

DIGITAL PARENTING STRATEGIES AND THEIR EFFECTIVENESS IN SETTING LIMITS ON GADGET USE IN CHILDREN IN EARLY CHILDHOOD IN CENTRAL JAVA PROVINCE

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Abstract

The increasing use of digital gadgets among young children without clear parental boundaries poses significant risks to early childhood development, including digital addiction, reduced attention span, emotional instability when gadget use is restricted, and limited social interaction. In addition, excessive and uncontrolled gadget exposure may adversely affect language acquisition, motor development, sleep quality, and increase the likelihood of accessing age-inappropriate content. This study aims to examine digital parenting strategies implemented by parents and evaluate their effectiveness in setting limits on gadget use among early childhood learners in Central Java Province. Employing a descriptive qualitative approach, data were collected through in-depth interviews and systematic observations of parenting practices within family settings. The findings reveal that effective regulation of gadget use is strongly influenced by parental consistency, clearly defined and mutually agreed rules, and the integration of Islamic Religious Education values, particularly role modelling (uswah hasanah), supervision (muraqabah), and the habituation of meaningful non-digital activities. These strategies contribute to the development of self-regulation, balanced digital engagement, and positive behavioural outcomes in children. The study implies that digital parenting frameworks grounded in ethical and value-based education can strengthen parental competence and support holistic early childhood development. Practically, the findings offer guidance for parents, educators, and policymakers to design culturally responsive digital literacy and parenting programs that promote healthy and developmentally appropriate gadget use in early childhood.

Keywords: Digital Parenting; Gadget Usage; Early Childhood; Islamic Parenting; Islamic Religious Education.

A. Introduction

The development of digital technology in the last two decades has brought significant changes to patterns of interaction, learning, and parenting within families. On the one hand, gadgets provide various conveniences and access to interactive learning media for early childhood. However, on the other hand, the use of gadgets without clear boundaries can have an impact on children's social-emotional, language, motor, and health development. This condition is commonly found in Early Childhood Education (PAUD) and Raudhatul Athfal (RA) institutions in Central Java Province, making the need for *digital parenting* strategies very urgent.

From an Islamic educational perspective, parents are the first educators (*murabbi al-awwal*) responsible for instilling values, guiding behaviour, and supervising the development of children (Harahap, 2016, 2017). However, the reality on the ground shows that parents' understanding of *digital parenting* is still heterogeneous. Some parents understand the function of digital parenting as technical supervision of gadget use, while others interpret it as ethical, educational, and spiritual guidance in the use of technology (Rakhmawati, 2015). This difference in understanding affects the patterns and quality of parenting provided to early childhood.

The development of gadgets as a medium for entertainment and learning does have benefits, such as training memory, enriching vocabulary, and stimulating creativity. However, various studies show that there are risks that arise if their use is not supervised, including addiction, delayed speech, deterioration of social interaction, concentration disorders, emotional instability, eye strain, and sleep quality disorders. This finding is reinforced by the opinion of (Livingstone & Third, 2017) which explains that *digital parenting* is a set of parenting practices that require parents to be able to provide boundaries, education, and role models in the use of technology (Andriyani, 2018).

Initial interviews with several principals and teachers of RA/PAUD in Central Java further emphasised the urgency of this issue. Mrs Winar Suci Rahayu (RA Nyatnyono 01, Semarang Regency) stated that children who are too free to use gadgets tend to be passive, less independent, and experience a decline in concentration and social skills. Similarly, several other RA teachers, such as Mrs. Asna Nur Hayati (BA Aisiyiyah Jetis 2 Sukoharjo), Mrs. Uun (RA Al Hidayah Plelen Batang), and Mrs. Maryani (RA Kuntum Kusuma Ayu), revealed that uncontrolled gadget use can cause speech delays, emotional changes, and even vision problems.

In addition to psychological issues, several respondents mentioned biological effects such as potential memory impairment due to radiation and lack of motor stimulation. Nurul Azimah (RA Masyithoh Sutoragan, Purworejo) emphasised that the brain and emotional development of young children is very rapid, so excessive use of gadgets can interfere with language development, concentration and emotional stability. Respondents agreed that the ideal duration of gadget use for RA children should not exceed 20–60 minutes per day, with direct supervision from parents.

