



The Influence of Parents' Understanding of it in Supervising Early Childhood Learning at RA Masyitoh II Gadingrejo

Trijiarni¹, Sri Haryanto¹, Sofan Rizqi²

¹Early Childhood Education (PIAUD), Faculty of Tarbiyah and Teacher Training, Universitas Sains Al-Qur'an

²Religious education Islam, Faculty of Tarbiyah and Teacher Training, Universitas Sains Al-Qur'an

*Corresponding Author: Trijiarni

E-mail: arnitrijiy@gmail.com

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Abstract

This study aims to find out how the IT understanding of parents of students at RA Masyitoh II Gadingrejo, to find out how to provide learning support for early childhood at RA Masyitoh II Gadingrejo, and to explain the influence of parents' IT understanding in providing learning support for early childhood at RA Masyitoh II Gadingrejo. The research method used is qualitative research. For data collection using interviews, observation, and documentation. While the analysis uses qualitative data analysis in the form of data reduction results, data presentation, and drawing conclusions. The research findings show that parents can monitor IT access and use, especially gadgets, more effectively in early childhood, so that children's digital experiences can be more controlled and tailored to their needs. Parents' active role in selecting appropriate content allows young children to access content that supports their development in a positive way. Parents should set time limits for playing with gadgets to reduce negative impacts, such as harm to children's eyes and disruption to social interactions. In addition, proper supervision of gadget use in early childhood can help ensure that technology use provides positive benefits and does not harm children's development. With proper guidance, parents can ensure a healthy and quality digital experience for young children and help them develop a wise understanding of using IT. Teachers in mentoring learning have many functions: as guides, environmental organizers, participants, counselors, and supervisors.

INTRODUCTION

Information and communication technology (ICT) has become an integral component of contemporary social life, reshaping patterns of communication, work, and learning across the globe. In the field of education, the integration of ICT is no longer limited to higher education or secondary schooling but has increasingly penetrated early childhood education (ECE), where foundational cognitive, social, and emotional development occurs. International organizations and national governments alike

emphasize that early exposure to appropriately designed digital resources can support learning processes when aligned with developmental needs and ethical considerations (Conrads et al., 2017; Butler et al., 2018). In Indonesia, this orientation is reinforced by constitutional mandates that guarantee every child's right to education and to benefit from science and technology for improving quality of life (Iman et al., 2025; Manan, 2015). Consequently, understanding how digital technology is mediated within early childhood contexts has become a critical scholarly and practical concern.

The COVID-19 pandemic further accelerated the adoption of digital technology in education, transforming ICT from a complementary tool into a primary medium of instruction. Distance learning policies implemented worldwide, including in Indonesia, required teachers, students, and families to adapt rapidly to online and technology-mediated learning environments (Nurcahyono, 2025; Sitorus et al., 2025; Nikolopoulou, 2023). Regulations such as the Indonesian Ministry of Education and Culture's framework on distance education underscore the role of ICT in bridging physical separation between teachers and learners. At the global level, discussions within forums such as the G20 have highlighted digital technology as central to ensuring educational continuity, quality, and equity in post-pandemic recovery. Recent literature indicates that while digital learning environments can expand access and flexibility, they also risk exacerbating inequalities and developmental challenges when not supported by adequate digital literacy and supervision (Alia & Irwansyah, 2018; Lindriany et al., 2023).

In the field of early childhood education, the effects of using digital technologies are especially complicated. Young children are in a very crucial stage of development, where cognitive functioning develops rapidly, new self-regulation occurs, and social interaction is the learning activity (Green et al., 2023; Goldstein Ferber et al., 2022). Empirical studies indicate that technology has the potential to provide beneficial educational impacts, including interactive learning programs and multimedia tools but that even with the moderate and under adult supervision, they might prove to be beneficial (Arifin and Setiyawan, 2012). On the other hand, too much or unsupervised use of digital devices has been linked to negative effects, such as reduced socialization, attention problems, and the emergence of health-related issues regarding screen time (Cahyati, 2020; Priftis and Panagiotakos, 2023; Clemente-Suarez et al., 2024). The findings highlight the need to mediate the use of technology in a responsible manner, especially in the context of home-based learning in which the pivotal role is played by the parents.

