



## From Innovation to Impact: Trends and Effectiveness of Interactive E-Books in Elementary Indonesian Language Learning (2020-2025)

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### ABSTRACT

This study aims to identify and analyze the trends in the development and effectiveness of interactive e-books in Indonesian language learning at the elementary school level based on scientific literature. This research employed a Systematic Literature Review (SLR) method using the PRISMA 2020 framework, involving 20 scientific articles published between 2020 and 2025. The data were obtained from several databases, including Google Scholar, Garuda, SINTA, DOAJ, and reputable international journals. The data collection instrument consisted of an extraction sheet containing information on title, authors, publication year, research methods, research subjects, types of e-books, and research findings. The data were analyzed descriptively and thematically to identify research patterns, characteristics of e-book features, and their impact on learning. The results indicate that interactive e-books are generally developed using the Research and Development (R&D) approach, integrating multimedia features such as audio, animation, video, and interactive quizzes. These features significantly enhance student engagement in the learning process. The use of interactive e-books has been proven effective in improving reading comprehension, learning motivation, learning outcomes, and digital literacy among elementary school students. These findings suggest that interactive e-books have substantial potential as innovative learning media.

## 1. Introduction

The rapid advancement of digital technology has brought significant changes to the field of education, including the learning resources used in elementary school settings (Razilu & Nappu, 2025). One of the most rapidly evolving innovations is the use of interactive e-books, defined as electronic books equipped with multimedia features such as audio, video, animations, and quizzes designed to

enhance student engagement and comprehension during the learning process (Korat & Shamir, 2007). Unlike conventional digital books, interactive e-books offer a more dynamic and adaptive learning experience aligned with the characteristics of contemporary learners (Janawati et al., 2021), particularly elementary school students who live in a digitalized era and are highly familiar with mobile devices (Shannaq, 2025). With these advantages, interactive e-books have the potential to support the development of literacy skills, learning motivation, and deeper conceptual understanding compared to traditional printed media (Clinton-Lisell et al., 2024).

Research on interactive e-books in educational contexts has demonstrated that such digital media can significantly enhance students' learning experiences. A study by (Putri & Wiarta, 2023) revealed that the use of specially designed interactive e-books can improve students' motivation in Science and Social Studies (IPAS) through the integration of multimedia features such as images, audio, and video that capture students' attention and facilitate active learning. Similarly, (Egert et al., 2022) found that interactive e-books have the potential to increase reading interest and student engagement with learning materials through additional features not available in traditional printed books (Sabrina et al., 2025).

Despite these promising findings, many empirical and review studies tend to limit their focus to the development and effectiveness testing within specific subject areas such as science or mathematics, without providing a specialized analysis of Indonesian language learning at the elementary school level (Rodrigues et al., 2022). For instance, several studies have reported the development of multimedia-based interactive e-books aimed at improving elementary students' reading skills, demonstrating high validity and positive user responses (Ratnasari, 2024). However, these studies are generally descriptive in nature or focus on a single subject area (Wijaya et al., 2022), thus failing to provide a comprehensive overview of the trends in interactive e-book development within the context of Indonesian language learning. This limitation is further supported by broader literature reviews on interactive learning media, which highlight both the benefits and challenges of digital media use but do not specifically analyse trends in interactive e-book development over a defined time period (K.-Y. Tang, 2021).

Furthermore, there remains a lack of comprehensive synthesis regarding the relationship between interactive e-book design features and student learning outcomes in Indonesian language learning, particularly in terms of their effects on reading, writing, speaking, and text comprehension skills aligned with the elementary school curriculum (Ismawati et al., 2023). This gap is partly due to the diversity of development models employed across studies and differences in methodological approaches, which make direct comparisons difficult. For example, a study on the development of interactive e-books using the Heyzine flipbook application indicated that the materials were aligned with the curriculum and incorporated periodic evaluations and advanced interactive features; however, it did not measure students' language skill achievement (Mailan Fitri Mar'atu Solihah et al., 2025).

