

Transformation of Teachers' Strategies in Shaping Early Childhood Characters in The Digital Era

**Dini Khasanati¹, Dina Aulia Noviyanti², Bela Pasa Aditama³, M Rafi Saputra⁴,
Muhlisin Muhlisin⁵, Abul Mafaakhir⁶**

^{1,2,3,4,5,6}Early Childhood Islamic Education Study Program,

Faculty of Tarbiyah and Teacher Training, UIN K.H Abdurrahman Wahid Pekalongan

Email: dini.khasanati@mhs.uingusdur.ac.id¹, dina.aulia.noviyanti@mhs.uingusdur.ac.id²,
bella.pasa.aditama@mhs.uingusdur.ac.id³,
muhammad.rafi.saputra@mhs.uingusdur.ac.id⁴, muhlisin@uingusdur.ac.id⁵,
abul.mafaakhir@uingusdur.ac.id⁶

Abstract

The rapid progression of the digital era introduces complex challenges to early childhood character building, creating a critical gap between technological advancement and conventional pedagogical frameworks. This library research evaluates the ongoing transformation of teachers' strategies in shaping early childhood characters within digital environments. Employing a qualitative literature review methodology, the study systematically synthesizes secondary data extracted from prominent academic publications spanning the years 2020 to 2026. The research primarily focuses on early childhood students and formal education teachers as the central subjects. Data were gathered through structured documentation techniques and examined using the Miles and Huberman qualitative analysis model, which integrates data reduction, data display, and verification. The results demonstrate that technology operates as a double-edged sword, offering highly interactive learning opportunities while simultaneously posing significant risks like gadget addiction and negative moral imitation. Consequently, teachers must pivot from traditional instructors into adaptive agents of change and digital literacy facilitators. In conclusion, character education success depends entirely on strategic pedagogical interventions rather than technology itself. It is highly recommended that educational systems prioritize continuous digital competency development for teachers and foster strong collaborative strategies with parents.

Keywords: Teacher Strategies, Character Education, Early Childhood, Digital Era, Literature Review

INTRODUCTION

The digital era has brought significant changes in the world of education, including in the approach to learning to shape children's character in the current era (Suryawahyuni Latief, 2020). The current digital era brings forward several important things at the early childhood (AUD) level, especially those related to 21st century skills development and the wise use of technology. In the context of early childhood education (PAUD), the need

for quality character building learning is becoming increasingly urgent. This is because the rapid development of digital technology not only has a positive impact in the form of easy access to education and innovative learning media, but also challenges for children's moral and behavioral development. Character education is crucial because early childhood is in a golden age that determines the direction of moral, social, and emotional development in the future (Anjar Fitrianingtyas, 2023).

The digital era presents a duality of impact on children's development. Digital technology provides opportunities in the form of interactive, creative, and flexible learning but brings challenges in the form of exposure to negative content, addiction to gadgets, and a decrease in direct social interaction. Early childhood who have been exposed to smartphones and the internet since childhood tend to lack the ability to critically filter information, making them vulnerable to imitation of behaviors that do not conform to character values (Lailatu Maghfiroh, 2023). In addition, technology in children's lives has the potential to cause value conflicts and weak control over character formation if it is not balanced with proper mentoring (Euis Trismayanti, 2024). Therefore, character education in the digital era can no longer be done with conventional approaches alone, but requires adaptive and contextual strategies.

Several studies show that early childhood character education in the digital era can be carried out through various approaches, such as the use of digital media, educational games, and strengthening the role of family and the environment. The use of digital media can support more interactive and personalized learning, as well as help children understand character values through fun learning experiences (Ngatmin Abbas, et al., 2025). Digital game-based learning innovations have been proven to stimulate cognitive development while instilling character values such as honesty, responsibility, and cooperation (Silviani et al., 2022). However, some of these studies are partial, which only highlight certain aspects such as learning media or the role of parents, without comprehensively examining the

transformation of teachers' strategies as the main actors in the formal education process.

