THE USE OF DIGITAL ENGLISH TEXTBOOKS: A STUDY ON COMPREHENSION AND LANGUAGE PRODUCTION ABILITIES AMONG YOUNG LEARNERS

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Article Info	Abstract
Article History Received: January 2024 Revised: February 2024 Published: April 2024	The transition to digital textbooks in education, particularly for teaching English to young learners, offers benefits but presents its own challenges. Therefore, it is crucial to conduct further research to assess its impact on students' language skills and the interaction between teachers and students. This study aims to thoroughly
<i>Keywords</i> Digital textbooks: Digitalization;	evaluate how digital English textbooks affect the understanding and production of English among young learners and teachers. The research method used is qualitative descriptive, conducted at SDS Islam Ar-Risalah Jember, involving two teachers and eleven students. Data was collected using observation, interviews,
Language comprehension; Technology integration; English Young learners;	and documentation, and the analysis technique used was that of Miles and Huberman. The results show that digital English textbooks significantly enhance young learners' and teachers' English language skills. These resources offer a dynamic and interactive educational experience. However, the shift to digital tools poses challenges, such as limited infrastructure and the need to adjust teaching methods. Addressing these issues is vital to utilize digital textbooks in education fully. In conclusion, although digital textbooks can enhance English language
	mastery among learners and teachers, realizing this potential requires overcoming certain technological and pedagogical barriers. This study implies that using digital English textbooks in a teaching context increases effectiveness in the learning process but requires a holistic approach that includes technical support, teacher training, and adequate infrastructure to maximize potential and overcome challenges.

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INTRODUCTION

Using digital textbooks in elementary schools has become a significant research focus in an era where technology is increasingly integrated into the educational landscape (Clark-Wilson et al., 2020; Furenes et al., 2021; Haleem et al., 2022). The shift from traditional teaching methods to digital textbooks marks a significant evolution in education, potentially enriching the learning process through easier access to information and visually engaging content presentation. However, the adoption of this technology is not without challenges (Alneyadi et al., 2023; George and Wooden, 2023; Lee et al., 2023). Teachers' perceptions of digital books vary greatly, influenced by cultural background, professional training, personal experience, and the socio-economic environment in which they operate (Haleem et al., 2022; Timotheou et al., 2023). These perspectives play a crucial role in classroom management and interaction with students, affecting the effectiveness of teaching methods and the overall health of the education system.

Based on the issues identified in previous findings, it is evident that integrating digital textbooks in education, particularly at the elementary school level, poses a series of complex

challenges (Coiro, 2021; Ferrer et al., 2020; Yan et al., 2021). On the one hand, digital textbooks offer ease of access and an interactive learning experience. Still, on the other, they bring up issues related to infrastructure readiness (Febrianto et al., 2020; Nyarko et al., 2020), teacher training, and access disparities (Bubou and Job, 2021; Kundu et al., 2021). In many schools, especially in areas with limited resources, teachers and students often struggle with the availability of adequate devices and stable internet connectivity, which are crucial prerequisites for utilizing digital textbooks (Botelho, 2021; Kulkarni, 2019; Kumar dkk., 2019). Furthermore, teachers who are less trained in technology use may need help integrating digital textbooks into the curriculum, thereby diminishing the effectiveness of this learning method (Hu et al., 2021; Wilson et al., 2020). Differences in acceptance and comfort with technology use between teachers and students also create disparities in learning experiences. These factors and differences in students' socio-economic backgrounds raise important questions about equality and fairness in education and indicate the need for a more integrated and inclusive approach to adopting digital textbooks in elementary schools.

Digital books, often called e-books or electronic books, are electronic or digital versions of printed books. These can be accessed and read online or offline on electronic devices like computers, e-readers, tablets, or smartphones (Cábyová et al., 2020; Jarf, 2023; Spjeldnæs and Karlsen, 2022). They offer advantages like storing many titles on a single compact device and features like text search and customization, making it easier for readers to access and consume content (Amirtharaj et al., 2023; Cahyani dan Wahyunengsih, 2023; Srirahayu dan Premananto, 2020). Additionally, the use of digital textbooks in English language learning offers flexibility to learn anywhere, providing easy access to resources and additional materials through integrated hyperlinks (Bustang et al., 2021; Kempe dan Grönlund, 2019; Rawashdeh et al., 2021). Interactive features like built-in dictionaries and customizable language exercises enhance the learning experience, allowing for deeper understanding. Thus, English education for Young Learners (EYL) presents unique challenges and opportunities. Exposure to English from an early age, a supportive learning environment, and technology integration in teaching English to young learners are important factors in enriching children's learning experiences and language proficiency (Gracia et al., 2023; Taghizadeh and Yourdshahi, 2020; Wedyan et al., 2022).