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Based on these considerations, there is a clear need for a comprehensive synthesis of scientific literature on interactive e-books within the context of Indonesian language learning at the elementary school level. The Systematic Literature Review (SLR) approach enables the systematic identification and evaluation of previous studies based on specific inclusion criteria, thereby facilitating the mapping of methodological trends, analysed variables, learning contexts, and existing research gaps within the 2020-2025 period (Kurniadin, 2025). By synthesizing relevant studies, this article aims to provide a comprehensive overview of the development of interactive e-books and offer recommendations for future research directions in the field of elementary education. Specifically, this study aims to identify trends in development and the effectiveness of interactive e-book use in Indonesian language learning at the elementary school level during the 2020-2025 period through a systematic literature review approach.

The novelty of this study lies in its systematic mapping of development trends and the effectiveness of interactive e-books in Indonesian language learning at the elementary school level based on scientific publications from 2020 to 2025. Unlike previous studies that primarily focus on media development or effectiveness testing within limited contexts, this study integrates findings from multiple studies using a Systematic Literature Review approach to identify research patterns, dominant development models, targeted language skills, and prevailing methodological trends in interactive e-book research. This study is expected to provide a conceptual contribution in mapping the direction of interactive e-book research development and to offer recommendations for the development of more innovative Indonesian language learning media in elementary schools.

## **2. Methodology**

This study employed a systematic review design using the Systematic Literature Review (SLR) approach, guided by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework as proposed by (Page et al., 2021). The aim of this study was to identify, map, and analyse the trends in development and effectiveness of interactive e-books in Indonesian language learning at the elementary school level based on scientific publications from 2020 to 2025. Through this approach, the study seeks to provide a comprehensive overview of research developments related to the use of interactive e-books as learning media and their impact on improving elementary students' literacy skills.

The research procedure followed a systematic process consisting of identification, screening, eligibility assessment, and inclusion stages, as recommended in the PRISMA guidelines. This approach was applied to obtain a deeper understanding of research characteristics, media development methods, and the effectiveness of interactive e-books in Indonesian language learning at the elementary school level. The article selection process is illustrated in the PRISMA flow diagram presented in the following figure.

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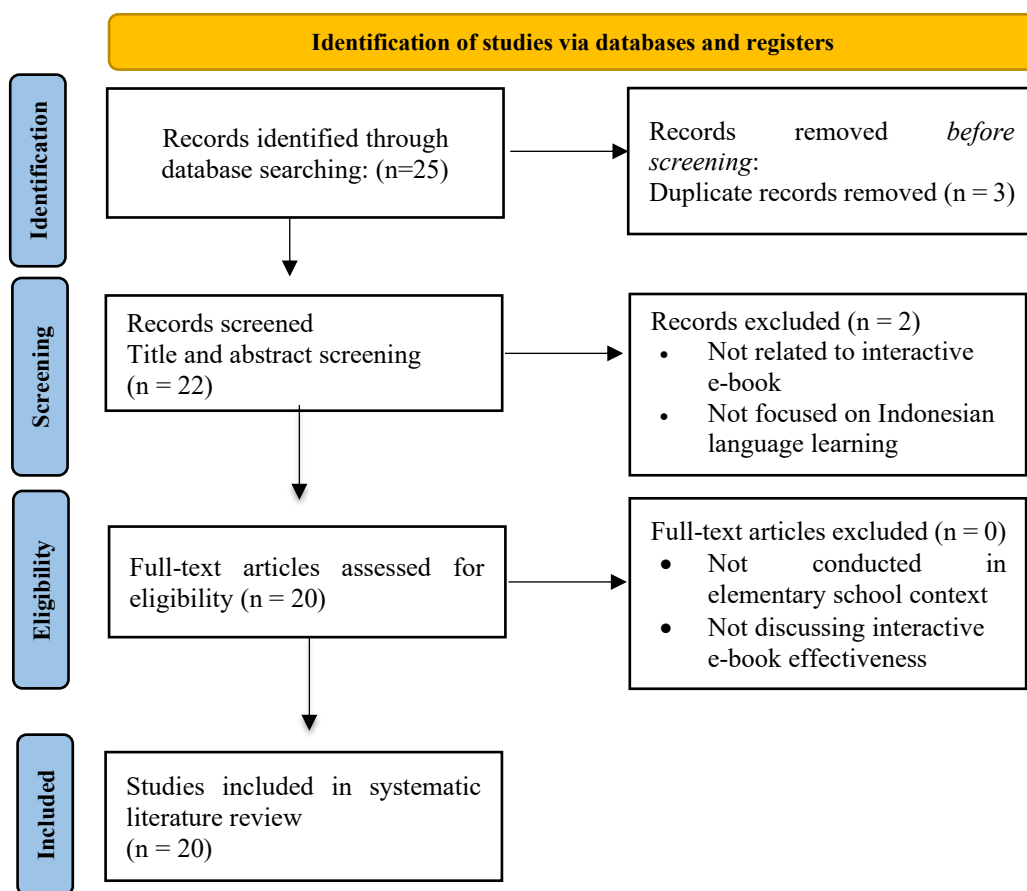


