additional medium but as part of learning design.

Language learning that uses technology also allows the personalization of learning. Zhang and Yang (2025) examined personalized language learning through technology and showed the importance of digital literacy in the development of language ability and communication strategies. Learners have the opportunity to access learning resources suited to their needs and to develop communication strategies within the digital environment. The use of digital technology does not, however, automatically produce effective language learning: learners may have access to devices but not necessarily the ability to select credible sources, use information critically, or use technology in accordance with learning goals. Son, Park, and Park (2017) showed that language learners' digital literacy can differ by context, and Maahs, DeCapua, and Triulzi (2025) showed that teachers of adult migrant learners face various considerations in using digital technology, so that technology must be understood within social, pedagogical, and learner-need contexts.

On the basis of these various studies, digital literacy in language learning is a multidimensional phenomenon related to technical skills, cognitive ability, communication ability, learning engagement, self-efficacy, autonomy, creativity, and teachers' ability to design technology-based learning. This article therefore aims to describe qualitatively the role of digital literacy in language learning by integrating the findings of various relevant studies. Guided by that aim, the study addressed three research questions: (RQ1) How does digital literacy contribute to the development of language skills? (RQ2) How is digital literacy related to learner engagement, enjoyment, self-efficacy, and autonomous or informal learning? (RQ3) What are the roles of teacher support and teachers' digital competence, and what factors affect the integration of technology in language learning?

2. METHOD

Research Design

This study used a qualitative method with a descriptive approach through library research. The qualitative method was chosen because the study was directed at understanding and describing in depth the phenomenon of digital literacy in language

learning on the basis of various published research findings. The study was directed not at testing statistical relationships directly but at identifying the patterns, themes, tendencies, and meanings that emerge from the various sources concerning the use of digital technology in language learning.

Data Sources

The research data were scholarly articles relevant to the theme of digital literacy and language learning. Twenty predetermined references were used as the principal sources of the review. These references covered research on technology-based language learning, digital literacy, digital reading, digital storytelling, digital games, automated writing evaluation, blended learning, personalized language learning, teacher support, teachers' digital literacy, informal digital learning, and the use of new technologies such as large language models in language learning.

Data Collection

Data were collected through documentation, by reading and identifying the principal substance of each source. Each reference was positioned as a data source providing a particular perspective on the relationship between digital literacy and language learning. The data obtained were then classified by focus of discussion, including the role of digital literacy in language skills, learner engagement, self-efficacy and learning experience, autonomous learning, the role of the teacher, the use of digital media, multimodal learning, and the challenges of technology implementation.

Data Analysis

Data were analyzed descriptively and interpretively. The first stage identified the main ideas of each source. The second stage grouped ideas that shared a theme. The third stage compared findings across studies to observe similarities, differences, and conceptual connections. The next stage interpreted the patterns that emerged in order to obtain a picture of the place of digital literacy in language learning. The results of the analysis were then presented in the form of an academic narrative connecting the various research findings.

Trustworthiness

The validity of the review was supported through the comparison of sources. Each principal theme was based not on a single reference but was developed through the connection of a number of studies. In this way, the discussion of digital literacy was placed not as a phenomenon standing on its own but as part of a language-learning ecosystem involving learners, teachers, technology, learning resources, communication activity, and the learning context.

Ethical Considerations

Because the study analyzed publicly available scholarly literature and did not involve human participants or personal data, the ethical requirements centred on academic integrity, the accurate representation of sources, and proper attribution.

3. RESULTS

The thematic analysis produced eight interrelated themes that together address the three research questions, as summarized in Table 1. The themes were derived from the reviewed sources and are presented below with their supporting evidence.

Table 1

Themes, Core Focus, and Supporting Sources Derived from the Analysis

Theme	Core focus / analytic codes	RQ	Key supporting sources
Digital literacy as a basic competence	Access, comprehension, evaluation, production in language use	RQ1	Hafner et al. (2015); Alakrash & Razak (2021); Son et al. (2017)
Development of language skills	Reading, vocabulary, writing feedback, communication strategies	RQ1	Rochanaphapayon (2023); Zhu et al. (2023); Zhang & Hyland (2023)
Learner engagement	Engagement, enjoyment, self-efficacy; teacher support	RQ2	L.-H. (2025); Feng (2023); Barkati et al. (2024)
Autonomy and informal learning	Self-directed and out-of-class learning; L2 grit	RQ2	Barkati et al. (2024); Zhang & Yang (2025)
Multimodal learning media	Digital games, storytelling, new media literacies	RQ1	Hanghøj et al. (2022); Kendrick et al. (2022); Pennington et al. (2024)
Digital literacy in higher education	Authentic academic digital practices; blended learning	RQ1	Iskandar et al. (2022); Wahyuddin et al. (2024)
The role of teachers	Teacher support; teachers' digital competence and PD	RQ3	Zheng et al. (2024); Mullen (2025); Jiang (2025); Xue (2024)
Personalization of learning	Adapting sources and activities to learner needs	RQ2	Zhang & Yang (2025)

