

## The Application of Digital Literacy Based on Local Wisdom in Indonesian Language Learning in Elementary Schools

Rohmat Suryanto<sup>1</sup>, Farida Nugrahani<sup>2</sup>, Nurnaningsih<sup>3</sup>  
r4hmat.z@gmail.com

**Abstract:** *This research aims to describe the implementation of digital literacy integrated with local wisdom in Indonesian language learning at elementary schools. The study employs a descriptive qualitative method. The data consists of information related to the application of local wisdom-based digital literacy in Indonesian language learning at the elementary level. Data sources include school principals, teachers, students, the learning process, and supporting documents. Sampling was conducted using purposive sampling techniques. Data collection methods involved observation, in-depth interviews, and document analysis. Data validation was ensured through source and method triangulation. Data analysis was performed interactively through several stages: data collection, data condensation, data visualization, and conclusion drawing/verification. The results indicate that teachers systematically designed lessons utilizing digital media containing local wisdom content, such as folktales, oral traditions, and local cultural values. The learning process strengthened students' understanding of local cultural values. Through collaborative methods and authentic assessments, students actively engaged in analyzing, creating, and presenting digital works based on local wisdom. This strategy supported learning objectives while promoting cultural preservation and the development of 21st-century skills such as critical thinking, creativity, and collaboration. The implementation results demonstrate that combining digital competencies with local values can enhance literacy skills and foster cultural identity awareness from an early age.*

**Keywords:** *Digital Literacy, Local Wisdom, Indonesian Language, Elementary School*

**Abstrak:** *Penelitian ini bertujuan untuk mendeskripsikan penerapan literasi digital yang dipadukan dengan kearifan lokal dalam pembelajaran Bahasa Indonesia di sekolah dasar. Penelitian ini menggunakan metode kualitatif deskriptif. Data berupa informasi terkait penerapan literasi digital berbasis kearifan lokal dalam pembelajaran Bahasa Indonesia di sekolah dasar. Sumber data adalah kepala sekolah, guru dan peserta didik di Sekolah Dasar, proses pembelajaran, serta dokumen. Sampling dilakukan melalui tehnik purposive. Teknik pengumpulan data adalah observasi, wawancara mendalam dan analisis dokumen. Validasi data menggunakan triangulasi sumber dan metode. Analisis data dilakukan secara interaktif melalui beberapa tahap, yaitu pengumpulan data, pemadatan data, visualisasi data serta penyimpulan dan verifikasi hasil. Hasil penelitian menunjukkan bahwa guru merancang pembelajaran secara sistematis dengan memanfaatkan media digital yang memuat konten kearifan lokal, berupa cerita rakyat, tradisi lisan, dan nilai-nilai budaya setempat. Proses pembelajaran memperkuat pemahaman siswa terhadap nilai-nilai budaya lokal. Melalui metode kolaboratif dan penilaian autentik, siswa terlibat aktif dalam menganalisis, mencipta, dan mempresentasikan karya digital berbasis kearifan lokal.*

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<sup>1</sup> Univet Bantara Sukoharjo, Indonesia

<sup>2</sup> Univet Bantara Sukoharjo, Indonesia

<sup>3</sup> Univet Bantara Sukoharjo, Indonesia

*Strategi tersebut mendukung pencapaian tujuan dan mendorong pelestarian budaya serta pengembangan keterampilan abad ke-21 seperti berpikir kritis, kreativitas, dan kolaborasi. Hasil implementasi menunjukkan bahwa kombinasi antara kecakapan digital dan nilai-nilai lokal dapat meningkatkan kemampuan literasi serta menumbuhkan pemahaman tentang identitas budaya sejak usia dini.*

**Kata Kunci:** Literasi Digital, Kearifan Lokal, Bahasa Indonesia, Sekolah Dasar

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## INTRODUCTION

Indonesian Language Learning is taught from Elementary School (SD/MI) through to Higher Education. This subject plays a very important role in the education curriculum, as it begins from early childhood education, including SD/MI, SMP/MTs, SMA/MA/SMK, up to university level (Hetilaniar, 2021). In its learning process, there are four language skill aspects that students must master, namely listening, speaking, reading, and writing. The main objective of teaching the Indonesian language is to develop students' competence in communicating, both orally and in writing, using the Indonesian language accurately and effectively. To this day, Indonesian language learning is still considered a compulsory subject in schools (Alfina & Suciptaningsih, 2024).

The rapid development of globalization has influenced language use among individuals. There has been a shift in children's language acquisition processes due to the influence of global culture and local-popular values. One driving factor of this phenomenon is Generation Z, who have been familiar with technological advancement and digital-rich environments since childhood (Irhandayaningsih, 2020). This language shift has also impacted literacy skills, particularly in reading and writing (Muhklis, Fiyani, et al., 2023). Over time, the meaning of literacy has undergone a fundamental transformation. Originally understood simply as the basic ability to read, write, and comprehend language, the concept of literacy now encompasses a wide range of interdisciplinary knowledge required in 21st-century life. With the progression of time, the meaning of literacy continues to expand, including areas such as digital literacy, computer literacy, information literacy, media literacy, statistical literacy, and more. Thus, the definition of literacy may change depending on the academic discipline being studied (Nurcahyo & Afryaningsih, 2018; Rini et al., 2022).