Although there is an increased prevalence of digital gadgets, the outstanding issue with research is the disparity in the amount of parental knowledge on information technology and its learning consequences. The parents are also becoming more and more expected to not just act as caregivers but as co-educators who monitor, control, and direct the digital lives of their children. However, most of the parents have to face challenges related to a lack of digital literacy or the lack of knowledge of the educational-based applications, or the lack of understanding of the appropriate limits of using technologies. Davidson (2012) tries to point out that children do not have the technical, cognitive, and emotional abilities to work in digital environments on their own, which makes parental supervision irreplaceable. In case parents have inadequate knowledge of ICT, their potential to enjoy the fruit of technology as a way of learning might not be actualized, and the risks imposed on children growth can go a notch higher.

One of the solutions suggested in the literature is the enhancement of parental engagement and digital literacy as the way of streamlining the learning process in children. The analysis of home learning in times of the pandemic shows that parents with a low level of technological skills can facilitate learning processes, control the

material and cooperate with educators more successfully (Dina, 2020; Lilawati, 2021). This general solution emphasizes training, guidance, and awareness programmes that would enable parents to interact fruitfully with digital tools. Nevertheless, these methods tend to be general and do not adequately explain the contextual influences (e.g., level of education, culture, and the support of particular early childhood settings).

The previous empiric studies on parental mediation strategies have discussed more specific solutions. According to Alia and Irwansyah (2018), active mediation, in which the parents deliberate on content, rules, and model the right behaviour to follow, proves more effective than restrictive interventions only. Equally, Lindriany et al. (2023) accentuate the urgency of digital literacy programmes targeting parents and educators alike to make sure that it is consistent both at home and at school. Such studies indicate that the knowledge of IT by parents is even more than technical knowledge and includes the awareness of developmental appropriateness, content choice, and time management. However, a lot of the literature that has been conducted uses quantitative or survey-based designs, which can fail to capture specific practices and perceptions of certain educational communities.

Qualitative research studies on the parental roles in the context of technology-mediated learning have started to be conducted in the context of the COVID-19 pandemic in Indonesia. Cahyati (2020) and Dina (2020) report the experiences of parents in the role of facilitators of home learning, which, in most cases, was under the pressure of little resources and instructions. Although these researches offer great information, they usually concentrate on the parental roles in general, as opposed to analyzing the specific relationship between parental knowledge on IT and their ability to facilitate early childhood learning. Additionally, the institutional settings, e.g., Islamic early childhood education centres (Raudhatul Athfal) are hardly represented in the global literature, although they play an important part in the Indonesian school environment.

A more detailed review of the literature shows that there is a divide between the theoretical debates of parental digital literacy and empirical studies of the ways the understanding is implemented in practice of supervision. Available literature is cognizant of the necessity of parental guidance, but it seldom studies the mechanisms behind the way parents make sense of, negotiate, and execute IT knowledge in cooperation with teachers. Also, the contribution of teachers as mentors, counsellors, and supervisors in assisting parents in their digital mediation in strategies in early childhood learning environments have not been adequately incorporated in the studies of early childhood learning environments. This gap indicates that there is a need to have a context-specific, qualitative research of how parents, teacher, and children interact in the management of technology use.

METHODS

This study adopted a qualitative research design to examine how parents' understanding of information technology (IT) influences the supervision and support of early childhood learning at RA Masyitoh II Gadingrejo. A qualitative approach was chosen because it enables an in-depth exploration of participants' experiences, perceptions, and practices within their natural social and educational context (Anggito & Setiawan, 2018). The research setting was purposively selected as it represents an early childhood education institution that actively integrates digital technology into learning and maintains close interaction between teachers and parents. Participants consisted of parents of enrolled children and teachers directly involved in mentoring and supervising learning activities. Purposive sampling was applied to ensure that participants had relevant experience with technology-

mediated learning and parental supervision, consistent with qualitative research principles that prioritize information-rich cases over statistical representativeness.

