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Reflections on Child-Friendly Environments in Building Children's Morals and Character in the Technology Era in East Kalimantan

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A B S T R A C T

The rapid development of technology has brought profound changes to children's lives, particularly in the formation of moral and character values. East Kalimantan, as one of Indonesia's provinces with a high level of digitalization, faces considerable challenges in maintaining a child-friendly environment that supports ethical growth and balanced character development. This research aims to analyze and reflect on the role of a child-friendly environment in shaping children's character amid technological advancement, highlighting the need for harmony between traditional values and digital culture. Using a descriptive-qualitative approach and content analysis of the East Kalimantan Children's Profile 2024, the study examines children's access to basic services, digital literacy, and moral development. The findings reveal that while digital access and educational facilities are relatively high, there remains a significant gap in moral guidance, parental supervision, and responsible digital use. Collaboration among families, schools, communities, and policymakers, supported by the preservation of local wisdom, plays a vital role in strengthening character education. The study concludes that integrating child-friendly city policies with technology-based character education rooted in local culture is a strategic step toward building a generation that is both digitally literate and morally grounded.

1. Introduction

In the continuously evolving digital era, children face new challenges in forming their personality and morals. Technological advancements provide wide access to information but also present risks to children's character development if not balanced with supervision and a child-friendly environment. Based on the East Kalimantan Children's Profile (2024), various dynamics show the importance of synergy between protecting children's rights and character building in facing technological realities. A child-friendly environment not only includes fulfilling children's basic rights such as birth certificates, access to education, and health

services but also ensures that children grow up in an atmosphere that supports moral, ethical, and spiritual values. In the context of East Kalimantan, data show that 97.89% of children have birth certificates, indicating progress in fulfilling civil rights. However, issues such as child marriage (288 cases) and child labor (average 4.97%) indicate environmental pressures that can hinder children's character development.

Based on Susenas (2023) data, children aged 11–17 in East Kalimantan have high internet access (average over 90%). While this opens up opportunities for digital learning and creativity, uncontrolled use can have negative impacts such as exposure to age-inappropriate content, cyberbullying, and the consumption of information that triggers consumptive and violent behavior. Therefore, a child-friendly environment must function as a moral fortress that forms children's internal filters to screen out such negative influences. Children's character education in the technology era must return to the basic functions of family upbringing, value learning in schools, and social strengthening in communities. The East Kalimantan Children's Profile (2024) also indicates that the family environment has not been fully supportive, as evidenced by cases of early marriage and children's involvement in work. The minimal data on early childhood education in East Kalimantan show the need for serious intervention in early character development (Carmela, 2021).

Efforts to strengthen children's character development in the digital era need to include promoting child-friendly digital literacy in schools and families to teach social media ethics (Ramadhanita, 2022), revitalizing the role of schools as agents for shaping moral values through the integration of character education into the curriculum, providing parenting training based on love and dialogue, and facilitating safe public spaces and communities for children to play, learn, and express aspirations. A child-friendly environment is an urgent need in today's technological era. In the context of East Kalimantan, efforts to create a supportive environment must not only focus on infrastructure and basic services but also on the dimensions of character and moral development. According to Puspita Sari and Suryaningsi (2023), collaboration among the state, families, schools, and communities is key to realizing a generation of Indonesian children who are digitally intelligent, morally strong, and resilient in facing global challenges.

The main problems encountered are that the child-friendly environment in East Kalimantan has made an important contribution to supporting the development of children's character and morals in the digital era; the use of technology among school-aged children presents both opportunities and challenges for the formation of ethical values and social responsibility; collaboration among families, schools, and communities in East Kalimantan has shown a strategic role in creating an educational space that supports children's moral development; and efforts to strengthen digital literacy based on character values have become part of an adaptive approach to child education in response to technological advancements.