The research problem in this study is the increasingly complex challenges of early childhood character formation in the digital era which is characterized by the increasing use of technology from an early age, while character formation strategies applied in formal education are still not fully able to integrate the demands of technological development with the need to strengthen character values. This condition requires a more comprehensive understanding of the role of teachers in designing character learning strategies that are relevant to the characteristics of the digital era.

With this, it can be identified that a comprehensive framework that integrates paradigm shifts in early childhood character formation, digital age characteristics and implications, as well as the transformation of teachers' strategies in an analytical framework is still relatively rare in the current literature (Melissa Bond, Svenja Bedenlier, 2021). Most studies still position teachers as implementers of learning methods, not as transformation agents who play an active role in designing and developing digital-based character learning strategies. In the context of early childhood education (PAUD), teachers have a central role in designing learning experiences that are not only oriented towards the development of cognitive aspects, but also on internalizing character values through the process of habituation, example, and social interaction. The findings are similar to research that shows that the transformation of teacher competencies in the digital era is an important factor in the success of character education, but still requires a more integrative and

contextual study (Falloon, 2020). Based on This gap, this research has a novelty in the form of a conceptual synthesis of the transformation of teachers' strategies in shaping early childhood characters in the digital era through a literature review approach. This research not only examines learning strategies technically, but relates them to changes in the paradigm of character education and the characteristics of the digital era that affect children's development.

The purpose of this research is directed to provide an in-depth understanding of the dynamics of early childhood character formation in the context of the development of the digital era. In particular, this study seeks to analyze the transformation of the concept of early childhood character formation that has shifted along with technological advances and changes in people's lifestyles. In addition, this study also aims to identify the main characteristics of the digital era and its various implications for child development, especially in the aspect of character formation. Furthermore, this study examines how teachers' strategies undergo transformation in an effort to form early childhood character, based on the results of a review of relevant literature.

The urgency of this research lies in the increasingly urgent need to present a character education model that is not only relevant to the demands of the digital age, but also able to anticipate the various challenges that come with it. In this context, strengthening the role of teachers as the main agents in the educational process is essential, especially in designing and implementing learning strategies that are adaptive, contextual, and character-building-oriented. Thus, this research is expected

to contribute to efforts to form a generation that is not only cognitively intelligent, but also has a strong character, is adaptive to change, and is responsible in social life in the future.

METHODS

This study uses a qualitative approach with the type of library research through the literature review method. This method is used to review, analyze, and synthesize various scientific literature related to the transformation of teachers' strategies in shaping early childhood characters in the digital era. The literature study was chosen because this research focuses on the conceptual study of the phenomenon of character education that develops along with social changes due to the advancement of digital technology.

According to Sugiyono (2022), literature research is research conducted by collecting data or scientific works relevant to the research object through various written sources. In line with that, Mestika Zed (2018) explained that literature study is a series of activities related to library data collection methods, reading, recording, and processing research materials as the main source of data acquisition. In addition, a systematic literature review allows researchers to identify, evaluate, and synthesize relevant research findings in a more structured manner so as to produce a comprehensive understanding of a research phenomenon (Snyder, 2019).

The data sources in this study are in the form of secondary data obtained from articles in national journals, international journals, scientific books, seminar proceedings, and other academic documents relevant to the research theme. The literature used is limited to

publications in the range of 2020–2026 to be in line with the development of character education issues in the digital era. The literature search process is carried out through academic databases such as Google Scholar, Garuda (Garba Reference Digital), and various other educational journal portals using keywords: early childhood character education, teacher strategies, digital era, learning transformation, and early childhood.

The data collection technique is carried out through documentation with stages: (1) identification of relevant literature, (2) selection of articles based on the suitability of the theme, (3) classification of literature based on the focus of the discussion, and (4) recording important data from each source used. The data analysis technique uses a qualitative data analysis model according to Miles and Huberman (2014) which includes data reduction, data display, and conclusions drawn/verified. Through these stages, the researcher synthesizes various literature findings to obtain conclusions that are relevant to the focus of the research. To maintain the validity of the data, this study uses the source triangulation technique by comparing various previous research results, theories, and opinions of related experts. Through this literature review method, it is hoped that a comprehensive understanding of the transformation of teachers' strategies in shaping early childhood characters in the digital era will be obtained.

