



Digital Literacy and Parental Mediation Strategies in Managing Children's Online Behavior in Aceh

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ABSTRACT

According to national data from the Indonesian Child Protection Commission (KPAI), approximately 71.3% of school-aged children in Indonesia own personal digital devices and use them for extended periods, including for non-educational purposes. In addition, 79% of children reportedly lack mutually agreed-upon rules for gadget use at home. These national trends highlight the importance of strengthening parental mediation in children's digital activities. This issue is particularly salient in Aceh, a region with a high prevalence of misinformation, reflecting low digital literacy that affects parents' ability to manage children's online activities. This study aims to identify parental mediation strategies used for children aged 6–12 years, analyze factors influencing strategy selection, and explore challenges faced in digital parenting. A qualitative approach was employed, using semi-structured interviews with 15 parents of elementary school children in Banda Aceh and Aceh Besar who used digital devices. Restrictive mediation, involving rules on screen time and digital content, emerged as the most dominant strategy, followed by supervision through monitoring children's digital activities and active mediation through discussion and explanation. Co-use, in which parents and children used digital media together, was less common. Moreover, technical mediation, involving parental control features and digital monitoring tools, was the least utilized strategy and was primarily adopted by parents with higher levels of digital literacy. The findings highlight the critical role of parental digital literacy in enhancing effective mediation strategies, contributing both theoretically to parental mediation studies and practically to digital parenting programs.

Keywords: Digital literacy, Parental mediation, Children's online behaviour, Digital parenting, Screen time.

INTRODUCTION

Indonesia is among the countries with the largest number of internet users worldwide. According to the Indonesian Internet Service Providers Association (APJII), the number of internet users in Indonesia reached 221,563,479 people in 2024, representing 79.5% of the total population and reflecting a continued increase from previous years (APJII, 2025). This rapid expansion of internet access has reached all age groups, including school-aged children.

Data from the Indonesian Child Protection Commission (KPAI) indicate that 71.3% of school-aged children already own a digital device, while 79% are allowed to use it for non-educational purposes (KPAI, 2020). The duration of gadget use is also relatively high, with 36.5% of children using gadgets for 1–2 hours per day, 34.8% for 2–5 hours, and 25.4% for more than five hours per day (KPAI, 2020).

While digital technologies provide children with valuable opportunities for learning, communication, and entertainment, excessive or unsupervised use may expose them to various developmental and online risks. Previous studies have associated intensive digital media use with behavioral and emotional challenges among children, including reduced self-regulation, increased dependency on digital entertainment, and difficulties maintaining a balance between online and offline activities (Syifa et al., 2019). Children may also encounter age-inappropriate content, including pornography and other harmful materials. Rahmanian and Haryanto (2017) found that a substantial proportion of elementary school students had been exposed to online pornographic content, either intentionally or unintentionally, through digital platforms. These findings highlight the importance of parental involvement in regulating children's online activities and supporting safe internet use.

Parental guidance has become increasingly important as children gain access to digital technologies at younger ages. Davidson (2012) argued that positive internet use among children requires active parental support, including technological knowledge, digital competencies, and emotional engagement. Similarly, Brooks (2011) emphasized that parenting responsibilities have become more complex in response to rapid technological development, as digital media increasingly shape how children learn, communicate, and interact with the world. Livingstone et al. (2017) further suggested that parents need to understand their children's digital experiences and equip them with the values and skills necessary to evaluate online information and navigate digital environments safely and critically.

In this context, digital literacy has emerged as a critical competence for contemporary parenting. Digital literacy refers to the knowledge, skills, and critical understanding required to access, evaluate, create, and communicate information

through digital technologies (Buckingham, 2015; Hobbs, 2010). Beyond technical proficiency, digital literacy encompasses the ability to assess the credibility of online information, recognize digital risks, and make informed decisions regarding technology use. For parents, digital literacy is particularly important because it enables them to understand their children's online activities, engage in meaningful discussions about digital experiences, and implement appropriate strategies for guidance and protection. This need has become increasingly urgent as children aged 6–12 years in Indonesia belong to Generation Alpha—the first generation to grow up entirely in an era of advanced digital technology, with intensive exposure to digital devices, the internet, and social media from an early age (Pitriyani & Widjayatri, 2023). Given this digital environment, parental guidance at home becomes increasingly significant to ensure that children can use digital media in positive and constructive ways (Maesaroh et al., 2021). Accordingly, parents with higher levels of digital literacy are better equipped to mediate their children's online behavior through informed guidance, supervision, and the implementation of appropriate digital parenting strategies (Ginting & Pratiwi, 2017). Previous research has reported that limited parental digital literacy is associated with inadequate supervision and guidance during children's smartphone use, increasing their exposure to online risks, including excessive online gaming (Arianto & Bahfiarti, 2020).