Note. RQ = research question; EFL = English as a foreign language; PD = professional development. The themes and codes were derived from the reviewed scholarly sources.

3.1 Digital Literacy as a Basic Competence in Language Learning

The review showed that digital literacy has developed into one important competence in language learning. The change in the learning environment from the conventional classroom toward an environment increasingly connected with technology has made the ability to use technology part of the process of learning

language. Digital literacy cannot, however, be understood merely as the ability to operate devices; in language learning it relates to learners' ability to access sources, understand information, evaluate the quality of information, interact through digital media, produce texts, and use various forms of media to reach communicative goals.

Hafner et al. (2015) placed digital literacies as an inseparable part of the development of language learning because modern communication practice increasingly takes place through digital environments, a view reinforced by Alakrash and Razak (2021), who showed the relationship between digital technology and language learning. Technology provides a broader space for learners to carry out language activity, but the ability to use that space depends heavily on the level of digital literacy they possess.

The findings of Son et al. (2017) showed that language learners' digital literacy can differ by context, indicating that digital literacy is not a uniform competence automatically possessed by all learners. The learning environment, experience of using technology, purpose of technology use, and learners' characteristics can affect how technology is used for language learning. Technology-based language learning therefore requires the integration of language competence and digital competence: it is not enough for learners to understand the language being learned; they also need to know how that language is used within digital environments.

3.2 Digital Literacy and the Development of Language Skills

The review showed that digital literacy offers opportunities for developing various language skills, including reading, writing, vocabulary, communication, and the ability to use language in more authentic contexts. Technology provides more diverse learning resources, so that learners can interact with language through text, sound, images, video, games, and various forms of multimodal media.

In reading, Rochanaphapayon (2023) specifically discussed the role of digital literacy in improving English reading comprehension. The digital environment provides access to more diverse texts and allows learners to develop reading strategies different from those of print-based learning; learners can search for information, use digital dictionaries, access additional context, and interact with various sources while understanding a text. This finding relates to the meta-analysis by Zhu et al. (2023) on second- and foreign-language vocabulary learning through digital reading, which offers learners the opportunity to encounter vocabulary in more varied contexts, so that digital reading serves not only as an activity of understanding text but also as a means of expanding vocabulary.

In writing, Zhang and Hyland (2023) showed the importance of digital literacy in learners' engagement with automated writing evaluation (AWE). Technology can provide feedback on writing so that learners have the opportunity to review their work; this process can support the learning of writing when learners have the digital-literacy

ability to understand, evaluate, and use the feedback appropriately. Beyond reading and writing, technology enables learners to develop communication ability. Zhang and Yang (2025) showed that personalized language learning through technology is related to the development of proficiency and communication strategies, giving learners the opportunity to select material and activities suited to their needs and to practise using language in more varied communicative contexts.

3.3 Digital Literacy and Learner Engagement

The findings showed an important relationship between digital literacy and learner engagement in language learning. The digital environment allows learning to take place more interactively and gives learners the opportunity to take a more active role: learners not only receive material from the teacher but can seek additional sources, undertake exploration, produce content, communicate, and learn autonomously.

L.-H. (2025) discussed digital literacy and engagement among EFL learners with particular attention to the role of teacher support, showing the importance of viewing learning engagement in relation to digital literacy and teacher support. Learners with digital ability can more easily make use of the various opportunities available in the digital environment, but pedagogical support is still needed so that this activity is directed toward learning goals. Feng (2023) likewise showed a relationship of digital literacy with foreign-language enjoyment and self-efficacy in online learning, indicating that the experience of learning language through technology can relate to learners' affective dimension.

Learner engagement can also emerge through informal learning. Barkati et al. (2024) showed the relationship among digital literacy, self-efficacy, L2 grit, and the informal digital learning of English. Learners can use technology autonomously to maintain contact with English outside the classroom through the consumption of digital content, social interaction, entertainment, information-seeking, and other activities that indirectly become language-learning experiences.