Figure 1. PRISMA Flow Diagram of Literature Selection Process

The population of this study comprised all scientific articles discussing the development and use of interactive e-books as learning media in elementary schools. The sample consisted of articles that met the predefined inclusion and exclusion criteria within the publication period of the last five years (2020-2025). The articles were retrieved from various scientific databases, including Google Scholar, Garuda, SINTA, DOAJ, as well as several international journals relevant to the fields of elementary education and educational technology. Based on the initial search and literature selection process, a number of articles were identified and subsequently screened in stages until those meeting the criteria were selected for further analysis. The inclusion and exclusion criteria applied in this study are presented in Table 1.

Table 1. Inclusion and Exclusion Criteria

Criteria	Inclusion	Exclusion
Publication Year	2020-2025	Before 2020
Type of Publication	Peer-reviewed journal articles	Non-scientific proceedings, technical reports, theses, or popular articles
Language	Indonesian or English	Other languages that cannot be translated
Subject of Study	Learning at the elementary school level	Studies conducted at junior high school, senior high school, or higher education levels

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Research Topic	Development or use of interactive e-books in learning	Studies not addressing interactive e-books
Article Availability	Full-text articles	Articles available only in abstract form

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The sample collection was conducted through a systematic search using specific keywords relevant to the research topic. The keywords included “interactive e-book,” “e-book learning,” “digital book,” “Learning Indonesian Language,” “reading comprehension,” and “elementary school.” The search process was carried out online across multiple academic journal databases. All retrieved articles were initially screened based on their titles and abstracts, followed by a full-text eligibility assessment to ensure alignment with the research focus. Articles that met the criteria were then subjected to a data extraction process using a spreadsheet-based extraction sheet containing key information from each study. The extracted data included the article title, authors, publication year, research context or location, research method, research subjects, type of e-book media developed or used, and the main findings related to the effectiveness of the media in learning. To ensure accuracy and minimize research bias, the selection and data extraction processes were conducted using an inter-rater reliability technique.

The collected data were analysed using descriptive analysis and thematic analysis. Descriptive analysis was employed to map the characteristics of the studies, such as the distribution of publication years, research methods used, and types of interactive e-book development. Meanwhile, thematic analysis was used to identify patterns in the findings related to the effectiveness of interactive e-books in improving reading skills, text comprehension, learning motivation, and literacy abilities of elementary school students. This study did not require any specific tools or materials other than a computer and reference management software, such as Zotero or Mendeley, to organize the literature sources. All research data were obtained from scientific articles available online through various academic databases.

Based on the selection process using the PRISMA method, a total of 25 articles relevant to the research topic were identified at the initial identification stage. After removing duplicate articles and conducting title and abstract screening, several articles were excluded due to their lack of relevance to the research focus. The subsequent stage involved full-text eligibility assessment to ensure compliance with the inclusion criteria. As a result of this process, 20 articles were deemed eligible and were used as the primary data sources in the Systematic Literature Review on the trends in development and effectiveness of interactive e-books in Indonesian language learning at the elementary school level.