Despite the recognized importance of parental involvement, research suggests that parental engagement in managing children's online behavior remains insufficient. A national survey conducted by Ipsos in Montenegro in November 2023 found that one in three parents frequently allow their children to watch videos on computers, laptops, or tablets when their children need quiet time at home to complete work or other tasks (UNICEF, 2023). In addition, two out of five parents do not limit screen time or the types of media content their children can access. In contrast, half of parents do not discuss with their children what content is appropriate or inappropriate to watch on television or the internet (UNICEF, 2023). Similar findings have been reported in Indonesia, where most children lack clear agreements with their parents regarding the use of digital devices (KPAI, 2020). These findings indicate a gap between the acknowledged importance of parental guidance and its actual implementation in everyday family life.

To understand how parents manage children's digital activities, this study adopts Parental Mediation Theory as its primary theoretical framework. This theory was selected because it specifically explains the strategies parents employ to regulate, guide, and monitor children's media use, making it more directly aligned with the objectives of this study than broader media theories such as Self-Determination Theory or Uses and Gratifications Theory, which primarily focus

on individual motivation and media use rather than parental mediation practices. [Valkenburg et al. \(1999\)](#) identified three principal forms of parental mediation: active mediation, restrictive mediation, and co-use. Active mediation involves discussing and explaining media content to children, restrictive mediation focuses on regulating access to media content and screen time, and co-use refers to shared media consumption without explicit guidance. [Livingstone and Helsper \(2008\)](#) later expanded this framework by introducing technical mediation, which involves the use of technological tools such as parental control applications, and monitoring, which refers to supervising children's online activities through checking browsing histories, applications, or online interactions. Together, these strategies provide a comprehensive framework for understanding how parents guide and regulate children's online behavior.

Aceh provides a particularly relevant context for examining parental mediation and digital literacy. Previous reports identified Aceh as one of the regions with high exposure to misinformation and hoaxes, highlighting broader challenges related to critical evaluation of digital information ([CNN Indonesia, 2019](#)). This condition underscores the urgent need to strengthen parents' digital literacy, as it may directly influence the parental mediation strategies they employ to manage their children's online behavior. Recent evidence further indicates that parenting practices in Acehnese communities are shaped by the integration of religious values and local customs ([Sulaiman et al., 2025](#)). These contextual characteristics suggest that parental mediation in Aceh may differ from that in other regions of Indonesia. However, empirical evidence on how parental digital literacy influences parental mediation strategies in the Acehnese context remains scarce, particularly among parents of elementary school-aged children.

Existing studies in Indonesia have explored various aspects of parental mediation. [Rohmatulloh et al. \(2020\)](#) found that parents employ a range of mediation strategies, including restrictive, monitoring, and active approaches. [Wita et al. \(2018\)](#) suggested that the effectiveness of active mediation may vary depending on how it is implemented and the broader family context. However, much of the existing literature focuses on adolescents rather than younger children ([Pristinella & Desiyanthi, 2021](#); [Sukma, 2024](#); [Yani, 2022](#); [Yuliani et al., 2023](#)). Furthermore, relatively few studies have investigated the relationship between parental digital literacy and parental mediation strategies, particularly among parents of primary school children.

Evidence from previous research indicates that digital literacy may influence how parents mediate their children's online activities. [Livingstone et al. \(2017\)](#) found that parents with higher levels of digital literacy were more likely to adopt active and dialogic mediation strategies rather than relying solely on restrictive approaches. Similarly, [Triaswari \(2021\)](#) reported that Indonesian mothers with stronger digital literacy skills tended to engage more actively in parental mediation

practices. Despite these findings, relatively little research has systematically examined how parental digital literacy influences the selection and implementation of different parental mediation strategies, particularly among parents of elementary school-aged children.

Against this background, this study aims to examine parental mediation practices in managing the online behavior of elementary school-aged children. First, it seeks to identify the forms of parental mediation strategies employed by parents to regulate children's online activities. Second, it aims to analyze how parents' levels of digital literacy influence the selection of parental mediation strategies.

