

The Urgency of Media Literacy in Early Childhood in the Digital Age: A Review of a Literature Study

^{1*}Siti Nurul Aprida; ²Robiatul Adawiyah; ³Lita Kurnia; ⁴Hasna Mustautinnah

¹⁻⁴ Universitas La Tansa Mashiro Lebak Indonesia

¹ siti.nurul.aprida@unilam.ac.id; ²robiatul@latansamashiro.ac.id;

³lita.kurnia@unilam.ac.id; ⁴alihsamhasna@gmail.com

* Corresponding Author

ABSTRACT: Massive exposure to digital media has created a complex environment for early childhood development, offering both learning opportunities and significant risks. In this context, media literacy emerges as a fundamental competency; however, gaps remain in developmentally appropriate implementation strategies and in building synergistic collaboration between parents and educators. This study aims to synthesize empirical evidence on the urgency of media literacy, implementation strategies, stakeholder roles, and challenges in fostering media literacy among children aged 0–8 years. Employing a systematic literature review guided by the PRISMA framework, this study analyzed peer-reviewed scientific articles published between 2019 and 2025. The findings reveal four major themes. First, media literacy functions as a form of “cognitive immunization” that supports the development of critical thinking, creativity, and digital resilience in early childhood. Second, parents and educators play a central role as key mediators, although their effectiveness is frequently constrained by a lack of alignment between practices in the home and school environments. Third, implementation strategies exist along a continuum, ranging from restrictive approaches to active mediation and empowerment through content creation. Fourth, systemic challenges persist, particularly the absence of formal curriculum integration and persistent inequities in access to digital resources. This study concludes that a paradigm shift from a passive, protective approach toward proactive empowerment is essential. The findings provide a strong conceptual foundation for policies and practices that integrate media literacy collaboratively and developmentally, to nurture critical and responsible digital citizens from an early age.

KEYWORDS: Media Literacy, Early Childhood, Digital Era, Literature Studies

INTRODUCTION

The digital age marked by the convergence of technology and media has fundamentally changed the landscape of human communication, interaction, and learning. One of the most vulnerable and most adaptive groups to these changes is early childhood (Brock et al., 2016; Sharples, 2023). Gualtieri & Finn (2022). The phenomenon of increasing exposure to digital media in children, even from the age of under five, has become a global concern for academics, education practitioners, and policymakers. Children are now growing up in a saturated media ecosystem, where gadgets such as smartphones and tablets are an integral part of their daily activities, whether for entertainment, communication, or learning. A report from Ofcom in 2023 shows that the majority of children aged 3-

17 have accessed the internet, with a significant percentage even in the 3-4 year old age group. This trend is further accelerated post-COVID-19 pandemic, which has driven an increase in the use of digital devices for distance learning and social interaction (Bastian et al., 2023; Gralczyk, 2019; Sanz-Labrador et al., 2021).

This intensive exposure presented a double-edged sword. On the one hand, digital media offers unprecedented opportunities for access to information, creativity development, and interactive learning. Quality educational programs are proven to improve children's language and cognitive abilities. However, on the other hand, undirected and excessive use carries significant risks to child development, including potential impairments in cognitive, language, socio-emotional development, as well as health problems such as sleep disorders and obesity. Age-inappropriate content, misinformation, and cybersecurity risks are real threats faced by these youngest media users. Therefore, this issue has high social and academic significance. Socially, equipping children with the ability to navigate the digital world safely and productively is a crucial investment for the well-being of future generations. Academically, there is an urgent need to understand how best to prepare children for this complex media reality (Imroatun et al., 2024; Muharam et al., 2021; Ulfiya et al., 2021)

It is in this context that media literacy emerges as an essential competence of the 21st century. Media literacy is no longer just understood as a technical ability to access technology, but a broader spectrum of abilities to access, analyze, evaluate, create, and act using all forms of communication. For early childhood, media literacy serves as a foundation for building critical thinking, creativity, emotional resilience, and responsible digital citizenship. With media literacy, children are empowered to transform from passive media consumers to active, critical, and able users to distinguish between fact and fiction, as well as understand the purpose behind the media messages they consume. Given the plasticity of the brain and the period of rapid development at an early age, planting the foundation of media literacy from the beginning is a non-negotiable urgency.

