



The Relevance of Nusantara Culture Based Digital Learning to Support Character Building in Elementary School Students: A Literature Review

Berlian Hariratul Mahya¹, Anis Yuliani², Eko Handoyo³, Indriana Eko Armaid⁴

Primary Education, Postgraduate School, Semarang State University, Semarang, Indonesia^{1, 2, 3, 4}

Corresponding Author's Email : berlianmahya13@gmail.com

Received: 06 08, 2026 | Accepted: 06 14, 2026 | Published: 06 16, 2026

ABSTRACT

The rapid development of digital technology and the importance of preserving local culture encourage the integration of Nusantara cultural values into technology-based learning. This study aims to analyse the relevance of Nusantara culture-based digital learning in supporting character strengthening of elementary school students. The method used is a systematic literature review with data sources from scientific articles obtained through Google Scholar and traced using the Publish or Perish application. Out of 200 identified articles, 6 articles met the inclusion criteria (Indonesian language, full text, 2021–2026 publication year, focus on elementary school) and were systematically analysed using narrative synthesis. The results show that culture-based digital learning can improve cultural literacy, learning motivation, awareness of national identity, as well as character values such as love for the homeland, mutual cooperation, and environmental care. Furthermore, the integration of local culture in digital learning also introduces the potential of regional tourism from an early age. This study concludes that Nusantara culture-based digital learning is relevant to be applied to support sustainable character education in Indonesia.

Keywords: Character building; Digital learning; Elementary school students, Indonesian culture.

ABSTRAK

Pesatnya perkembangan teknologi digital dan pentingnya pelestarian budaya lokal mendorong integrasi nilai-nilai Kebudayaan Nusantara dalam pembelajaran berbasis teknologi. Penelitian ini bertujuan untuk menganalisis relevansi *digital learning* berbasis Kebudayaan Nusantara dalam mendukung penguatan karakter peserta didik sekolah dasar. Metode yang digunakan adalah *literature review* sistematis dengan sumber data artikel ilmiah yang diperoleh melalui *Google Scholar* dan ditelusuri menggunakan aplikasi *Publish or Perish*. Dari 200 artikel yang teridentifikasi, sebanyak 6 artikel memenuhi kriteria inklusi (bahasa Indonesia, teks lengkap, tahun 2021–2026, fokus pada SD) dan dianalisis secara sistematis menggunakan sintesis naratif. Hasil kajian menunjukkan bahwa pembelajaran digital berbasis budaya mampu meningkatkan literasi budaya, motivasi belajar, kesadaran identitas nasional, serta nilai karakter seperti cinta tanah air, gotong royong, dan kepedulian lingkungan. Selain itu, integrasi budaya lokal dalam pembelajaran digital turut memperkenalkan potensi wisata daerah sejak dini. Simpulan penelitian ini menegaskan bahwa *digital learning* berbasis Kebudayaan Nusantara relevan diterapkan untuk mendukung pendidikan karakter yang berkelanjutan di Indonesia.

Katakunci: Digital learning; Kebudayaan Nusantara; Penguatan Karakter; Peserta Didik Sekolah Dasar.

INTRODUCTION

Digital transformation in education has evolved from a mere possibility to an imperative. In Indonesia, the Merdeka Belajar policy and the strengthening of the Pancasila Student Profile underscore the significance of character education that is firmly embedded in the nation's cultural values (Kementerian Pendidikan, 2022). However, the reality on the ground shows that the use of digital learning technology is often focused on global content that fails to adequately represent local wisdom (Wulandari & Saputra, 2023). Consequently, the cultural understanding of elementary school students in Indonesia is at risk of diminishing, as values such as mutual cooperation, discipline, and respect are being eroded by the inundation of unfiltered foreign information. The fundamental problem that must be addressed is the lack of systematic integration of Indonesian cultural values into digital learning platforms. These platforms are specifically designed to strengthen the character of elementary school students.

Previous researchers have made various attempts to address this challenge. Between 2020 and 2021, a number of studies developed learning materials based on folk tales in the form of animated videos and digital storybooks (Hidayati et al., 2022). The results show an increase in reading interest and awareness of local values among upper-grade elementary school students. Other researchers have focused on the use of traditional games adapted into *mobile learning* apps (Saputra & Lestari, 2024). The present study found that elements of competition and collaboration in games have the capacity to cultivate a spirit of cooperation. Concurrent with these findings, the blended learning approach, which integrates online and offline assignments with local cultural content, has also been documented as a catalyst for enhanced learning motivation and responsibility. (Nurchahyo & Rahmawati, 2020). However, most of these studies are still limited to product development or small-scale trials, without providing a comprehensive synthesis of *how* and *to what extent digital learning* based specifically on the cultures of the Indonesian archipelago is relevant to character building at the elementary school level.