The objectives of this article are to describe the condition of child-friendly environments in East Kalimantan based on empirical data and regional policies; to

analyze how these environments play a role in shaping children's morals and character, especially in the context of digital technology development; to identify the roles of families, schools, and communities in creating an educational ecosystem that supports children's ethical values and social responsibility; and to formulate strategic recommendations for strengthening policies and practices of child-friendly environments based on character education and digital literacy.

The urgency of this research is based on several factors, namely rapid social and technological changes, high access to technology for children in East Kalimantan, the gap between technology access and moral upbringing, the need to strengthen policies for child-friendly cities/regencies (*KLA*), and contributions to the development of quality human resources. This is because children today live in an environment highly influenced by information technology, which, if not balanced with the strengthening of moral values and character, can negatively impact their personality and social ethics.

2. Methodology

This study uses a qualitative descriptive approach aimed at reflecting on and analyzing how child-friendly environments in East Kalimantan support the development of children's character and morals in the technological era. The qualitative descriptive method allows researchers to explore social phenomena in depth and present them systematically according to their natural context (Creswell & Poth, 2018). The secondary data were obtained from official government documents such as the East Kalimantan Children's Profile 2024 (BPS & DKP3A), Susenas data, policy documents on Child-Friendly Cities/Regencies (KLA), and relevant scientific literature from Scopus and Elsevier journals published between 2020 and 2025. The data collection techniques included documentation study and content analysis, which were applied to gather, interpret, and classify information from existing documents and literature (Miles, Huberman, & Saldaña, 2014).

A literature review was also conducted to strengthen the theoretical foundation of moral development, child-friendly environments, and digital literacy. The data were analyzed using thematic analysis, which identifies, organizes, and interprets patterns or key themes related to the contribution of child-friendly environments to character development, the impact of technology use on children's moral values, and the role of families, schools, and communities in building a supportive educational ecosystem (Braun & Clarke, 2006). The theoretical frameworks underpinning this research include Ecological Systems Theory (Bronfenbrenner, 1979), Character Education Theory (Lickona, 1991), Digital Literacy and Child Morality concepts (Ribble & Bailey, 2007), and the Child Rights Protection framework based on the UN Convention on the Rights of the Child and Indonesia's Law No. 35 of 2014 on Child Protection.

3. Results and Discussion

In the ever-evolving digital era, children continue to face new challenges in shaping their personality and morals. Technological advancements provide wide access to information but also pose risks to children's character development if not accompanied by adequate supervision and the creation of a child-friendly environment. Based on the *East Kalimantan Child Profile 2024* (Ministry of Women Empowerment and Child Protection of Indonesia, 2024), various dynamics highlight the importance of synergy between the protection of children's rights and character building in responding to technological developments. Birth certificate ownership, as an indicator of children's civil rights, indicates that East Kalimantan has reached 97.89% coverage for children aged 0–18 years. This achievement provides an important legal foundation for children to access education, healthcare, and legal protection services.

Table 1. Birth Certificate Ownership for Children Aged 0–18 Years in East Kalimantan

Regency/City	Children Required to Have Certificates	Children Without Certificates	Ownership Percentage (%
Balikpapan city	225.676	792	99,65%
Samarinda city	261.724	13.231	94,94%
Kutai Kartanegara regency	254.715	3.385	98,67%
Provincial total	1.264.496	26.662	**97,89%**

Despite being quite high, 26,662 children still do not have birth certificates, which may hinder the formation of legal identity and undermine children's self-confidence as legitimate legal subjects. The highest achievement is recorded in Balikpapan City (99.65%), indicating a very high level of public access and legal awareness regarding children's civil rights. Samarinda City records the largest number of children without birth certificates (13,231 children), accounting for nearly 50% of the provincial total. The provincial average reflects good performance (97.89%), yet structural and social challenges persist in certain regions. According to John Locke (1689), the right to identity constitutes a natural right of every human being. In the context of children, a birth certificate serves as legal proof of a child's existence as a legal subject. Without such documentation, children risk being denied access to education, healthcare, and legal protection. Samarinda City, despite serving as the provincial capital, demonstrates a concerning form of human rights violation for thousands of children who still lack official legal identities.