A number of studies in the last five years have underlined the importance of media literacy for children. Systematic studies show that media literacy interventions can encourage critical thinking and emotional resilience, although their implementation faces various challenges. Some research has also begun to explore practical strategies that can be applied by parents and educators, such as co-viewing, asking critical questions about content, and encouraging children to create their own media content. Collaboration between home and school is considered key to creating a consistent and effective media literacy learning ecosystem. (Fenwick-Smith et al., 2018; Hanemann & Robinson, 2022; Nikken & Schols, 2015; Toh et al., 2021).

Although awareness of the importance of media literacy in early childhood continues to increase, a review of the existing literature shows that there are

several significant research gaps that need to be addressed immediately. First, there is still a scarcity of studies that specifically design and evaluate media literacy strategies that are appropriate to the cognitive, social, and emotional development stages of early childhood (0-8 years). Many of the guidelines tend to focus on screen time restrictions rather than on developing critical skills for the content accessed. In addition, existing approaches are often adaptations of models for older children and have not fully considered the unique characteristics of early childhood learners.

Second, there is a lack of studies that comprehensively integrate practical approaches between parents and teachers in building media literacy. Although the role of each party is recognized as important, research exploring synergistic collaboration models, effective communication, and clear role sharing between home and school in the context of media literacy education is still very limited. There is often a disconnect between practice at home and in early childhood education institutions (PAUD), which hinders the continuous strengthening of skills.

Third, although the urgency of media literacy is often mentioned, there is still a need for a deeper and empirical evidence-based understanding of its significance as a form of proactive protection and the foundation of critical learning from an early age. Many studies have focused on the negative impacts of media, but studies that systematically examine how media literacy can be a "cognitive immunization" that empowers children to navigate risks independently and responsibly still need to be expanded. The lack of consensus on the definition and framework of media literacy for early childhood is also a barrier to the development of sound research and policy.

The following table presents a summary of some of the relevant key studies and highlights the contributions and limitations that led to the identification of research gaps.

Table 1.
Selected Literature Review on Early Childhood Media Literacy

Author (Year)	Research Focus	Key Findings	Limitations/Identified Gaps
(Sakhaei et al., 2023)	A systematic review of the impact of media literacy on children	Media literacy encourages critical thinking, creativity, and emotional resilience	Lack of longitudinal studies and focus on innovative teaching methods integrated with new technologies
(Haywood & Sembianti, 2023a)	A systematic review of media literacy for parents	Media literacy education for parents is effective in the short term to improve family dynamics and communication	Research on the need to learn media literacy for parents as learners is still under-worked
(Nuffield Foundation, 2025)	Review of digital media literacy initiatives for under-5s in the	Existing research focuses more on the impact of media, not on how to support children's	Lack of evidence on the effectiveness of existing initiatives and lack of evidence-based support for

Author (Year)	Research Focus	Key Findings	Limitations/Identified Gaps
	UK	development through media. Guidelines are often just about screen time restrictions	families
(Erikson Institute, 2020)	Development of a framework and definition of media literacy for early childhood	Highlight various barriers to the implementation of media literacy, including lack of resources, training, policy, and research	There is a disconnect between caregivers and practitioners and a lack of consensus on what media literacy education for children is
(Cahyani & Fauziah, 2024)	Qualitative study of the role of parents in early literacy in the digital era	Active parental involvement through a combination approach of conventional and digital media is very effective	The challenges faced by parents such as time constraints and low digital literacy themselves need further solutions

Based on the phenomenon, significance of issues, and research gaps that have been described, this study is designed as a review of qualitative literature studies. This research aims to: 1) Examine in depth the importance of media literacy for early childhood in the midst of the contemporary digital landscape; 2) Examine various approaches and strategies that have been developed to foster media literacy in early childhood; 3) Identify the crucial role of educators and parents, as well as the model of collaboration between them, in instilling media literacy; and 4) Uncover challenges and opportunities in the application of media literacy in early childhood based on the synthesis of the results of previous studies. Through a comprehensive analysis of the existing literature, this research is expected to provide a solid conceptual foundation for the development of media literacy education strategies, curricula, and policies that are more effective and in accordance with the needs of early childhood in the digital era.

METHODS

This section systematically describes the methodology used in this study. Including the research design, data collection sources and procedures, data analysis techniques, measures to ensure the validity of the data, and research ethics that are firmly held by the researcher.