From this review of the *state of the art*, it was identified that what had been overlooked by previous researchers was the absence of a literature review that systematically integrates three main pillars: (1) the type of *digital learning* used, (2) the cultural content of the Indonesian archipelago that is highlighted, and (3) indicators of character development in elementary school students. Furthermore, the majority of studies were conducted prior to 2021 or did not explicitly target elementary schools as the primary focus. This gap makes it difficult for education practitioners to obtain evidence-based guidance in designing culturally-rich digital learning. Therefore, the concept proposed to address this gap is to conduct a systematic *literature review* that not only summarises findings but also identifies patterns of relationships between *digital learning* approaches, types of cultural content, and their impact on elementary school students' character. This approach holds strong scientific merit as it can provide a roadmap for curriculum development, teacher training, and the design of contextual and character-building digital learning platforms.

A review of the state of the art revealed that previous researchers had overlooked the absence of a literature review that systematically integrates three main pillars: (1) the type of digital learning used, (2) the cultural content of the Indonesian archipelago that is highlighted, and (3) indicators of character development in elementary school students. Moreover, the majority of studies were conducted prior to 2021 or did not explicitly target elementary schools as the primary focus. This discrepancy poses a significant challenge for education practitioners seeking to access evidence-based guidance in designing culturally-rich digital learning experiences. The proposed solution to this gap is a systematic literature review that will accomplish two objectives: first, it will provide a summary of the existing findings; and second, it will

identify patterns of relationships between digital learning approaches, types of cultural content, and their impact on elementary school students' character. This approach boasts significant scientific merit, offering a framework for curriculum development, teacher training, and the design of contextual and character-building digital learning platforms.

THEORETICAL

A. The Essence of Digital Learning

Digital learning is an umbrella term that encompasses various forms of formal, non-formal, and informal learning that are designed, supported, facilitated, and delivered using digital technology (Chartered Institute of Personnel and Development (CIPD), 2021; Psycheva-Forsyth, 2022). Digital learning goes beyond mere online learning or e-learning because it encompasses a broader spectrum, including blended learning (a combination of in-person and online instruction), device-assisted learning, and the use of digital platforms in various educational contexts (Psycheva-Forsyth, 2022). As emphasized by (Psycheva-Forsyth, 2022), Digital learning is defined as learning facilitated by the effective use of various digital technologies, encompassing a broad spectrum of formal, informal, and non-formal educational practices and contexts, as well as formats such as online, e-learning, and hybrid learning.

The rapid development of digital technology in the 21st century has led to the emergence of the concept of digital learning, which encompasses various forms of learning that are designed, supported, facilitated, and delivered using digital technology (Chartered Institute of Personnel and Development (CIPD), 2021). Digital technology encompasses hardware, software, digital environments, and various tools and resources used to create, present, process, record, store, distribute, and send and receive information in digital form (Mirrlees & Alvi, 2019). In the context of education, relevant digital technologies include devices such as smartphones, online learning platforms, gamification software, and various interactive applications that support the teaching and learning process. In practice, digital learning can take the form of a combination of in person and online learning, depending on the available infrastructure, environment, devices, and resources.

In addition, digital learning has a number of characteristics that distinguish it from conventional learning models. Digital learning offers flexibility without being constrained by time or place, allows students to learn individually by utilising digital media, and gives students the option to choose how they learn according to their individual needs and learning styles. These characteristics make digital learning a highly adaptive approach to the needs of learners in the modern era, including elementary school students who are becoming accustomed to digital environments from an early age. However, the effectiveness of digital learning depends heavily on systematic instructional design, which encompasses the planning, development, implementation, and evaluation of the entire system and individual elements of learner-centered learning (Wagner, 2018).

B. Indonesian Culture

The culture of the Nusantara is the cultural wealth of the Indonesian nation, spread throughout the archipelago, encompassing diverse traditions, customs, noble values, local wisdom, and social practices that have been passed down from generation to generation. Local wisdom, as an integral part of Nusantara culture, can be defined as local ideas that are wise, insightful, and of good value, which are deeply rooted

in and followed by members of the community (Nasir et al., 2025). More broadly, local wisdom is a blend of noble values held to be true and the various values present within a community, shaped by the cultural strengths of the local people as well as the broader geographical context.

In Indonesia, local wisdom is not limited to specific local cultures or ethnic groups, but also transcends cultural and ethnic boundaries, thereby shaping cultural values of a national nature (Kementerian Pendidikan Riset dan Teknologi Republik Indonesia, 2022). Almost every local culture in the Indonesian archipelago is known for its local wisdom, which teaches universal values such as mutual cooperation, tolerance, deliberation, respect for diversity, and a strong work ethic. These noble values form the foundation for the character development of the Indonesian nation, rooted in Pancasila and Bhinneka Tunggal Ika. Local wisdom also encompasses knowledge, beliefs, understanding, perspectives, as well as customs or ethics that guide human behaviour within their communities, and has been passed down through generations for a long time. Thus, the culture of the Nusantara is not merely a legacy of the past, but a living system of values that remains relevant as a guide for life in society, as a nation, and as a state, including in the context of education.