RESULTS AND DISCUSSION

Results

The transformation of digital education is now inevitable along with the rapid development of information and

communication technology that affects various aspects of life, including the field of education. These changes are not only limited to the use of digital devices in learning activities, but also include changes in the perspective of teaching, learning, and the management of the education system as a whole. In this context, education in the digital era requires integration between the use of technology, the right pedagogical approach, and the competence of human resources, especially teachers, in order to create learning that is effective, relevant, and in accordance with the needs of students. Therefore, digital education transformation needs to be understood as a process that takes place in a sustainable and directed manner, not just a temporary adjustment to technological developments.

The success of digital education transformation is not enough just by presenting technological tools. Other important factors lie in teacher readiness, adaptive curriculum design, and sustainable institutional strategies. Teacher professional development, education policy support, and continuous evaluation are key elements so that technology really becomes a means of improving the quality of learning, not just a momentary trend (Dedi Suragi, 2025). Over the past few decades, technological advances have fundamentally changed the way we interact with information, culture, and educational processes. This shift, from conventional learning to the use of digital technologies, brings profound consequences and potential to transform the global education landscape. Significant changes in information accessibility are one of the main characteristics of educational transformation in this digital era (Hasnida & Adrian, 2024).

The transformation of education in the digital era presents a great opportunity for the younger generation to access wider and more flexible learning. If previously the learning process was limited to physical classrooms and a set time, now students can learn anytime and anywhere through online platforms. This facility allows students to explore knowledge from various sources, both local and international, so that their horizons are more open to global developments. Educational institutions are required to build a digital infrastructure that includes not only hardware and software, but also supporting systems such as adequate internet access, adaptive learning platforms, and data-driven evaluation systems (Putra et al., 2025).

In the era of technology, digital-based learning media is one of the alternatives for teachers to package learning materials to make them more attractive to children. Learning using digital can make it easier for children to be able to learn widely. Through the facilities provided, learning can be done anytime and anywhere without being limited by distance, time, and space. Learning media is more varied not only in verbal form, but also varied such as visuals, text, audio, animation and movement. They can open, close, and change apps, play educational games, and take pictures/photos. On the other hand, colorful displays, sounds, and movements on digital media make children get various benefits from the use of digital media. So this situation can be used as an excuse for teachers to have digital media in this day and age (Hendraningrat & Fauziah, 2022).

A teacher plays a very important role in learning innovation along with the times, where currently the digital era

affects life, especially education, teachers need to master the digital system, innovate in digital system-based learning. In addition, teachers are required to be able to manage classrooms to be more varied, more modern to keep up with the times. Teachers are also expected to be able to solve a problem in learning with their innovation and creativity. Teacher innovation in today's digital era is very diverse by applying certain methods and advanced media to help students in learning. There are many methods such as blended learning, e-learning, and Virtual learning environments, which can be applied in learning in the digital era, in addition, social media platform is also one of the innovations of a teacher in teaching in the digital era such as youtube (Anggraini & Munfiatik, 2024).

As an educator and parent, you must be a good role model for children to form a good personality and character. Especially in this digital era, it is very easy to dig and get information on the internet. As an educator or parent, you must be a good guide and mentor for children in getting information. Especially at the age of children who are still not able to distinguish well between good and bad. It is feared that with existing technology, children will be negatively affected by the technology itself due to the lack of monitoring by educators and parents (Putri et al., 2023).

Keeping children away from the use of gadgets is difficult and somewhat impossible. Problems of daily life using gadgets such as parents who work using gadgets, communicate with relatives using gadgets and so on. On the other hand, children are always around their parents so they distance themselves

Kids gadgets have a fairly high level of difficulty (Putri Miranti, n.d.).