Research Design

This study uses a qualitative design with a *systematic literature review* approach. This approach was chosen because of its relevance to the research objectives, which are to identify, evaluate, and interpret all relevant research results related to the urgency, strategies, roles of stakeholders, and challenges in the implementation of media literacy in early childhood. In contrast to traditional literature reviews, systematic literature studies follow a set of explicit and comprehensive procedures to minimize bias and ensure the reliability of findings. (Creswell & Poth, 2018)

The choice of this design is based on several justifications. **First**, the research landscape on early childhood media literacy is multidisciplinary and

fragmented. The systematic study of literature allows the synthesis of knowledge from various fields such as educational sciences, developmental psychology, media studies, and communication sciences to build a holistic understanding. **Second**, as identified in the introduction, there is an urgent need to comprehensively map research *gaps*. A systematic approach facilitates an accurate identification of what is already known and what still needs to be explored further. **Third**, this research aims to build a solid conceptual foundation for practitioners and policymakers, so that the synthesis of empirical evidence from high-quality studies is a must.

Data Sources and Collection Procedures

The data sources in this study are secondary documents that are public and have gone through a *peer-review* process. The "subject" of this research is not a direct human being, but rather a corpus of scientific literature itself. Data collection procedures are carried out in stages and documented to ensure transparency and replication.

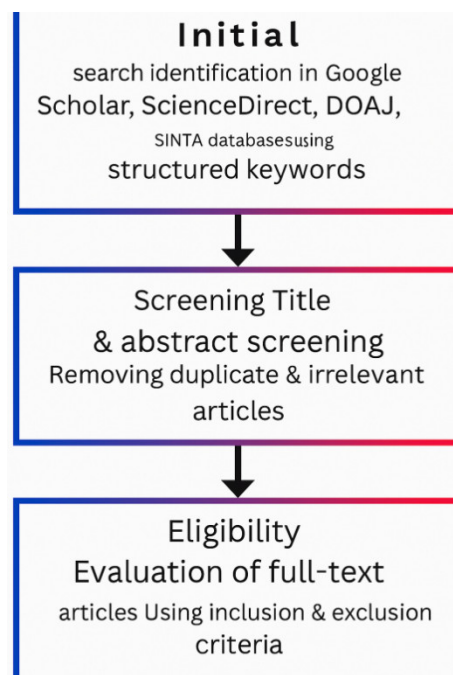
Inclusion and Exclusion Criteria

Kriteria Inclusive. Topic: The article specifically addresses media literacy, digital literacy, or media competence in early childhood (defined as the age range of 0–8 years); Context: The study focuses on implementation strategies, the role of parents and/or teachers, impacts, and challenges in the context of the digital age; Type of Publication: Peer-reviewed *scientific journal articles*, research reports from credible institutions (e.g., research foundations, government agencies), books or chapters in books (*book chapters*), and proceedings of reputable international conferences; Year of Publication: Literature published between January 2019 and June 2025. This time frame was chosen to capture the latest research developments, especially those reflecting the changing media landscape post-COVID-19 pandemic; Language: Publications in English and Indonesian; Accessibility: Documents are accessible in *full-text*.

Exclusion Criteria: Studies that focus on adolescents or adults; Articles that only discuss the negative impact of the media without linking it to media literacy solutions; Opinion articles, editorials, or blog posts that are not based on empirical data or systematic reviews; Publications outside of the set time range; Abstracts or documents that are not fully accessible

Literature Search and Selection Procedure. The literature search and selection process was carried out through several stages. This adapted from the PRISMA (*Preferred Reporting Items for Systematic Reviews and Meta-Analyses*) framework, as illustrated in Figure 1.

Figure 1.
Literature Selection Process Flow Diagram (Adapted from PRISMA)



Identification: Initial searches were conducted on international and national electronic databases, including *Google Scholar*, *ScienceDirect*, *DOAJ* (Directory of Open Access Journals), and *SINTA* (Science and Technology Index). The keywords used were a combination of: ("media literacy" OR "digital literacy") AND ("early childhood" OR "young children" OR "preschool") AND ("parental role" OR "teacher role" OR "strategy" OR "implementation"). Similar keywords are also used in Indonesian ("media literacy", "early childhood", "role of parents", "role of teachers"). Screening: Thousands of articles that emerge from the initial search are filtered by title and abstract to eliminate duplication and clearly irrelevant articles. Eligibility: Articles that pass the screening stage are then downloaded in *full-text* format. At this stage, each article is read thoroughly to assess its eligibility based on the inclusion and exclusion criteria that have been set. Inclusion: Articles that meet all criteria are included in the final data corpus that will be analyzed in depth.