3.4 Digital Literacy, Autonomy, and Informal Learning

The review showed that digital technology broadens the space of language learning from formal toward informal learning; learners have the opportunity to learn at any time and from various sources, which reinforces the importance of the ability to learn autonomously.

Barkati et al. (2024) showed that digital literacy contributes to the informal digital learning of English together with self-efficacy and L2 grit, indicating that language learning in the digital environment requires a combination of abilities: learners need the ability to use technology together with persistence, belief in their own ability, and the willingness to keep interacting with the language. Zhang and Yang (2025) also showed the importance of personalization in language learning through technology; when technology is used to provide a learning experience more suited to learners'

needs, the learning process can become more flexible, and learners can choose sources, levels of difficulty, and particular forms of activity according to their needs.

This autonomy does not mean that the role of the teacher is automatically reduced. Precisely in a digital environment that provides information in large quantities, learners need the ability to select relevant and trustworthy sources, and the teacher retains an important function as a facilitator who helps learners build learning strategies and use technology responsibly.

3.5 Digital Technology as Multimodal Learning Media

The review also showed that digital technology allows language learning to take place multimodally. Language is no longer learned only through text but through a combination of writing, sound, images, video, animation, games, and other forms of media.

Hanghøj et al. (2022) showed that digital games are related to literacy and language learning in first- and second-language contexts; digital games can present interactive situations that place language in a context of action and communication, in which learners not only study language form but also use language to achieve particular goals within the game environment. Kendrick et al. (2022) showed the potential of digital storytelling in language learning and digital literacy for youth from refugee backgrounds; digital storytelling allows learners to combine text, images, sound, and personal experience in producing a digital product, giving them the opportunity to develop language ability together with the ability to produce meaning in multimodal form.

Pennington et al. (2024) revealed an intersection among multilingual teaching, new media literacies, and language learning, showing that the digital environment can be used to accommodate the diversity of language and culture and can give learners room to use more than one language and connect their experience with various sources of communication.

3.6 Digital Literacy in Language Learning in Higher Education

In higher education, digital literacy holds an increasingly important position because academic activity largely takes place through digital environments. Iskandar et al. (2022) discussed the infusion of digital literacy into authentic academic digital practices in English-language teaching at universities; language learning is directed not only at the ability to master language structure but also at the ability to use language to carry out real academic practice.

Wahyuddin et al. (2024) showed the integration of digital literacy with blended learning in improving English skills through the experience of the Independent Campus Program. The blended-learning model provides room to combine face-to-face learning with digital-based learning, and the findings show that this integration

can broaden students' opportunities to interact with learning material and activities. The higher-education context also shows that digital literacy needs to be connected with academic needs: students require not only the ability to use applications but also the ability to seek scholarly sources, evaluate information, communicate academically, produce writing, and use technology ethically.

3.7 The Role of Teachers in Developing Digital Literacy

One important finding of the review is that the success of technology-based language learning is determined not only by learners' ability; teachers' competence and pedagogical support are very important components. The study by L.-H. (2025) showed the relevance of teacher support to the relationship between digital literacy and engagement, and Zheng et al. (2024) showed the role of perceived teacher support in the relationship between digital literacy and online learning power. Learners need support to turn digital ability into productive learning activity.

Mullen (2025) emphasized the importance of equipping language teachers with digital literacy so that they can support learners' learning both inside and outside the classroom; teachers need to understand not only how to use technology but also when, why, and for what pedagogical purpose it is used. Jiang (2025), through a systematic review of the development of foreign-language teachers' digital literacy in Chinese universities, showed that the development of teachers' digital competence requires a systematic approach that cannot be accomplished through brief technical training alone but needs to be connected with professional practice and learning needs. Xue (2024) revealed new challenges in developing teachers' digital literacy through a professional learning community focused on large language models, which present opportunities as well as new needs for language teachers to understand the technology, evaluate its use, and integrate it pedagogically.

3.8 Digital Literacy and the Personalization of Learning

The findings showed that technology allows language learning to become more personal: learners can select sources and activities on the basis of their needs, level of ability, interests, and learning goals. Zhang and Yang (2025) connected personalized language learning through technology with the development of proficiency and communication strategies.

Personalization gives learners the opportunity to have different learning experiences suited to their respective needs; learners who need to strengthen vocabulary can use digital sources focused on vocabulary, while learners who need communication practice can use technology that allows communicative practice. Personalization, however, also requires adequate digital literacy: without the ability to select, organize, and evaluate sources, the abundance of digital options can instead make it difficult for learners to determine suitable material.