The use of digital technology in the formation of early childhood characters has a positive impact. Digital media is able to support a more interactive and interesting learning process so that it makes it easier for children to understand character values. Through educational content, children can get to know the concepts of honesty, discipline, responsibility, and religious values in a more concrete and fun way. Uncontrolled use of gadgets can have a negative impact on the formation of children's characters. Exposure to age-inappropriate content has the potential to negatively affect children's behavior. In addition, excessive use of gadgets can lead to addiction, decrease social interaction skills, and reduce children's opportunities to learn through hands-on experience (May & Scott, 2026).

This phenomenon can be explained through Bandura's social learning theory which emphasizes that children learn through the process of observation and imitation of the behavior they see. When children are exposed to more digital content without mentoring, they have the potential to imitate behaviors that are less in line with the expected character values. On the other hand, if digital media is used in a targeted way by presenting positive behavior models, then technology can be an effective means of character building. Therefore, a teacher needs to play a role in directing and supervising the use of digital technology in children. Teachers need to ensure that the use of digital media remains within reasonable and balanced limits with direct learning, play, and social interaction activities (Nggolaon, 2025).

Here is a matrix from several literature reviews:

Table 1. Literature Mapping on the Impact of the Digital Era and Teachers' Pedagogical Adaptation in Character Education

Author & Year	Digital Challenges & Teacher Strategy Transformation
Suryawahyuni Latief (2020)	Changes in the educational paradigm due to digitalization that affect children's learning patterns; Teachers are required to adapt from conventional learning to technology-based learning that still emphasizes character values.
Hendraningrat & Fauziah (2022)	Varied digital media have the potential to be a distraction as well as a learning opportunity; Teachers integrate digital media (visual, audio, animation, educational games) to strengthen the understanding of character values in a concrete and interesting way.
Putri et al. (2023)	Children's low ability to filter digital information due to lack of assistance; Teachers play the role of digital literacy facilitators and reinforcements of children's moral value control through active guidance.
Maghfiroh (2023)	Exposure to smartphones and the internet leads to imitation of negative behaviors; Teachers strengthen value-

	based learning, supervision of technology use, and exemplary positive behavior.		systems; Teachers utilize data-driven digital platforms to increase the effectiveness of character learning.
Hasnida & Adrian (2024)	Access to information very quickly changes children's learning patterns; Teachers need to develop digital-based adaptive learning and improve digital pedagogic competence.	Suragi (2025)	The unpreparedness of the education system to support digital transformation; Teachers need continuous professional development in digital literacy and competence.
Anggraini & Munfiatik (2024)	The demands of mastery of digital platforms such as e-learning and blended learning; teachers implement blended learning, virtual learning environments, and the use of educational social media such as YouTube.	May & Shirley (2026)	Negative impact of gadgets such as addiction and decreased social interaction; Teachers control the use of gadgets through structured learning and a balance of digital-non-digital activities.
Trismayanti (2024)	Value conflicts due to the uncontrolled use of technology; Teachers integrate character education in digital activities through habituation and strengthening of moral values.	Miranti (n.d.)	Children's dependence on gadgets in daily life; Teachers and parents play a role as controllers of the use of technology and the formation of healthy digital habits.
Abbas et al. (2025)	The challenges of digital media integration in AUD character education; Teachers develop digital-based interactive learning to internalize values such as responsibility and cooperation.		
Putra et al. (2025)	Limitations of digital infrastructure and adaptive learning		

Discussion

The development of the digital era has brought major changes in early childhood education, especially in character building. Character education that was previously carried out through conventional approaches such as direct habituation, advice, and face-to-face interaction is now undergoing a transformation towards a more adaptive and technology-based approach

(Khotimah & Rahmawati, 2021). Early childhood grows up in an environment close to digital devices so that the process of character formation cannot be separated from the use of digital media in daily life (Maghfiroh, 2023). In this context, character education is no longer only sourced from families and schools, but is also influenced by the digital environment that children access every day. The transformation of character education in the digital era can also be seen from changes in the way teachers design learning. Teachers are required to create innovative, flexible, and interesting learning through the use of digital technology (Hendraningrat & Fauziah, 2022). Pedagogically, this strategy is effective because it is in accordance with Piaget's theory of cognitive development which states that early childhood is in the preoperational stage, where they more easily understand concepts through visual symbols, colors, images, and concrete experiences. Therefore, digital-based learning media such as educational videos, animations, and interactive games help children construct an understanding of character values such as discipline, responsibility, cooperation, and honesty in a more meaningful way. This process occurs because children learn through concrete representations that are in accordance with their cognitive abilities that are still developing symbolically, not abstractly.