### 3. Results and Discussion

#### *Characteristics of Selected Studies*

The literature selection process using the PRISMA method resulted in 20 scientific articles relevant to the topic of the development and effectiveness of interactive e-

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books in Indonesian language learning at the elementary school level. These articles were published between 2020 and 2025 and were sourced from nationally indexed journals (SINTA) as well as international journals focusing on educational technology and digital literacy. The general characteristics of the studies analyzed in this review are presented in Table 2.

Table 2. Characteristics of Selected Studies (2020-2025)

Aspect	Description
Number of articles	20 articles
Publication period	2020-2025
Research methods	Research and Development (R&D), quasi experiment, experimental research, and mixed methods
Data sources	Google Scholar, Garuda, SINTA, DOAJ
Research focus	Development and effectiveness of interactive e-books in Indonesian language learning
Education level	Elementary school

Table 2 indicates that the majority of the analysed studies employed the Research and Development (R&D) approach to develop interactive e-book-based learning media. This approach is commonly used in educational technology research as it not only aims to produce digital media products but also to evaluate their validity, practicality, and effectiveness in the learning process. Interactive e-book development studies generally follow models such as ADDIE, Borg and Gall, or the 4-D model, which involve stages of needs analysis, product design, development, implementation, and evaluation.

This finding is consistent with the study by (Rakhmawati et al. 2025), which developed an interactive e-book based on the SQ3R strategy (Survey, Question, Read, Recite, Review) to improve elementary students' reading skills. The study employed an R&D approach involving needs analysis, product design, expert validation, and field testing to ensure the feasibility and effectiveness of the developed learning media. The results indicated that the interactive e-book demonstrated high validity and practicality, making it suitable for use in elementary reading instruction.

In addition to development studies, several analysed articles employed experimental or quasi-experimental methods to examine the effectiveness of interactive e-books on students' learning outcomes. These studies typically compared learning processes using interactive e-books with those using conventional textbooks. The findings consistently showed that interactive e-books provide more engaging learning experiences and enhance student participation in the learning process.

These findings are further supported by (Korat & Shamir, 2007), who demonstrated that interactive electronic books have a positive impact on children's emergent literacy development. Their experimental study compared reading activities using interactive e-books with adult-mediated reading. The results showed that children who learned through interactive e-books experienced significant improvements in vocabulary recognition, story comprehension, and early reading skills, particularly

among those from disadvantaged socioeconomic backgrounds. This suggests that interactive features such as animations, audio, and digital navigation can facilitate independent text comprehension and increase engagement in reading activities.

Furthermore, (Arroyo-Vázquez et al. 2023) found that the use of e-books in digital learning environments enhances accessibility and flexibility in accessing learning resources. Their study revealed that students in online learning programs tended to utilize e-books more frequently than printed books due to ease of access, availability of digital materials, and integration with online learning platforms. These findings indicate that e-books function not only as content delivery media but also as digital learning tools that enhance engagement and broaden access to learning resources. In the context of Indonesian language learning at the elementary school level, interactive e-books have the potential to provide more engaging learning experiences and facilitate more effective text comprehension through the integration of multimedia elements and interactive features (Hanikah et al. 2022).

Other studies also suggest that the use of interactive learning technologies can support the development of students' learning skills in the digital era. (Firsta Novia Nurhidayah & Setiawan Edi Wibowo, 2025) reported that the integration of interactive learning technologies in elementary education can enhance students' digital literacy skills while encouraging active participation in the learning process. Overall, the characteristics of the analysed studies indicate that research on interactive e-books in elementary education focuses not only on media development but also on evaluating their effectiveness in improving literacy skills and learning outcomes. This highlights the substantial potential of interactive e-books as innovative learning media that support technology-based learning in elementary schools (Putra et al. 2023). These findings also reinforce the importance of integrating digital technology into education as a strategy to improve educational quality in the digital era (Kusumasari et al. 2024). By utilizing pedagogically designed interactive e-books, teachers can create more engaging, interactive, and student-centered learning experiences aligned with the characteristics of elementary school learners, who tend to respond positively to visual and multimedia-based learning media.