Almost every local culture in the Indonesian archipelago is known for its local wisdom, which teaches universal values such as mutual cooperation, tolerance, deliberation, respect for diversity, and a strong work ethic. These noble values form the foundation for the character development of the Indonesian nation, rooted in Pancasila and Bhinneka Tunggal Ika. Local wisdom also encompasses knowledge, beliefs, understanding, perspectives, as well as customs or ethics that guide human behaviour within their communities, and has been passed down through generations for a long time. Thus, the culture of the Nusantara is not merely a legacy of the past, but a living system of values that remains relevant as a guide for life in society, as a nation, and as a state, including in the context of education.

C. Character Building for Elementary School Students

Character education is a conscious and deliberate effort to educate and empower students to develop their personal character so that they may become individuals who are beneficial to themselves and their communities (Annur et al., 2021). Character education aims to continuously develop and cultivate individuals' abilities in pursuit of self-improvement and a better life. Simon Philips (in Syahputra, 2020) states that character education consists of structured and organised values that form a system underpinning the mindset, attitudes, and behaviours manifested in daily life. Thus, character refers to a person's moral qualities, ethics, or virtues, which constitute the unique aspects of their personality, serve as the driving force behind their actions, and distinguish them from others.

Thomas Lickona (1992) argues that character education comprises three key elements: knowing the good, loving the good, and doing the good. Character education is a method of shaping a person's character through learning about moral values, the results of which are evident in a person's actual actions, such as good behaviour, honesty, responsibility, respect for others' rights, and diligence. In the Indonesian context, character education is defined as a learning process aimed at strengthening and developing children's behaviour holistically based on specific values established by the school. The essence of character education within the Indonesian educational context is values education, that is, education focused on noble values rooted in Indonesia's own national culture, with the goal of shaping the character of the younger generation. (Kementerian Pendidikan Riset dan Teknologi Republik Indonesia, 2022).

Elementary school is a crucial phase in character development because, according to Piaget's theory,

children at this age are in the concrete operational stage, during which they begin to think logically about concrete or real-world events (Piaget, 1970). At this stage, children are highly receptive to the instillation of values through direct experiences and concrete examples. These developmental characteristics make elementary school the primary foundation for character education. Therefore, character development in elementary school must be carried out systematically, integrated into the curriculum, and involve all stakeholders, including teachers, parents, and the community. In the digital age, the challenges of character education have become increasingly complex because students interact not only with their physical environment but also with a digital world rich in information, both positive and negative (Yusuf, 2023). Therefore, character building strategies must be able to adapt to the dynamics of the digital age without losing sight of the nation's cultural roots.

D. Integrating Digital Learning and Indonesian Culture to Build Character

The integration of digital learning and the culture of the Indonesian archipelago is essential in creating an educational model that is both relevant to the demands of the times and rooted in national identity. Local wisdom offers values such as ethics, mutual cooperation, and moral integrity, which are often overlooked in the individualistic nature of digital culture (UNESA Elementary Education, 2022). By embedding the values of Nusantara wisdom into digital content, the literacy process will become more meaningful and highly relevant to students. Technology must be viewed as a tool to disseminate the nation's noble values to a wider audience, including through digital platforms that are easily accessible to elementary school students.

Recent studies show that digitising local wisdom values has proven effective in supporting character development among students in the digital age. Digitising the Nyadran values through school media, such as smart TV can introduce local culture in a more engaging and accessible way, while encouraging students to be more active, value togetherness, and understand mutual cooperation as an important character trait (Nugraha et al., 2025). Integrating local traditions into digital learning materials provides a contextual and meaningful learning experience, as students not only learn about the culture but also actively participate in its preservation. Thus, digitising local wisdom can serve as an effective strategy for character building as well as a means of preserving regional culture (Nugraha et al., 2025).

Furthermore, the development of digital learning materials based on local wisdom, such as project-based infographics, Ethno-Web Digital, cultural videos, educational games, and teaching materials with a Nusantara perspective, has proven effective in supporting the implementation of the Merdeka Curriculum, differentiated instruction, and the strengthening of the Pancasila Student Profile (Zayyadi et al., 2023). The Ethno-Web Digital platform has also proven to be accessible to learners of diverse backgrounds, including students with special needs, thereby supporting a more inclusive approach to character development. Character values that can be fostered through this approach include independence, cooperation, responsibility, nationalism, love for the homeland, and environmental awareness. Thus, the integration of digital learning and the culture of the Indonesian archipelago is not only relevant but also strategic for addressing the challenges of 21st-century education, as it is capable of integrating technological proficiency, character building, and cultural preservation into a single holistic learning process.

METHODS OF RESEARCH

This study is a systematic literature review that adopts the PRISMA framework (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) 2020 version to ensure transparency and reproducibility in reporting (Page et al., 2021). The literature search was conducted on June 5, 2026, by searching for scientific articles on Google Scholar using the Publish or Perish application with the keywords “digital learning,” “Nusantara culture,” “local culture,” and “Elementary school students”. The established inclusion criteria include: articles must have an abstract and full text, be written in Indonesian, published between 2021 and 2026, and focus on the elementary school level. Exclusion criteria included articles without an abstract or full text, written in languages other than Indonesian, published outside the specified timeframe, and those that did not address at least two of the three main variables (digital learning, Nusantara culture, character building). This systematic approach aligns with guidelines stating that a literature review as a research methodology requires a clear protocol to ensure the quality and reliability of the results (Snyder, 2019).

