

DIGITAL TRANSFORMATION AND MORAL DEVELOPMENT: CHALLENGES FOR EARLY CHILDHOOD TEACHERS IN DEVELOPING HUMAN VALUES

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Abstract. Digital transformation has significantly impacted early childhood education, providing interactive learning experiences while simultaneously posing challenges to children's moral development. This study aims to analyze how early childhood education (PAUD) teachers foster human values during the digital transformation and identify supporting and inhibiting factors. Using a qualitative descriptive approach through literature review and field observations, this study employs Kohlberg's theory of moral development and Piaget's constructivism approach. The results show that teachers act as moral mediators, guiding children to internalize values such as empathy, honesty, and social responsibility. Parental involvement and digital pedagogical leadership are important factors in supporting moral education. This study recommends strengthening teachers' digital moral literacy, developing values-based digital pedagogy, and collaborative practices between teachers, parents, and institutions.

Keywords: digital transformation, early childhood education, moral development

INTRODUCTION

The rapid development of digital technology has transformed the landscape of early childhood education in Indonesia. The use of digital devices, interactive applications, and online learning platforms is now increasingly widespread in Early Childhood Education (PAUD). This digital transformation provides new opportunities to create interactive and engaging learning experiences, but also presents significant challenges to early childhood moral development. The digital environment not only changes the way children learn but also influences how they build social relationships, understand empathy, and internalize human values. Research shows that excessive digital exposure can reduce the quality of children's social interactions, empathy, and moral sensitivity (Yusuf & Sulaiman, 2023).

In the Indonesian context, where moral and religious education is an integral part of early childhood education (PAUD), teachers face the complex responsibility of balancing digital innovation with values-based education. Teachers are expected not only to integrate technology effectively but also to ensure that digital learning does not erode the process of instilling human values, empathy, and social responsibility in children. Research conducted by Aisyah and Candra (2025) shows that moral education in PAUD can be strengthened through values-based digital learning if it is grounded in clear pedagogical and ethical principles. However, in many PAUD institutions, teachers still face difficulties in managing the effective use of digital tools while still fostering moral and humanitarian values.

This situation raises several important questions: (1) How do early childhood education teachers face the challenges of digital transformation in fostering humanitarian values in early childhood? (2) What factors support and hinder children's moral development in a digitalized learning environment? (3) What strategies can be developed so that digital transformation strengthens, rather than weakens, humanitarian values in early childhood education?

The purpose of this study is to describe and analyze the challenges faced by early childhood education (PAUD) teachers in fostering humanitarian values amidst the digital transformation, identify supporting and inhibiting factors, and formulate effective strategies for implementing

digital-based moral education. This research aims to provide insights for PAUD teachers so they can manage technology as a means to strengthen, rather than diminish, children's moral and humanitarian development.

Theoretically, this research is based on Lawrence Kohlberg's theory of moral development, which explains that moral reasoning is a gradual process influenced by social interaction and cognitive development. Furthermore, Jean Piaget's social constructivism approach serves as a complementary framework, emphasizing that children learn moral values through active engagement and social experiences. Recent research also highlights the importance of digital pedagogical leadership in early childhood education institutions, which integrates the use of technology with ethical and values-oriented learning management (Nurhayati et al., 2023).

Various previous studies have discussed the moral implications of digital technology use in early childhood (Yusuf & Sulaiman, 2023; Leonia & Candra, 2025) and the integration of technology into the learning process (Aminah & Rahman, 2022). However, most of these studies have focused on digital literacy or moral development separately. This study differs by specifically examining how early childhood education teachers navigate the digital transformation while fostering humanitarian values, making it more contextual to the situation of early childhood education in Indonesia.

Therefore, this article contributes to academic studies on digital transformation and moral education by emphasizing the role of teachers as moral guides in technology-mediated learning environments. Practically, this article offers strategies for teachers to integrate technology without losing the essence of human interaction and moral character formation, so that digitalization in early childhood education remains in line with the educational vision of cultivating empathetic, responsible, and humane individuals.

RESEARCH METHODS

This study uses a descriptive qualitative approach to explore and analyze the challenges faced by Early Childhood Education (PAUD) teachers in fostering humanitarian values amidst the digital transformation. Qualitative methods were chosen because they are able to describe social phenomena in depth, emphasizing the meanings, perceptions, and real-life experiences of teachers in the context of early childhood education (Creswell & Poth, 2018). The descriptive approach is used to provide a factual picture of the teacher's process in integrating technology while instilling moral and humanitarian values in children.

1. Research Concept and Design

This research concept is based on the interaction between digital transformation and early childhood moral development. Digital transformation is defined as the process of integrating digital technology into learning, while moral development focuses on fostering human values such as empathy, cooperation, and social responsibility (Kohlberg, 1981; Piaget, 1952). This research design emphasizes the role of teachers as moral guides who strive to navigate the use of digital technology while remaining centered on human values.