RESULT

A systematic analysis of the selected corpus of literature—including journal articles, research reports, and conference proceedings published between 2019 and 2025—resulted in the identification of four key themes that collectively address the research objectives. These findings are presented thematically to outline the urgency, strategy, role of stakeholders, and challenges in the implementation of media literacy in early childhood in the digital era. These themes are: (1) The Significance of Media Literacy as a Foundation for Critical

Thinking and Digital Resilience; (2) The Central Role of Parents and Educators as Key Mediators; (3) Spectrum of Media Literacy Implementation Strategies; and (4) Systemic and Structural Challenges in Implementation.

The Significance of Media Literacy as a Foundation for Critical Thinking and Digital Resilience

Consistent and emphatic literature analysis underlines that the urgency of media literacy in early childhood goes beyond just technical ability to use gadgets. Media literacy is positioned as a fundamental competency that serves as a "cognitive immunization" to build the foundation of critical thinking, creativity, and emotional resilience in the face of complex media ecosystems. Findings from various studies show that instilling these skills early on empowers children to move from passive consumers to active and intelligent media participants.

The studies analyzed explicitly linked media literacy interventions to the development of high-level cognitive skills. A systematic review by Sakhaei et al. (2023) concluded that well-designed media literacy programs have proven effective in encouraging children's ability to analyze and evaluate the messages they receive. These findings are reinforced by another study that states that media literacy is key to developing critical thinking skills in the digital age. One study emphasized:

"Media literacy is not just about protecting children from negative content, but about empowering them with a set of analytical tools to understand how media works, identify the purpose behind a piece of content, and distinguish between facts, opinions, and fiction. This ability is at the core of critical thinking in the 21st century (Turner- Zwinkels & van Summers , 2021).

Furthermore, the findings show that children with a stronger foundation of media literacy show better resilience or emotional resilience. They tend to be less easily affected by ads, are able to manage emotions when exposed to unpleasant content, and have an early understanding of the digital footprint. found that media literacy was positively correlated with increased creativity and emotional resilience in children. This is in line with findings that underline the role of media literacy in shaping children's character in the digital era, where children learn to use media responsibly and ethically. Thus, media literacy is not only seen as a protective skill, but also as an essential pillar for lifelong learning and active digital citizenship.(Sakhaei et al., 2023)

The Central Role of Parents and Educators as Key Mediators

The universally reviewed literature recognizes that the successful implementation of media literacy in early childhood is highly dependent on the active mediation of the adults around them, especially parents and educators. Their role is not just as supervisors, but as facilitators, co-creators, and *role models* in interacting with the media.

The Crucial Role of Parents

Parents are identified as the first and foremost media literacy agent for children. Active parental involvement in children's media activities has consistently been shown to be more effective than passive screen time restrictions. Several qualitative studies highlight the importance of a combination approach between conventional and digital media mediated by parents to stimulate early literacy. One of the key findings from the study by Haywood & Sembiente (2023) is: "Media literacy education aimed at parents has shown significant short-term effectiveness in improving family dynamics, encouraging open communication about media, and transforming mediation practices from restrictive to active and empowering.

The most commonly identified parenting mediation strategies in the literature include: *Co-viewing* or Active Assistance: Watching or using media with children, not leaving children alone with gadgets; Dialogical Mediation: Asking children open, critical questions about the content they are seeing, such as "Why do you think the character is doing this?" or "Does this ad want us to buy something?"; Healthy Digital Behavior Modeling: Parents show examples of balanced and thoughtful use of media in daily life; Despite its central role, many studies have also identified significant challenges that parents face, including time constraints, lack of confidence, and their own varying levels of digital literacy; (Cahyani & Fauziah, 2024; Haywood & Sembiente, 2023b)

The Role of Educators and the Need for Home-School Collaboration

In the formal environment, Early Childhood Education (PAUD) teachers play a strategic role in integrating media literacy into daily learning activities. The role of teachers is not only limited to technology introduction, but also includes the development of children's abilities to understand, analyze, and create simple media content. Studies show that teachers can use digital media as a powerful pedagogical tool to improve various aspects of child development. (Rahmah et al., 2024)

However, the most striking finding was a significant "*disconnect*" between media literacy practices at home and at school. A report from the Erikson Institute (2020) explicitly highlights this as one of the main obstacles: "There is a clear disconnect between caregivers (parents) and practitioners (teachers). There is often no structured line of communication to share strategies, resources, or even simply a shared understanding of what media literacy education for children is. As a result, learning becomes fragmented and inconsistent (Erikson Institute, 2020)

Therefore, the literature emphasizes the urgency of building a synergistic collaboration model between home and school. This collaboration includes equalization of perceptions, joint workshops for parents and teachers, and the development of learning resources that can be used consistently in both environments. Without a strong bridge between home and school, efforts to cultivate media literacy risk becoming ineffective and unsustainable.