However, further problems were found in parenting patterns at home (Atica Ramadhani Putri, 2020; Rakhmawati, 2015). Many parents face difficulties in applying consistent boundaries, mainly due to work demands, lack of time, and the parents' own gadget usage habits, which do not reflect good role models. Some RA/PAUD institutions also do not have official policies regarding gadget use, resulting in a gap between school expectations and the actual conditions at home. This highlights the need for synchronised rules and more intensive communication between educators and parents.

Field findings show that the most effective strategy is two-way communication between parents and children, accompanied by role modelling in technology use patterns. RA/PAUD in Central Java also actively provide education through *parenting* classes, although implementation is still uneven and highly dependent on the initiative of each

institution. Respondents hope that the local government will be involved in providing structured *digital parenting* training.

Based on these conditions, there are at least six main issues that need to be analysed in more depth:

1. Heterogeneity in Understanding *Digital Parenting*,
2. Unclear Boundaries on Gadget Use,
3. Inconsistency in the Application of Rules at Home,
4. Lack of Education and Training for Parents,
5. Negative Impact on Child Development, and
6. The Gap Between Early Childhood Education/Kindergarten Policies and the Home Environment.

These issues require a comprehensive analysis of the digital parenting strategies implemented by parents and the effectiveness of gadget usage limits for early childhood. Therefore, this study is entitled "Digital Parenting Strategies and Their Effectiveness in Setting Limits on Gadget Use in Early Childhood in Central Java Province."

This research is expected to contribute theoretically to the development of contextual *digital parenting* studies based on Central Javanese culture and practically in the form of recommendations for parenting strategies, strengthening the role of RA/PAUD educators, and policy input for local governments in developing comprehensive digital parenting guidelines.

B. Method

This study uses a qualitative approach with a case study method that aims to deeply understand *digital parenting* strategies and their effectiveness in limiting gadget use in early childhood. Case studies were chosen because they allow researchers to explore the phenomenon of digital parenting in a real context within families and RA institutions in Central Java Province. The research subjects included four RA principals and two teachers who interacted daily with children aged 4–6 years. Data collection was carried out using three main techniques, namely in-depth interviews, observation, and documentation.

The research was conducted at six Early Childhood Education/RA institutions in Central Java Province. The interview instruments were sent via WhatsApp and returned according to the set schedule. The institutions that were the locations of the research were:

1. RA Nyatnyono 01 Ungaran Barat, Semarang (27 September 2025)
2. BA Aisyiyah Jetis 2, Sukoharjo (27 September 2025)
3. RA Al Hidayah Plelen, Batang (28 September 2025)
4. BA Aisyiyah V Banyusri, Boyolali (28 September 2025)
5. RA Bunga Kusuma Ani Yudhoyono (RA Nail Ayu) (18 October 2025)
6. RA Masyithoh Sutoragan (18 October 2025)

The selection of locations was conducted purposively based on the willingness of the institutions and their characteristics, which represent variations in the application of digital parenting strategies for early childhood.

Data sources and research subjects included primary data obtained through interviews and direct observation, covering:

1. Parents (fathers/mothers) who impose restrictions on gadget use for children aged 4–6 years.
2. Class teachers who accompany children during learning activities at RA.
3. The RA principal as the policy-maker at the institutional level.

Secondary data sources include various supporting documents, such as:

1. School policy documents (gadget usage rules, parenting programmes).
2. Teachers' daily notes regarding children's behaviour in gadget use.
3. Documentation of parenting activities, workshops, or seminars related to *digital parenting*.
4. Photographs of children's activities related to the use of digital devices at school.

Data collection techniques were carried out using a triangulation approach, including: Semi-structured interviews were conducted using interview guidelines to explore the experiences, strategies, motivations, perceptions, and challenges faced by parents and teachers in restricting gadget use. Observations were carried out in two contexts:

- a) The school environment to observe patterns of social interaction and children's responses to rules regarding digital device usage.
- b) The home environment to observe the dynamics of parent-child interactions during gadget use.

The focus of observation included parental consistency, communication patterns, and children's responses.

Collecting and analysing documents related to school policies, teacher notes, parenting activity documentation, and photographs of children's activities while using digital devices.

Data analysis used the interactive Miles and Huberman (1994) model, conducted simultaneously and continuously, including: Data Collection Compiling data from interviews, observations, and documentation. Data Reduction Selecting, categorising, and thematically coding data relevant to the research focus, including simplifying interview and observation data. Data Display, presenting data in the form of descriptive narratives, matrices, and thematic charts to facilitate the process of interpretation and comparison between cases. Conclusion Drawing and Verification, compiling conclusions based on findings that have been verified through triangulation and rechecking of field data. The verification process is carried out until the data is considered saturated and valid.