### ***Features of Interactive E-Books in Learning***

The synthesis of the literature indicates that most interactive e-books developed in the analysed studies integrate various multimedia features designed to enhance the learning process. The integration of digital elements such as audio, animation, video, and interactive quizzes allows for more varied and engaging presentation of learning materials. In technology-based learning contexts, these features function not merely as supplementary elements but as essential components that enhance student engagement. (Sonia & Yuliani, 2023) demonstrated that learning media combining visual and audio elements can facilitate deeper understanding, as information is delivered through multiple cognitive channels simultaneously. The multimedia features commonly found in interactive e-books analysed in this study are presented in Table 3.

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Table 3. Interactive Features in E-Book Learning Media

Feature	Learning Function
Audio narration	Helps students understand text pronunciation and listening comprehension
Animation	Visualizes stories or learning material to make abstract concepts easier to understand
Interactive quizzes	Provides immediate feedback on students' understanding
Video explanation	Clarifies learning concepts through audiovisual presentation
Navigation menu	Facilitates student interaction and flexible access to learning content

Table 3 shows that the integration of multimedia features in interactive e-books provides opportunities for more active and independent learning. Audio narration supports students in understanding pronunciation and intonation, particularly in early literacy development. Meanwhile, animation and video explanations help visualize concepts or narratives, enabling more concrete understanding. Interactive quizzes provide immediate feedback, allowing students to monitor their learning progress independently.

These findings are supported by (Korat & Shamir, 2007), who found that e-books with audio, animation, and interactive features enhance early literacy development. Interactive features enable students not only to read passively but also to actively engage with learning content, thereby improving comprehension, vocabulary acquisition, and reading engagement. Additionally, (Arroyo-Vázquez et al., 2023) highlighted that e-books improve accessibility and flexibility in accessing learning resources. The integration of multiple formats text, images, and audiovisual media allows users to engage with content more effectively. National studies also report similar findings, indicating that interactive e-books enhance student engagement and facilitate better understanding through visually rich and interactive content presentation.

### ***Research Implications and Future Research Directions***

The findings of this review indicate that interactive e-books have significant potential to improve learning quality, particularly in developing reading skills and literacy among elementary school students. The integration of multimedia elements such as text, images, animation, audio, and video creates more engaging and interactive learning experiences. E-books serve not only as information delivery tools but also as digital learning environments that foster student engagement (Amirtharaj et al., 2023). This underscores the important role of digital technology in promoting innovative and effective learning processes.

These findings align with (Hanikah et al., 2022), who reported that interactive e-book-based learning media enhance instructional variation and assist teachers in delivering content more effectively. The integration of digital technology increases student engagement by presenting materials in a visual and interactive manner, making concepts easier to understand. Moreover, e-books contribute to creating more active and participatory learning environments (AlShaikh et al., 2024). Restiani et al., (2022) also found that multimedia-based interactive e-books

improve elementary students' reading abilities. Students demonstrated improved comprehension due to the integration of text, images, and digital media, which facilitated information processing. These findings suggest that digital media integration offers more effective learning experiences compared to conventional textbooks. In the context of literacy development, interactive e-books also enhance cognitive engagement and learning motivation. Vargas-Diaz et al., (2025) found that voice agent-based interactive e-books significantly improve children's engagement, as indicated by increased visual attention and active participation during reading activities. Adaptive and collaborative e-book designs enable richer interactions among children, parents, and technology, thereby enhancing early literacy development.

However, this review also reveals that most studies focus primarily on media development and product feasibility testing, while research examining the long-term impact of interactive e-books on literacy development remains limited. Additionally, many studies use relatively small sample sizes and are conducted within specific learning contexts. Future research should explore the use of interactive e-books more comprehensively, including their integration with innovative learning models and adaptive digital technologies to support sustainable and effective digital learning transformation.

### ***Effectiveness and Educational Implications of Interactive E-Books in Indonesian Language Learning***

The analysis of the reviewed studies indicates that interactive e-books have a positive impact on multiple aspects of Indonesian language learning at the elementary school level. These include improvements in reading comprehension, learning motivation, learning outcomes, and digital literacy. Interactive e-books facilitate learning through the integration of multimedia elements such as text, audio, images, animation, and video, enabling students to understand materials more contextually and engagingly. A summary of the findings is presented in Table 4.