4. DISCUSSION

Digital literacy in language learning is fundamentally a paradigm shift in how language is learned, used, and produced. Language learning in the digital environment no longer takes place only through the interaction of teacher, textbook, and learner but through a far wider network of sources and activities; learners can acquire language through various forms of digital text, video, audio, games, social media, learning applications, communication platforms, and technology based on artificial intelligence. Hafner et al. (2015) affirmed that this change in the communication environment makes digital literacies an important part of language learning. Digital literacy should therefore be understood as the ability to participate meaningfully in digital communication practice rather than merely the technical ability to operate devices.

This view has consequences for the goals of language learning. Whereas the success of learning was previously measured more through the mastery of vocabulary, grammar, reading, writing, listening, and speaking, the digital environment demands an additional ability to use language in various digital situations. Learners need to understand how information is presented in digital media, how to distinguish relevant from irrelevant information, how to communicate appropriately through digital media, and how to produce content that others can understand. Alakrash and Razak (2021) showed that technology and digital literacy are closely related in language learning, so that technology integration should not stop at the use of devices as a medium for delivering material.

Reading ability also changes when text moves from print to the digital environment. Digital readers do not always read text linearly but can move from one source to another, using links, images, video, digital dictionaries, and various interactive features. Rochanaphapayon (2023) showed the importance of digital literacy in developing English reading comprehension, while Zhu et al. (2023) provided evidence through a meta-analysis of vocabulary learning through digital reading. Reading in the digital environment therefore requires more complex strategies: learners need not only to understand the content of a text but also to manage information and build connections among various sources.

Technology also opens opportunities for developing writing ability. The use of automated writing evaluation provides a new experience because learners can obtain feedback on their writing and undertake revision. Zhang and Hyland (2023) showed that digital literacy plays a part in learners' engagement with AWE feedback, indicating that technology does not automatically improve the quality of writing; its benefit depends on learners' ability to read and understand feedback and to decide which parts of the writing need improvement. Digital literacy thus becomes the link between technology and the process of learning to write.

The affective aspect is also an important part of digital language learning. Feng (2023) showed a relationship among digital literacy, foreign-language enjoyment, and self-efficacy in online learning, indicating that the ability to use technology can influence learners' experience of learning. Learners with digital ability can more easily explore sources and interact with learning activities. This relationship needs to be understood contextually, however, because learners' learning experience is influenced by many factors, including the quality of learning, the design of activities, teacher support, and individual characteristics.

Learner engagement in the digital environment is also closely related to teacher support. L.-H. (2025) and Zheng et al. (2024) both showed the importance of teacher support in understanding the relationship between digital literacy and engagement or online learning power. Effective digital learning is not learning that hands the whole process over to learners; the teacher is still needed to give direction, set goals, select sources, provide feedback, and help learners reflect on their learning experience. Technology provides the space, but the teacher helps determine how that space is used to reach learning goals.

The need for teachers with digital literacy grows with the development of technology. Mullen (2025) emphasized the importance of equipping language teachers with digital competence to support learning inside and outside the classroom, and Jiang (2025) showed the importance of developing teachers' digital literacy through various professional-development strategies, while Xue (2024) placed a professional learning community as one space for developing teachers' digital literacy in facing large language models. Digital transformation in language learning should therefore be directed not only at learners but also at teachers as designers and facilitators of learning.

Digital language learning also has great potential for developing multimodal learning. Digital games, as discussed by Hanghøj et al. (2022), can combine elements of language, action, rules, interaction, and problem-solving; digital storytelling, as shown by Kendrick et al. (2022), allows learners to develop language ability through the production of stories that combine text, sound, images, and experience; and Pennington et al. (2024) showed the relationship between multilingual teaching and new media literacies. Language learning in the digital environment can thus provide room for more varied expression than learning that relies only on written text.

In language learning in higher education, the use of technology needs to be directed toward authentic practice. Iskandar et al. (2022) showed the importance of authentic academic digital practices in English-language learning at universities; students need to learn to use language in real academic situations, including seeking information, reading scholarly sources, communicating, writing, presenting, and producing digital academic products. Wahyuddin et al. (2024) showed that the

integration of digital literacy and blended learning can support the development of English skills, indicating that technology can become part of the learning ecosystem rather than merely an additional tool.