The use of digital media can also increase children's motivation to learn because it is in accordance with the characteristics of early childhood cognitive development that require visual stimulation and direct experience (Hasnida & Adrian, 2024). In Vygotsky's perspective, digital media serves as a mediation tool in the zone of proximal development (ZPD), where the child is

able to achieve a higher understanding when receiving help from the teacher. Thus, digital-based learning works effectively not only because of the technology itself, but because of the scaffolding of teachers who help children understand character values gradually.

The digital era has the main characteristics in the form of easy access to information, extensive use of the internet, and the presence of various digital devices that can be used anytime and anywhere (Trismayanti, 2024). Early childhood can obtain various information through the internet in the form of images, videos, audio, and interactive games (Dewi & Sutarto, 2022). This condition provides great opportunities in the learning process because children can learn more flexibly without being limited by space and time. Constructivistically, this condition allows the child to build knowledge through active exploration, which is crucial in early cognitive development.

In addition to providing opportunities, the characteristics of the digital era also bring challenges for the formation of early childhood characters. Children who are exposed to gadgets too often have the potential to experience decreased social interaction, addiction to technology, and easily imitate negative behaviors from digital media (Ananda & Fadhilaturrahmi, 2021). Exposure to content that is not age-appropriate for children can affect moral and social development because at an early age they are still in a heteronomous stage of moral development, where they are highly dependent on the external environment to shape behavior.

The use of digital technology also has a positive impact on children's development if used correctly. Technology is able to create more

interactive, creative, and fun learning so that children can more easily understand the moral message conveyed by teachers. The use of educational applications and education-based games can stimulate cognitive development while instilling character values such as cooperation, discipline, responsibility, and honesty (Abbas et al., 2025). This is effective because it fits into the active learning theory, where children learn best when they engage directly in meaningful and enjoyable experiences.

On the other hand, uncontrolled use of technology can also negatively impact the formation of children's character. Children who use gadgets for too long tend to be less active in interacting with their social environment, which can hinder the development of communication, empathy, and cooperation skills (Nggolaon, 2025). In addition, excessive use of gadgets can cause children to become more individualistic, have difficulty concentrating, and depend on technology. Based on Bandura's social learning theory, this behavior occurs because children learn through observation and imitation. If the models they see come from inappropriate digital content, then those behaviors can be absorbed without a mature cognitive filter.

The change in the paradigm of character education in the digital era also affects the role of teachers in the learning process. Teachers no longer only function as material presenters, but also as facilitators, supervisors, and agents of transformation who are able to integrate character values in digital-based learning (Dewi & Sutarto, 2022). In Vygotsky's perspective, teachers play the role of "more knowledgeable other" who provide scaffolding so that children are

able to achieve higher cognitive and moral development. Thus, the transformation of teachers' strategies in character education is important because effective learning does not depend only on technology, but on how teachers mediate children's learning experiences to suit their cognitive and social developmental stages.

CONCLUSION

The transformation of education in the digital era shows that technology has a dual role in the formation of early childhood character, namely as an opportunity as well as a challenge. Technology can support more interactive learning and help internalize character values in a concrete way, but at the same time also increase the risk of exposure to age-appropriate content, gadget addiction, and decreased social interaction. Therefore, the success of character education is not determined by technology itself, but by the quality of pedagogical interventions carried out by teachers and synergy with parents. Thus, the main key to character education in the digital era lies in the ability of teachers to direct the use of technology in a meaningful and controlled manner so that it remains in harmony with the goals of early childhood character formation.

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