Taken together, this study contributes to the literature in three important ways. First, it focuses on parents of children aged 6–12 years, an age group that has received relatively limited attention compared with adolescents in previous parental mediation studies. Second, it extends existing research by examining how parental digital literacy influences the selection and implementation of parental mediation strategies, rather than merely describing the strategies parents employ. Third, it provides context-specific evidence from Aceh, where parenting practices are embedded within a distinctive socio-cultural environment, but empirical studies on digital parenting remain scarce. These contributions offer a stronger empirical basis for developing contextually appropriate parental mediation guidelines and strengthening parents' capacity to support children's safe and healthy online experiences.

RESEARCH METHODS

This study employs a qualitative research design to explore parental mediation strategies and analyze how parents' levels of digital literacy influence their selection of these strategies. The research subjects are parents of elementary school-aged children (6–12 years), while the research object focuses on digital literacy and parental mediation.

The study was conducted in Banda Aceh City and Aceh Besar. Data collection took place from August to November 2025 through semi-structured interviews. Qualitative data were collected from approximately 15 parents, selected for their diverse backgrounds. Interview participants were recruited through a pre-survey administered via Google Forms. Upon completing the questionnaire, respondents were invited to indicate their willingness to participate in a follow-up in-depth interview. Twenty respondents agreed and were subsequently contacted by the researchers to obtain informed consent. Several later declined due to scheduling conflicts or other unspecified reasons. Consequently, 15 parents provided informed consent and participated in the interviews. All interviews were conducted face-to-face to ensure depth and clarity

of responses. To protect participants’ confidentiality, all names used in the interview excerpts are pseudonyms assigned by the researchers.

As shown in Table 1, the participants represented diverse occupational and educational backgrounds. Thirteen participants were female, and two were male. Their occupations included lecturers, teachers, healthcare professionals, civil servants, homemakers, merchants, and government employees. Most participants held a bachelor’s degree, while three had completed a master’s degree. The participants’ children ranged in age from 6 to 11 years.

Table 1. Informant Characteristics

No.	Pseudonym	Occupation	Education	Children's Age
1	Cut	Pharmacy Assistant	Diploma III	6 years
2	Rizka	Merchant	Bachelor’s Degree	6 years
3	Zahra	Lecturer	Master’s Degree	7 years
4	Gadis	Dentist	Bachelor’s Degree	8 and 6 years
5	Mawaddah	Homemaker	Bachelor’s Degree	9 and 7 years
6	Lina	Medical Doctor	Bachelor’s Degree	10 and 6 years
7	Saiful	Teacher	Bachelor’s Degree	8 years
8	Yuliana	Lecturer	Master’s Degree	8 years
9	Nabila	Government Employee	Bachelor’s Degree	8 and 7 years
10	Rohana	Teacher	Bachelor’s Degree	11 and 8 years
11	Irfan	Lecturer	Master’s Degree	7 years
12	Farah	Pharmacy Assistant	Diploma VI	6 years
13	Yasmin	Homemaker	Bachelor’s Degree	8 and 6 years
14	Nurul	Civil Servant	Bachelor’s Degree	10 years
15	Nayla	Teacher	Bachelor’s Degree	10 years

Source: Authors’ interview data, 2026

The interview data were analyzed using thematic analysis supported by NVivo 12. A thematic analysis approach was employed to capture the depth and meaning of participants’ narratives (Squires, 2023). A deductive coding approach was employed based on the five parental mediation strategies proposed by Valkenburg et al. (1999) and extended by Livingstone and Helsper (2008).

To enhance the trustworthiness of the qualitative findings, source triangulation was employed by comparing information across different informants (Sugiyono, 2020). Themes that consistently emerged across participants were considered credible and retained for analysis. Furthermore, the initial coding was conducted by the principal investigator. To ensure the reliability of the coding

process, an independent researcher separately coded the interview transcripts using the same deductive coding framework. The coding results were then compared, yielding 100% agreement between the two coders.

RESULTS AND DISCUSSION

Forms of Parental Mediation Strategies

The findings indicate that parents employ multiple forms of parental mediation strategies, often in combination rather than in isolation. Consistent with the parental mediation framework proposed by [Valkenburg et al. \(1999\)](#) and extended by [Livingstone and Helsper \(2008\)](#), five main strategies were identified: restrictive mediation, active mediation, co-use, supervision, and technical mediation. However, the intensity and configuration of these strategies varied depending on parents' digital literacy and family contexts.