Piaget (1932) stated that children's moral development is significantly influenced by their environment and social recognition. Children who are not officially registered tend to face obstacles in accessing formal education, experience social discrimination, and feel marginalized. Unregistered children in Samarinda are therefore at risk of moral development impediments due to limited access to learning spaces and **a** lack of social recognition. Rawls (1971) emphasizes the principles of *equal liberty* and *the difference principle*, asserting that all children are entitled to equal civil rights, and that the state bears the responsibility to

prioritize disadvantaged groups. The disparity in birth certificate ownership between cities and regencies reflects inequality in access to civil rights. The government, through local authorities, must strengthen interventions in areas with low registration rates.

According to Bronfenbrenner's (1979) Ecological Systems Theory, children develop within interrelated ecological systems, the microsystem, mesosystem, exosystem, and macrosystem. A birth certificate functions as an entry point for children to fully participate in these systems. Children without certificates are excluded from full engagement within educational institutions and state services, which negatively affects their socio-emotional development and character formation. The absence of a birth certificate is not merely an administrative issue but also influences the formation of a child's character. In terms of existential morality, unregistered children may feel that their existence is not socially or nationally acknowledged. Regarding integrity and self-confidence, the absence of legal recognition can lead children to feel inferior in social interactions. Concerning civic engagement, they struggle to access participation rights such as education and legal protection.

Efforts to address this issue should include administrative reform, such as the expansion of mobile birth certificate services in villages and remote areas, and digital innovation through online-based registration systems. Cross-sector collaboration among schools, community health centers, and traditional leaders is also needed to raise parental awareness. Furthermore, inclusive regulation is necessary through the strengthening of Presidential Regulation No. 25 of 2014 concerning the acceleration of birth certificate ownership. Internet access among children aged 11–17 in East Kalimantan averages over 90%, which can enhance digital skills; however, without proper supervision, this may reduce children's moral sensitivity and increase exposure to negative online influences.

Table 2. Percentage of Children Accessing the Internet by Age Group and Gender

Age group	Male (%)	Female (%)
5-10 old	59,6	57,2
11–17 old	89,9	91,9

The small gap at ages 5 to 10 indicates that early access to social involvement and basic services, such as education and health, remains relatively balanced between boys and girls. At ages 11 to 17, there is a noticeable increase in participation for both genders, with girls slightly surpassing boys (91.9 percent compared to 89.9 percent). This suggests that adolescent girls are becoming increasingly involved in education and social activities, which is a noteworthy trend, as girls have often been more vulnerable to school dropouts in certain areas. According to the Theory of Trust and Justice (Al-'Adl wa Al-Amanah**)** in Islam, children are regarded as a trust (amanah) from Allah (QS. Al-Anfal: 27; QS. At-Tahrim: 6). Justice in educating and protecting children **must** therefore be upheld without gender discrimination. Data from the past decade highlight the importance of earlier involvement of girls in social and educational activities to prevent inequality from an early age. From an

Islamic perspective, both the state and parents are obligated to ensure equitable access and shared responsibility in educating boys and girls.

According to the Theory of Maslahah Mursalah (Public Benefit), the protection of children from human trafficking, violence, and exploitation constitutes part of the objectives of Islamic law (maqashid syariah), which aim to preserve life, intellect, and progeny. The 11 to 17 age group represents a critical stage, as children are more vulnerable to moral risks, labor exploitation, and trafficking. Islam emphasizes holistic protection, especially during adolescence when moral values, identity, and dignity are being formed. Within the framework of Maqashid Syariah, children should be safeguarded in five key dimensions: Hifz al-Nafs (protection of life), Hifz al-Din (faith), Hifz al-Aql (intellect), Hifz al-Nasl (morality and lineage), and Hifz al-Mal (property). In this regard, the 11 to 17 age group holds strategic importance for moral and identity strengthening. The slightly higher participation of girls may reflect the positive impact of community-based equality programs and religious education initiatives.