Spectrum of Media Literacy Implementation Strategies

The literature analysis identified a variety of practical strategies for fostering media literacy in early childhood. This can be grouped into three main approaches: restriction and supervision, active and dialogical mediation, and empowerment through creation.

First, a restriction and supervision based approach. Although often criticized for not being enough, this approach is still considered an important foundation layer, especially for children at a very young age. This includes classic recommendations such as setting *screen time* limits, creating technology-free zones (e.g., at the dining table and bedroom), and using *parental controls* to filter out inappropriate content. A report from the Nuffield Foundation (2025) notes that many of the existing guidelines for families tend to focus on this aspect, often because they are easier to measure and implement.

Second, an active and dialogical mediation approach. As mentioned in the previous theme, this is the strategy most recommended by experts in the current literature. This strategy focuses on the quality of interactions during media usage, not just the quantity of time. Concrete examples found in the literature include: Ask 5W Questions: Encourage your child to ask *Who* (who created this message?), *What* (what techniques are used to get my attention?), *Where* (where can I find this information elsewhere?), *Why* (why was this message sent?), and *When* (when was this created?); Connecting Digital Content to the Real World: Invite children to engage in real-world activities inspired by positive digital content, such as cooking a recipe seen in a video or visiting a zoo after watching a documentary about animals; Help Kids Identify Ads: Explicitly shows and explains the purpose of the ads that appear between videos or within the game app.

Third, the empowerment *through creation approach*. This strategy positions children as media creators, not just consumers. By creating content, children learn firsthand about the processes behind media production, such as shooting, narrative selection, and simple editing. These activities can be as simple as making short videos with a tablet, recording audio stories, or creating a digital storybook using an app. One study stated: "When children go from simply consuming to creating, they develop a deeper understanding of how media messages are constructed. This experience inherently fosters a critical perspective that is essential for media literacy (Lestari et al., 2024).

Systemic and Structural Challenges in Implementation

While there is consensus on the urgency of media literacy, the literature analysis also uncovers a number of significant systemic and structural challenges, which hinder effective and equitable implementation. First, the lack of integration in the formal curriculum. A large number of studies highlight that media literacy has not yet become a core component of the early childhood education curriculum in many countries. Often, media literacy initiatives are sporadic, dependent on the interests and abilities of individual teachers, and are not supported by clear

policies or curriculum frameworks. A report from the Erikson Institute (2020) found that there are various obstacles to implementation, including a lack of resources, professional training for teachers, and supportive policies.

Second, the absence of a clear consensus and framework. The literature shows confusion and lack of consensus among stakeholders regarding the operational definition of "media literacy for early childhood". This has an impact on the development of standardized teaching materials, evaluation tools, and teacher training programs. The Nuffield Foundation (2025) also criticized that existing research focuses more on the impact of media than on effective ways to support child development through media, resulting in a scarcity of evidence-based guidelines.

Third, access and equity gaps. Another challenge that arises is the potential to widen the digital divide and knowledge gap. Families with higher socio-economic and educational levels tend to have more resources (time, knowledge, and tools) to practice active mediation. On the other hand, families from disadvantaged backgrounds may face more barriers, an issue that according to Haywood & Sembiante (2023) is still underexplored in research. Without proactive public policy support, the implementation of media literacy risks only benefiting certain groups of people.

Table 2.
Synthesis of Stakeholder Roles and Challenges in Early Childhood Media Literacy

Stakeholders	Key Roles and Strategies (Based on the Literature)	Key Challenges (Based on the Literature)
Parents	The primary and first mediator. Conducting active assistance (co-viewing). Implement dialogical mediation (asking critical questions). Become a role model for healthy media use. Set time and content restrictions.	Limited time and energy. (Cahyani & Fauziah, 2024) The low level of digital literacy of parents themselves. Lack of confidence in guiding children. (Haywood & Sembiante, 2023) Difficulty finding quality content.
Educators/ Schools (PAUD)	Integrating media literacy into learning activities. Teach the basics of media analysis (e.g., distinguishing between entertainment and advertising). Facilitating children as media creators. Become a trusted source of information for parents.	Lack of integration of media literacy in the formal curriculum. Lack of training and professional development for teachers. Limited resources and technology in schools. Lack of standardized evaluation frameworks and