Restrictive mediation emerged as the most dominant parental mediation strategy and was consistently implemented by all informants. Parents regulated children's digital behavior through three primary forms of restriction: limiting access to digital devices, controlling screen time, and restricting digital content or applications.

The first form involved restricting children's access to digital devices. Rather than providing personal smartphones, several parents deliberately delayed their children's access to digital devices to maintain parental control over their digital access. Informants such as Gadis, Irfan, and Saiful consistently reported that their children did not own personal smartphones and could only access digital media through their parents' devices or television. Gadis explained:

"My child does not have a mobile phone and only uses mine. At home, gadget use is limited and not allowed every day." (Gadis, interview)

These findings indicate that delaying personal device ownership was perceived as an effective preventive measure, allowing parents to supervise children's digital exposure while reducing opportunities for independent internet access.

The second form focused on limiting screen time. Parents commonly set clear daily limits and consistently enforced them, although the duration and timing varied across households. Informants such as Cut, Rohana, and Nabila emphasized that screen-time restrictions were integrated into daily family routines to ensure that digital media did not interfere with children's learning, religious practices, or family interaction. Cut, for instance, implemented a strict time-based routine:

"From the beginning, they were only allowed 30 minutes a day. Once the

30 minutes are over, it is finished." (Cut, interview)

Although the specific rules differed among families, the underlying objective remained consistent: to balance children's digital engagement with educational responsibilities, family interaction, and daily routines.

The third form emphasized restricting children's access to digital content. Rather than allowing unrestricted access to online platforms, parents deliberately selected age-appropriate applications and content. Informants consistently expressed concern that unrestricted digital platforms might expose children to inappropriate or harmful materials beyond their developmental stage. Rohana prohibited access to the regular YouTube platform and required her children to use YouTube Kids:

"I explain to them that they are not allowed to watch regular YouTube because it may lead them to inappropriate videos. If they want to watch YouTube, they must use YouTube Kids. Otherwise, I do not allow them to watch it, and they have to promise to follow that rule." (Rohana, interview)

These findings suggest that parents' concerns extended beyond the duration of digital media use to include the quality and appropriateness of the content children consumed. Restricting content was therefore viewed as an important strategy for preventing children's exposure to online risks while encouraging safer digital experiences.

Collectively, restrictive mediation reflects parents' preference for preventive strategies that emphasize controlling children's access to digital media before potential risks occur. This predominance is consistent with previous studies conducted in Indonesia, which found that parents tend to prioritize regulating children's access to digital media rather than engaging with the content itself (KPAI, 2020; Rohmatulloh et al., 2020). The present findings further indicate that restrictive mediation served not only as a protective mechanism but also as the initial framework through which parents established boundaries for children's digital engagement before implementing other mediation strategies.

Moreover, supervision emerged as the second most frequently reported parental mediation strategy. Parents monitored their children's digital activities either through direct observation during media use or by reviewing their digital activities after use to ensure compliance with household rules and protect children from age-inappropriate content.

The first form, direct supervision, involved parents accompanying children as they accessed digital media and intervening immediately when necessary. For example, Saiful explained that although his child was allowed to access digital media through television, he continuously monitored the content being viewed and intervened whenever inappropriate content appeared:

“From the beginning, I decided what types of content my child could watch. If I happened to pass by and see something inappropriate, I would immediately tell my child not to watch it. Now, my child has learned to distinguish which content is appropriate and which is not.” (Saiful, interview)

Similarly, Rohana closely supervised her children's viewing by allowing only YouTube Kids and ensuring that inappropriate content was not accessed—the second form involved monitoring children's digital activities after they used devices. Several parents reviewed browsing histories, messages, or synchronized devices to monitor their children's online behavior. Nurul, Cut, and Gadis monitored their children's digital activities by regularly inspecting the installed applications and the browsing history on the shared device. Rather than using a dedicated parental control application, Yasmin monitored her child's digital activities through Apple's iCloud synchronization:

“The iPad is connected to my iPhone, so everything my child watches appears on my phone. Since they use the same iCloud account, the browsing history is automatically synchronized.” (Yasmin, interview)

In general, supervision complemented restrictive mediation by enabling parents to verify whether children complied with established rules and to identify potential online risks. Consistent with [Livingstone and Helsper \(2008\)](#), supervision in this study functioned not only as a control mechanism but also as an opportunity for parents to remain informed about their children's digital experiences.