Islamic views on educational equality and gender protection align with the hadith of the Prophet Muhammad (peace be upon him): *"Seeking knowledge is an obligation upon every Muslim, male and female"* (HR. Ibn Majah). This underscores that education and social participation are not only rights but also universal duties. Therefore, the higher engagement of girls aged 11 to 17 can be interpreted as **a** partial success in achieving this ideal. Umar ibn Khattab (r.a.) once advised, *"Do not educate your children according to your time, for they will live in a time different from yours."* This principle encourages continuous reform in child protection strategies to adapt to modern challenges, including digitalization, urbanization, and human trafficking, particularly in East Kalimantan, which serves as a key gateway for migration and industry. In essence, Islam advocates justice, protection, and collective responsibility toward all children, without gender discrimination.

Data further emphasize the need for greater focus on the 5 to 10 age group, especially for girls, so that equality can be nurtured from early childhood. Meanwhile, the 11 to 17 age group requires an approach rooted in maqashid syariah, ensuring their physical, mental, and moral protection, particularly in preventing human trafficking and moral degradation. Illustration of the internet's influence on character formation (illustration source: UNICEF Indonesia, 2023). The high rate of internet use among children must be balanced with digital literacy and ethical education, as children are easily exposed to inappropriate content, cyberbullying, and the instant culture that can erode core moral values such as empathy, discipline, and respect. The family, as the first school of morality, now faces increasing challenges amid modernization. Data on early marriage further reveal the ongoing weakness in transmitting moral and social norms within the child's environment.

Table 3. Number of Child Marriages (<19 Years Old) in East Kalimantan

Regency/city	Male	Female	Total
Balikpapan city	11	41	52
Samarinda city	11	37	48
Kutai Timur	12	35	47
Provincial total	69	219	288

Female victims dominate the data, accounting for 76 percent of total cases. Out of 288 children, 219 are female (76 percent) and 69 are male (24 percent). This finding is consistent with the general pattern of human trafficking observed in many regions, where adolescent girls are more vulnerable to sexual exploitation, illegal domestic work, or forced marriage. The regions with the highest number of victims include Balikpapan City with 52 cases, Samarinda with 48, and East Kutai with 47. These three areas are urban or industrial zones and migration routes, which commonly serve as vulnerable hotspots for human trafficking. According to Victimology Theory, which studies the nature of crime victims, victims are not merely passive individuals, but are often "produced" by structural conditions such as poverty, low education, family dysfunction, and gender inequality. The dominance of female victims, as presented in Table 3, reflects a structural pattern in which adolescent girls are more frequently victimized because they are perceived as weaker or "easier to exploit."

In accordance with the Child Protection Law (Law No. 35 of 2014 in conjunction with Law No. 23 of 2002), Article 59 states that "The State, Government, and Regional Governments are obliged to provide special protection to children who are victims of economic and/or sexual exploitation, as well as children who are victims of trafficking." This provision means that regional governments are responsible for identifying victims, providing assistance, and ensuring rehabilitation, reintegration, and legal protection. The high number of victims in large cities such as Balikpapan and Samarinda indicates that local governments may not have fully carried out these responsibilities effectively. From the perspective of Maqashid Syariah in Child Protection, Islam emphasizes the protection of Hifz al-Nafs (life), Hifz al-Nasl (honor and progeny), and Hifz al-Aql (intellect). Human trafficking constitutes a violation of all three principles, and both the state and the family share the duty to safeguard children from any conditions that make them objects of exploitation, whether physically, emotionally, or socially.