Although previous research has explored the use of digital textbooks in English language education, this study offers a unique and distinct perspective. For instance, the research conducted by Moorhouse dan Yan, (2023), while sharing the context of integrating digital tools into teaching practices, significantly differs in its focus on the direct impact of digital tools on students' language comprehension and production alone. In contrast, the study by Xodabande dan Hashemi, (2023) is similar to this research in exploring the use of digital teaching materials in language learning. However, this study diverges from previous research by focusing on the influence of digital textbooks on the language comprehension and production abilities of younger students, thereby offering a new perspective on literature. Furthermore, the research by Hermita dkk., (2023), although similar in assessing the acceptance of digital technology, differs in its focus on the direct impact of digital textbooks on students' language skills rather than on the factors influencing them.

Therefore, this study raises the question: How does the use of digital English language textbooks affect the understanding and production of English among young students and teachers at SDS Islam Ar-Risalah Jember, and what are the challenges and benefits that emerge in the learning process? Thus, this research aims to evaluate the impact of digital textbooks on the understanding and production of English from the perspective of young learners and teachers. The primary novelty of this research lies in its specific approach to using digital textbooks by young learners and teachers. Unlike previous studies, which were more oriented towards the perspectives of teachers or college students alone, this research delves into how

digital textbooks realistically affect the understanding and production of English in younger students and teachers. Therefore, this study fills a gap in the existing literature and provides valuable new insights for practitioners and policymakers in English language education. It highlights the importance of digital tools in early language education and their contribution to effective language learning.

Consequently, this research contributes to the existing literature by offering a comprehensive perspective on how digital textbooks influence the teaching and learning process of English in elementary schools. Through an in-depth analysis of the interactions between students, teachers, and digital materials, this study identifies correlations between the use of technology in education and the cognitive and language development of children. By combining pedagogical and technological perspectives, this research not only enriches the academic understanding of digital-based English language teaching but also offers practical recommendations for stakeholders in the field of education to implement and maximize digital devices as effective learning media.

RESEARCH METHOD

Research Design

This study employs a descriptive qualitative methodology, producing descriptive data from observed people or behaviours in written or spoken words. This method is selected because its analysis is not numerically representable, and the researcher aims to depict the environmental phenomena in greater detail (Lalogiroth and Tatipang, 2020; Qiu et al., 2023). The methodology is chosen for its ability to yield in-depth and detailed descriptive data about respondents' experiences, perceptions, and behaviours concerning the studied phenomenon. Focusing on the oral and written narratives of students and teachers, this study aims to comprehensively evaluate the impact of digital textbooks, both in terms of challenges and benefits encountered in the learning process. This allows the researcher to gain a broader and deeper understanding of how digital textbooks affect the English language learning process and the challenges and benefits that arise during this process.

Population and Sample

This research targets the population at SDS Islam Ar-Risalah Jember, with the study subjects consisting of two English language teachers and eleven selected students from a digital class. Subject selection is conducted through purposive sampling, a technique where elements are chosen based on a specific purpose, usually because they possess certain characteristics desired by the researcher and are deemed most relevant to the research objective (Muzata, 2020; Mweshi and Sakyi, 2020). The primary focus of this research is to delve into the quality of interaction between teachers and students and to understand the dynamics occurring in the learning process, hoping to provide deeper insights into the effectiveness of teaching and learning in the concerned educational environment.

Instruments and Data Collection Techniques

In this study, three main data collection techniques are used to evaluate the impact of digital English textbooks on the understanding and production of English among students and young teachers at SDS Islam Ar-Risalah Jember. The research questions focus on how using digital textbooks impacts the challenges and benefits that emerge in the learning process. First, through observation, the researcher directly observes the learning process using digital textbooks are integrated into teaching and learning activities and their impact on the interaction between students and teachers. From this observation, the researcher can assess the direct influence of digital textbooks on students' understanding and production of English.