Compared to previous Indonesian research ([e.g., Rohmatulloh et al., 2020](#)), supervision in this study was primarily protective rather than punitive. Instead of imposing immediate sanctions, parents emphasized observation, monitoring, and guidance to maintain children's digital safety and encourage appropriate online behavior.

Furthermore, active mediation emerged as another important parental mediation strategy. Rather than relying solely on restrictions, parents actively engaged in conversations with their children to explain online content, answer questions, and encourage critical reflection on digital media use. Active mediation emphasizes dialogue and guidance to help children understand and navigate digital environments more responsibly.

Lina, for example, encouraged her children to critically evaluate the content they watched instead of simply prohibiting it. She regularly asked reflective questions to help them think about the value and appropriateness of digital content:

“Sometimes my six-year-old watches videos on YouTube Kids showing adults pretending to be children. I ask, ‘What is the benefit of watching that?’ Then I ask again what they watched, and they tell me about it.” (Lina, interview)

Likewise, Saiful emphasized explanation and guidance to help his children understand why certain content should be avoided. Rather than merely prohibiting inappropriate content, he explained its relevance and taught his child how to respond when such content appeared:

"At first, my child did not understand what Christmas was, and even sang the songs. We explained that it was not part of our beliefs. We also taught her how to use the remote control so that whenever such content appeared, she could skip it herself. Now she can distinguish which content is appropriate and which is not." (Saiful, interview)

Yuliana also adopted a dialogic approach by encouraging her son to understand the reasons behind digital restrictions. When her child questioned why he was not allowed to watch certain online videos, she did not simply impose the rule. Instead, she searched for supporting information and used evidence to help him understand the potential risks.

In sum, active mediation complemented restrictive mediation by fostering open communication rather than relying solely on parental authority. Through discussion, questioning, and explanation, parents sought to develop children's critical thinking, digital awareness, and ability to independently evaluate online information. Rather than expecting unquestioning compliance, many parents encouraged children to understand the rationale behind digital rules by providing age-appropriate explanations, engaging in reflective discussions, and responding to children's questions about online content.

Consistent with [Livingstone and Helsper \(2008\)](#), these findings suggest that active mediation extends beyond communicating rules to facilitating children's understanding of online opportunities and risks through dialogue and shared interpretation of digital experiences. In this study, active mediation also functioned as a value-transmission strategy, allowing parents to integrate moral, educational, and religious values into children's digital experiences. However, the extent of active mediation varied across participants. While several parents actively engaged children in reflective discussions and explanations, others relied more heavily on restrictive mediation and provided explanations only when children questioned established rules. This finding aligns with [Livingstone et al. \(2017\)](#), who argue that active mediation is most effective when accompanied by meaningful parental engagement and ongoing communication.

In addition, co-use was the second-least-frequently reported parental mediation strategy among participants. Unlike supervision, which primarily involves monitoring children's digital activities, co-use refers to parents and children intentionally sharing digital experiences by watching videos or using digital media together. This strategy enabled parents to remain actively involved in their children's online activities while creating opportunities for spontaneous interaction and communication.

Mawaddah, for example, described co-viewing as part of her family's routine. By watching videos together, she stayed familiar with the content her child consumed and could respond immediately whenever questions arose. Similarly, Saiful viewed watching television together as an opportunity to accompany and guide his child as they consumed digital content. Shared viewing allowed him to explain unfamiliar content immediately and reinforce family values during everyday media use. Likewise, Yuliana ensured that her children were never left to consume digital media alone. Instead, YouTube viewing took place only when accompanied by family members. Nayla also engaged in shared digital activities with her child, particularly when using educational applications. Rather than allowing her child to use digital media independently, she occasionally completed learning activities together, creating opportunities for interaction and joint participation.

Overall, co-use was the least commonly practiced mediation strategy, reported by only a small number of participants. Parents who adopted this approach perceived shared media use as an opportunity to strengthen parent-child relationships while remaining aware of children's digital activities. Rather than relying solely on monitoring or restricting access, co-use created natural opportunities for conversation, guidance, and shared digital experiences. These findings are consistent with [Livingstone and Helsper \(2008\)](#), who argue that co-use promotes parental engagement by allowing parents and children to experience digital media together. However, compared with restrictive mediation and supervision, co-use was relatively uncommon, as most parents preferred to supervise children's media use without actively participating in the activity itself.