A search using Publish or Perish identified 200 relevant articles. The availability of the full text for all of these articles was then checked, resulting in 139 articles with full text. Subsequently, the articles were filtered based on the presence of an abstract, leaving 134 articles. Next, the articles were restricted to the 2021–2026 publication range, leaving 121 articles. From this number, other publication types such as books, conference proceedings, and theses were removed, resulting in 87 scientific journal articles. Then, the articles were selected based on the educational level discussed; only articles focusing on elementary schools (SD) were retained, leaving 28 articles. Finally, an eligibility assessment was conducted based on topic relevance (covering at least two of the three main variables: digital learning, Nusantara culture, and character building), resulting in 6 articles that met all inclusion criteria. This selection process was carried out systematically using the PRISMA flowchart, which consists of four stages: identification, screening, eligibility, and inclusion (Page et al., 2021). To enrich the search results, a manual search (snowballing) was also conducted by reviewing the references in the selected articles, a strategy that has proven effective in improving the quality of literature searches (Mourão et al., 2020). The entire selection process was documented in detail to facilitate replication by other researchers.

Data analysis of the 6 selected articles using the narrative synthesis method or Synthesis Without Meta-analysis (SWiM) (Campbell et al., 2020). This approach was chosen because it allows researchers to organise, explore, and consider the connections between findings across studies without quantitatively pooling the data (Campbell et al., 2020). The analysis stages included: data extraction into a matrix table, thematic coding into three main themes (culture-based forms of digital learning, impacts on character building, and supporting and inhibiting factors), and qualitative synthesis to identify patterns of relationships among the literature. To ensure reliability, two researchers independently participated in the extraction and coding process, followed by discussions until consensus was reached. Limitations of this study include the use of only one database (Google Scholar) and articles in Indonesian, meaning publications from international sources were not included. Nevertheless, all procedures were designed systematically and transparently to minimize bias.

RESULTS AND DISCUSSION

A comprehensive literature search was conducted using the Google Scholar database, with the assistance of the Publish or Perish software. The search yielded 200 scientific articles. These articles then underwent a screening process, in which they were evaluated based on predetermined inclusion and exclusion criteria. The screening process was conducted to ensure that the articles met the research objectives. Six articles were identified as meeting the established criteria and were selected for further analysis in this study. If we examine the distribution by year, it can be seen in the following figure.

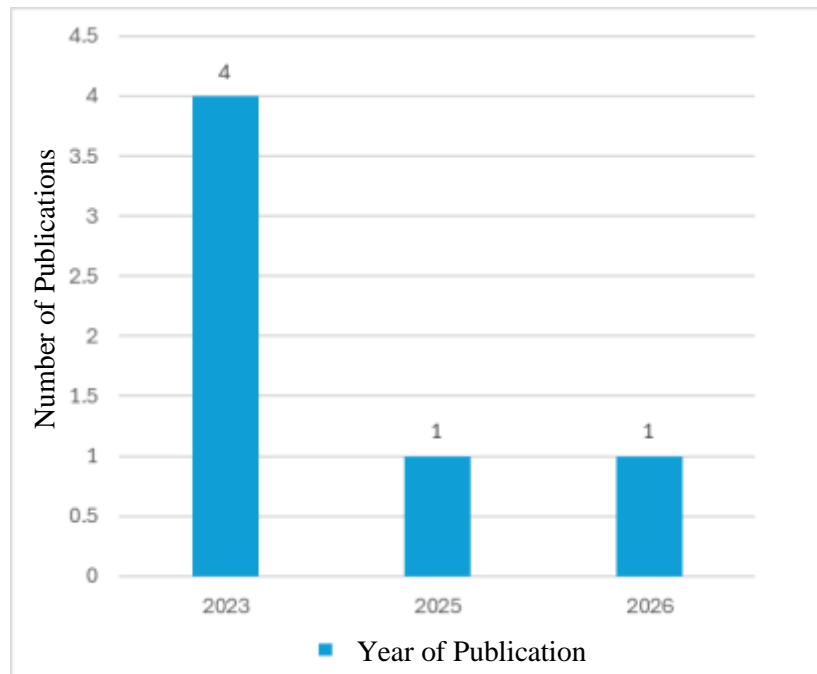


Figure 1. Distribution of Selected Studies by Year of Publication

Based on the publication year distribution chart, the six articles analyzed in this study were published between 2023 and 2026. Most of the articles were published in 2023 (four articles, or 66.7%), while 2025 and 2026 each accounted for one article (16.7%). The dominance of publications in 2023 indicates that studies on “Digital learning based on Nusantara culture” are beginning to develop rapidly in tandem with the implementation of the Merdeka Curriculum, which promotes the integration of digital technology, local wisdom, and character building in the learning process. This situation indicates that the topic has become a key focus in the world of elementary education as an effort to address the challenges of 21st-century learning.