Data were collected through interviews, observation, and documentation to obtain comprehensive and triangulated evidence. Semi-structured interviews served as the primary data source, allowing parents to explain their understanding of IT, strategies for supervising children's gadget use, and forms of learning support provided at home, while teachers described their roles as guides, counselors, and supervisors in relation to technology use. Observations were conducted to capture classroom practices, teacher–student interactions, and teacher–parent communication related to digital learning, thereby enabling the researcher to compare reported practices with actual behavior (Arifin & Setiyawan, 2012). Documentation, including school learning plans, communication records, and supporting materials, was used to contextualize and validate data obtained from interviews and observations. The use of multiple methods aligns with recommendations for enhancing credibility in qualitative educational research (Cahyati, 2020).

Data analysis followed an interactive qualitative model consisting of data reduction, data presentation, and conclusion drawing. Interview transcripts, observation notes, and documents were systematically coded and categorized to identify themes related to parental IT understanding, supervision practices, and collaboration with teachers. The reduced data were then organized into coherent narrative patterns to facilitate interpretation and to relate findings to existing literature on parental mediation and early childhood digital learning (Alia & Irwansyah, 2018; Lilawati, 2021). Conclusions were drawn through an iterative process of interpretation and verification, supported by triangulation and reflective analysis to ensure trustworthiness. Ethical principles were observed throughout the study by obtaining informed consent, ensuring confidentiality, and respecting participants' rights, thereby maintaining the integrity and rigor of the research process.

RESULTS AND DISCUSSION

The results of this study are organized according to the thematic structure emerging from the research findings, which reflect the roles of parents and teachers in supervising information technology use and supporting early childhood learning at RA Masyitoh II Gadingrejo. The analysis reveals interconnected dimensions of parental IT understanding, parental supervision practices, and the multifaceted roles of teachers as guides, environmental organizers, participants, counselors, and supervisors. These findings are presented as an integrated narrative to reflect the complexity of technology-mediated learning support in early childhood education.

Parents' Understanding of Information Technology in Early Childhood Learning

The findings indicate that parents generally perceive information technology as an integral component of early childhood learning, particularly following its intensive use during the COVID-19 pandemic. Interview data reveal that technology was initially adopted out of necessity but gradually came to be recognized as a learning support tool. One parent explained:

“At first, we only used gadgets because learning had to move online during the pandemic. Over time, I realized that technology can help my child learn letters and prayers faster, but only if I choose the right content.”
(Participant 1, Parent)

This statement reflects a shift in parental perception from emergency use toward a more reflective understanding of educational value. Parents began to associate digital technology with improved engagement and learning efficiency, particularly for basic literacy and religious learning. However, the emphasis on “choosing the right content” suggests that parents' understanding developed through experience rather

than systematic knowledge, supporting earlier findings that parental digital literacy evolves gradually (Alia & Irwansyah, 2018).

Despite this growing awareness, interviews also revealed limitations in parents' IT understanding. Some parents described their knowledge as restricted to basic operational skills without deeper insight into content suitability. As one parent stated:

"Honestly, I only know how to open videos or applications. I don't really understand which ones are good for children, so I just use what is commonly recommended." (Participant 2, Parent)

Access to digital technology alone does not ensure its pedagogical effectiveness in early childhood learning contexts. The excerpt illustrates a predominantly passive mode of technology use, in which parental decisions are driven by convenience and familiarity rather than informed judgment about educational value. In such cases, digital devices function primarily as easily accessible tools rather than as intentionally mediated learning resources. This pattern suggests that technology adoption without critical evaluation risks reducing learning activities to unstructured screen exposure, thereby limiting opportunities for meaningful cognitive, social, and emotional development.

These findings reinforce Lindriany et al.'s (2023) argument that digital literacy extends beyond technical proficiency to encompass developmental sensitivity and pedagogical reasoning. Without an understanding of how digital content aligns with children's developmental stages and learning needs, parents are less able to transform technology into an effective educational support system. Consequently, the educational potential of digital tools remains underutilized, highlighting the need for structured guidance and capacity-building initiatives that strengthen parents' critical awareness of technology's role in early childhood learning.