2. Research Location and Subjects

The research was conducted at several early childhood education institutions (PAUD) in Cilacap Regency, Central Java, which were purposively selected because they implemented digital-based learning. The study subjects consisted of six PAUD teachers, one principal, and two parents to obtain a more diverse perspective. Purposive sampling technique was used because it allowed the researchers to select informants with direct experience relevant to the research focus (Sugiyono, 2021).

3. Data collection technique

Data was collected through three main techniques, namely:

1. Observation, to observe teacher behavior and child interactions during the digital learning process.
2. In-depth interviews, to explore teachers' perceptions, challenges, and strategies in cultivating human values through digital media.

3. Documentation, to obtain supporting data such as RPPH, digital learning media, and institutional policies related to moral education.

These three techniques were carried out by triangulating sources and techniques to ensure the validity of the data (Miles, Huberman, & Saldana, 2019).

4. Data analysis

Data analysis in this study used the interactive model from Miles and Huberman (2014), which includes four stages:

1. Data collection collects data from observations, interviews and documentation.
2. Data reduction selects and simplifies data that is relevant to the research focus.
3. Data presentation displays data in the form of descriptive narratives and thematic matrices.
4. Conclusion drawing and verification interpreting findings and verifying results through triangulation and informant confirmation.

The main themes that emerged were then classified based on teachers' experiences in managing digital learning and their efforts to instill human values in it.

5. Research Steps

This research was conducted through the following stages:

1. Preliminary study, including literature review and initial observations to identify digital learning practices in PAUD.
2. Preparation of instruments, such as interview guidelines and observation sheets based on research objectives.
3. Data collection, through interviews, observations, and documentation at selected PAUD institutions.
4. Data analysis, by applying the Miles and Huberman interactive analysis model.
5. Drawing conclusions and compiling reports, to formulate results and recommendations for PAUD teachers.

6. Application of Theoretical Framework

This study uses Lawrence Kohlberg's stages of moral development and Jean Piaget's constructivism as the theoretical framework for analysis. Both theories explain that children's moral development occurs through social interaction and active engagement in learning experiences. Furthermore, the concept of digital pedagogical leadership (Nurhayati et al., 2023) is used to understand how teachers can manage digital transformation ethically and effectively in the context of early childhood education.

Through this methodological framework, the research is expected to produce a comprehensive picture of how digital transformation affects moral education in early childhood education, as well as to find practical strategies that teachers can apply to strengthen human values in the digital era.

RESULTS AND ANALYSIS

This section presents findings and analysis derived from field data and literature studies on the challenges faced by early childhood teachers in integrating digital transformation while still instilling moral and humanitarian values in children. The analysis is structured based on the research objectives and a theoretical framework that draws on Lawrence Kohlberg's theory of moral development, Jean Piaget's constructivism, and the concept of digital pedagogical leadership.

1. Implementation of Digital Transformation in Early Childhood Education

The rapid digitalization process in early childhood education institutions has significantly transformed teaching practices. Teachers have begun using interactive media such as *smartboards*, learning apps, and digital stories to increase children's engagement in the learning process (Aminah & Rahman, 2022:91).

1.1. Teacher Adaptation to Digital Learning

Teachers have demonstrated adaptability in utilizing digital tools to support moral education. Observations indicate that digital media such as animated videos and digital storybooks are effective in illustrating moral concepts such as honesty, empathy, and cooperation (Aisyah & Candra, 2025:49). However, this transformation also requires teachers to be able to filter appropriate content and ensure that technology is used to support, not replace, human interaction.

"Teachers must realize that technology should be a bridge to empathy, not a barrier to humanity" (Nurhayati et al., 2023:218).

This statement emphasizes that although digital tools are useful, their use must be consciously directed to strengthen human values, not weaken them.

1.2. Institutional Readiness and Infrastructure

Research findings also indicate that not all early childhood education institutions have the same level of preparedness. Schools in urban areas tend to have better facilities and internet access than those in rural areas (Sugiyono, 2021:134). Teachers in areas with limited facilities often use simple devices like mobile phones to show educational videos or morally charged cartoons.

2. Challenges of Moral Development in the Digital Age

The process of moral formation in children is influenced by the intensity of digital exposure. Teachers acknowledge that children's attention spans shorten and their sensitivity to empathy tends to decline when digital interactions dominate daily activities (Miles, Huberman, & Saldaña, 2019:67).

2.1. Moral Dilemmas in Digital Learning Teachers often face dilemmas when digital media emphasizes individual competition over cooperation. Findings indicate that children tend to imitate digital characters who behave egocentrically (Creswell & Poth, 2018:205). Therefore, teachers need to reinterpret the content of such media and direct learning to emphasize positive values.