Table 4. Impact of Interactive E-Books on Learning Outcomes

<b>Learning Aspect</b>	<b>Research Findings</b>
Reading comprehension	Significant improvement in students' reading comprehension
Learning motivation	Students show higher motivation and engagement
Learning outcomes	Improved learning achievement
Digital literacy	Students become more familiar with digital learning resources

Table 4 shows that interactive e-books significantly improve reading comprehension, particularly through the integration of visual and audio elements that support deeper understanding of texts. The use of multiple media formats enables students to process information through multiple cognitive channels simultaneously, thereby enhancing learning effectiveness (Cardim dkk., 2023). From the perspective of learning motivation, interactive e-books also significantly increase student engagement (Junnah & Zain, 2023). Digital learning media equipped with interactive features create more engaging learning experiences

compared to conventional textbooks (J. T. Tang et al., 2025). Hanikah et al., (2022) demonstrated that interactive e-books improve students' motivation by presenting materials visually and interactively. Similarly, Restiani et al., (2022) found that multimedia-based e-books significantly enhance reading skills and learning outcomes due to increased student interaction with learning materials. In addition to improving comprehension and motivation, interactive e-books also play an important role in developing students' digital literacy. Through the use of e-books, students become more familiar with digital learning resources and are better able to access information independently. This indicates that the integration of technology in education not only improves learning outcomes but also equips students with essential skills for the digital era (Basarah, 2024).

Overall, the findings of this review highlight the significant potential of interactive e-books as innovative learning media for improving the quality of Indonesian language learning in elementary schools. Interactive e-books not only enhance reading comprehension and motivation but also contribute to the development of digital literacy and independent learning skills. Future development of interactive e-books should consider instructional design principles aligned with the characteristics of elementary school students to ensure optimal use and to address the challenges of education in the digital era.

#### **4. Conclusion**

This study aimed to identify trends in the development and effectiveness of interactive e-books in Indonesian language learning at the elementary school level through a Systematic Literature Review of scientific publications from 2020 to 2025. The findings indicate that interactive e-books have emerged as one of the most widely used digital learning media in elementary education. These media are generally developed using a research and development approach and incorporate various multimedia features such as audio, animation, video, and interactive quizzes. The integration of these features enables the presentation of learning materials in a more engaging, interactive, and easily comprehensible manner for students. The results further demonstrate that the use of interactive e-books enhances student engagement in the learning process and promotes more active and meaningful learning experiences.

The use of interactive e-books also contributes to improvements in reading comprehension, learning motivation, and students' academic achievement in Indonesian language learning at the elementary school level. In addition, this medium supports the development of students' digital literacy by encouraging independent use of technology-based learning resources. Therefore, this study confirms that interactive e-books have significant potential as innovative learning media to enhance the quality of Indonesian language instruction in elementary schools. Future research is recommended to further investigate the long-term impact of interactive e-books on students' literacy development and to design more adaptive media integrated with innovative learning models in the digital era.