Lastly, technical mediation was the least frequently adopted parental mediation strategy, reported by only three participants. Unlike restrictive mediation, which relied on household rules, technical mediation used digital technologies or built-in device features to regulate children's online activities.

Zahra demonstrated the most comprehensive use of technical mediation by utilizing Google Family Link to regulate her children's digital activities. Through the application, she approved app installations, monitored device usage, and managed screen time remotely. As she explained:

"If my child wants to install an application, I have to approve it through

Family Link. I either approve it from my phone or from my child's phone using my password. I usually limit the duration. If they have been using it for too long, I simply lock the phone. Once it is locked, they cannot use it anymore.” (Zahra, interview)

Similarly, Rizka used the built-in application timer on Android devices to automatically limit her child's gaming time. Rather than relying solely on verbal reminders, she used the device settings to enforce screen time limits by automatically locking gaming applications after the allocated duration had expired. She explained:

“We set a time limit for the game using the Android settings. The game could only be used for two hours. After that, it was automatically locked and could no longer be opened.” (Rizka, interview)

Likewise, Lina integrated multiple parental control features into her children’s devices. She configured parental controls, restricted YouTube access to YouTube Kids, protected social media accounts with passwords, and linked the devices to her Google account to monitor app downloads and receive notifications about digital activity.

In contrast, the remaining participants did not use dedicated parental control technologies. Instead, they relied primarily on direct supervision, family rules, and face-to-face communication to regulate their children’s digital media use. A summary of the parental mediation strategies identified in this study is presented in Table 2.

Table 2. Types of Parental Mediation Strategies

Parental Mediation Strategy	Number of Informants	Peusodonyms
Restrictive Mediation	15	Cut, Rizka, Zahra, Gadis, Lina, Saiful,
		Yuliana, Nabila, Rohana, Irfan, Farah, Yasmin, Nurul, Nayla
Supervision	10	Cut, Zahra, Lina, Saiful, Gadis, Nabila, Rohana, Irfan, Yasmin, Nurul
Active Mediation	8	Cut, Zahra, Lina, Saiful, Yuliana, Rohana, Irfan, Yasmin
Co-use	4	Mawaddah, Saiful Yuliana, Nayla
Technical Mediation	3	Lina, Zahra, Rizka

Source: Research findings, 2026

The findings indicate that parents adopted multiple parental mediation strategies rather than relying on a single approach. Although the frequency and intensity of implementation varied across participants, restrictive mediation emerged as the dominant strategy, followed by supervision and active mediation. In contrast, co-use and technical mediation were reported less frequently.

Parental Digital Literacy Shaping Mediation Practices

Beyond the five parental mediation strategies, the findings revealed distinct variations in parents' digital literacy that shaped how they mediated their children's digital media use. These differences were reflected not in parents' educational attainment or occupation but in their confidence in using digital technologies, understanding of online environments, and ability to guide children's digital experiences. Parents with stronger digital literacy generally employed a wider range of mediation strategies, whereas those with more limited digital literacy relied primarily on household rules and direct supervision.

Parents with high digital literacy, represented by Zahra and Lina, demonstrated advanced technical competence by utilizing parental control applications, device settings, and platform-specific features to regulate children's digital activities. Their technical competence was complemented by active discussions about online content and digital safety, resulting in a more comprehensive approach that combined restrictive, active, and technical mediation with supervision.

Parents with moderate digital literacy, including Cut Nadia, Rizka, Saiful, Yuliana, Yasmin, Rohana, Irfan, and Nayla, demonstrated a good understanding of online risks and children's digital behavior. While most relied primarily on active mediation and supervision, some selectively employed built-in technological features, such as application timers or educational applications, to support children's digital use. Their mediation practices typically combined restrictive mediation with supervision, active mediation, and, in some cases, co-use or technical mediation.

In contrast, parents with limited digital literacy, including Nurul, Farah, Nabila, Gadis, and Mawaddah, relied predominantly on restrictive mediation and manual supervision. Rather than utilizing technological monitoring tools, they managed children's digital activities through household rules, screen time limits, and direct observation.

In summary, these findings suggest that parental digital literacy served as an enabling factor influencing the breadth and combination of parental mediation strategies, rather than constituting a mediation strategy itself. Three parental digital literacy profiles identified through thematic analysis are summarized in Figure 1.

