



Elementary Teachers' Perception Toward Digital Literacy in Language Learning and Teaching

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Article Info	Abstract
Received: 2026-04-07 Revised: 2026-05-19 Accepted: 2026-08-08 Keywords: teacher perceptions, digital literacy, digital teaching materials, language learning, elementary schools DOI: 10.24256/ideas.v14i1.10534 Corresponding Author: Rofi'ah rofiahrhmn01@gmail.com Pendidikan Bahasa Inggris, Universitas Pendidikan Ganesha, Singaraja, Bali	<i>The development of digital technology in the 21st century requires the world of education to adapt quickly, especially in language learning in elementary schools. Digital literacy is an essential competency for teachers to be able to create relevant, interesting, and meaningful learning for students. This study aims to describe elementary school teachers' perceptions of the use of digital teaching materials in language learning and analyze the role of these perceptions in encouraging classroom learning activities. This study used a descriptive qualitative approach. Data were collected through a Likert-scale questionnaire distributed to 35 elementary school English teachers in Bondowoso Regency, an in-depth interview with one teacher, and observations of the learning process. Data analysis was conducted using descriptive qualitative methods by calculating percentages. The results showed that the majority of teachers had very positive perceptions of the use of digital teaching materials, indicated by a high percentage of understanding, readiness, and confidence in the effectiveness of digital media in increasing student motivation, engagement, and understanding. However, technical obstacles were still encountered related to operational skills and device preparation time. This study concluded that positive teacher perceptions contributed significantly to the creation of more interactive and effective language learning and emphasized the importance of ongoing digital literacy training for teachers as an implication for developing elementary education in the digital era.</i>

1. Introduction

Technological developments in the 21st century have brought significant changes to various aspects of life, including education. Digital literacy has become an essential competency for teachers and students to respond to the complexity of increasingly rapid technological developments (Jacqueline, 2024). In the context of 21st-century education, the use of rapidly developing digital technology has become a key characteristic of modern learning (Dariyono et al., 2023). The integration of technology into language learning, such as the use of video, animation, digital books, and internet access, has the potential to create a more effective, interactive, and contextual learning process (Apipah, 2023). In line with the implementation of the Independent Curriculum in Indonesia, teachers are required to design adaptive learning, centered on student characteristics, and integrate the use of digital technology as part of pedagogical practice (Nisa et al., 2023; Cahayani et al., 2024). However, theoretically, digital literacy is not only understood as the technical ability to use devices, but also encompasses critical skills in accessing, evaluating, and utilizing digital information effectively (Rahman et al., 2023). This confirms that teachers' mastery of digital literacy is a crucial prerequisite for realizing language learning that is relevant to the demands of the times.

Empirically, various studies have shown that there are still weaknesses in English language learning practices, including a lack of innovation in the use of learning resources, the dominance of conventional methods, and limited teacher competency in utilizing digital media (Salam et al., 2023; Farhana et al., 2021). Pre-observation findings at SDN Sumber Pandan 01 indicate that some teachers still rely on textbooks without the support of digital teaching materials, and face limited facilities such as LCDs, projectors, and inadequate internet access. These conditions have implications for low learning variation and the emergence of student boredom in the English learning process. Elementary school students are in the early stages of foreign language learning, which requires a creative, engaging approach that is appropriate to their developmental characteristics. Therefore, this study focuses on teachers' perceptions of digital literacy and the use of digital teaching materials in English learning as a basis for identifying teachers' level of understanding and readiness in integrating digital technology, as well as providing a basis for formulating strategies to strengthen digital literacy in elementary schools.

Although digital literacy has been widely studied in the context of 21st-century learning, a research gap exists, indicating that studies on elementary school teachers' perceptions of digital literacy and the use of digital teaching materials in English learning are still limited, particularly in the context of the implementation of the Independent Curriculum. Most previous studies have focused on measuring the level of digital competence or the effectiveness of digital media on student learning outcomes, without in-depth examination of how teachers' perceptions, as the primary actors in learning, shape technology

integration practices in the classroom. However, theoretically, teachers' perceptions play a strategic role in determining attitudes, readiness, and patterns of digital literacy implementation in the learning process. Furthermore, studies that address the empirical reality in elementary schools, characterized by non-urban areas and operational technical limitations, are still relatively limited, thus not providing a comprehensive picture of the dynamics of digital literacy integration at the elementary education level. Therefore, this study aims to fill this gap by analyzing elementary school teachers' perceptions of digital literacy as a foundation for strengthening digital pedagogical competencies relevant to the demands of English learning in the Independent Curriculum era.

