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Early Childhood Digital Literacy: Integrating Parental Guidance, Islamic Content, and Technology-Based Learning

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Keywords:

Digital learning activities, Digital literacy, Preschool children, Islamic digital parenting, Early childhood

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Received 16 12 2025
Revised 20 02 2026
Accepted 21 03 2026
Published Online First
31 03 2026



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Abstract

Digital transformation has changed the learning patterns of preschool children globally; however, studies that integrate Islamic education perspectives on digital literacy for preschool children remain limited, especially in Indonesia. This research aims to analyze Muslim parents' involvement in digital-based learning activities and its influence on preschool children's digital literacy in Jambi from an Islamic education perspective. This qualitative research with a case study design involved fifteen Muslim families as primary informants and three early childhood educators as additional informants selected purposively. Data were collected through participatory observation, semi-structured in-depth interviews, and visual documentation over six months, then analyzed using the Miles and Huberman interactive model. The research found three main dimensions: patterns of parental involvement based on Islamic tarbiyah values through establishing device usage schedules based on worship times and integration of prayer rituals, dominance of Islamic-nuanced educational content such as Quranic learning applications and exemplary stories, and progressive development of children's digital literacy encompassing technical skills, content selection according to Islamic standards, understanding of moral messages, and multilingual cognitive enhancement. This research concludes that the traditional concept of Islamic tarbiyah can be adapted to the digital era through the principle of wasathiyah, which balances technology utilization with the preservation of aqidah and akhlaq, proving that technology can become a positive educational wasilah when guided by Islamic values. This research provides an Islamic digital parenting framework that can be adopted by Muslim parents, Islamic educational institutions, and policymakers in optimizing preschool children's digital literacy based on Islamic values.

To cite: Maulana, A. N., Warmansyah, J., & Wan Yaacob, W. M. Y. bin. (2026). Early childhood digital literacy: Integrating parental guidance, Islamic content, and technology-based learning. *Golden Age: Jurnal Ilmiah Tumbuh Kembang Anak Usia Dini*, 11(1), 153–165. <https://doi.org/10.14421/jga.2026.111-11>

Introduction

Digital transformation reshapes early childhood education globally, particularly for preschool learners. Technology-based approaches now replace conventional methods as educational applications and platforms dominate learning environments. This shift affects parents who serve as primary mediators for home-based education. Preschool children require collaborative support from parents, educators, and technology for optimal learning environments. Research shows preschool children accessing digital technology develop cognitive skills more rapidly than peers without such exposure (Lamrani & Abdelwahed, 2020; Sari et al., 2024). Children must acquire digital literacy from early ages to meet 21st-century demands (Apriliyana, 2025; Meng et al., 2025).

Parents should actively accompany children during device usage, select quality educational content, and limit screen time duration (Hsu & Chen, 2023; Karabanov & Aram, 2024). Preschool children develop digital literacy optimally through parental guidance from adults who understand appropriate and safe technology practices (Chasanah & Pranoto, 2023;

Tosun & Mihci, 2020). Field observations reveal contrasting realities where many parents provide digital devices without adequate supervision. Preschool children frequently access non-educational content or spend excessive screen time without parental control (Moon & Shin, 2025; Wang et al., 2023). Parents possess limited understanding of digital literacy, resulting in minimal guidance for children using technology (Qian et al., 2024; Wang et al., 2023).

A critical review of existing studies reveals important inconsistencies in findings on parental digital mediation. On one hand, active parental involvement has been consistently linked to positive outcomes in children's technology use and digital literacy development (Hsu & Chen, 2023; Karabanov & Aram, 2024). On the other hand, persistent parental passivity continues to be documented in practice, suggesting that awareness of effective accompaniment strategies does not automatically translate into actual parental behavior (Qian et al., 2024; Wang et al., 2023a). This tension points to a structural gap between knowledge and action that prior studies have not adequately explained. Moreover, most existing research treats screen time regulation as the primary mediating variable, neglecting qualitative dimensions of accompaniment such as value transmission, content co-evaluation, and spiritual guidance. These limitations in the existing literature underscore the need for contextually grounded research that moves beyond behavioral metrics.