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## References

- AlShaikh, R., Al-Malki, N., & Almasre, M. (2024). The implementation of the cognitive theory of multimedia learning in the design and evaluation of an AI educational video assistant utilizing large language models. *Heliyon*, *10*(3), e25361. <https://doi.org/10.1016/j.heliyon.2024.e25361>
- Amirtharaj, A. D., Raghavan, D., & Arulappan, J. (2023). Preferences for printed books versus E-books among university students in a Middle Eastern country. *Heliyon*, *9*(6), e16776. <https://doi.org/10.1016/j.heliyon.2023.e16776>
- Arroyo-Vázquez, N., Alvite-Díez, M.-L., Rodríguez-Bravo, B., & De Cos González-Taladriz, L. (2023). E-books in Spanish university libraries: An analysis of online social sciences degrees. *The Journal of Academic Librarianship*, *49*(6), 102809. <https://doi.org/10.1016/j.acalib.2023.102809>
- Basarah, M. F. (2024). Utilization of digital technology to improve the speaking skills of BIPA Francophone students. *Inovasi Kurikulum*, *21*(1), 545–558. <https://doi.org/10.17509/jik.v21i1.66754>
- Cardim, J., Molina-Millán, T., & Vicente, P. C. (2023). Can technology improve the classroom experience in primary education? An African experiment on a worldwide program. *Journal of Development Economics*, *164*, 103145. <https://doi.org/10.1016/j.jdeveco.2023.103145>
- Clinton-Lisell, V., Strouse, G., & Langowski, A. M. (2024). Children's engagement during shared reading of ebooks and paper books: A systematic review. *International Journal of Child-Computer Interaction*, *39*, 100632. <https://doi.org/10.1016/j.ijcci.2023.100632>
- Egert, F., Cordes, A.-K., & Hartig, F. (2022). Can e-books foster child language? Meta-analysis on the effectiveness of e-book interventions in early childhood education and care. *Educational Research Review*, *37*, 100472. <https://doi.org/10.1016/j.edurev.2022.100472>
- Firsta Novia Nurhidayah & Setiawan Edi Wibowo. (2025). Improving Children's Digital Literacy: A Quantitative Study on the Use of Digital Storybooks in Elementary Schools. *Jurnal Ilmiah Sekolah Dasar*, *9*(2), 252–262. <https://doi.org/10.23887/jisd.v9i2.92649>
- Hanikah, H., Faiz, A., Nurhabibah, P., & Wardani, M. A. (2022). Penggunaan Media Interaktif Berbasis Ebook di Sekolah Dasar. *Jurnal Basicedu*, *6*(4), 7352–7359. <https://doi.org/10.31004/basicedu.v6i4.3503>
-

- 
- Ismawati, Desak Putu Parmiti, & I Gde Wawan Sudatha. (2023). Interactive Learning Media in Fifth-Grade Indonesian Elementary School Subjects. *International Journal of Elementary Education*, 7(1), 143–153. <https://doi.org/10.23887/ijee.v7i1.57911>
- Janawati, D. P. A., Pradnyana, P. B., & Darmayanti, N. W. S. (2021). Developing Interactive E-Book for Early Reading-Writing Stage at Class I Elementary School. *Pedagogia: Jurnal Pendidikan*, 11(1), 31–36. <https://doi.org/10.21070/pedagogia.v11i1.1466>
- Junnah, H., & Zain, M. I. (2023). *Penerapan Technological Pedagogical And Content Knowledge (TPACK) Berbasis High Order Thingking Skills (HOTS) di Sekolah Dasar*. 5.
- Korat, O., & Shamir, A. (2007). Electronic books versus adult readers: Effects on children's emergent literacy as a function of social class. *Journal of Computer Assisted Learning*, 23(3), 248–259. <https://doi.org/10.1111/j.1365-2729.2006.00213.x>
- Kurniadin, Muh. Z. (2025). The Role of Interactive E-Books in Enhancing Science Literacy: A Review of Studies from 2015 to 2024. *International Journal of Science Education and Science*, 2(1), 17–25. <https://doi.org/10.56566/ijses.v2i1.257>
- Kusumasari, E. D., Sumarno, S., & Dwijayanti, I. (2024). Meningkatkan Kemampuan Berpikir Kritis Siswa Sekolah Dasar pada Pembelajaran Bahasa Indonesia Berbasis Literasi Digital pada Kurikulum Merdeka. *Tematik: Jurnal Penelitian Pendidikan Dasar*, 3(1), 22–29. <https://doi.org/10.57251/tem.v3i1.1399>
- Mailan Fitri Mar'atu Solihah, M., Fitri, S., & Taofik Muhammad. (2025). Pengembangan Media E-Book Interaktif Berbasis Aplikasi Heyzine Flip Book. *Jurnal SINTA: Sistem Informasi dan Teknologi Komputasi*, 2(3). <https://doi.org/10.61124/sinta.v2i3.82>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, n71. <https://doi.org/10.1136/bmj.n71>
- Putra, L. D., Fitriyani, D. A., Fatimah, S., & Berlianti, D. S. S. (2023). Pengaruh Penggunaan Teknologi Media Digital dalam Pembelajaran Siswa Secara Kontekstual dan Audio Visual di Sekolah Dasar. *Jurnal Basicedu*, 7(4), 2672–2678. <https://doi.org/10.31004/basicedu.v7i4.5921>
- Putri, D. P. S., & Wiarta, I. W. (2023). E-Book Interaktif Berbasis Problem Based Learning Materi Sejarah Kerajaan di Nusantara pada Mata Pelajaran IPAS Kelas IV Sekolah Dasar. *Jurnal Ilmiah Pendidikan Profesi Guru*, 5(3), 502–513. <https://doi.org/10.23887/jippg.v5i3.57747>
- Rakhmawati, S., Wibowo, S. E., & Hamdi, Z. F. (2025). Development and Trial of Interactive Ebook Based on SQ3R Strategy to Improve Elementary School Students' Reading Comprehension Skills. *Journal of Innovation and Research in Primary Education*, 4(4), 3588–3599. <https://doi.org/10.56916/jirpe.v4i4.1421>
-