Based on the background, this study aimed to describe elementary school teachers' perceptions of the use of digital teaching materials in language learning and analyze the role of these perceptions in encouraging classroom learning activities. The following research questions are the focus of this study: RQ1: What is elementary teachers' perception of using digital teaching materials in language learning and teaching? RQ2: How does such perception promote teachers teaching and learning activities in the classroom?

2. Method

This research employed qualitative research methods using a descriptive approach. According to Creswell et al. (2016), qualitative research explores and understands the meaning of several individuals or groups of people originating from social problems. Qualitative research can generally be used to research people's lives, history, behaviour, concepts or phenomena, social problems, etc. The qualitative descriptive method is research that concludes the facts that occur as they occur in the field based on the objects and subjects observed using words and presented narratively. This research uses descriptive research to explain and describe teachers' overall perceptions of digital literacy in language learning and teaching.

The research participants were 35 English teachers from several primary schools in Bondowoso Regency who filled out the questionnaire and one English teacher from SDN Sumber Pandan 01 who was interviewed.

This study used three data collection techniques, including: According to Sugiyono (2018), a questionnaire is a data collection technique that gives respondents a set of written questions or statements to answer. The questionnaire aims to obtain information from respondents about what they have experienced and known. In this study, a questionnaire was used to determine the perceptions of elementary school English teachers in several schools in the Bondowoso district regarding the use of digital teaching materials in language learning and teaching. The questionnaire was administered using Google Forms. Participants were sent a form link via their WhatsApp accounts.

Creswell (2015) defines observation as paying attention to phenomena in

the field through the researcher's five senses, often with instruments or devices, and recording them for scientific purposes. Observations were carried out in this research by looking at school conditions and the teaching and learning process by the English teacher at SDN Sumber Pandan 01. The instrument used in this study was a non-participant observation sheet. The researcher simply observed the learning process without directly interacting with the participants to maintain data objectivity.

According to Creswell (2012), interviews involve the activity of asking several questions from a researcher to one or more participants to gather information. The purpose of the interviews in this research is to learn more deeply about teachers' opinions and perceptions regarding using digital teaching materials in language learning and teaching. The interview was conducted in person in this study.

The data analysis used in this study employed qualitative descriptive analysis techniques. The questionnaire data were measured using a Likert scale, with categories of Strongly Agree, Agree, Disagree, and Strongly Disagree.

Table 1. Likert Scale Score

No	Answer	Score
1	Strongly Agree	4
2	Agree	3
3	Disagree	2
4	Strongly Disagree	1

Source: Sugiyono (2016)

Elementary school teachers' perceptions of digital literacy in language learning and teaching were determined based on the responses of 35 active elementary school teachers in Bondowoso Regency.

The scores from the questionnaire data were calculated using the percentage formula proposed by Arikunto (2006):

$$P = \frac{F}{N} \times 100\%$$

Description:

P = Percentage value of respondents' answers

F = Frequency of respondents' answers

N = Number of respondents.

The questionnaire was completed within 5 days via a Google form distributed via WhatsApp. To understand the teaching and learning activities of teachers in the classroom and to obtain direct information, the researcher used descriptive analysis techniques obtained from interviews with one of the teachers at SDN Sumber Pandan 01. Observations were also conducted to obtain factual data on how elementary school teachers implement digital learning media in language

learning activities in the classroom, including how to use it, student responses, and obstacles and effectiveness. Observations in this study were conducted over one day at the designated research location.

3. Result

The results of the questionnaire analysis indicate that the majority of elementary school teachers have a positive perception of the use of digital teaching materials in language learning. Based on the percentage calculation, 57% of respondents stated that they agreed and 26% stated that they strongly agreed with statements regarding the effectiveness of using digital teaching materials, while 11% of respondents stated that they disagreed and 6% strongly disagreed. Teachers assessed that digital teaching materials can increase student learning interest, facilitate material delivery, and help create a more interactive learning atmosphere. This finding is reflected in the dominance of respondents' answers in the agree and strongly agree categories to statements related to the effectiveness and benefits of digital teaching materials.