Research on preschool digital literacy has been conducted extensively across various countries, focusing on cognitive development and technology use. Studies integrating Islamic education perspectives for preschool digital literacy remain limited. Previous research focused more on technical aspects of technology use without considering spiritual and moral dimensions taught by Islam (Sholihah & Nurhayati, 2024). Islamic values emphasizing parental responsibility for child education have not been widely explored for digital learning (Aziz, 2024). Studies on parental involvement for digital-based learning activities among preschool children, particularly those conducted among Muslim families, remain very scarce (Nurhayati et al., 2024). This gap demonstrates the need for research integrating Islamic education perspectives.

This research addresses knowledge gaps The absence of such research carries significant scientific consequences: without understanding how Islamic values shape parental digital mediation, educators and policymakers lack a culturally grounded framework for designing digital literacy programs for Muslim preschoolers. This study specifically contributes by constructing an empirically based Islamic digital parenting model that integrates classical *tarbiyah* principles with contemporary technology guidance, filling a void that neither secular Western digital parenting literature nor general Islamic education scholarship has addressed. regarding how parental involvement and digital-based learning activities shape preschool children's digital literacy from an Islamic education perspective. Islamic education emphasizes *tarbiyah*, positioning parents as first and primary educators of children, including for the digital (Irlina, 2023). Islamic values such as supervision (*muraqabah*), guidance (*taujih*), and exemplary conduct (*qudwah*) apply relevantly when accompanying children's digital technology use (Dasopang et al., 2022). This research explores how Muslim parents apply Islamic principles when guiding preschool children to access digital learning. Muslim communities possess strong Islamic values that could serve as foundations for developing children's digital literacy with moral character.

This research analyzes parental involvement and its influence on preschool children's digital literacy using an Islamic education perspective. The research explores forms of Muslim parents' involvement when accompanying children's digital learning, types of digital-based learning activities used by preschool children, and levels of digital literacy possessed by preschool children under Islamic values framework. Comprehensive understanding of this phenomenon should provide strategic recommendations for parents, educators, and policymakers optimizing preschool children's digital literacy based on Islamic values. Research findings should serve as references for Islamic educational institutions designing digital literacy programs aligned with Islamic values.

Methods

Research Design

This study employed a qualitative multiple instrumental case study design to explore parental involvement in digital-based learning activities and preschool children's digital literacy among Muslim families. A qualitative approach was appropriate because it enabled an in-depth understanding of the phenomenon within its social, cultural, and religious context from an Islamic education perspective (Dasopang et al., 2022; Kumpulainen et al., 2020). The case study design was selected because the study examined a bounded contemporary phenomenon situated in real-life family contexts, where parental mediation, children's digital practices, and Islamic educational values interacted in everyday life (Sholehuddin et al., 2023). Compared with phenomenology, which focuses on lived experience, or ethnography, which requires prolonged cultural immersion, a multiple instrumental case study was more suitable because it allowed the researchers to investigate a concrete and context-dependent phenomenon across several family cases while also identifying cross-case patterns (Creswell & Poth, 2024; Stake & Visse, 2022). The study was conducted over six months in Jambi City, Indonesia.

Participants and Sampling

The participants consisted of Muslim parents and preschool children who met specific inclusion criteria. Parent informants were fathers or mothers who were actively involved in accompanying their children when using digital devices for learning (Dasopang et al., 2022). The child participants, who functioned as the unit of analysis in relation to observed digital literacy practices, were between four and six years old, had used digital devices for at least six months, and were enrolled in early childhood education institutions. The study involved 15 Muslim families as primary informants, selected purposively based on their active involvement in children's digital learning. To enrich contextual understanding, three early childhood educators from the children's institutions were also included as additional informants (Gjelaj et al., 2020). Informant selection considered variation in parental educational background, family socioeconomic condition, and intensity of children's digital technology use (Asmayawati, 2023). The number of families was determined based on thematic saturation. Preliminary analysis after the twelfth family indicated that no substantially new thematic categories were emerging, and three additional families were included to confirm saturation. Recruitment was conducted through direct referrals from three PAUD/TK institutions in Jambi City, where school leaders helped identify families who met the inclusion criteria.