These findings are relevant to the research focus on “The Relevance of Digital Learning Based on Nusantara Culture in Supporting Character Building Among Elementary School Students.” The analyzed articles indicate that the use of digital media integrating local culture, such as project-based infographics, Ethno-Web Digital, cultural videos, educational games, and Nusantara-oriented teaching materials, can support the development of students’ character. Thus, the increasing trend in publications indicates that

Nusantara culture-based digital learning is a relevant and promising approach to strengthening the character of elementary school students while preserving cultural values in the digital age.

In addition to examining the distribution of publication years, the relevance and impact of the research can also be assessed through a citation analysis of the articles under review. Citation analysis provides insight into the extent to which a study is utilized and cited by other researchers in the same field, thereby demonstrating the academic contribution of the research. Based on the citation count analysis, a total of 19 citations were obtained, with an average of 3.17 citations per article. The article with the highest number of citations is the study (Nur Rhomadhoni & Sukartono, 2025) with 7 citations. Research conducted by (Baharudin Baharudin et al., 2026) has not yet received citations, as the publication is relatively new. The high number of citations for some articles indicates that studies integrating character building, the Nusantara perspective, and culture-based learning make a significant contribution to the development of elementary education. This finding reinforces the relevance of research on “Digital Learning Based on the Archipelago’s Culture to Support Character Building in Elementary School Students,” as the analyzed articles not only discuss the use of digital technology in learning but also emphasize the importance of instilling character values through the context of the archipelago’s culture. Thus, the citation analysis indicates that this topic is a field of study that is gaining increasing academic attention and holds great potential for supporting the character development of students in the digital age. The following table is based on the number of citations.

Table 1. Citation Distribution in the Analyzed Articles

No	Authors	Title	Cites
1.	(Firdaus et al., 2023)	Infographics as a Medium for Project-Based Character Education: An Approach for Elementary School Students at Bayah Dome Geopark	1
2.	(Utami et al., 2023)	Training on implementing the project to strengthen the Pancasila student profile at SDN Ketelan 12 in Surakarta	3
3.	(Nur Rhomadhoni & Sukartono, 2025)	Fostering Patriotism Through Civic Education Classes for Elementary School Students	7
4.	(Baharudin Baharudin et al., 2026)	Empowerment at State Elementary School 009 Bintan Timur, Bintan Regency, through the Promotion of Maritime-Based Literacy for Coastal Children in Gunung Lengkuas Village	0
5.	(Lanya et al., 2023)	Supporting Inclusive Schools Through Digital Ethno-Web Media in the Implementation of Differentiated Instruction and the Strengthening of the Pancasila Learning Profile	2
6.	(Nastiti & Sari, 2023)	Development of a Pancasila and civics textbook with a national perspective for third-grade elementary school students to strengthen the Pancasila student profile	6

To reinforce the study’s findings, an analysis was conducted of the characteristics of the research sample and the key findings from each article analyzed. The results of this analysis are summarized in the following table.

Table 2. Results of the Literature Review

No	Authors	Year	Participants	Results
1.	(Firdaus et al., 2023)	2023	The subjects of this study were 42 fourth-grade students at SD Negeri 1 Sukaraja in Lebak Regency, Banten.	The results of a study show an increase in positive responses following a learning process that utilized project-based infographic teaching materials, and it was concluded that this approach can influence the development of character in schools.
2.	(Utami et al., 2023)	2023	Involving Teachers and Students at Ketelan 12 Public Elementary School in Surakarta	The implementation of P5 based on local wisdom through a video and photography project on nasi liwet has proven to enhance teachers’ understanding of P5 implementation and to strengthen students’ independence and sense of community. However, the program’s success remains dependent on the availability of supporting facilities and the need for ongoing guidance during its implementation.
3.	(Nur Rhomadhoni & Sukartono, 2025)	2025	The subjects of the study included the school principal, the second-grade homeroom teacher, and 25 second-grade students.	A total of 25 students—representing 90% of the class—actively participated in the educational games Educaplay and Quizziz, which focused on identifying national heroes and their contributions, during the session held on October 15, 2024
4.	(Baharudin Baharudin et al., 2026)	2026	The study sample consisted of 26 sixth-grade students at SDN 9 Bintan Timur, Bintan Regency, in January 2026.	The evaluation results show that 26 students demonstrated a very good understanding of the material presented. All students answered “Already Know” to the questions regarding Tanjungpinang as the capital of the Riau Islands Province and the importance of maintaining ocean cleanliness. These findings indicate that the participants fully grasped the material.
5.	(Lanya et al., 2023)	2023	Students with special needs at SDN Gladak Anyar 2 who are struggling with	The research findings indicate that the Ethno-Web Digital platform supports the implementation of the Merdeka Curriculum, differentiated instruction, and the reinforcement of the Pancasila