Furthermore, the study results indicate that teachers recognize the importance of digital literacy as a supporting competency for language learning in elementary schools. 74% of respondents agreed or strongly agreed that digital literacy is an important competency for teachers, while 26% of respondents still felt unprepared to utilize learning technology optimally. Teachers viewed the ability to utilize digital media not only as a facilitator in delivering material but also as a contributor to the development of students' 21st-century skills. However, the utilization of digital teaching materials is still not optimal due to limitations in technological proficiency and the availability of supporting resources.

Interview findings corroborate the questionnaire results by indicating that teachers generally have an open attitude toward the use of digital teaching materials. Approximately 80% of informants stated that digital media helps improve students' understanding of language materials, particularly vocabulary and the context in which language is used, although 20% of informants reported still experiencing challenges in mastering technology and device readiness. Teachers stated that digital media, such as learning videos and interactive applications, make it easier for students to understand vocabulary and the context in which language is used. However, some teachers also expressed challenges such as limited time to prepare digital materials and a lack of ongoing training.

Observations indicate that the implementation of digital teaching materials in language learning remains situational and has not been consistently integrated into lesson planning. Of the classes observed, approximately 65% of teachers used digital teaching materials to complement conventional learning, while 35% of teachers still relied on traditional learning methods without regular digital media support. Teachers tended to use digital teaching materials as a complement to conventional learning. This situation indicates that teachers' positive perceptions

have not been fully followed by systematic digital learning practices.

Theoretically, the findings of this study align with Robbins' (2001) view that individual perceptions influence attitudes and behaviors in the workplace. Teachers' positive perceptions of digital teaching materials encourage openness to learning innovations, but their implementation remains influenced by internal and external factors, such as digital competence and support facilities. These findings also align with the concept of digital literacy proposed by Gilster (1997) and Bawden (2008), which emphasizes that digital literacy is not only related to access to technology but also the ability to manage and utilize information effectively.

4. Discussion

This research focuses on elementary school teachers in Bondowoso Regency who use digital teaching materials in language learning, a context rarely explored in depth, particularly at the elementary level and in non-urban satellite areas. This research provides a more comprehensive picture of elementary school teachers' perceptions in developing regions regarding integrating digital media into their learning.

Based on the results of a study involving 35 elementary school teachers in Bondowoso Regency, it was found that teachers have a very positive perception of the use of digital learning media in language learning and demonstrate good understanding of its concepts, functions, and integration into the learning process. Teachers assessed that digital media significantly impacts student motivation, activeness, and understanding by creating more interesting, interactive, and enjoyable learning atmospheres that reduce boredom and improve language learning outcomes through innovative activities like educational games. However, despite high readiness to operate and integrate digital media, several technical challenges persist, including limited ability to operate devices independently and the need for peer support in preparing equipment such as LCDs and projectors. This indicates that further training and technical assistance are required to strengthen teachers' independence in using digital tools optimally.

Teachers' perceptions of the use of digital teaching materials tend to be positive and align with Paul Gilster's (1997) digital literacy theory. Regarding internet searching, most teachers stated that the use of digital teaching materials significantly facilitates the learning process because it allows them to quickly and variedly access materials via the internet, including videos and interactive modules. This demonstrates that teachers have developed the ability to search for and utilize digital information as a more innovative alternative learning resource compared to conventional textbooks. They are able to navigate various digital content formats such as learning platforms, interactive applications, and web-based media, combining multiple digital sources in one learning session using text, images, audio, and video to create more dynamic learning experiences. In content evaluation, teachers demonstrate the ability to assess the quality and appropriateness of digital materials before use, considering alignment with student needs, curriculum,

and elementary students' cognitive development levels while ensuring information accuracy, educational value, and content safety. This selective attitude reflects critical thinking skills, which are the core of digital literacy, according to Gilster.

Teachers can also organize and integrate various digital information into cohesive and contextual materials suited to student characteristics, developing independent learning content and modifying standard materials to be more creative and communicative. These efforts demonstrate teachers' ability to construct new knowledge from various digital sources and then transform it into learning. These positive perceptions contribute to improved classroom learning activities, with teachers feeling supported by the VIP facility and collaboration among colleagues, while also expressing the need for nationally scaled digital talent training programs to further enhance teachers' digital competencies in meeting 21st-century learning demands.