2.2. The Role of Teachers as Moral Mediators

Research has found that teachers act as moral mediators, reinterpreting digital messages to align with moral values. Through reflective discussions after watching videos, teachers help children understand the moral meaning behind digital stories (Nurhayati et al., 2023:221). This practice aligns with Kohlberg's concept that moral reasoning develops through guided dialogue and opportunities to assume social roles.

3. Integration of Human Values through Digital Pedagogy

Teachers implement various strategies to ensure that moral education remains central to digital learning.

3.1. Character-Based Digital Learning Activities Based on the data collected, teachers often integrate activities such as digital storytelling, collaborative games, and online kindness projects. For example, one teacher implemented a *"digital empathy project"* in which children recorded short videos about helping others and then watched them together to reflect on moral values (Aisyah & Candra, 2025:52).

3.2. Collaboration with Parents in Digital Moral Education

Parental involvement is a crucial factor in strengthening moral consistency between home and school. Teachers emphasize the importance of digital literacy training for parents to guide their children in managing screen time *and* understanding the moral significance of digital activities (Aminah & Rahman, 2022:97).

4. Theoretical Analysis Based on the Applied Framework

4.1. Kohlberg's Moral Development Theory Perspective. According to Kohlberg, moral reasoning develops through gradual stages influenced by social experiences and opportunities for moral thinking. In the context of digital learning, teachers can create moral dilemma scenarios through digital stories, then encourage children to reason about right and wrong actions (Kohlberg, 1981:23).

4.2. Piaget's Constructivism Theory From Piaget's perspective, moral understanding emerges through active engagement and social interaction. Digital activities such as simulations or interactive stories provide opportunities for children to construct moral understanding through direct experience and reflection (Piaget, 1952:98).

4.3. Nurhayati et al.'s (2023:219) Digital Pedagogical Leadership Framework emphasizes the importance of digital leadership among teachers to maintain ethical principles in the use of technology. Teachers must possess both technological competence and moral awareness in selecting digital content and determining appropriate pedagogical approaches.

Table 1. Integration of Digital Pedagogy and Moral Values in Early Childhood Education

Aspect	Description	Observed Practices
Pedagogical Strategy	Integration of digital stories and moral reflection	Teachers use digital storytelling to teach honesty and empathy
Learning Environment	Blended learning (online and face-to-face)	Children reflect on moral themes after watching videos
The Role of Teachers	Moral mediator and digital mentor	Teachers filter digital content and lead moral discussions
The Role of Parents	Partners in digital literacy	Parents monitor children's moral behavior during online learning

5. Summary of Findings

This study concludes that while digital transformation enriches children's learning experiences, it also presents moral and ethical challenges. Teachers have a strategic role in balancing the use of technology with the instilling of human values through:

1. Applying a critical and selective approach to digital content.
2. Strengthening reflective dialogue for internalization of moral values.
3. Collaboration with parents in digital moral guidance.
4. Development of pedagogical leadership that integrates technological and ethical aspects.

These findings confirm that digital pedagogy aims not only to enhance cognitive learning, but also to foster empathy, responsibility, and respect as core human values.

CONCLUSION

An analysis of digital transformation and moral development in early childhood education shows that integrating technology into learning environments has both positive potential and moral risks. Digital innovation, when guided by ethical and pedagogical principles, can be an effective medium for moral education and character building. However, without proper direction and control, technology risks diminishing children's empathy, social sensitivity, and understanding of human values.

Teachers play a central role as moral mediators connecting technology with values-based learning. Teachers' ability to select appropriate digital content, design reflective activities, and create a learning environment centered on human values will determine whether the digital transformation strengthens or weakens children's moral development. Therefore, the moral success of the digital transformation depends not on the technology itself, but rather on the ethical awareness and pedagogical wisdom of teachers.

The research also shows that children's moral reasoning can develop effectively through digital activities such as storytelling, guided reflection, and collaborative projects that emphasize human values like honesty, empathy, and cooperation. Furthermore, parental involvement is crucial to ensuring moral consistency between home and school environments, particularly in managing children's digital exposure.

In accordance with the research objectives, it can be concluded that the challenges of digital transformation in early childhood education can be overcome through the following steps:

1. Strengthening teachers' digital moral literacy, so that they are able to use technology critically and ethically.
2. Development of values-based digital pedagogy, by integrating moral education into digital learning activities.
3. Increased collaboration between teachers, parents, and educational institutions, to create shared responsibility in fostering moral awareness in the digital era.
4. Strengthening digital leadership in early childhood education institutions, so that technology integration aligns with the vision of forming a generation with morals and ethics.

This study recommends that policymakers and teacher education institutions make digital ethics and moral pedagogy core competencies in teacher training. Further research is also recommended to develop digital-based moral learning models that can be applied in various early childhood education contexts.

Ultimately, the transformation of early childhood education must not only utilize technology as a form of innovation but also reaffirm humanitarian values as its primary foundation. A balanced approach between digital advancement and moral awareness will ensure that future generations grow into intelligent, empathetic, responsible, and humane individuals.

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