Government/ Policymakers	Develop a national curriculum that integrates media literacy. Provide funding for teacher training and resource development. Support research to produce evidence-based guidelines. Promote public awareness campaigns.	tools. The issue of media literacy has not become a priority for education policy. Disconnect between policy and implementation in the field. Challenges in regulating digital platforms that are changing rapidly. Risk of widening the digital divide if policies are not inclusive.
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DISCUSSION

This systematic literature review analysis is designed to synthesize empirical and conceptual evidence regarding the urgency, strategies, roles of stakeholders, and challenges in the implementation of media literacy in early childhood. This section will interpret the four main themes that have been identified—the significance of media literacy as a cognitive foundation, the central role of adult mediators, the spectrum of implementation strategies, and systemic challenges—by juxtaposing them against relevant theoretical frameworks and previous studies. Further, this section will outline the scientific and practical contributions of the findings, acknowledge the limitations of the research, and formulate an agenda for future research.

Interpretation of the findings: From passive protection to proactive empowerment

The first and most fundamental finding of this study is a paradigm shift in the interpretation of media literacy for early childhood: from a mere protective-passive effort to a proactive empowerment strategy. Current literature consistently conceptualizes media literacy as "cognitive immunization" (Turner et al., 2025), an idea that goes beyond the *screen time* constraints that have dominated public discourse and even some early guidelines (Nuffield Foundation, 2025; These findings affirm that the main goal of media literacy is not to build a fortress between children and the media, but rather to equip children with critical analysis tools to navigate the inevitable media ecosystem (American College of Pediatricians, 2020)

This interpretation is in line in depth with the theoretical framework of media literacy initiated by , which does not only stop at the ability (Livingstone, 2004) to access media, but emphasizes advanced competencies: analyzing, evaluating, and creating. The findings that children with good media literacy are able to develop critical thinking and emotional resilience. Sakhaei et al. (2023) show a real manifestation of the framework. Children are not only protected from negative impacts, but empowered to actively deconstruct media messages,

understand the commercial goals behind advertising, and begin to distinguish between fictional narratives and facts—a challenging but crucial cognitive task, especially for children in the pre-operational stages according to Piaget's Theory, whose thinking is still egocentric and tends to mix fantasy with reality.

Thus, these findings significantly fill the third research gap identified at the outset, namely the need to understand media literacy as a foundation of critical learning. This study confirms that instilling media literacy from an early age is not just a reactive response to risk, but a proactive investment in building children's cognitive architecture to be able to learn for a lifetime in the 21st century. This empowerment changes the position of children from objects that are vulnerable to media influence to digitally sovereign subjects.

Crucial Synergy of Mediators: Bridging the Gap between Home and School

The second finding that stands out is the affirmation of the central role of parents and educators as key mediators, as well as the identification of the "disconnect" between these two environments as the most significant obstacles to implementation (Erikson Institute, 2020). These findings enrich *Parental Mediation Theory* by showing that the effectiveness of mediation strategies—be it *active mediation*, *restrictive mediation*, or *co-viewing*—cannot be optimized if they only occur in one domain (home or school) in isolation.

The literature consistently highlights the superiority of active or dialogical mediation, in which parents engage in critical discussions with the child regarding media content (Haywood & Sembiante, 2023). However, the effectiveness of this strategy is threatened by inconsistencies. A child who is encouraged to ask critical questions at home may find a completely different approach at school, where digital media may only be used as a passive entertainment tool or even avoided altogether. The disconnect reported by the Erikson Institute (2020) creates a fragmented learning experience for children, which can ultimately be confusing and reduce the positive impact of the interventions carried out.

This condition becomes even more crucial when viewed from the perspective of Piaget's Theory of Cognitive Development. Early childhood, with its limitations of logical and abstract thinking, relies heavily on guidance and consistency from adults to build a schema of understanding of the world, including the digital world. When the messages and approaches of the two main authority figures in their lives—parents and teachers—are not aligned, children will find it difficult to firmly internalize media literacy skills. Therefore, these findings directly answer the second research gap regarding the lack of synergistic collaboration models. This study implies that the "unit of analysis" for effective media literacy interventions should no longer be individuals (parents or teachers), but rather a collaborative ecosystem that connects homes and schools.