These findings are consistent with previous studies by Anggeraini et al. (2019), Hadianti et al. (2021), Hakim et al. (2023), and Jannah et al. (2020), which indicate that teachers possess digital literacy competencies at basic to intermediate levels, with limitations in advanced technical skills such as developing learning applications, which require formal training to enhance digital creativity capacity. Teachers' familiarity with digital devices increases their confidence and motivation, leading to improved student participation and a more interactive learning environment, although they still face challenges such as limited facilities and the need for continuous training. Furthermore, successful digital learning in elementary schools is significantly influenced by teachers' digital competence, creativity, and communication skills rather than just the availability of devices. This confirms that teachers' digital literacy is a key factor in the successful implementation of technology-integrated 21st-century learning.

This discussion is also designed to answer how elementary school teachers' perceptions of the use of digital learning media are able to promote learning and teaching activities in the classroom. Teachers' perception is a key aspect in determining the success of implementing digital media, because teachers' views and beliefs about the benefits of technology will influence how they integrate it into their learning practices. In Bondowoso Regency, teachers with good digital literacy effectively integrate digital learning media adaptively, using interactive applications like animated PowerPoint and educational YouTube videos combined with discussion methods, which increases student participation, creates engaging learning environments, and clarifies abstract material through visuals. Teachers' positive perceptions have transformed classroom learning patterns from conventional lecture methods to more active, creative, and student-centered learning, with significant improvements in student attention, participation, and material understanding. However, 70% of teachers acknowledged obstacles in implementation, not related to physical facilities but technical and operational aspects such as device setup time and limited ability to operate digital tools

independently, requiring peer assistance. Despite challenges, over 89% of teachers expressed high hopes for optimizing digital media use through government facility support and teacher cooperation, desiring increased competency through national-scale digital training programs and development of media content tailored to elementary school learning needs.

Based on survey findings and interviews in several elementary schools in Bondowoso Regency, teachers who have a positive perception of digital media tend to be more active in applying digital literacy skills in teaching and learning activities. The implementation is seen in the use of interactive media, learning applications, and other digital resources to facilitate student understanding, increase motivation, and encourage active participation in class. However, teachers still face obstacles, especially related to technical aspects and equipment preparation, such as the time needed to set up projectors, LCDs, or digital applications, as well as limitations in individual operational capabilities. This shows that teachers' digital literacy is not only about technical skills, but also includes the ability to think critically, adapt, and manage digital resources effectively, according to the definitions of Gilster (1997) and Eshet (2004). On the other hand, support from the school and collaboration between teachers have been proven to facilitate the optimal use of digital media, enabling teachers to overcome technical limitations while maximizing the benefits of digital media for students' learning processes.

These findings are consistent with research by Agarry et al. (2024) and Liza et al. (2020), that digital literacy is crucial for 21st-century teachers, enabling them to create more interactive, creative, and adaptive learning that improves student motivation, activeness, and material understanding. Teachers' positive perceptions of digital media significantly contribute to improving classroom teaching and learning quality, though implementation still faces obstacles related to technical skills, device preparation, and time management, requiring peer assistance. The study confirms that facility support, teacher collaboration, and national-scale digital training programs are essential to overcoming technical challenges and improving digital literacy competencies, demonstrating that digital literacy is not merely a technical skill but a strategic foundation for enhancing motivation, creativity, and elementary school learning quality.

Teachers' positive perceptions of digital media significantly improve classroom teaching and learning quality, enabling them to create interactive, creative, and adaptive learning that increases student motivation and understanding. However, implementation faces obstacles related to technical skills, device preparation, and time management, requiring teacher collaboration and institutional support. Facility support, teacher cooperation, and national-scale digital training programs are essential to overcoming technical challenges and improving digital literacy competencies, confirming that digital literacy is a strategic foundation for enhancing motivation, creativity, and elementary school learning quality.

5. Conclusion

This study concluded that elementary school teachers' perceptions of the use of digital teaching materials in language learning tend to be positive. However, the implementation of digital teaching materials has not been optimal due to limited digital competency and resource support. Therefore, ongoing training and school policy support are needed to encourage the systematic integration of technology into language learning in elementary schools.

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