Digital literacy also supports language learning that takes place outside the classroom. Barkati et al. (2024) showed the relationship of digital literacy with the informal digital learning of English together with self-efficacy and L2 grit. The digital environment gives learners the opportunity to keep in contact with the target language in daily life—reading news, watching videos, listening to podcasts, interacting with communities, playing games, or using applications in the language being learned—activity that broadens exposure to the language and can form more sustainable learning habits. In this context, personalization becomes an important characteristic of digital language learning. Zhang and Yang (2025) showed that technology can be used to personalize language learning and to support proficiency and communication strategies; learners can select material on the basis of their level of ability and needs, but effective personalization still requires reflective ability, so that personalization and autonomy cannot be separated from digital literacy.

Although technology provides wide opportunities, digital learning is not free of problems. Son et al. (2017) showed that context influences language learners' digital literacy, meaning that learners with the same access to technology do not necessarily have the same ability to use it for learning. Maahs et al. (2025) also showed the importance of considering the characteristics of adult learners from migrant backgrounds. The implementation of technology must therefore consider the social context and learners' needs, not only the availability of devices. Digital literacy in language learning thus needs to be placed as a competence that connects technology, language, pedagogy, and the ability to learn: technology provides access and possibility, but digital literacy determines how that possibility is used. The success of language learning in the digital era is determined not by how much technology is used but by how appropriately it is used to create active, contextual, critical, communicative, and sustainable language-learning experiences.

Implications. The findings suggest that digital literacy should be built into language-learning goals, curricula, and assessment rather than treated as a separate technical skill; that teacher preparation and continuing professional development should strengthen teachers' digital and pedagogical competence, including in the face of new technologies such as large language models; and that schools and universities should provide proportional access to devices and quality digital resources while cultivating learners' critical evaluation of digital information.

Limitations and Suggestions. This study was based on a qualitative synthesis of twenty purposively selected scholarly sources rather than on primary fieldwork; its findings therefore reflect the analyzed literature and are not derived from direct observation.

Future research could examine empirically, through classroom studies, interviews, and surveys in Indonesian schools and universities, how digital literacy is integrated into the learning of Indonesian and foreign languages, including teachers' strategies, learners' experience, forms of assessment, and gaps in access to technology.

5. CONCLUSION

On the basis of the review of twenty references, it can be concluded that digital literacy holds an increasingly important place in language learning. Digital literacy relates not only to the technical ability to use devices and applications but also to the ability to access, understand, evaluate, produce, and use digital information and communication in order to reach learning goals. In the context of language learning, this competence becomes important because learning activity and language use increasingly take place through digital environments.

The findings show that the integration of digital literacy offers opportunities for developing various language skills. In reading, technology allows learners to access more diverse texts and supports vocabulary learning through digital reading. In writing, technology such as automated writing evaluation can provide feedback and support the process of revision. In communication, technology allows learners to obtain a broader experience of language use and supports the development of communication strategies. Technology also allows learning to take place multimodally through digital games, digital storytelling, video, audio, and various forms of interactive media.

Digital literacy is also related to engagement, enjoyment of learning, self-efficacy, grit, and the informal learning of language. Learners have the opportunity to learn outside the classroom and to develop more autonomous learning habits, and the personalization of learning through technology gives learners the opportunity to adapt learning sources and activities to their respective needs.

Technology does not automatically produce effective language learning. The success of its use depends heavily on learners' digital competence, teachers' ability, pedagogical support, the quality of digital sources, learning design, and learners' social context. The teacher retains an important role in directing the use of technology, providing support, evaluating sources, and creating relevant learning activities. The development of new technologies, including large language models, further underlines the need for the continuous development of teachers' digital literacy.

Digital literacy therefore needs to be integrated systematically into language learning rather than placed as an additional skill separate from it. Its development needs to be directed toward the ability to use technology critically, creatively, communicatively, collaboratively, and responsibly. Language learning in the digital

era ultimately aims not only for learners to be able to use language but also for them to be able to use language effectively within a continually developing digital environment.

Declarations

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Author Contributions.

Akmal Khairani contributed to the conceptualization of the study, research design, methodology, literature identification, data collection, data analysis, interpretation of findings, and writing—original draft. Olivia Feby Mon Harahap contributed to the literature review, data interpretation, critical analysis, and writing—review and editing. Both authors participated in the revision of the manuscript and approved the final version for publication.

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The authors declare that they have no conflict of interest related to the research, authorship, or publication of this article.

Data Availability.

This study analyzed publicly available published literature; no new empirical data were generated or collected. All sources analyzed in the study are identified and listed in the References section.

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