Adapting Strategies to Child Development: Implications of a Spectrum of Approaches

The third finding regarding the existence of a spectrum of implementation strategies—ranging from restrictions, dialogical mediation, to empowerment through creation—provides an answer to the first research gap on the scarcity of strategies that are appropriate to the stage of child development. Rather than seeing these strategies as mutually negating options, these findings allow us to interpret them as a *scaffolded* continuum of children's cognitive and emotional maturity.

Protective Foundation (Early Pre-Operational Stage): For younger children (e.g., 2-4 years of age), a restriction and supervision-based approach (e.g., screen time limits, content filters) serves as a necessary foundation. At this stage, the child's ability to perform critical analysis is still very limited, so the role of adults as "external filters" becomes dominant, in line with the principle of *restrictive mediation*.

Dialogical Development (Advanced Pre-Operational Stage): As the child grows older (e.g., 5-7 years old), strategies may shift towards active and dialogical mediation. Asking "5W" questions or connecting digital content with the real world (Podar International School, 2023) is in line with the development of children's language skills and reasoning skills that are starting to grow. This is a practical implementation of *active mediation* and *co-viewing*.

Creative Empowerment (Transition to Concrete Operational Stage): The empowerment approach through creation (Lestari & Antique, 2023) is the highest level in this continuum. By becoming a creator, children not only analyze and evaluate, but also engage in the process of constructing meaning. This directly reflects the level of "creating" in Livingstone's (2004) taxonomy of media literacy and provides a very valuable concrete learning experience for children who are on the verge of a concrete operational stage.

Thus, the contribution of this study is to synthesize the various strategies fragmented in the literature into a flexible and developmentally oriented framework, providing a more nuanced guide for parents and educators.

Scientific and Practical Implications

The findings of this literature review have significant implications for both theoretical and practical development in the field.

Table 3.

Scientific and Practical Implications of Research

Dimension	Scientific (Theoretical) Implications	Practical Implications
Parental Mediation Theory	Expanding the theory of parental mediation into a "Theory of Ecological Mediation" that includes synergy between various mediation agents (parents, teachers, communities) for	For Parents: Encourage a shift in focus from "how long" (quantity) children use media to "how" (quality) of interactions during media use. Provides a strong justification for the practice of dialogical mediation

	maximum effectiveness.	(Cahyani & Fauziah, 2024; Haywood & Sembianti, 2023).
Media Literacy Theory	Contextualizing media literacy theory by providing empirical evidence on the operationalization of the access, analyze, evaluate, create framework (Livingstone, 2004) in early childhood.	For Educators and Schools: Encourage the explicit integration of media literacy into the early childhood curriculum and the development of structured partnership programs with parents to align strategies at home and school (Rahmah et al., 2024)
Theory of Cognitive Development	Affirm the relevance of Piaget's theory of cognitive development in understanding challenges and designing pedagogical interventions in the digital age.	For Policymakers: Highlight the need for comprehensive education policies, including national curriculum development, teacher training funding allocations, and research support that produces evidence-based guidelines to address systemic challenges (Erikson Institute, 2020; Nuffield Foundation, 2025).

CONCLUSION

This study concludes that media literacy is an urgent and essential competency for early childhood in the digital era, shifting the focus from passive protection toward proactive empowerment of children as critical digital users. Media literacy functions as a form of “cognitive immunization” that supports critical thinking, creativity, and emotional resilience, and its effectiveness depends heavily on active mediation by parents and educators. However, implementation is constrained by the lack of curricular integration and weak synergy between home and school. The study contributes theoretically by extending Parental Mediation Theory toward an ecological, collaborative model, and practically by calling for curriculum integration, parent–teacher partnerships, and supportive policies. Future research should develop and test integrated models, strengthen home–school collaboration, and ensure equitable access to media literacy for all children..

REFERENCES

American College of Pediatricians. (2020). *Media Use and Screen Time - Its Impact on Children, Adolescents, and Families.* . American College of Pediatricians.