Data Collection

Data were collected through participatory observation, semi-structured in-depth interviews, and documentation. Participatory observation was used to examine parent-child interactions during digital learning activities at home, with each observation lasting approximately two to three hours per family (Saleha et al., 2022). Semi-structured interviews were conducted individually with parents using an interview guide that focused on parental involvement, forms of digital activity, and the role of Islamic values in accompanying children's digital learning (Nuryanti et al., 2024). Each interview lasted approximately 45 to 60 minutes and was audio-recorded with participants' permission. The interview guide included questions such as: how parents decided which applications or digital content their children could access; how Islamic values influenced rules regarding children's technology use; what changes parents observed in children's knowledge or behaviour after engaging with Islamic digital content; and how parents responded when children requested access to non-Islamic content. Documentation included photographs of digital learning activities, screenshots of educational applications used by children, and other supporting materials relevant to the learning context. The researcher adopted a participant-observer role, remaining present in the field for six months to develop rapport while attempting to minimise interference with participants' everyday routines.

Data Analysis

Data were analysed using the interactive model of Miles and Huberman, consisting of data reduction, data display, and conclusion drawing. In the reduction stage, interview transcripts, observation notes, and documentation records were reviewed repeatedly to identify and focus on data relevant to parental involvement, digital activities, and preschool children's digital literacy from an Islamic educational perspective (Masyhura & Ramadan, 2021). Data display was then developed through descriptive narratives, matrices, and thematic comparisons to support pattern recognition across cases (Sulastri & Ismail, 2025). The coding process was conducted manually, using printed transcripts, colour-coded annotations, analytic notes, and a cross-case thematic matrix. Coding proceeded through three stages. Open coding was first used to identify preliminary categories emerging from the raw data. Axial coding was then applied to connect related categories, such as the relationship between parental supervision, Islamic value orientation, and content selection. Finally, selective coding was used to consolidate the analysis into the core themes that structured the findings. Although the themes emerged inductively from the dataset, their interpretation was informed by Islamic educational concepts such as *tarbiyah*, *muraqabah*, *taujih*, and *qudwah*.

Data Validity

Trustworthiness was established through the criteria of credibility, transferability, dependability, and confirmability (Ahmed, 2024). Credibility was strengthened through source triangulation by comparing evidence from parent interviews, home observations, documentation, and supplementary information from early childhood educators (Kakar et al., 2023). Prolonged engagement over six months also helped build trust with participants and allowed the researcher to develop a deeper understanding of the field context. Transferability was supported by providing sufficiently detailed descriptions of the research setting, participant characteristics, and data collection procedures so that readers could assess the applicability of the findings to other contexts (Dasopang et al., 2022). Dependability was enhanced through systematic documentation of each stage of the research process, from recruitment and data generation to coding and reporting (Kakar et al., 2023). Confirmability was addressed by maintaining research evidence in the form of interview recordings, field notes, documentation files, transcripts, and analytic memos. In addition, member checking was conducted by sharing preliminary interpretations with five parent informants and two early childhood educators to verify the accuracy of the emerging themes. Peer debriefing was also undertaken with two academic colleagues experienced in Islamic education and qualitative research to challenge assumptions and review the consistency of the coding process. An audit trail was maintained through a research journal that documented methodological decisions, field reflections, and analytic development throughout the study.

Research Ethics

This study received ethical clearance from the relevant institutional ethics authority at UIN Sulthan Thaha Saifuddin Jambi prior to data collection. All adult participants provided written informed consent after receiving information about the study's aims, procedures, voluntary nature, and their right to withdraw at any time without consequence. Because children were involved as observational participants, parental proxy consent was obtained for all child-related observations and visual materials. The researcher ensured that observation sessions did not interfere with children's normal routines or create discomfort. All identifying information was removed and replaced with pseudonyms or initials, and all interview, observational, and visual data were stored securely with