No	Authors	Year	Participants	Results
6.	(Nastiti & Sari, 2023)	2023	literacy and numeracy The subjects are third-grade students at MI Maarif NU Attijani in Banyumas.	Student Profile. The majority of participants responded positively, with 95.2% stating that the activities were beneficial and 80% understanding how to use the platform. Additionally, 73.3% understand how to use these media. In addition, 73.3% of participants stated that they were ready to implement Ethno-Web Digital in school instruction. The validation results for the teaching materials in the PRAKATA textbook reached 90% and were deemed valid and suitable for use. In terms of effectiveness, the materials achieved a score of 95%, which also had a positive impact on students' understanding and fostered a national perspective.

The results of the analysis show that the use of digital learning media that integrates elements of local culture can have a positive impact on students' character development. This is consistent with the view that (Cipta et al., 2023), Digital media plays a crucial role in shaping students' character by fostering moral values, empathy, independence, and responsibility within a digital learning environment. This is also discussed in the study (Firdaus et al., 2023), which found that project based infographic teaching materials can increase positive student responses and support the development of character in schools. These findings indicate that the use of digital technology integrated into contextual activities can foster student engagement while reinforcing character values.

Similar findings were reported by (Utami et al., 2023). The implementation of the P5 (Pancaca Student Profile Strengthening Project) was based on local wisdom. This implementation entailed the creation of videos and photographs of the traditional dish, Nasi Liwet. The findings of the research suggest an enhancement in teachers' comprehension of P5 implementation, along with the cultivation of autonomy and collaboration among students. The integration of local culture into digital activities has been shown to provide a meaningful learning experience, as students are able to both learn about and actively participate in the preservation of the culture.

The use of interactive digital media has also been shown to increase student participation. (Nur Rhomadhoni & Sukartono, 2025) reported that 90% of students actively participated in learning through the Educaplay and Quizizz platforms, which feature content on national heroes and their contributions. The high level of participation demonstrates that digital learning can create an engaging learning environment while instilling a sense of nationalism. Character education in the digital age must be integrated with the use of technology so that students can develop moral values, ethics, and social responsibility in a balanced manner. The findings of this study are also supported by (Irsan et al., 2023), which states that the internalization of character values rooted in local culture is an effective strategy for shaping students' character.

In addition, research (Baharudin Baharudin et al., 2026) shows that all students have a very good understanding of material based on local culture and the environment. These results indicate that learning that highlights the local context through digital media can improve students' understanding while fostering a sense of environmental awareness and regional identity. In addition, (Juliani et al., 2024) emphasizes that culture-based learning can enhance students' character through learning experiences that are contextual and closely tied to their lives.

Meanwhile, (Andini et al., n.d.; Zulqadri & Nurgiyantoro, 2023) found that web-based interactive multimedia that highlights local cultural elements can simultaneously improve the cultural and digital literacy of elementary school students. This finding indicates that digital technology serves not only as a learning medium but also as a means of cultural preservation. In the context of inclusive education, the study (Lanya et al., 2023) demonstrates that the Ethno-Web Digital platform effectively supports the implementation of the Merdeka Curriculum, differentiated instruction, and the reinforcement of the Pancasila Student Profile for students with special needs. A total of 95.2% of participants stated that the activities were beneficial, and 73.3% are ready to implement the platform in their teaching. These findings indicate that culture-based digital learning is accessible to students with diverse characteristics and supports character development in a more inclusive manner.

Meanwhile, (Nastiti & Sari, 2023) found that culture-based digital teaching materials through the PRAKATA Book have a validity rate of 90% and an effectiveness rate of 95%. The use of these teaching materials not only enhances students' understanding but also strengthens their national character. These results indicate that the integration of Nusantara culture into digital learning media has the potential to serve as an effective means of instilling character values starting in elementary school.

Overall, the six studies reveal a consistent pattern indicating that digital learning rooted in the cultures of the Nusantara region is highly relevant in supporting the character development of elementary school students. In addition to improving students' understanding of the material and their engagement in learning, the use of culture-based digital media also contributes to the preservation of Nusantara cultural values amid technological advancements. Thus, Nusantara culture-based digital learning can serve as an effective alternative learning strategy to realize character-based, contextual education that meets the demands of the 21st century.

CONCLUSION

Based on the results of a literature review of six articles that met the research criteria, it can be concluded that the implementation of digital learning based on the cultures of the Indonesian archipelago plays a significant role in supporting the character development of elementary school students. Various forms of digital learning media that incorporate local cultural elements, such as infographics, educational videos, educational games, Ethno-Web Digital, and Nusantara-oriented teaching materials, have proven effective in increasing student engagement in the learning process while reinforcing character values. The character values that develop include independence, mutual cooperation, responsibility, nationalism, and love for the homeland. The integration of digital technology with local culture also provides a more contextual learning experience, making it easier for students to understand the material while getting to know and appreciate the nation's culture.