Second, unstructured interviews are a crucial tool for gaining a deeper understanding of the use of digital textbooks by students and teachers. Through these interviews, the researcher can gather information about the respondents' perceptions, opinions, and personal experiences regarding the effectiveness of digital textbooks. Unstructured interviews allow respondents to freely talk about their experiences, allowing the researcher to explore more broadly aspects that may not be revealed through more structured data collection methods. This information is invaluable in identifying challenges and benefits students and teachers perceive in the learning process using digital textbooks.

Lastly, the technique of documentation is also used to support data collection. This involves collecting and analyzing related data, such as student grade records, documentation of learning activities, and materials from digital textbooks. This documentation provides an objective view of the impact of using digital textbooks on students' learning outcomes and teachers' teaching methods. With documentation analysis, the researcher can provide concrete evidence about the influence of digital textbooks in the context of English language learning in that school, complementing the information obtained from observations and interviews.

Data Analysis

The data analysis technique used in this study is the Miles and Huberman method, which includes data reduction, data display, and conclusion drawing/verification (Miles et al., 2018). First, data reduction means sorting and focusing the collected data into only essential elements. This study involves determining key themes from observations and interviews about the use of digital textbooks in understanding and producing English. The second is data display. After data simplification, the data is organized and presented in a narrative form, making it easier to identify patterns and relationships among the data. The last step is concluding/verifying the data, where the researcher reviews the presented data to draw conclusions or verify findings from the research.

RESEARCH FINDINGS AND DISCUSSION

Results of the Implementation of Digital English Textbooks

Teaching activities using digital English textbooks at SDS Islam Ar-Risalah, Jember, have significantly impacted English comprehension and production, particularly among young learners and teachers. Based on interview results, opinions about the use of digital English textbooks utilizing the Merdeka Curriculum are as follows:

"I prefer digital textbooks. They make the teaching process easier, especially in digital classrooms. These books are designed according to the curriculum and are very practical. The content is relevant to the student's world, and the activities are based on daily life. The books also support the four essential English language skills: speaking, reading, writing, and listening." (Q1,T1)

The interview findings reveal a clear preference among respondents for digital textbooks in the realm of English language teaching, particularly within the framework of digital classrooms. Several factors contribute to this inclination, including the perceived practicality of digital textbooks, their alignment with the curriculum, relevance to students' daily lives, and supportiveness in fostering the acquisition of the four English language skills: reading, writing, speaking, and listening. This collective sentiment underscores the efficacy of employing the Merdeka Curriculum in a digital format, as indicated by respondents, in enriching the English learning experience. The utilization of digital textbooks within the context of the Merdeka Curriculum is seen as instrumental in enhancing the English learning process. By leveraging digital resources, educators can cater to the diverse learning needs of students while facilitating engagement and active participation in the learning process. Furthermore, the alignment of digital textbooks with the curriculum framework ensures coherence and consistency in instructional delivery, thereby optimizing learning outcomes. The efficacy of the Merdeka Curriculum in a digital format is further evidenced by the observed student learning outcomes. These outcomes, which are reflected in the subsequent table, serve as tangible indicators of the effectiveness of the curriculum in fostering English language proficiency and competency among students. By assessing student performance across various language skills and competencies, educators can gauge the impact of the curriculum and make informed decisions regarding instructional strategies and interventions aimed at further enhancing student learning and achievement.

No	Informant	Score before using	Score after using
		digital textbook	digital textbook
1.	S1	85	100
2.	S2	90	99
3.	S3	80	80
4.	S4	90	100
5.	S5	80	80
6.	S 6	90	100
7.	S 7	90	100
8.	S 8	85	80
9.	S9	90	100
10.	S10	60	75
11.	S11	99	98
Jumlah		939	1012
Rata-Rata		85	92

Table 1.
Student Learning Outcomes Before and After Using a Digital English Textbook

Source: Data on student learning outcomes from the digital class

The learning outcomes of students in the digital classroom at SDS Islam Ar-Risalah Jember have shown improvement following the use of digital English textbooks, with the average score increasing from 85 to 92. Overall, this study demonstrates the positive impact of digital English textbooks in enhancing young learners' comprehension and language production skills. An example of the textbooks used during the learning process is as follows:



Figure 1. Digital English Textbook

Furthermore, the teaching strategy in this class is described as follows:

"At SDS Islam Ar-Risalah, I use various teaching strategies. We have pair discussions, group discussions, and other interactive methods. For speaking skills, some activities encourage students to present their understanding. In reading skills, students are

invited to read aloud. Meanwhile, for writing, students are asked to compose words. And for listening, we use audio that can be played by scanning a barcode." (Q2,T2)

From this paragraph, at SDS Islam Ar-Risalah, teachers use various teaching strategies that involve active student interaction, such as pair and group discussions, and emphasize the development of speaking, reading, writing, and listening skills. Additionally, they use technology by scanning barcodes to access audio materials in learning. The documentation of the learning process is as follows:



Figure 2. Learning Activities in Class

From the students' perspective, based on interviews with several of them, activities like memorizing vocabulary, reading, and writing are commonly practised in the classroom. As explained by one student, "We often get assignments to memorize new vocabulary, read texts in English, and write based on our class activities." (Q3, S7). This indicates that various teaching methods are used in class to enhance students' English language skills. The students' statements suggest that classroom learning approaches heavily focus on the basic aspects of English proficiency, such as vocabulary, reading, and writing. This approach shows a consistent effort by teachers to develop students' English language abilities through practical and structured teaching methods.

Furthermore, it's observed that the most common activities in the classroom are writing and memorizing vocabulary relevant to their surroundings. One student stated, "We are often asked to write in class, be it essays or short stories. Also, we frequently memorize new words that are relevant to the topics we study" (Q3, S2). Thus, it explains that the main activities experienced by these students in learning are creative writing and vocabulary learning. The teaching approach focuses on developing writing skills and expanding students' vocabulary, which is useful for enhancing their understanding of material relevant to their environment.

Additionally, other common activities include pretests, using games, and group discussion forums. As described by another student, "*We often have pretests with the help of games which make learning more enjoyable. Also, we frequently engage in group discussions to review the taught material*" (Q3, S3). The learning activities described by the students in these quotes show the use of interactive and enjoyable methods in the learning process. The use of game-assisted pretests and group discussions not only helps deepen the understanding of the material but also adds an element of fun and collaboration among the students.

Advantages of Implementing Digital English Textbooks for Young Learners

Implementing digital English textbooks for Young Learners has significantly transformed teaching and learning methods. From the teachers' perspective, it's noted that "Students feel more comfortable and engaged. They can access the material online as well as offline, providing them with flexibility in learning" (Q4, T1). This statement highlights that using digital English textbooks positively impacts student engagement and comfort in learning. Accessing materials online and offline offers significant flexibility, allowing students to learn

at their own pace and in their situation, thus enhancing the effectiveness of teaching and providing a more adaptive and personalized learning experience.

Furthermore, from the students' aspect, it is explained that: "It's more fun because the teacher uses many games during the lessons and explanations, which enhances the understanding of English vocabulary" (Q4, S3). This statement emphasizes the interactive aspect and the use of gaming elements in digital English textbooks, significantly increasing the enjoyment and engagement of students in the learning process. The use of games and interactive activities by teachers makes the learning sessions more interesting and effective in enhancing students' understanding of English vocabulary, as this method facilitates more active and impactful learning.

Additionally, another student expressed, "When the teacher's explanation is somewhat confusing, I find it hard to understand what is being conveyed, and I end up learning independently with the digital book to better understand the English material" (Q4, S4). Therefore, this statement underscores the advantage of digital English textbooks as a valuable tool for independent learning. Although some students require assistance understanding the teacher's explanation, digital books provide additional resources that allow students to explore the material at their own pace, reaffirm unclear concepts, and deepen their understanding of the English material independently. This demonstrates how digital English textbooks can effectively complement the learning process, offering additional support that students can access at any time to overcome learning barriers and reinforce their mastery of the material.

Challenges in implementing digital English textbooks for Young Learners

The implementation of digital English textbooks for young learners faces various challenges. From the teacher's perspective, it is explained: "*The biggest challenge occurs during power outages. This forces us to switch to other teaching methods*" (Q5, T2). Unexpected power cuts are a major obstacle for teachers in applying digital English textbooks, considering that all digital learning activities heavily rely on a stable electricity supply. This situation demands flexibility and creativity from teachers in adapting their teaching methods, often reverting to traditional approaches to ensure the learning process continues without technological support.