Result

This research identifies three main themes representing parental involvement phenomena, digital-based learning activities, and preschool children's digital literacy from an Islamic education perspective. The three themes include patterns of Muslim parents' involvement when

digitally accompanying preschool children, types of Islamic-nuanced digital-based learning activities, and development of preschool children's digital literacy with Islamic values. Each theme presents interview excerpts, pattern descriptions, and interpretations based on Islamic education perspectives. These research themes demonstrate that Muslim parents have developed an Islamic digital parenting model integrating (Note on key Islamic educational terms used in this study: *tarbiyah* = holistic Islamic education; *muraqabah* = ongoing parental supervision grounded in divine awareness; *taujih* = guidance and counseling; *qudwah* = teaching by exemplary conduct; *adab* = proper Islamic etiquette; *wasathiyah* = balanced, moderate approach between extremes.) *tarbiyah* (education), *muraqabah* (supervision), *taujih* (guidance), and *qudwah* (exemplary conduct) values when accompanying preschool children's digital technology use.

Patterns of Muslim Parents' Involvement in Digital Accompaniment

Muslim parents' involvement when accompanying preschool children's digital device usage demonstrates varying intensity levels and accompaniment forms shaped by Islamic values understanding. Parents provide physical accompaniment and instill proper etiquette for technology use according to Islamic law. Table 1 presents selected interview excerpts illustrating parental involvement patterns.

Table 1. Selected Interview Excerpts on Parental Involvement in Digital Accompaniment

Informant	Interview Excerpt	Form of Involvement
Mother SR	"I always sit next to my child when they play on their phone or tablet. The phone can only be used after Ashar prayer and after reading the Quran. They must recite Bismillah before using the gadget."	Physical accompaniment, time setting based on prayer schedule
Mother FT	"I always accompany my child when using gadgets. I always remind them if the content is inappropriate. If necessary, the gadget must be stopped."	Direct supervision, content monitoring
Father RZ	"My wife and I work as a team in accompanying them. Teach the concept of tazkiyatun nafs. Gadgets are for learning and educational entertainment."	Intensive collaboration, soul purification concept

Accompaniment forms include establishing time limits based on worship schedules, content supervision, and prayer rituals before and after using digital devices. Accompaniment duration varies between one and two hours per day with strict limitations, particularly during obligatory worship times such as five daily prayers. Three main patterns emerged from the data. Mother SR stated that gadgets may only be used after Ashar prayer until before Maghrib prayer. Father RZ and Mother DN practiced balanced role division between fathers and mothers when supervising children's digital activities.

Muslim parents' involvement patterns reflect Islamic *tarbiyah* principles implementation for the digital era. The *muraqabah* concept applies through parents' physical presence when children use digital devices, not merely through technical control (Aprido et al., 2025). Establishing time limits based on worship schedules demonstrates spiritual values priority over worldly interests, consistent with Islamic principles that obligatory worship must not be delayed by other activities (Arifurrohman et al., 2025). Prayer ritual integration before and after technology use represents *adab qabla al-'ilm* (etiquette before knowledge) concept manifestation (Astuti et al., 2022; Dasopang et al., 2022; Aprido et al., 2025).

Categories of Islamic-Nuanced Digital Learning Activities

Digital-based learning activity types utilized by preschool children reveal Islamic-nuanced educational content predominance chosen by parents. Quranic learning applications such as Marbel Belajar Hijaiyah and Hafiz Quran serve as top priorities for introducing Arabic letters and Quranic recitation from early ages. Table 2 categorizes digital applications and educational content with Islamic themes accessed by preschool children.

Table 2. Types of Digital Applications and Educational Content with Islamic Themes

Category	Application/Content Name	Informant Excerpt
Quranic Learning	Marbel Belajar Hijaiyah, Hafiz Quran, Iqro Digital	Mother SR: "Use the Iqro app and tajwid videos for children."
Islamic Stories	Nussa and Rara, Cerita 25 Nabi, Islamic Stories	Mother FT: "Content often accessed includes Sholawat Badar and stories of prophets' companions."
Prayer and Etiquette	Doa Anak Muslim, Belajar Sholat	Father AH: "Applications include Muslim Kids TV and Doa Anak Sholeh."