In addition to contributing to character building, digital learning based on Nusantara culture also

serves as a means of cultural preservation in educational settings. Findings from various studies indicate that this approach can simultaneously enhance digital literacy and cultural literacy and can be applied to learners with diverse characteristics, including within the context of inclusive education. Thus, Nusantara culture-based digital learning is a relevant learning strategy to address the challenges of 21st-century education because it integrates technological proficiency, character building, and cultural preservation into a single learning process. Therefore, sustained efforts are needed to develop innovative culture-based learning media, along with support from various stakeholders, to ensure its optimal implementation in elementary schools.

REFERENCE

- Andini, N., Cipta, N., & Rokmanah, S. (n.d.). Membangun Karakter Siswa Sekolah Dasar melalui Pemanfaatan Literasi Digital. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, 8(3).
- Annur, S., Susanti, E., & Gelly, I. G. (2021). Urgensi pendidikan moral sekolah dasar dalam membentuk karakter religius di era digital menurut Henry Alexis Rudolf Tilaar. *Jurnal Edukasi*, 1, 271–287.
- Baharudin Baharudin, Yodha Mahardika, Rizky Aprilia, Suci Nayla Nur Cahya, Rahmatatul Ania, Rahman Rahman, Windy Febri Dyana Sinaga, Cheline Shismitupa Sidabutar, Citra Viona, Nur Nayla Tri Ananda, & Reza Gemilang. (2026). Pemberdayaan pada SD Negeri 009 Bintan Timur Kabupaten Bintan melalui Penguatan Literasi Berbasis Kemaritiman bagi Anak Pesisir Kelurahan Gunung Lengkuas. *Jurnal Pengabdian Masyarakat*, 5(1), 300–312. <https://doi.org/10.30640/abdimas45.v5i1.5966>
- Campbell, M., McKenzie, J. E., Sowden, A., Katikireddi, S. V, Brennan, S. E., Ellis, S., Hartmann-Boyce, J., Ryan, R., Shepperd, S., Thomas, J., Welch, V., & Thomson, H. (2020). Synthesis without meta-analysis (SWiM) in systematic reviews: Reporting guideline. *BMJ*, 368. <https://doi.org/10.1136/bmj.l6890>
- Chartered Institute of Personnel and Development (CIPD). (2021). *Digital Learning: Definitions and Frameworks*.
- Cipta, E. S., Husaeni, A. S., Cahyati, C., & Anwar, F. (2023). Analisis Pengaruh Media Digital terhadap Perkembangan Karakter Siswa Sekolah Dasar. *Ainara Journal (Jurnal Penelitian Dan PKM Bidang Ilmu Pendidikan)*, 4(3), 109–115. <https://doi.org/10.54371/ainj.v4i3.271>
- Firdaus, A. P., Haryani, P., Hanif, M., Khosihan, A., & Setiawan, B. (2023). Infografis Sebagai Media Pembelajaran Nilai Karakter Berbasis Project Base: Pendekatan Untuk Siswa Sekolah Dasar Di Geopark Bayah Dome. *Efektor*, 10(2), 232–252. <https://doi.org/10.29407/e.v10i2.20390>
- Hidayati, N., Rahmawati, L., & Suryani, D. (2022). Pengembangan media pembelajaran digital berbasis cerita rakyat untuk pendidikan karakter di sekolah dasar. *Jurnal Pendidikan Karakter*, 13(1), 45–58. <https://doi.org/10.21831/jpk.v13i1.45678>
- Irsan, I., G, A. L. Nurmaya., Gawise, G., Suarti, S., & Arini, W. O. L. (2023). Internalisasi dan Aktualisasi Nilai-Nilai Karakter Berbasis Budaya Lokal di Sekolah Dasar. *Jurnal Basicedu*, 6(6), 10197–10210. <https://doi.org/10.31004/basicedu.v6i6.4558>
- Juliani, A., Karmilasari, K., Agustiani, T., Mulyanah, D., & Windiyani, T. (2024). IMPLEMENTASI PEMBELAJARAN BERBASIS BUDAYA TERHADAP KARAKTER PESERTA DIDIK SEKOLAH DASAR. *Jurnal Pendidikan Dasar*, 15(1), 144–169. <https://doi.org/10.21009/jpd.v15i1.43245>
- Kementerian Pendidikan, K. R. dan T. R. I. (2022). *Profil Pelajar Pancasila sebagai penguatan karakter bangsa*.

