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Strategies for Strengthening Children's Reading Interest in the Digital Age through Early Literacy: A Systematic Review

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Abstract

The development of digital technology has a significant impact on children's behavior and habits in accessing information and entertainment, including reading. On the one hand, easy access to various digital reading resources is a great potential to improve reading literacy from an early age. But on the other hand, the presence of digital media also poses serious challenges to children's interest in reading due to competition with instant and visual entertainment content. This journal aims to examine effective strategies and approaches in fostering children's interest in reading in the digital era by developing early reading literacy. The method used is a Systematic Literature Review of various studies, scientific articles, and empirical data that discuss children's literacy, digital media use, and educational approaches that are adaptive to changing times. The results show that the integration of technology with creative reading learning methods, family and school support, and the availability of interesting and age-appropriate reading materials are key factors in shaping children's reading habits. In conclusion, fostering children's interest in reading in the digital era requires a multidisciplinary approach that synergizes education, technology, developmental psychology, and public policies that support a culture of literacy.

Keywords: child literacy, reading interest, digital era

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1. Introduction

Reading literacy is a key foundation in the development of children's intelligence and thinking skills (Raudszus et al., 2021). From an early age, children need to be introduced to reading activities to form healthy cognitive, linguistic and social patterns (Luen, 2021). In this context, reading is not only an academic activity, but also a gateway for children to understand the world, develop their imagination, and shape their character (Toyokawa et al., 2023). However, the process of forming an interest in reading does not happen naturally, but must be nurtured through a structured and contextual approach since the child is in the early developmental phase (Meland & Brion-Meisels, 2023). Therefore, efforts to foster reading literacy from an early age should be a priority in early childhood education, whether in the family, school or community environment (Saracho, 2017).

A major challenge arises when the digital age begins to influence children's lifestyles and interaction patterns with the world around them (Hosseini et al., 2025). Nowadays, children are more familiar with gadgets, game apps, and entertainment videos than conventional reading books (Girsang et al., 2023). This change raises concerns that the younger generation will lose interest in reading which will result in a decline in overall literacy skills (Shatunova et al., 2021). This phenomenon is exacerbated by the low reading culture in society, the lack of parental role as literacy role models, and limited access to reading materials that are appropriate and interesting for children (Asif & Yang, 2021). Therefore, a new approach is needed that can bridge the digital world with the need to strengthen children's reading literacy.

Various studies show that the wise use of technology can actually strengthen interest in reading if managed in a directed manner (Srinivasan & Murthy, 2021). Interactive digital books, reading apps for children, and story-based learning platforms are examples of how digital media can be an effective tool in fostering interest in reading (Mahendra et al., 2025).



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However, this success relies heavily on the involvement of adults as literacy facilitators, the design of educational content and a supportive environment for developing reading habits. Therefore, the challenge of children's literacy in the digital era cannot be solved with a single approach, but rather requires the synergy of various disciplines such as education, information technology, child psychology and social policy (Brod et al., 2023).

The importance of developing reading literacy from an early age cannot be separated from the agenda of developing superior human resources. Children who have a high interest in reading tend to have better analytical abilities, stronger language skills, and more mature social-emotional abilities (Faridah et al., 2023). In the long run, a society with a high level of literacy will be more adaptive to change, have higher productivity and be able to actively contribute to development. Therefore, building a reading culture from an early age is a strategic long-term investment in shaping a smart, critical and competitive future generation.

While there have been many studies addressing the influence of technology on children's literacy, most of them have focused on the effectiveness of digital media on an individual basis or based on limited experiments in schools. This study offers a broader perspective by systematically synthesizing various cross-disciplinary approaches in the Indonesian socio-cultural context. The novelty of this study lies in strategically mapping the determinants of children's reading interest that include the integration of technology, the role of family, school environment, and community support simultaneously. It also highlights the digital divide and inequality in literacy access as structural issues that have not been discussed holistically in previous literature. Thus, this research contributes to building a comprehensive conceptual framework for strengthening early childhood literacy in the digital era that is relevant to local needs and global challenges.

Given the complexity of the challenges and opportunities, it is important to systematically review the literature and research that has been conducted on this topic. The aim is to understand in depth the approaches that have proven effective in fostering children's interest in reading in the digital era, as well as identify gaps or shortcomings that still need to be addressed. Thus, the results of this study are expected to provide scientific as well as practical contributions for educators, parents, policy makers, and all parties concerned with strengthening children's literacy from an early age.