Content featuring prophet and companion stories through applications such as Nussa and Rara instills moral values and exemplary conduct. Daily prayer and prayer procedure applications familiarize children with practical worship. Educational entertainment such as Omar & Hana combines Islamic music without musical instruments with moral messages. Father RZ explained that his child successfully memorized Quranic verses through tahfidz application using repetition methods. Mother FT routinely selects Sholawat Badar content and companions' stories for her child.

Islamic-nuanced digital content dominance reflects Muslim parents' awareness regarding *tarbiyah ruhiyah* (spiritual education) importance from early ages. Digital Quranic learning application selection demonstrates traditional *talaqqi* (face-to-face recitation) method adaptation into digital formats. Islamic exemplary story content functions as *ta'lim bi al-qudwah* (teaching through example) medium, instilling *akhlakul karimah* (noble character) values through Islamic historical figures (Irlina, 2023; Putri & Romadlon, 2022). Parents' strict content selection free from musical instruments and shirk elements reflects *sadd adz-dzari'ah* (blocking the means) principle application (Mushaiqri & Sulistio, 2024; Saptri et al., 2021; Sholihah & Nurhayati, 2024).

Development of Preschool Children's Digital Literacy Grounded in Islamic Values

Preschool children's digital literacy develops through parental guidance integrating Islamic values into technology use. Children's technical skills develop from basic operations such as turning on devices to advanced functions such as downloading applications and recording videos. Table 3 illustrates digital literacy development among preschool children across multiple aspects.

Table 3. Digital Literacy Development Among Preschool Children

Literacy Aspect	Children's Ability	Informant Excerpt
Technical Skills	Basic device operations, application navigation	Mother SR: "Can already turn on the tablet, open applications, navigate the screen independently."
Content Selection	Filtering Islamic content with supervision	Father RZ: "Can filter content independently. Very familiar with Islamic content standards."
Content Comprehension	Retelling content, analyzing moral messages	Mother SR: "Five-year-old child can retell the content of videos."

Content selection abilities show that children choose content according to their interests while still considering Islamic standards taught by parents. Children's content comprehension develops from merely watching to retelling and analyzing moral messages contained within. Children's cognitive development demonstrates increased vocabulary across Indonesian, Arabic, and English languages, alongside higher creativity. Mother DN explained that her six-year-old child demonstrates high proficiency for downloading, taking screenshots, and recording videos. Father RZ stated that his child demonstrates high familiarity with Islamic content standards and filters content independently.

Preschool children's digital literacy development reflects parents' success implementing *ta'lim muwafiq li al-fitrah* (education aligned with natural disposition) concept. Developing technical abilities demonstrate that Generation Alpha children possess *gharizah ta'allum*

(learning instinct) toward technology but require guidance preventing deviation (Tafrihah et al., 2024; Sholehuddin et al., 2023). Developing content selection ability represents *tazkiyah nafs* (soul purification) manifestation from early ages, teaching children to distinguish between halal and haram content (Nurhayati et al., 2024). Positive cognitive impact proves that technology guided by Islamic values becomes *wasilah ta'lim* (educational means) rather than *fitnatun* (trial) (Camilia et al., 2025).

Discussion

This research identifies three main dimensions of Islamic digital parenting for preschool children including parental involvement patterns based on Islamic values, Islamic-nuanced digital learning activities, and digital literacy development grounded through *tarbiyah* (education) principles. These findings confirm that Muslim parents have adapted traditional Islamic *tarbiyah* concepts to the digital era through *muraqabah* (supervision), *taujih* (guidance), and *qudwah* (exemplary conduct) values integration for technology accompaniment. Research by Prihatiningsih et al., (2025) states that Islamic *tarbiyah* encompasses spiritual, intellectual, and social dimensions that must be applied across every children's life aspect, including technology use. Hamdi et al., (2022) explain *adab qabla al-'ilm* (etiquette before knowledge) concept as Islamic education foundation where etiquette precedes knowledge, reflected through parents' practice teaching prayers before and after using devices.