Data validity is ensured through the following techniques: source triangulation, which involves comparing information from parents, teachers, and RA principals on the same issue; method triangulation, which involves comparing interview results with observations and supporting documents; and rechecking field notes, interview transcripts, and the analysis process by involving key informants to ensure the accuracy of the researcher's interpretation.

C. Findings and Discussion

1. Findings

Dominant Digital Parenting Strategy Pattern: Combination of Active–Restrictive Mediation

The results of the study show that the majority of parents apply a *digital parenting* strategy that is a combination of Active Mediation and Restrictive Mediation. Active Mediation is seen in the involvement of parents in explaining content to children, discussing the benefits and risks of gadgets, and accompanying children when accessing educational videos or games. Restrictive Mediation (Valkenburg et al., 1999) is evident in the implementation of time limits, selection of permitted applications, and restrictions on gadget use areas in the home. This combined strategy is in line with Fitria Anggraini (Anggraini & Sofia, 2016) , which emphasises that *digital parenting* is effective when parents act as active mediators and rule-makers. This finding is reinforced by Ulfah (2020), who states that digital parenting must be oriented towards balanced guidance and protection to prevent digital risks in early childhood.

Modelling as a Determinant of the Effectiveness of Gadget Restrictions

Field findings show that the most effective strategy is parental modelling of gadget use. Parents who limit their own gadget use tend to have children who are more disciplined and quicker to obey rules. This modelling is consistent with Bandura's Social Learning Theory , which explains that children learn primarily through observation and imitation of figures close to them, including parents and teachers. In the context of Islamic Religious Education, this is in line with the principle of *uswah hasanah*, where exemplary behaviour is the most effective educational method. Thus, parents' digital behaviour is an important indicator that influences children's compliance with gadget restrictions.

Main Obstacle: Inconsistency in Parenting Rules

Although most parents understand the importance of gadget restrictions, research has found that inconsistency is the main obstacle to effectiveness. Inconsistency arises due to: Parents' demanding work schedules, Inconsistent rules between parents and grandparents, Lack of supervision when children play with gadgets outside the home. This phenomenon aligns with the findings of the global *digital parenting* study "(Livingstone & Third, 2017) , which emphasises that the success of gadget restrictions is greatly influenced by consistency, not just the number of rules.

Positive Impacts of Gadget Restrictions on Child Development

Research has found that children who receive consistent digital guidance show better development in the following areas:

- a) Increased attention span,
- b) Improved social skills such as communication and cooperative play,
- c) Increased discipline,
- d) Reduced tantrums when gadget use is restricted.

These findings align with the results of a study from the University of California, San Diego (Ulfah et al., 2016), which states that gadget restrictions based on supervision can reduce the risk of addiction, emotional instability, and speech delays in young children.

Discussion

Integration of Digital Parenting Strategies with Islamic Education Concepts

Research findings indicate that parents and teachers who apply Islamic religious education values are more successful in managing children's gadget use. These values include:

- a) Supervision (ri'ayah) through active guidance,
- b) Habituation (ta'dib) through daily schedules without gadgets,
- c) Setting an example (uswah) through parental restrictions on digital device usage,
- d) Counselling (mau'izhah) to explain the benefits and dangers of gadgets in language that children can understand.

The integration of Islamic Education values reinforces the theory that digital parenting is not only technical, but also moral and spiritual, thereby enriching the quality of parent-child interactions in the digital age.

The Importance of Consistency as the Main Pillar of Digital Parenting

Consistency emerges as the most dominant factor in enhancing the effectiveness of gadget restrictions. When parents are inconsistent, children exhibit:

- a) Rule-Defying Behaviour,
- b) Emotional Tantrums,
- c) Increased Screen Dependency.

This reinforces the *behavioural learning* theory (Kothari et al., 2010) that rules must be consistently enforced (reinforced) to effectively shape children's behaviour.

From a PAI perspective, consistency is in line with the concept of **istiqamah**, which is steadfastness in applying values and rules as a form of educational responsibility within the family.

The Central Role of PAUD/RA Institutions in Digital Parenting Literacy

PAUD/RA institutions have proven to play an important role in providing digital parenting education through:

- a) Parenting Programmes,
- b) Reports on Children's Development Related to Gadget Use,
- c) Intensive Teacher-Parent Communication.