2. Method

This research uses the Systematic Literature Review (SLR) approach as the main method to collect, evaluate and analyze relevant literature. SLR was chosen because it can provide a comprehensive overview of previous findings, identify trends, and synthesize empirical evidence across disciplines in a systematic and structured manner. The review process followed PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, which included identification, screening, eligibility and inclusion stages. A literature search was conducted through reputable academic databases such as Scopus, Google Scholar, ERIC, and ScienceDirect using the keywords: "early reading literacy," "digital reading for children," and "fostering reading interest in early childhood." Inclusion criteria included articles published between 2015-2024, written in Indonesian or English, and specifically addressing children's literacy in a digital context. Articles that did not have direct relevance to the topic or did not meet minimum methodological standards were eliminated.

From the 58 articles identified at the initial stage, 30 articles were selected for further analysis after a screening process based on relevance and methodological quality. Data analysis techniques were conducted through a thematic analysis approach, with an open coding process to identify recurring key themes, such as literacy strategies, digital barriers, and the role of family and school environments. All themes were classified inductively and then mapped to identify the interrelationships between factors. In addition, the socio-cultural context of each study was considered to ensure compatibility with the conditions of early childhood education in Indonesia.

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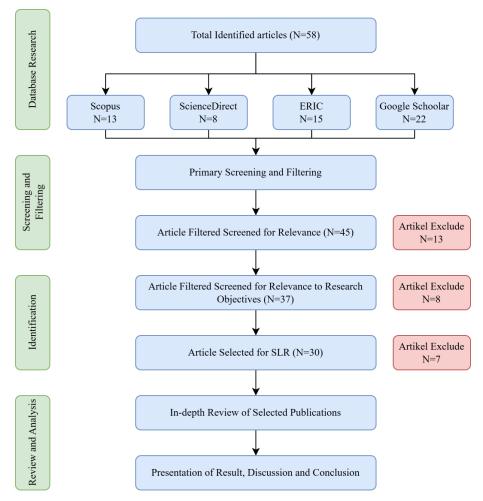


Figure 1. PRISMA Diagram

3. Results and Discussion

The results of the literature review show that strategies for developing children's reading literacy in the digital era require an integrated, multi-level approach. Based on the thematic analysis of the 30 articles reviewed, five main themes consistently emerged: technology integration, family role, school environment support, community involvement and digital access challenges. Each of these themes has interrelated practical implications in shaping children's reading habits from an early age. First, technology integration is a key element in bridging children's reading habits with the digital realities they face on a daily basis. Media such as interactive e-books, digital literacy games, and story-based applications have been proven to increase children's engagement in reading activities. For example, the Let's Read app developed by The Asia Foundation provides thousands of storybooks in various local languages, and has been used in several regions in Indonesia to support family and school literacy. Research shows that the success of technology integration is largely determined by the design of child-friendly content and the involvement of adults in reading assistance.

Secondly, the role of the family as the initial foundation for the formation of a reading culture cannot be ignored. Parents who actively read stories, invite children to discuss, and set an example by showing interest in reading at home, contribute greatly to children's literacy development. The Ayah Bunda Membaca movement in Sleman district is an example of a community-based program that has successfully improved children's reading habits with a participatory approach from parents. Third, the school environment is a strategic formal medium to strengthen children's literacy. A curriculum that supports daily reading activities, teachers trained in digital literacy approaches and the provision of facilities such as digital

reading corners are practices that can increase students' interest in reading. SDN 01 Cipinang Cempedak, for example, has launched a tablet-based digital reading corner program that has increased reading engagement by 32% based on an internal school evaluation. However, many schools, especially in areas with limited digital infrastructure and minimal teacher training in the use of literacy technology, still face major challenges.

Fourth, communities and social institutions play a crucial role in building a broader literacy ecosystem. Initiatives such as Dompet Dhuafa's Mobil Pintar and Forum TBM's Mobile Reading Room prove that a community-based approach can reach children who have difficulty accessing quality reading materials. Digital storytelling and social media-based literacy campaigns involving public figures have also proven capable of massively increasing literacy awareness. Fifth, the challenges that still arise in strengthening children's literacy are the disparity in digital access between regions, the low digital literacy of parents and the limited purchasing power of technological devices. In many 3T areas, schools and families are still not facilitated with adequate digital literacy support facilities. Therefore, a multidisciplinary approach involving synergies between the worlds of education, information technology, child development psychology and public policy is very important. The government needs to take a more active role through affirmative policies that support equitable access to education technology, teacher training, and subsidizing digital literacy tools for poor families.