Furthermore, Law No. 21 of 2007 on the Eradication of Human Trafficking highlights that trafficking must not only be viewed from the criminal aspect of the perpetrator, but also through prevention efforts, victim protection, and systemic, cross-sectoral law enforcement. Articles 13 and 14 emphasize the importance of active involvement of local governments and law enforcement authorities. The high proportion of female victims in Balikpapan, Samarinda, and East Kutai demonstrates the urgent need for stronger supervision of child migrant workers, protection for out-of-school children and child laborers, and the establishment of a rapid reporting mechanism. According to Structural Gender Inequality Theory, gender is not merely a biological distinction but a reflection of unequal power relations in society. Based on the data in Table 3, the 76 percent proportion of

female victims represents not only biological vulnerability but also the consequences of a social structure that pushes young female laborers into informal sectors, weakens parental or school supervision, and fails to provide adequate education on children's rights and gender awareness**.**

Table 4. Recommendations

Field	Recommendations
Education	Integrate anti-human trafficking education into Civics and religious education curricula.
Local Government	Build community- and school-based protection systems.
Law Enforcement	Strengthen the capacity of officials and SOPs for reporting human trafficking cases.
Community	Campaign for gender awareness and child protection values in the family environment.

Integrating anti-human trafficking education into Civics and Religious Education is essential for building students' social awareness and moral responsibility. According to Paulo Freire's Critical Pedagogy Theory, education should serve as a means of liberation, helping students recognize and challenge injustice and exploitative social structures such as human trafficking. Meanwhile, Lev Vygotsky's Sociocultural Theory emphasizes that children's consciousness is shaped by social and cultural contexts, which means that strengthening values through Civics and Religious Education can be highly effective. Integrating discussions on human trafficking into these subjects encourages the development of legal awareness, humanitarian values, and justice-based morality (Ali, 2021). Students must be made aware that human trafficking is not only a criminal act but also a violation of human rights and human dignity.

In terms of local governance and community-based protection systems, Bronfenbrenner's Ecological Systems Theory of Child Development explains that children grow within interconnected systems such as the family, school, community, and policy environment. Similarly, according to Good Governance Theory, the government must establish a participatory and transparent system in implementing child protection. The protection mechanism should not rely solely on a top-down approach; instead, the government needs to develop local-level mechanisms involving schools, neighborhood associations (RT/RW), and traditional or religious leaders to ensure protection reaches the grassroots level. This approach enables early protection for children in migration-prone or unsupervised areas, reducing their vulnerability to exploitation.

Law enforcement also requires substantial strengthening in personnel capacity and the establishment of clear Standard Operating Procedures (SOPs) for reporting human trafficking cases. According to A.V. Dicey's Theory of the Rule of Law, a just state must guarantee equal protection for all citizens, particularly vulnerable groups such as children. Moreover, Criminal Justice Theory asserts that the justice system should be responsive, efficient, and victim-centered, rather than solely focused on prosecuting perpetrators. Thus, enhancing the competence of law

enforcement officials—police, prosecutors, and social workers—in handling human trafficking is crucial. The implementation of child-friendly and responsive reporting SOPs will build public trust, increase reporting, and help prevent impunity.

The role of society also plays a major part in addressing gender-based vulnerability. Feminist Theory and Gender Justice argue that gender inequality is a root cause of the exploitation of girls (Alelaimat, 2020). Therefore, society must participate in eliminating stigma and patriarchal norms that perpetuate discrimination and silence victims. Meanwhile, according to Albert Bandura's Social Learning Theory, children learn behaviors by observing and imitating their immediate environment, meaning that a caring family environment produces empathetic and responsible children (Alkhudiry, 2022). Raising community awareness about gender equality and the need to protect children from sexual, economic, or early marriage exploitation serves as a form of cultural prevention. Without a transformation in family values and social norms, children will remain "invisible victims" despite the existence of laws.

Each sector contributes uniquely through different theoretical perspectives: education builds awareness and transforms values; local government develops protective systems and structures; law enforcement ensures justice and legal certainty; and society drives the transformation of social norms and practices. When these elements operate in synergy, child protection becomes more effective, equitable, and sustainable. Current data showing that girls constitute the majority of trafficking victims reflect a systemic failure in gender equality and child protection mechanisms. From the viewpoint of Islamic Maqashid Sharia theory, Victimology, and national law, child protection is a shared obligation of both the state and society. Therefore, policy synergy and cross-sectoral collaboration covering legal, social, and educational aspects are crucial, particularly in human-trafficking-prone regions such as Balikpapan, Samarinda, and East Kutai. The phenomenon of early marriage further exacerbates this issue, leading to loss of education, increased domestic violence risks, and weakened moral and character development. Moreover, children who work at an early age lose valuable play and learning opportunities essential for building character, while heavy or hazardous labor disrupts their emotional growth and sense of responsibility.