- Kementerian Pendidikan Riset dan Teknologi Republik Indonesia, K. (2022). *Profil Pelajar Pancasila sebagai penguatan karakter bangsa*. Kemdikbud.
- Lanya, H., Zayyadi, M., Linarsih, Y., Mosdalifah, & Saputra, A. (2023). PENDAMPINGAN SEKOLAH INKLUSI MELALUI MEDIA ETHNO WEB DIGITAL DALAM IMPLEMENTASI PEMBELAJARAN BERDIFERENSI DAN PENGUATAN PROFIL BELAJAR PANCASILA. *PATIKALA: Jurnal Pengabdian Kepada Masyarakat*, 3(1), 799–807. <https://doi.org/10.51574/patikala.v3i1.881>
- Mirrlees, T., & Alvi, S. (2019). *The digital economy and the future of learning*. University of Ontario Institute of Technology.
- Mourão, E., Pimentel, J. F., Murta, L., & Kalinowski, M. (2020). On the performance of hybrid search strategies for systematic literature reviews in software engineering. *Information and Software Technology*, 123, 106294. <https://doi.org/10.1016/j.infsof.2020.106294>
- Nasir, Ridha Ichwenty Sabir, Ulfa, A. Y., Ahmad Imran, & Anna Majid. (2025). Integrasi Nilai-Nilai Kearifan Lokal dalam Pendidikan Karakter di Sekolah: Tinjauan Literatur. *Didaktika: Jurnal Kependidikan*, 14(2 Mei), 3151–3168. <https://doi.org/10.58230/27454312.2541>
- Nastiti, D., & Sari, L. A. (2023). PENGEMBANGAN BUKU PENDIDIKAN PANCASILA DAN KEWARGANEGARAAN BERWAWASAN NUSANTARA UNTUK SD KELAS III GUNA MEMPERKUAT PROFIL PELAJAR PANCASILA. *Prima Magistra: Jurnal Ilmiah Kependidikan*, 4(4), 568–578. <https://doi.org/10.37478/jpm.v4i4.3138>
- Nugraha, D. S. P., Suciptaningsih, O. A., Mashfufah, A., & Anggraini, A. E. (2025). Digitalisasi nilai kearifan lokal dalam pembelajaran “Nyadran” sebagai landasan pembentukan karakter anak sekolah dasar. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, 10(4). <https://doi.org/10.23969/jp.v10i04.38305>
- Nur Rhomadhoni, N. Q., & Sukartono, S. (2025). Pembentukan Karakter Cinta Tanah Air Melalui Mata Pelajaran Pendidikan Kewarganegaraan Bagi Siswa Sekolah Dasar. *Jurnal Penelitian Pendidikan*, 25(1). <https://doi.org/10.17509/jpp.v25i1.80884>
- Nurchahyo, A., & Rahmawati, Y. (2020). Integrasi nilai-nilai gotong royong dalam pembelajaran daring berbasis kearifan lokal. *Jurnal Inovasi Teknologi Pendidikan*, 7(2), 112–125. <https://doi.org/10.21831/jitp.v7i2.34567>
- Page, M. J., McKenzie, J. E., & Bossuyt, P. M. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>
- Peycheva-Forsyth, R. (2022). *Digital Learning: Definition and Design* (Vol. 117). Sofia University.
- Piaget, J. (1970). *Science of education and the psychology of the child*. Orion Press.
- Saputra, D., & Lestari, W. (2024). *Digital learning berbasis budaya lokal: Teori dan implementasi di SD*. Penerbit Media Nusa.
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>
- Syahputra, M. R. (2020). *Pendidikan karakter: Teori dan implementasi*. Penerbit Bildung.
- Utami, C. D., Wardhana, A. P. S., Setiawan, A. H., & Pratmajaya, P. (2023). Pelatihan Penyelenggaraan Projek Penguatan Profil Pelajar Pancasila di SDN Ketelan 12 Surakarta. *E-Dimas: Jurnal Pengabdian Kepada Masyarakat*, 14(4), 693–701. <https://doi.org/10.26877/e-dimas.v14i4.13919>
- Wagner, E. (2018). Instructional design: A systematic approach to learning-centered instruction. *Journal of Educational Technology*, 15(3), 1–15.
- Wulandari, S., & Saputra, I. (2023). Kendala guru dalam mengintegrasikan kebudayaan Nusantara ke dalam pembelajaran digital. *Jurnal Pendidikan Dasar Nusantara*, 9(1), 34–48. <https://doi.org/10.29407/jpdp.v9i1.18902>
- Yusuf, D. (2023). *Membangun pendidikan karakter pada anak sekolah dasar di era digital*. Universitas Terbuka.

- Zayyadi, M., Lanya, H., Linarsih, Y., Mosdalfah, & Saputra, A. (2023). Pendampingan sekolah inklusi melalui media Ethno Web Digital dalam implementasi pembelajaran berdiferensiasi dan penguatan profil belajar Pancasila. *PATIKALA: Jurnal Pengabdian Kepada Masyarakat*, 3(1), 799–807. <https://doi.org/10.51574/patikala.v3i1.881>
- Zulqadri, D. M., & Nurgiyantoro, B. (2023). Pengembangan Multimedia Interaktif Berbasis Web Untuk Meningkatkan Literasi Budaya Dan Literasi Digital Siswa Kelas V SD/MI. *JURNAL IPTEKKOM Jurnal Ilmu Pengetahuan & Teknologi Informasi*, 25(1), 103–120. <https://doi.org/10.17933/iptekkom.25.1.2023.103-120>