Parental Supervision and Regulation of Children's Gadget Use

Parental supervision emerged as a central concern across interviews. Most parents expressed anxiety about the negative consequences of excessive gadget use, particularly related to children's behavior and health. One parent shared:

"I worry when my child spends too much time on the phone. Sometimes they don't respond when called, so I try to limit gadget use to certain hours." (Participant 3, Parent)

This statement illustrates how behavioral changes act as triggers for parental regulation. Parents attempted to control screen time through informal rules and schedules, reflecting concerns commonly reported in studies on early childhood screen exposure (Cahyati, 2020). However, interviews revealed that supervision was not always consistently implemented. Another parent admitted:

"We already have rules at home, but when I'm busy with work, it's hard to enforce them consistently." (Participant 4, Parent)

This finding reveals a clear discrepancy between parental intentions to regulate children's technology use and the realities of everyday practice. While many parents express strong concerns about excessive screen exposure and articulate rules to limit gadget use, external pressures such as work demands, time constraints, and household responsibilities frequently disrupt consistent supervision. As a result, regulatory strategies remain aspirational rather than fully enacted, weakening their effectiveness. This gap suggests that parental supervision is shaped not only by awareness and motivation but also by broader structural and situational constraints that limit parents' capacity to engage continuously with their children's digital activities.

In contrast, parents who actively accompanied children during gadget use demonstrated more consistent supervision and reported fewer conflicts related to screen time. Active accompaniment allowed parents to monitor content directly, provide explanations, and negotiate boundaries in real time, transforming supervision into an interactive learning process rather than a unilateral enforcement of rules. This approach reduced children's resistance to limitations, as restrictions were framed within ongoing dialogue and shared understanding. Such practices indicate that supervision grounded in engagement and communication is more sustainable than reliance on abstract rules or time-based restrictions alone.

These findings strongly support Alia and Irwansyah's (2018) assertion that active mediation is more effective than restrictive supervision in shaping healthy digital habits among young children. Active mediation enables parents to function as co-learners and guides, helping children interpret digital content while developing early self-regulation skills. Importantly, this approach also redistributes responsibility from control to guidance, suggesting that effective parental mediation requires not only rule-setting but also relational involvement and pedagogical awareness. Consequently, interventions aimed at improving parental supervision should prioritize strategies that enhance parents' capacity for active engagement rather than focusing solely on restriction-based controls.

Teachers' Roles as Guides in Technology-Mediated Learning

Teacher interviews consistently emphasized their role as guides in framing technology as an educational tool rather than entertainment. Teachers deliberately contextualized gadget use within learning objectives and actively mediated digital activities. One teacher explained:

"We always tell children that gadgets are tools for learning, not just for playing games. When we use videos, we explain the lesson first and discuss it afterward."

(Participant 5, Teacher)

This statement reflects an intentional pedagogical approach that aligns with ethical conceptions of educational technology as a facilitator of learning rather than passive consumption (Arifin & Setiyawan, 2012). Teachers also described extending this guidance to parents. As another teacher noted:

"Parents often ask us which applications are suitable. We try to guide them so learning at home matches what children receive at school." *(Participant 6, Teacher)*

These findings underscore teachers' central mediating role in bridging institutional expectations and home-based learning practices. Teachers function not merely as transmitters of curricular content but as interpretive agents who translate pedagogical standards into practical guidance that parents can implement in domestic settings. In contexts where parents possess varying levels of digital literacy, teacher mediation becomes particularly crucial in aligning educational objectives with everyday supervision practices, thereby reducing inconsistencies between school and home learning environments.

The evidence further suggests that teacher guidance plays a significant role in strengthening parental confidence in managing children's technology use. When teachers provide concrete recommendations, model appropriate digital practices, and offer reassurance regarding pedagogical choices, parents are better equipped to make informed decisions and enforce boundaries with greater consistency. This form of professional support mitigates uncertainty and anxiety among parents, enabling them to move from reactive supervision toward more intentional and structured mediation of digital learning activities.

These findings reinforce Lilawati's (2021) conclusion that teacher guidance enhances parental involvement by positioning parents as active partners in the learning process rather than passive implementers of school directives. Through sustained communication and collaborative problem-solving, teachers help cultivate a shared understanding of educational goals and digital practices. Such collaboration not only strengthens parental engagement but also contributes to the creation of coherent learning ecosystems in which children experience consistent messages and expectations across institutional and home contexts.