A similar sentiment is also experienced by students, as follows: "*The difficulty we face is when the Wi-Fi is down, and we haven't downloaded the book; it's hard to access the digital English textbooks*" (Q5, S1). This indicates a common problem in digital learning, particularly regarding reliance on internet connectivity. When Wi-Fi is unavailable, students face difficulties, especially if they have yet to have the chance to download teaching materials like English textbooks, highlighting that access to digital learning resources remains a challenge. On the other hand, another student expresses difficulty, explaining that:

"When it comes to translation, it's easy to forget if it's not written directly in the book. With a hardcover or a regular book, if there's a vocabulary word that's not understood, it can be written right next to the word. In contrast, when using digital English books, it's often forgotten, making it very hard to learn vocabulary" (Q5, S6).

This student's experience highlights a common challenge encountered when learning English vocabulary, particularly within the context of digital learning materials. Specifically, the student expresses difficulty in effectively mastering vocabulary when using digital books compared to physical or hardcover counterparts. The student notes a distinct advantage of physical books, wherein they can directly annotate or jot down translations next to unfamiliar words, thereby facilitating the learning process. However, this convenience is notably absent in the digital format, posing a significant hurdle for the student. Without the ability to annotate directly adjacent to words, the student finds it challenging to retain and internalize unfamiliar vocabulary, thus impeding the learning process. The student's struggle underscores the importance of considering the usability and functionality of digital learning materials, particularly in facilitating effective language learning experiences. The inability to make direct annotations in digital books not only hinders vocabulary acquisition but also complicates the learning process, potentially leading to frustration and disengagement.

Discussion

This study examines the impact of digital textbooks on English language comprehension and production from the perspective of students and young teachers. The results show that digital textbooks significantly contribute to understanding and producing English for students and teachers. This is evident from the significant improvement in student learning outcomes, demonstrating the effectiveness of digital textbooks in the learning process. This aligns with previous research that found (Heilporn et al., 2021; Khalil et al., 2021; Muzata, 2020; Ulyawati and Sugito, 2022). Interestingly, despite some studies, such as those revealed by Flanigan and Babchuk, (2022), expressing concerns about the potential distractions of digital textbooks reduce distractions and help create deeper and more effective learning.

These digital textbooks are designed according to the latest curriculum and focus on linking lesson materials to students' real-world experiences, an approach that has proven very important in education. According to Fansury et al., (2020) and Mudra, (2020), students tend to be more engaged and understand the material when its content is relevant and interesting to them. In addition, the book is designed to support the development of the four main skills in English: speaking, reading, writing, and listening. This approach aligns with Erarslan's, research (2021), which emphasizes the importance of a holistic approach in language learning, where these skills are taught separately and integrated to help students develop comprehensive and practical English language abilities. This approach aims to provide a deeper and more meaningful learning experience, which improves language mastery and the relevance of this knowledge to students' daily lives.

At Ar-Risalah Islamic Elementary School, digital text books have become an integral part of the teaching method. This is a replacement for conventional textbooks and a step forward in adopting more interactive and multimodal learning strategies. These strategies include activities like pair and group discussions and audio materials, all contributing to a more dynamic learning experience that actively involves students. This approach aligns with research findings by Eli in 2021, which showed that interactive learning using various methods can improve students' language abilities. Furthermore, learning activities at this school, such as memorizing vocabulary, reading, and writing, which are routine activities, demonstrate the importance of having various teaching methods. These methods enrich the learning process and emphasize the basic aspects of language mastery. This aligns with the principle emphasized by Wragg et al., in 2021 the importance of diversifying teaching methods, especially in the context of language learning. Thus, Ar-Risalah Islamic Elementary School implements a holistic and multifaceted approach to language teaching, focusing on the use of technology and the application of diverse and effective teaching methods.

Digital English textbooks offer several significant advantages that align with the latest developments in digital learning. One of the main advantages is the flexibility in accessing online and offline materials, allowing for a more flexible learning environment tailored to individual needs. This aligns with Alamri et al., (2021) and Bernacki et al., (2021) findings, which emphasized the importance of adaptation and Zpersonalization in the digital learning process. In addition, digital textbooks often incorporate game elements and interactive features that enhance students' enjoyment and engagement in learning. Thus, using these digital books can increase student motivation and participation. Therefore, digital textbooks facilitate access to learning materials and enhance the overall learning experience by making it more engaging and relevant to students.