Digital Literacy Profile	Parental Mediation Strategies				
 High	 Restrictive mediation	 Supervision	 Active mediation	 Technical mediation	
 Moderate	 Restrictive mediation	 Supervision	 Active mediation	 Co-use	 Selected technical mediation
 Limited	 Restrictive mediation	 Supervision			

Source: Research findings, 2026

Figure 1. Parental digital literacy profiles and associated parental mediation strategies

This study provides new insights into how parents mediate elementary school-aged children’s digital media use in an increasingly digital environment. While previous studies have largely examined parental mediation strategies as discrete categories (Valkenburg et al., 1999), the present findings suggest that these strategies operate as complementary practices rather than independent approaches. Parents rarely relied on a single mediation strategy. Instead, they combined restrictive mediation, supervision, active mediation, co-use, and, in some cases, technical mediation according to children’s developmental needs, perceived online risks, and their own digital literacy.

The predominance of restrictive mediation indicates that parents regarded rule-setting as the foundation of digital parenting. By establishing rules regarding screen time, digital content, and device use, parents created clear behavioral boundaries before introducing other forms of mediation. Supervision served as an extension of restrictive mediation, reassuring parents that household rules were being followed. This finding extends previous Indonesian studies (KPAI, 2020; Rohmatulloh et al., 2020), which primarily described restrictive mediation as the dominant strategy and did not explain how it interacts with other mediation practices.

Another important finding is that supervision and active mediation frequently operated as complementary rather than independent strategies. Parents typically monitored their children’s digital activities first, then initiated discussions when they encountered inappropriate content or identified situations that required clarification. This sequential pattern suggests that supervision functioned not only as a monitoring mechanism but also as a gateway to active mediation, creating

opportunities for parents to explain online risks, reinforce appropriate digital behavior, and support children's understanding of digital content. This finding also reflects what [Nagy et al. \(2023\)](#) describe as balancing mediation, in which parents negotiate children's technology use by combining active engagement with ongoing monitoring rather than relying on a single mediation strategy. Consistent with [Livingstone et al. \(2017\)](#), parental mediation appears to be more effective when supervision is accompanied by explanation and dialogue rather than relying solely on observation or restrictive rules.

Although co-use and technical mediation were reported less frequently, both strategies provided additional support for children's digital engagement. Parents who practiced co-use created opportunities for spontaneous interaction during shared digital activities. At the same time, those employing technical mediation utilized parental control applications or built-in device features to regulate children's digital access. However, the findings indicate that neither strategy was sufficient when implemented independently. Co-use became more meaningful when accompanied by discussion and guidance, whereas technical mediation functioned most effectively when integrated with supervision and active mediation. These findings support [Livingstone and Helsper's \(2008\)](#) argument that parental mediation strategies should be viewed as complementary rather than mutually exclusive.

Perhaps the most significant contribution of this study is the identification of parental digital literacy as an enabling factor influencing the selection and integration of parental mediation strategies. The findings suggest that parents with stronger digital literacy were more likely to combine multiple mediation strategies, including restrictive, supervision, active, and technical mediation. They also appeared more confident in explaining digital content, contextualizing online risks, and engaging children in meaningful dialogue. In contrast, parents with more limited digital literacy tended to rely primarily on restrictive mediation and manual supervision, while making relatively little use of technological controls.

This finding is consistent with previous research indicating that parental digital competence facilitates the implementation of effective restrictive mediation by enabling parents to establish appropriate rules for children's internet use and reduce their exposure to online risks ([Lee, 2013](#)). Consequently, the findings suggest that digital literacy extends beyond operational skills to include the ability to critically evaluate digital environments, communicate online risks, and strategically combine multiple mediation practices. However, while previous research in Europe has reported a gradual shift from restrictive mediation toward more active forms of parental guidance ([Kalmus et al., 2022](#)), the present findings indicate that restrictive mediation remains the primary foundation of digital parenting among Indonesian parents. Rather than replacing restrictive mediation,

parents with higher digital literacy tended to complement it with active mediation, supervision, and technical mediation. Consequently, these findings suggest that digital literacy extends beyond operational skills to encompass the ability to critically evaluate digital environments, communicate online risks, and strategically integrate multiple mediation practices according to children's needs.