Teachers as Environmental Organizers and Active Participants

Teachers also functioned as environmental organizers by creating balanced learning environments that integrated digital and non-digital activities. Observations and interviews indicate that gadget use was intentionally limited and complemented by social interaction and play-based learning. One teacher stated:

"In class, we don't let children use gadgets for too long. After digital activities, we move to storytelling or group play so they stay socially active." (Participant 7, Teacher)

This approach reflects an understanding that early childhood learning must prioritize holistic development. Teachers also remained active participants during technology use, preventing passive engagement. As expressed by another teacher:

"When technology is used, teachers stay with the children. We don't just let them watch; we guide them and ask questions." (Participant 8, Teacher)

These findings indicate that teacher modeling plays a significant role in shaping children's digital behavior beyond the classroom setting. Parents' observations that children replicated structured technology-use habits at home suggest that behavioral norms introduced at school were internalized by children and transferred across learning environments. This transfer underscores the influence of teachers not only as instructional facilitators but also as behavioral role models whose practices establish reference points for appropriate technology use in early childhood.

The duplication of such habits in domestic settings presents the importance of consistency in pedagogical methods in both institutional and family contexts. Children tend to internalize consistent expectations about the use of technology when they are faced with the use of technology containing coherent expectations, e.g., limited screen time, guided use, and deliberate learning activities. This finding suggests that educators, by structurally modeling the process, can help learners to develop early self-regulation skills since children learn to tie digital devices to specific learning functions, not as free recreational devices.

On a larger scale, these results underline the longitudinal effects of practices in teaching on the dynamics of learning in families. Indirectly, this teacher modeling increases parental control by supporting behavioral standards that have already been established and adopted by the children. Teachers are, therefore, agents of adaptation of behaviors between school and home thus contributing to continuity of early childhood learning experiences. The findings contribute to the current body of knowledge by indicating that pedagogical modeling of early childhood education can have an influence on digital behavior in the non-school setting, which leads to better results of collaborative technology mediation strategies.

Counseling and Supervisory Roles in Managing Digital Risks

The counseling role of teachers emerged as critical in addressing the risks of excessive gadget use. Teachers reported observing reduced attention and social interaction among children exposed to prolonged screen time. One teacher explained:

“Some children become less focused after using gadgets too often. We explain to them that too much screen time can make them tired and affect their play.” (Participant 9, Teacher)

These explanations were delivered in age-appropriate language, aiming to build early awareness and self-regulation, consistent with Cahyati’s (2020) findings. Counseling extended to parents through collaborative discussions. As one teacher noted:

“When we notice problems, we talk to parents and find solutions together, so rules at school and at home are the same.” (Participant 10, Teacher)

This collaborative supervision illustrates the principle of continuous monitoring and shared responsibility emphasized by Anggito and Setiawan (2018) in qualitative educational practice. Rather than positioning supervision as an isolated or one-time intervention, teachers and parents jointly engage in ongoing observation, reflection, and adjustment of children’s digital learning behaviors. Such shared responsibility enables supervision to remain responsive to children’s developmental needs and contextual changes, reinforcing the idea that effective educational practice is sustained through collective involvement and iterative evaluation rather than individual control alone.

This study provides empirical evidence that parents’ understanding of information technology (IT) plays a decisive role in shaping the quality of early childhood learning support, particularly in contexts where digital devices have become embedded in daily educational practices. The findings demonstrate that while most parents acknowledge the educational potential of technology, variations in digital literacy significantly influence how technology is supervised, regulated, and pedagogically utilized. These results support earlier studies indicating that access to digital tools alone is insufficient to ensure meaningful learning outcomes, especially in early childhood education where developmental sensitivity is crucial (Alia & Irwansyah, 2018; Lindriany et al., 2023).

The study further reveals that parental digital literacy is often experiential and reactive rather than systematic, developed primarily through trial and error during periods of remote learning. This pattern explains why many parents adopt passive or convenience-driven approaches to technology use, relying on commonly available applications without critically evaluating their developmental appropriateness. Such findings reinforce Lindriany et al.’s (2023) argument that digital literacy must extend beyond technical proficiency to include pedagogical awareness and understanding of children’s cognitive, social, and emotional needs. Without this broader literacy, technology risks functioning merely as a substitute for supervision or engagement rather than as a structured learning resource.