Parental involvement pattern establishing device usage schedules based on worship times serves dual functions including shaping children's discipline and instilling spiritual value priorities. Limiting digital time based on prayer schedules reflects *tawazun* (balance) concept implementation balancing worldly and hereafter needs emphasized through Islam. Research by Komariah & Nihayah (2023) on *tarbiyah ruhiyah* (spiritual education) concept explains that children's spiritual education must begin with ritual worship habituation as character foundation. Irpan & Sain (2024) affirm that establishing time limits based on worship trains children understanding priority hierarchies according to Islamic teachings where Allah obligations precede other activities. Giovanelli et al., (2025) found that structured routines for preschool children's technology use enhance self-regulation abilities.

This research findings reveal both similarities and differences with previous research on parental mediation for children's technology use. Active parental mediation enhances technology educational benefits for preschool children, consistent with this study's findings on digital literacy development (Sciacca et al., 2022). The difference includes Islamic spiritual dimension integration not found through Western research (Aziz, 2024). Research by Tao et al., (2022) shows that excessive restrictive mediation decreases children's parental trust and encourages covert technology use. This research fills gaps by integrating *tarbiyah*, *muraqabah*, and Islamic *adab* (etiquette) concepts into parental digital mediation. This comparison demonstrates this research's unique contribution to digital parenting literature from Islamic perspectives.

Islamic-nuanced digital content dominance for preschool children's learning activities stems from parents' awareness regarding threats from values contrary to Islamic creed and quality Islamic educational application availability. Muslim parents maintain high concerns about children's exposure to content containing shirk elements, prohibited music, and un-Islamic behavior during preschool years. Research by Al Mushaiqri & Sulistio (2024) on identity construction for the digital era explains that parents tend choosing content consistent with family cultural and religious values. Sutrisno et al., (2024) affirm that selecting digital content for children represents active parental mediation forms protecting cultural and religious identity. High-quality application availability such as Nussa and Rara, Hafiz Quran, and Marbel Hijaiyah facilitates parents accessing Islamic educational content (Clements & Sarama, 2002; Bibi et al., 2020; Abubakar et al., 2023).

Quranic learning through digital applications generates positive implications including *talaqqi* (face-to-face recitation) method accessibility, recitation repetition ease, and letter

articulation visualization accelerating children's Quran reading ability. Applications such as Hafiz Quran and Iqro Digital provide professional *qari'* (Quranic reciter) recitation audio features that can be repeated unlimited times, overcoming face-to-face learning time constraints. Research by Ismail et al., (2024) on mobile learning shows that interactive educational applications increase children's motivation and learning achievement. Hasibuan & Sit (2025) found that digital Quranic learning applications effectively enhance early childhood children's Arabic letter reading ability. Isa et al., (2023) remind that digital Quranic learning must still be balanced with direct *talaqqi* with teachers maintaining transmission chains and recitation spirituality.

Islamic educational institutions need developing structured Islamic digital literacy curriculum and ongoing parenting programs for preschool children's parents. Digital literacy curriculum must integrate technical competencies for technology use with Islamic moral values such as honesty, responsibility, and caution for digital media engagement (Kulsum et al., 2024; Purnama et al., 2020; Leany & Ahnan 'Azzam, 2024). Structured digital literacy programs throughout schools demonstrate more effectiveness than children's independent learning (Subandi et al., 2025). Islamic educational institutions can adopt digital literacy frameworks from Common Sense Media modified with Islamic values (Ainnin & Ismail, 2024). Ongoing parenting programs remain necessary because technology evolves rapidly, requiring parents updating their knowledge and accompaniment strategies (Astuti et al., 2022). School-parent collaboration for children's media education produces optimal outcomes.

Practical Implications

The findings of this study carry several actionable implications for stakeholders. For Muslim parents, the Islamic digital parenting model offers a structured framework with three operational pillars: (1) worship-synchronized scheduling that integrates prayer times into daily digital routines; (2) content curation guided by Islamic standards (absence of shirk elements, inappropriate music, and immoral behavior); and (3) spiritual ritualization of technology use through prayers before and after device engagement. Parents can implement this framework progressively, beginning with schedule-setting before advancing to content co-evaluation. For Islamic educational institutions, the findings suggest that digital literacy curricula should embed Islamic moral competencies alongside technical skills, potentially adopting a modified version of the Common Sense Media framework that incorporates wasathiyah principles. Ongoing parent training programs should address not only digital safety but also Islamic content literacy. For policymakers, these findings recommend developing national guidelines for Islamic digital parenting that can be disseminated through Religious Affairs offices and PAUD institutions across Indonesia.