Table 5. Percentage of Children Aged 10–17 Years Working by Gender

Regency/city	Male (%)	Female (%)	Total (%)
Penajam Paser Utara	10,40	5,70	8,11
Kutai Kartanegara	6,70	6,90	6,78
Kota Bontang	3,80	8,20	5,84
Provincial mean	4,14	5,84	4,97

Work that is not age-appropriate disrupts children's character development, as they are shaped by economic pressure rather than by healthy learning values and moral responsibility. To strengthen a child-friendly environment that fosters moral and character formation, East Kalimantan needs to integrate family-based, school-based, and community-based approaches (UNICEF Indonesia, 2023). This strategy

highlights the importance of reinforcing the role of schools as centers of moral and ethical education through character-based curricula, enhancing parental guidance in navigating the digital era, providing safe and creative spaces such as reading parks, art studios, and playgrounds, and involving religious and traditional leaders in promoting local wisdom and value education (Kemendikbud, 2022).

A child-friendly environment does not only ensure the fulfillment of basic rights such as birth certificate ownership, access to education, and health services, but also guarantees that children grow in an atmosphere that nurtures moral, ethical, and spiritual values (UNICEF, 2023). In East Kalimantan, data show that 97.89% of children have birth certificates, indicating significant progress in fulfilling civil rights (Profil Anak Kalimantan Timur, 2024). However, issues such as 288 cases of child marriage and an average of 4.97% of child labor participation reveal environmental and socio-economic pressures that can hinder children's character development (BPS, 2023). Based on Susenas 2023 data, children aged 11–17 in East Kalimantan have high internet access rates, averaging more than 90%. While this condition creates opportunities for digital learning and creativity, uncontrolled internet use can expose children to inappropriate content, cyberbullying, and consumptive or violent behavior (UNICEF, 2022). Therefore, a child-friendly environment must function as a moral safeguard, equipping children with internal filters to resist harmful digital influences and maintain integrity in online interactions.

Character education in the digital age must return to its essential foundations—family nurturing, value-based learning in schools, and social reinforcement within communities (Kemendikbudristek, 2023). The East Kalimantan Children's Profile (2024) indicates that the family environment has not yet fully supported these goals, as seen from cases of early marriage and child labor involvement. Moreover, the limited participation of children in early childhood education programs highlights the need for stronger interventions in character development from an early age (BPS, 2023). A strategic approach to establishing a character-based child-friendly environment should include: (1) implementing child-friendly digital literacy programs in schools and families to teach social media ethics; (2) revitalizing the role of schools as moral value agents through integrated character curricula; (3) providing parental training based on love, empathy, and dialogue; and (4) facilitating safe and inclusive public spaces that allow children to play, learn, and express their creativity (UNICEF, 2023; Kemendikbud, 2022).

4. Conclusion

A child-friendly environment is an urgent need in today's technology era, where children are increasingly exposed to digital influences that shape their behavior, mindset, and values. In the context of East Kalimantan, the effort to create such an environment must go beyond providing adequate infrastructure and basic services; it must also emphasize the importance of moral and character development from an early age. A truly supportive environment integrates education, protection, and participation for every child, ensuring their holistic growth. Collaboration between

the government, families, schools, and communities plays a central role in building this foundation. The government can provide policies and facilities, schools can embed character-based learning, families can strengthen moral guidance at home, and communities can offer safe and inclusive social spaces. Through this synergy, East Kalimantan can cultivate a generation of Indonesian children who are not only digitally intelligent, but also morally strong, empathetic, and resilient in facing the challenges of the global era.

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