However, this research reveals some major challenges in digital learning, particularly the reliance on reliable electricity supply and stable internet connections, highlighting common issues experienced by learners, as described by a study conducted by Azionya and Nhedzi, (2021). They found that unequal access to internet connectivity and technological resources often becomes a major barrier to online learning, especially in rural areas and low-income communities. Further, research by Cardona et al., (2023) indicates that despite technological advancements, unstable electricity supplies in many developing countries often disrupt the learning process, forcing students and teachers to rely on alternative solutions that are only sometimes effective or efficient. This study also reveals that some students experience difficulties in learning vocabulary using digital books compared to physical books. This finding is intriguing as it has yet to be extensively discussed in previous studies and opens new insights into the importance of adapting learning methods to accommodate digital books. This finding is important as it provides a new perspective on how digital books can affect the learning process and indicates the need for more innovative strategies to address the challenges faced by students in a digital learning environment.

Therefore, using digital English textbooks demonstrates that this approach significantly contributes to students' and teachers' understanding and production of English. It was found that digital textbooks enhance engagement and understanding and reduce distractions. These books are designed according to the latest curriculum and focus on a holistic language skills approach, integrating speaking, reading, writing, and listening, and are relevant to students' real-world experiences. Their use in schools emphasizes interactive and multimodal learning, enhancing the learning experience. However, challenges such as dependence on stable electricity and the internet and difficulties in learning vocabulary highlight the need for adaptation and innovation in digital learning. This research aligns with previous findings emphasising integrating technology into education to create a rich and supportive learning environment (Denton et al., 2020; Hursen, 2021; Sablić et al., 2021).

Further, this study affirms that digital textbooks can enhance student motivation and engagement by utilizing interactive and multimodal features (Denton et al., 2020; Hursen, 2021; Kumar et al., 2019). However, as revealed in this study, the transition to digital learning resources presents challenges, including infrastructure issues and student adaptation to new learning methods. These challenges reflect findings that identify access and proficiency in using digital technology effectively as essential prerequisites for the successful use of educational technology (Almunawaroh, 2020; Nikou et al., 2022).

Considering the advantages and challenges of digital textbooks, this study underlines the importance of a holistic approach to integrating technology into education. This aligns with the views of Rana dan Karna, (2020), who emphasize that technology in education must be accompanied by adequate support and training for teachers and ensure accessibility and availability of sufficient infrastructure. Therefore, the study of the use of digital English textbooks at SDS Islam Ar-Risalah, Jember, demonstrates a significant impact on the learning processes of students and young teacher-learners. Integrating digital textbooks into the Merdeka Curriculum makes learning more interactive and relevant to students' lives, strengthening the development of speaking, reading, writing, and listening skills. Although promising, this transition also brings challenges, particularly regarding infrastructure and adaptation to new methods. Therefore, a holistic approach is essential, including the use of technology and support for teachers in using digital textbooks, training, and providing adequate infrastructure. This aligns with the view that technology integration should be comprehensive, ensuring the availability of adequate resources and training so that the potential of educational technology can be maximized to support a rich and inclusive learning environment. Therefore, this study confirms previous findings on the benefits of digital textbooks in education and highlights the importance of considering factors that can affect the success of implementing such technology.

CONCLUSION

A study on implementing digital English textbooks at SDS Islam Ar-Risalah, Jember, has significantly impacted English language learning, particularly in young learners' comprehension and language production abilities. This assessment was made through the perspectives of young learners and teachers as facilitators. The digital textbooks have enhanced student engagement and understanding, focusing on developing speaking, reading, writing, and listening skills. Active student participation in the learning process and the use of interactive methods, such as group discussions and audio materials, affirm the effectiveness of this approach. However, the study also revealed challenges, including dependence on a consistent supply of electricity and stable internet connections and difficulties in vocabulary learning using digital books compared to physical ones. The implications of this research highlight the need for adaptation and innovation in digital learning and the importance of infrastructure support and training for teachers. Emerging gaps include exploring more effective strategies for utilizing digital books in vocabulary learning and the need for further research on the impact of this technology in different educational contexts.

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