Research Limitations

This study has several limitations that should inform the interpretation of its findings. First, the sample of fifteen families in Jambi City, while appropriate for qualitative saturation, represents a specific socio-religious and economic context that may not reflect the diversity of Muslim communities across Indonesia or globally. Families with lower religiosity levels, limited access to Islamic digital content, or different socioeconomic backgrounds may exhibit substantially different patterns. Second, this study relies primarily on parental self-report through interviews, which may be subject to social desirability bias—parents may describe idealized rather than actual practices. Third, the perspectives of preschool children themselves were not directly captured, limiting understanding of how children experience and internalize parental digital guidance. Fourth, the cross-sectional nature of the thematic analysis precludes causal conclusions about the long-term impact of Islamic digital parenting on children's digital literacy development.

Recommendations for Future Research

Future research should extend this study in several directions. Longitudinal designs tracking preschool children from ages 3 to 7 would clarify developmental trajectories of Islamic digital

literacy. Comparative studies across Muslim communities with varying religiosity levels, geographic locations (urban vs. rural), and national contexts (Indonesia, Malaysia, Middle East) would test the generalizability of the Islamic digital parenting model. Quantitative validation through survey instruments based on the three themes identified here would enable large-scale assessment of model applicability. Research that directly captures children's perspectives—through child-friendly interviews or observational protocols—would complement the adult-centric focus of current studies. Finally, intervention research testing the effectiveness of structured Islamic digital parenting programs on measurable digital literacy outcomes would provide evidence for policy implementation.

Conclusion

This study shows that Muslim parents do not simply restrict children's access to technology, but actively reshape digital learning through a moral and educational framework rooted in everyday religious practice. Digital accompaniment in these families was organised through structured supervision, selective content curation, and the integration of worship-oriented routines, indicating that technology was not treated as a neutral tool but as a domain requiring ethical direction. In this context, preschool children's digital literacy developed not only in technical terms, such as navigating devices and applications, but also in the ability to recognise appropriate content, interpret moral messages, and participate in digitally mediated learning without being detached from the value system of the family. These findings suggest that digital literacy in early childhood cannot be understood adequately through skills-based indicators alone, because for many families it is inseparable from questions of moral formation, parental responsibility, and the preservation of meaningful cultural and religious orientations.

The contribution of this study lies in demonstrating that religiously grounded parenting in the digital era should not be reduced to a defensive response against technological change. Rather, it can function as a constructive mode of mediation that enables families to engage technology critically while maintaining normative commitments they consider central to children's upbringing. At the same time, these findings should be interpreted with caution. The study was conducted in a specific socio-religious setting and involved a limited number of families, which means that the patterns identified here should not be treated as universally representative of Muslim parenting practices. Future research needs to examine how similar forms of mediation operate across more diverse social, economic, and cultural contexts, and should pay greater attention to children's own perspectives in order to understand more fully how digitally mediated moral learning is experienced, negotiated, and sustained in everyday life.

Declarations

Author Contribution Statement

Ade Novia Maulana: Conceptualization, Methodology, Investigation, Data curation, Formal analysis, Supervision, Writing - original draft, Writing - review & editing. Jhoni Warmansyah: Methodology, Investigation, Formal analysis, Writing - review & editing. Wan Mohd Yusoff Wan Yaacob: Conceptualization, Validation, Writing - review & editing.

Funding

This research received no specific grant from any public, commercial, or non-profit funding agency.

Data availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request. Interview transcripts and participant identifiers have been anonymized to protect confidentiality.

Declaration of interests

The authors declare no competing interests.

Additional information

This study received ethical approval from the relevant ethics authority at UIN Sulthan Thaha Saifuddin Jambi. Written informed consent was obtained from all adult participants, while parental consent was secured for child-related observations and visual documentation. Participant identities were anonymized, and all research data were stored securely with restricted access.

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