Bastian, A. B. F. M., Imroatun, Muafiqoh, M., Zahra, S. H., & Sajid, D. I. B. (2023). Sikap Orang Tua dan Guru tentang Teknologi Digital Berbasis Media Aplication terhadap Perkembangan Bahasa Anak. *Pratama Widya:*

- Jurnal Pendidikan Anak Usia Dini*, 8(2), 124–143.
<https://doi.org/10.25078/pw.v8i2.3116>
- Brock, L. L., Curby, & W, T. (2016). The role of children's adaptability in classrooms characterized by low or high teacher emotional support consistency. *School Psych. Rev.*, 45(2), 209–225.
- Cahyani, I. R., & Fauziah, P. Y. (2024). Studi kualitatif peran orang tua dalam literasi dini di era digital. *Jurnal Pendidikan Anak Usia Dini*, 8(1), 45–56.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry & research design: Choosing among five approaches*. SAGE Publications.
- Erikson Institute. (2020). *Media Literacy in Early Childhood Report*. . Erikson Institute.
- Fenwick-Smith, Dahlberg, E, E., Thompson, & C, S. (2018). Systematic review of resilience-enhancing, universal, primary school-based mental health promotion programs. *BMC Psychol*.
- Gralczyk. (2019). Smartphone and tablet in the everyday life of preschool children. *Impact and Educational Options in the Opinion of Parents and Teachers of Kindergarten. Social Communication*, 20(2), 85–102.
- Gualtieri, S., & Finn, A. S. (2022). The sweet spot: When children's developing abilities, brains, and knowledge make them better learners than adults. *Perspect. Psychol. Sci.*, 17(5), 1322–1338.
- Hanemann, U., & Robinson, C. (2022). Rethinking literacy from a lifelong learning perspective in the context of the Sustainable Development Goals and the International Conference on Adult Education. *Int. Rev. Educ.*, 68(2), 233–258.
- Haywood, A., & Sembiente, S. (2023a). Media literacy education for parents: A systematic literature review. *Journal of Media Literacy Education*, 15(3), 79–92. <https://doi.org/10.23860/JMLE-2023-15-3-7>
- Haywood, A., & Sembiente, S. (2023b). Media literacy education for parents: A systematic literature review. *Journal of Media Literacy Education*, 15(3), 79–92. <https://doi.org/10.23860/JMLE-2023-15-3-7>
- Imroatun, I., Bastian, A. B. F. M., Imoy, S., Dea Pandini, F., & Setiawan Santoso, F. (2024). Pengenalan Literasi Keagamaan Melalui Metode Kreatif Dan Interaktif Untuk Anak Usia Dini. *Ulumuddin: Jurnal Ilmu-Ilmu Keislaman*, 14(2), 137–150. <https://doi.org/10.47200/ULUMUDDIN.V14I2.2566>
- Lestari, A. D. P., & Antika, E. R. (2023). Self-Esteem and Peer Social Support: How Do They Contribute to High School Students' Academic Hardiness? *Pamomong: Journal of Islamic Educational Counseling*, 4(2), 106–121. <https://doi.org/10.18326/pamomong.v4i2.606>
- Livingstone, S. (2004). Media literacy and the challenge of new information and communication technologies. *Communication Review*, 7(1), 3–14. <https://doi.org/10.1080/10714420490280152>

- Muharam, Mustikaati, Sanny, Yani, & Wiriyanti. (2021). The effect of using digital variety media on distance learning on increasing digital literacy. *J. Phys. Conf. Ser.*
- Nikken, & Schols. (2015). How and why parents guide the media use of young children. *J. Child Fam. Stud.*, 24(11), 3423–3435.
- Nuffield Foundation. (2025). *Early years digital media literacy review*. <https://www.nuffieldfoundation.org/project/early-years-digital-media-literacy-review>.
- Rahmah, Huriyah, Mulyana, & Qonita. (2024). Peran Guru Dalam Perkembangan Literasi Pada Anak Usia Dini. *Jurnal Pendidikan Guru Pendidikan Anak Usia Dini*.
- Sakhaei, Arsalani, & Nosraty. (2023). Media Literacy for Children : A Systematic Review. *Journal Of Cyberspace Studies*.
- Sanz-Labrador, Cuerdo-Mir, Doncel-Pedraza, & M, L. (2021). The use of digital educational resources in times of COVID-19. *Soc. Media Soc.*
- Sharples, M. (2023). *Towards social generative AI for education: theory, practices and ethics*.
- Toh, Lim, & V, F. (2021). Let's play together: ways of parent–child digital co-play for learning. *Interact. Learn. Environ.*
- Turner-Zwinkels, F. M., & van Zomeren, M. (2021). Identity expression through collective action: How identification with a politicized group and its identity contents differently motivated identity-expressive collective action in the U.s. 2016 presidential elections. *Pers. Soc. Psychol. Bull.*, 47(3), 499–513.
- Ulfiya, F., Rinekasari, N. R., & Ningsih, M. P. (2021). Implementing web-based digital media in online courses. *IOP Conf. Ser. Mater. Sci. Eng.*, 1098(2), 22111.