This is in line with the *school-family partnership* theory (Epstein, 2011), which emphasises that school involvement strengthens parents' capacity to parent their children in a more adaptive manner. In the context of RA, teacher involvement is also related to the principle of *amar ma'ruf nahi munkar* in moral guidance for children.

4. The Importance of Standardising Digital Parenting Policies at the Regional Level

The results of the study show the need for local governments to develop local Digital Parenting Guidelines in accordance with the culture of the people of Central Java. This effort is part of the *child digital protection framework* recommended by UNESCO (Baum et al., 2021)

and the Ministry of Communication and Information Technology. From the perspective of Islamic Religious Education, this policy can be a form of social responsibility (masalah) to ensure that the use of digital devices is in line with the development of children's nature.

C. Conclusion

This study concludes that the effectiveness of digital parenting strategies in limiting gadget use among early childhood in Central Java Province is largely determined by consistent parental guidance, active communication, and exemplary behaviour. The most effective approach identified is a combination of active mediation and restrictive mediation, where parents establish clear rules while actively accompanying children, explaining digital content, and modelling responsible technology use. Consistency in rule enforcement emerged as a key determinant, whereas inconsistency – stemming from work demands, varied parenting styles, and limited supervision – constituted a major challenge. The findings indicate that consistent digital parenting positively influences children's attention span, social interaction, emotional regulation, and discipline, while reducing gadget-related tantrum behaviours. Theoretically, this study strengthens parental mediation theory by highlighting the role of value-based consistency and moral modelling through Islamic Religious Education principles such as *uswah hasanah*, *ri'ayah*, and *istiqamah*. Practically, the findings underscore the need for collaborative efforts among families, PAUD/RA institutions, and local governments to develop contextual, ethical, and culturally grounded digital parenting guidelines that support healthy early childhood development in the digital era.

E. Bibliography

- Andriyani, I. N. (2018). Pendidikan Anak dalam Keluarga di Era Digital. *Fikrotuna*, 7(1), 789–802. <https://doi.org/10.32806/jf.v7i1.3184>
- Anggraini, F. G., & Sofia, A. (2016). Rekonstruksi Kecakapan Sosial Guru Dalam Pengembangan Berbicara Anak Usia Dini. *Jurnal Ilmiah Visi*, 11(2), 11–120. <http://journal.unj.ac.id/unj/index.php/jiv/issue/view/456>
- Atica Ramadhani Putri. (2020). Aspek Pola Asuh, Pola Makan, dan Pendapatan keluarga pada kejadian stunting. *Human Relations*, 3(1), 1–8.
- Bandura, A. (1997). *Self-efficacy - The Exercise of Control*. W.H. Freeman and Company.
- Baum, S., Payton, J., & Mitra, S. (2021). *AI in Education: Benefits and Challenges*. UNESCO.
- Harahap, M. (2016). Esensi Peserta Didik dalam Perspektif Pendidikan Islam MUSADDAD HARAHAP. *Jurnal Al-Thariqah*, 1(113), 140–155.
- Harahap, M. (2017). Esensi Peserta Didik dalam Perspektif Pendidikan Islam. *Jurnal Pendidikan Agama Islam Al-Thariqah*, 1(2), 140–155. [https://doi.org/10.25299/althariqah.2016.vol1\(2\).625](https://doi.org/10.25299/althariqah.2016.vol1(2).625)
- Kothari, S. P., Ramanna, K., & Skinner, D. J. (2010). Implications for GAAP from an analysis of positive research in accounting. *Journal of Accounting and Economics*, 50(2), 246–286.
- Livingstone, S., & Third, A. (2017). Children and young people's rights in the digital age: An emerging agenda. *New Media & Society*, 19(5), 657–670.

<https://doi.org/10.1177/1461444816686318>

- Rakhmawati, I. (2015). Peran Keluarga dalam Pengasuhan Anak. *Jurnal bimbingan Konseling Isla*, 6(1), 1-18.
- Ulfah, T. A., Wahyuni, E. A., & Nurtamam, M. E. (2016). Pengembangan Media Pembelajaran Permainan Satuan Panjang. *Prosiding Seminar Nasional Matematika Dan Pembelajarannya. Jurusan Matematika*, 3(3), 955-961.
- Valkenburg, P. M., Krcmar, M., Peeters, A. L., & Marseille, N. M. (1999). Developing a scale to assess three styles of television mediation: "Instructive mediation," "restrictive mediation," and "social coviewing." *Journal of Broadcasting & Electronic Media*, 43(1), 52-66. <https://doi.org/10.1080/08838159909364474>