- Ratnasari, F. E. (2024). *Pengembangan Media E-Book Berbasis Multimedia Interaktif Dengan QR-Code Untuk Meningkatkan Minat Belajar Dan Kemampuan Berpikir Kritis Pada Peserta Didik Tingkat Sekolah Dasar*. 09.
- Razilu, Z., & Nappu, S. (2025). *Mapping Global Research Trends in Interactive Learning Media: A Bibliometric Analysis of Scopus Publications (2021–2025)*. 4.
- Restiani, R., Tisnasari, S., Yuliana, R., & Hilaliyah, T. (2022). *Pengembangan Media Pembelajaran E-Book Berbasis Multimedia Interaktif Untuk Melatih Kemampuan Membaca Pada Peserta Didik Kelas IV Di Sekolah Dasar*. 08.
- Rodrigues, L. S., Dos Santos, M., Costa, I., & Moreira, M. A. L. (2022). Student Performance Prediction on Primary and Secondary Schools-A Systematic Literature Review. *Procedia Computer Science*, 214, 680–687. <https://doi.org/10.1016/j.procs.2022.11.229>
- Sabrina, M., Hairil, M., Pratama, A. D., & Rahmat, R. (2025). Transformasi Pembelajaran dengan Buku Digital Interaktif Berbasis Web Untuk Meningkatkan Hasil Belajar Siswa Kelas IV MIN 2 Kota Palangka Raya. *Al-Madrasah Jurnal Pendidikan Madrasah Ibtidaiyah*, 9(3), 1388. <https://doi.org/10.35931/am.v9i3.5071>
- Shannaq, B. (2025). Enhancing Arabic text classification through mobile virtual keypad-based encoding algorithm. *Franklin Open*, 12, 100373. <https://doi.org/10.1016/j.fraope.2025.100373>
- Sonia, S., & Yuliani, Y. (2023). Keefektifan Penggunaan E-Book Interaktif Enzim sebagai Bahan Ajar untuk Melatihkan Kemampuan Literasi Digital. *Jurnal Inovasi Pembelajaran Biologi*, 4(2), 113–124. <https://doi.org/10.26740/jipb.v4n2.p113-124>
- Tang, J. T., Lan, W. C., & Mo, D. J. (2025). Exploring the effects of interactive digital picture books on elementary students' creativity. *Thinking Skills and Creativity*, 57, 101864. <https://doi.org/10.1016/j.tsc.2025.101864>
- Tang, K.-Y. (2021). Paradigm shifts in e-book-supported learning: Evidence from the Web of Science using a co-citation network analysis with an education focus (2010–2019). *Computers & Education*, 175, 104323. <https://doi.org/10.1016/j.compedu.2021.104323>
- Vargas-Diaz, D., Kim, J., Karunaratna, S., Hornburg, C. B., Choi, K., & Lee, S. W. (2025). Exploring parent involvement in e-book joint reading with voice agents. *International Journal of Human-Computer Studies*, 198, 103461. <https://doi.org/10.1016/j.ijhcs.2025.103461>
- Wijaya, T. T., Cao, Y., Weinhandl, R., & Tamur, M. (2022). A meta-analysis of the effects of E-books on students' mathematics achievement. *Heliyon*, 8(6), e09432. <https://doi.org/10.1016/j.heliyon.2022.e09432>

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