To clarify the findings of the study and make it easier for readers to understand the relationship between strategies, challenges and good practices in developing children's reading literacy in the digital era, a thematic table was developed that summarizes the five main themes. This table maps the linkages between the strategic aspects found in the literature review and real-life examples of implementation in Indonesia. Thus, the reader can see how the recommended approaches are not only theoretical but have been contextually applied in the field. Table 1 presents a thematic synthesis covering the technology, family, school, community and digital access dimensions of the five main pillars in the early childhood literacy ecosystem amidst digital transformation.

Table 1. Thematic findings and good practices of children's reading literacy in the digital era

Main Theme	Strategic Findings	Examples of Good Practice in Indonesia
Technology	Use of e-books, story apps,	Let's Read app by The Asia
Integration	digital-based literacy games	Foundation
The Role of the	Reading stories, book	<i>Ayah Bunda Membaca</i> Program –
Family	discussions, reading role models at home	Sleman
School	Digital reading corner, trained	SDN 01 Cipinang Cempedak: Digital
Environment	teachers, daily reading program	Reading Corner
Community	Mobile libraries, online	Mobil Pintar (The Poor's Wallet),
Support	storytelling, public figure campaigns	Ruang Baca Keliling (TBM Forum)
Digital Access	Infrastructure gaps, low digital	Schools/families in 3T areas
Challenges	literacy of parents, limited tools	(frontier, outermost, disadvantaged)

The series of findings and practices shown in the table confirm that developing children's reading literacy in the digital era is a complex challenge that cannot be answered with a single approach. Literacy is not just a technical ability to recognize letters and words, but a process that involves emotional, cognitive and social engagement in understanding and processing information. As children grow up in an environment filled with digital devices and instant visual content, reading habits need to be reconstructed to remain relevant to their daily experiences. In these conditions, building interest in reading is not just about increasing access to books, but also creating meaningful and contextualized reading experiences

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through interactions involving technology, parents, teachers and communities. This reinforces the importance of developing literacy strategies that are not only pedagogically adaptive but also inclusive of the social and technological realities faced by today's children. From the findings presented, it appears that synergy between actors from educational institutions to families, from government to grassroots communities plays an important role in creating a sustainable reading culture. By referring to good practices in various parts of Indonesia, this study offers a conceptual and practical approach that blends into one framework of literacy strategies that can be applied flexibly and measurably.

On the other hand, this study approach presents a new dimension that has rarely been touched by previous studies of children's literacy. Whereas many previous studies have highlighted the effectiveness of digital media or the role of educational institutions in isolation, this synthesis brings these dimensions together into a unified, cross-level thematic mapping. This approach enables readers, whether they are academics, education practitioners or policy makers, to see literacy as a systemic issue that requires multidisciplinary interventions. Thus, this study not only provides an understanding of the factors that influence children's interest in reading but also presents a new framework for thinking about how literacy strategies can be developed contextually, rooted in real practices and relevant in facing the current era of information disruption.

4. Conclusions and Suggestions

Nurturing children's interest in reading from an early age in the digital era is both a challenge and a strategic opportunity that requires a collaborative response from all elements of society. This study shows that success in building a culture of literacy in children depends on four main pillars: pedagogically integrated technology, active family involvement, adaptive formal education system support, and the participation of local communities and stakeholders. For this reason, some concrete steps need to be taken immediately. Schools, especially in areas with limited access, can develop digital reading corners based on simple devices such as tablets or smartphones, equipped with interesting local content. Local governments and education offices can provide regular training on digital literacy for teachers and parents, as well as open spaces for collaboration with communities such as community reading parks (TBMs) to reach children outside the formal system. On the family side, educational programs such as reading together before bed can be popularized through public campaigns or social media educational content involving public figures. Meanwhile, the private sector and NGOs can expand the distribution of free digital books and support the innovation of mother tongue-based children's reading apps to reach remote areas. These strategies need to be accompanied by literacy policies that not only target improving academic scores, but also forming fun and sustainable reading habits and ecosystems. With these practical, evidence-based steps, it is hoped that Indonesia's young generation will not only be able to read, but also love the process of reading as part of their lifestyle.

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