A key contribution of this study lies in identifying the gap between parental intention and practice in supervising children’s gadget use. Although parents commonly express concern about excessive screen exposure and establish rules to regulate use, external pressures such as work responsibilities and time constraints frequently undermine consistent implementation (Hinterleitner & Wittwer, 2023; Joy-Camacho & Thornhill, 2024). This discrepancy highlights the structural challenges faced by families in managing digital learning environments and suggests that parental supervision cannot be understood solely as an individual choice but must be situated within broader socio-economic and contextual constraints (Cahyati, 2020; Easterbrook et al., 2023; Banić & Orehovački, 2024; Careemdeen, 2023). These findings challenge overly normative assumptions in the literature that place full responsibility for digital regulation on parents without accounting for such limitations.

On the other hand, the outcomes are undoubtedly clearer in that active mediation between parents which can be characterized by their accompaniment, dialogues, and real-time instructions is more effective in the supervision and conflict reduction. The parents who interacted with children directly during using electronic devices could more easily control content and time simultaneously facilitating the achievement of learning objectives. The results hence support the argument by Alia and Irwansyah (2018) that active mediation is most effective when used with restrictive supervision and not alone, particularly in the context of the early childhood where children do not have the ability to regulate themselves. Besides, this research adds to the current literature by demonstrating that active mediation does not only reduce conflict but also renders technological use a relational and pedagogical process.

The discussion also highlights the critical position of teachers as facilitators between institutional demands and home-based learning activities. In the current research, the teachers acted as deciphers of pedagogical guidelines, providing parents with a set of particular instructions on what they should teach and learn, how they should organize screen-time and the ways they can use digital technologies in education. This mediating role significantly enhanced parental assurance and ability to facilitate learning in the home, which confirms the claim by Lilawati (2021) that teacher instructions amplify parental involvement. As observed in the environments with imbalanced digital literacy among parents, this mediation is essential to align the school with home behaviors (Adigwe et al., 2025; Cao et al., 2024).

In addition to guidance, teachers were environmental organizers and involved with the digital behavior of children thus exercising a large influence. Through organized, deliberate, and restricted technology application in the classroom, the teachers were able to develop behavioral models that children later used at home (Chavez et al., 2025). This result reflects the importance of pedagogical modeling in early childhood education and is consistent with theoretical viewpoints that predict future learning by means of imitation and social relationship. When such habits are transferred to new contexts, it means that teacher practices cannot be limited to the formal instructional environments, which keeps the continuity of the learning process in children (Arifin and Setiyawan, 2012; Wu et al., 2026; Lu & Li, 2025).

An additional role of teachers in counseling supports the collaborative structure of digital supervision, as described in this paper. The efforts of teachers to clarify the digital risks with age-related language and to engage parents in problem-solving discussions are a combined strategy of dealing with the use of technology. The approach is aligned with the stress Cahyati (2020) puts on the importance of early guiding and intervention as a way to reduce the negative impact of digital exposure. Teaching both children and parents, teachers are also intermediaries of mutual understanding and joint action.

CONCLUSION

This study concludes that parents' understanding of information technology plays a critical role in determining the quality of early childhood learning support in digitally mediated environments. While most parents recognize the potential benefits of technology for learning, variations in digital literacy significantly influence supervision practices, content selection, and the ability to balance screen-based activities with holistic developmental needs. The findings demonstrate that technology alone does not guarantee effective learning outcomes rather, its educational value depends on informed parental mediation, active engagement, and alignment with children's developmental stages.

Furthermore, the study highlights the importance of collaborative partnerships between teachers and parents in ensuring the effective and responsible use of digital

technology in early childhood education. Teachers' roles as guides, models, counselors, and supervisors strengthen parental confidence and contribute to consistent learning practices across school and home contexts. By fostering shared responsibility and continuous communication, such collaboration supports the development of healthy digital habits and maximizes the pedagogical potential of technology. These conclusions underscore the need for capacity-building initiatives that enhance parental digital literacy and reinforce teacher–parent collaboration as a foundation for sustainable and developmentally appropriate digital learning in early childhood education.

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