This pattern is reflected in the limited adoption of technical mediation, observed only among a small number of participants familiar with parental control applications or built-in device features. This finding is consistent with [Triaswari's \(2021\)](#) idea that parental digital literacy influences the adoption of technology-assisted mediation in the Indonesian context. Rather than simply reflecting technical competence, the findings indicate that parents' digital literacy encompassed their confidence in navigating digital environments, understanding online risks, communicating appropriate digital practices, and selecting mediation strategies that best suited their children's developmental needs. These findings suggest that digital literacy serves as an enabling condition for more diverse and integrated parental mediation practices.

Compared with previous studies that focus primarily on adolescents ([Pristinella & Desiyanthi, 2021](#); [Yuliani et al., 2023](#)), this study highlights the distinctive challenges of mediating younger children's digital media use, in which parental guidance remains central to children's online experiences. In contrast to [Wita et al. \(2018\)](#), who suggested that active mediation may be ineffective when implemented without contextual support, the present findings indicate that active mediation is more meaningful when accompanied by supervision, open communication, and parents' digital literacy.

These findings are also consistent with international research emphasizing the importance of parental digital competence in supporting children's online safety and digital engagement ([Livingstone et al., 2017](#); [UNICEF, 2023](#)). However, this study extends previous work by demonstrating that parental digital literacy influences not only the adoption of specific mediation strategies but also how these strategies are combined and adapted to children's developmental needs. In the Acehese context, this process was further shaped by family values and parents' strong emphasis on protecting children from perceived online risks, resulting in parental mediation practices that were predominantly protective, communicative, and context sensitive.

The findings also contribute to Parental Mediation Theory by extending the traditional categorization of mediation strategies. While [Valkenburg et al. \(1999\)](#) and [Livingstone and Helsper \(2008\)](#) conceptualize restrictive mediation, supervision, active mediation, co-use, and technical mediation as distinct strategies, the present study demonstrates that parents dynamically integrate these strategies according to contextual demands. This dynamic integration appears to be influenced by parents' digital literacy, which determines not only their technical

competence but also their confidence in selecting the most appropriate mediation strategy for different situations. Consequently, parental digital literacy should be viewed as an enabling condition that strengthens the implementation of parental mediation rather than as a mediation strategy itself.

From a practical perspective, these findings suggest that interventions aimed at improving children's online safety should move beyond teaching parents how to operate digital technologies. Parent-focused digital literacy programs should also strengthen parents' critical understanding of digital media, communication skills, and confidence in combining different mediation strategies. Such programs may enable parents to transition from relying predominantly on restrictive mediation toward more balanced, adaptive, and developmentally appropriate digital parenting practices.

CONCLUSION

This study provides a comprehensive understanding of parental mediation practices in managing the online behavior of elementary school-aged children. The findings address the research objectives by demonstrating that parents predominantly employed restrictive mediation, particularly by regulating screen time, restricting access to specific digital content, and establishing clear rules for device use. Restrictive mediation was frequently complemented by supervision, through which parents monitored children's digital activities either manually or using digital tools. Active mediation was also evident, with many parents engaging children in discussions, providing explanations, and encouraging critical reflection on online content. In contrast, co-use was reported by only a small number of participants, and technical mediation remained the least-utilized strategy.

The findings also suggest that parents' digital literacy plays an important role in shaping the selection and implementation of parental mediation strategies. Parents with higher digital literacy tend to adopt a more balanced approach by integrating technical controls, active communication, and ongoing supervision. Conversely, parents with moderate to low digital literacy rely more heavily on manual and restrictive approaches, which may limit the adaptability and sustainability of digital parenting practices.

In practical terms, these findings may inform the development of contextual digital parenting guidelines and parent-focused digital literacy programs, particularly in regions with high exposure to digital risks, such as misinformation and harmful online content. Theoretically, this study extends the parental mediation literature by emphasizing the role of parents' digital literacy in shaping parental mediation practices."

Despite this study's contributions to understanding the relationship between parental digital literacy and parental mediation strategies, the findings

should be interpreted in light of several limitations. First, the study was limited to parents of primary school children in Aceh, which may restrict the generalizability of the findings to other regions of Indonesia with different social, cultural, and technological contexts. Second, the study relied on participants' self-reported accounts of their digital literacy and parental mediation practices, which may be subject to personal bias or social desirability bias. Finally, while the study focused on digital literacy as a key factor influencing parental mediation strategies, it did not examine other potentially relevant factors, such as parents' educational background, socioeconomic status, parenting styles, children's individual characteristics and digital competencies, or the influence of schools and peer environments. Future research may benefit from exploring these factors to provide a more comprehensive understanding of parental mediation practices in the digital age.

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