The implementation of digital technologies in education has contributed to enhancing literacy in the 21st century. Max et al. (2023) found that digital transformation has reconfigured the educational ecosystem while expanding opportunities for learning innovation. Building a strong literacy tradition has now become a particular focus of the government, as it is considered key to producing a generation that is responsive to technological changes and ready to compete on the global stage. It is expected that developing a culture of literacy will significantly contribute to national development.

Digital literacy was first introduced as an academic term in the mid-2000s, representing the convergence of computer technology skills and information management. According to Gilster (2005), this competence includes three main domains: (1) mastery of computing technology (including hardware and digital systems), (2) navigation within the global network ecosystem, and (3) optimal utilization of mobile communication devices in social and professional contexts. Marty et al. (2013) define digital literacy as a set of essential competencies for modern society to face the challenges and dynamics of 21st-century life. In addition, Putri et al. (2021) write that digital literacy is the ability to understand and use information from various digital sources.

Technology also plays a strategic role in raising public awareness of the urgency to improve literacy as a basic competence for adapting to the developments of the modern era. Digital literacy is seen as a solution to the challenges posed by the advancement of the 4.0 era, especially in terms of technological and scientific progress. Digital literacy can be defined as an individual's capacity to optimize, navigate, and organize various sources of information through digital media. Lufiah et al. (2022) argue that this concept involves three fundamental aspects: (1) psychological disposition (interests and attitudes), (2) technical capabilities, and (3) applicative skills in using digital tools for: (a) accessing and managing information, (b) synthesizing and analyzing data, (c) critiquing and evaluating content, (d) constructing knowledge, and (e) producing content and engaging in digital collaboration — all of which ultimately enhance social engagement.

The transformation of the education system through digital literacy in Indonesian language learning must also consider the element of local wisdom. The flow of globalization threatens the diversity of traditional cultures, creating social dynamics. Conceptually, local wisdom includes: (1) ethical knowledge systems passed down through generations (Purandina & Winaya, 2020), and (2) normative frameworks that govern communal life. Hidayati (2017) defines local wisdom as a socio-cultural system based on collective knowledge that functions to fulfill communal needs. Local wisdom represents an accumulation of social capital institutionalized in community practices, serving as both a stabilizer of socio-cultural systems and a protector of the natural ecosystem. Rohaedi (in Awaliah, 2022) identifies its dual strategic function: (a) as a cultural filtering system against cultural exogenization, and (b) as a selective acculturation mechanism for external cultural elements. It integrates foreign cultural elements into local culture and guides cultural development (Nurnaningsih et al., 2023).

Local wisdom refers to the knowledge, values, and cultural practices that have developed over generations within a society and function as behavioral guidelines and tools for managing social and ecological life (Nurnaningsih, 2019). It plays a multidimensional role in society. Its essential functions include: (1) serving as a marker of a community's cultural identity, (2) a medium of social integration that unites community members across religious and ideological boundaries, and (3) a reinforcer of communal solidarity. Furthermore, local wisdom functions as (4) an agent for transforming individual attitudes and intergroup relations by unifying cultural values, and (5) an instrument for revitalizing integrative values based on mutual respect and preventing social disintegration. Examples of such local wisdom include traditional storytelling practices, gotong royong (collective cooperation), and cultural expressions such as regional folklore and ritual ceremonies that teach communal responsibility and environmental stewardship. As explained by Noornailiah (2023), all of these values are rooted in a system of collective wisdom institutionalized within the societal structure.

The integration of digital literacy into Indonesian language learning can be effectively developed through a local wisdom-based approach, which aims to preserve regional traditions while ensuring their relevance in the midst of rapid scientific and technological advancement. Local wisdom, as an expression of cultural identity, encompasses philosophical values that are sustained as distinctive regional characteristics and reflect Indonesia's ethnic plurality and linguistic diversity. These cultural expressions take various forms, including folklore, traditional games, customs, oral literature such as pantun and proverbs, regional songs, and inherited ritual practices (Malawi, 2017; Joyo, 2019). The connection between local wisdom and digital literacy lies in the potential of digital competencies to document, reinterpret, and disseminate these cultural forms within contemporary learning contexts. When students engage in digital literacy tasks grounded in local culture, they critically search for information about their heritage, evaluate digital sources, and transform traditional content into multimodal formats such as digital storytelling, interactive presentations, short videos, and multimedia texts. This process not only enhances their technological proficiency but also deepens their cultural awareness, enabling them to interact with tradition in creative and meaningful ways. Moreover, embedding cultural values in digital activities supports the development of ethical digital behavior, as principles such as gotong royong (mutual

cooperation) and unggah-ungguh (respectful conduct) guide students' interactions in online environments. Consequently, local wisdom functions not merely as conceptual enrichment but as a contextual foundation that strengthens digital literacy practices and cultivates culturally grounded digital citizenship.

This research offers a novelty in integrating digital literacy and local wisdom in Indonesian language learning at the elementary school level through a holistic approach that contextually combines technological and cultural aspects. Unlike previous studies that tend to separate digital literacy from local content, this study develops an innovative learning model that not only strengthens students' digital competencies (such as information navigation, content evaluation, and media production) but also links them with local wisdom values (such as folklore, oral literature, and regional traditions) as the foundation of cultural identity. Another novelty lies in the localization of digital content, where instructional materials utilize interactive platforms, e-books, or culturally based animated videos (for example, stories from Tawangmangu or local proverbs), thereby creating a synergy between technological advancement and cultural preservation.

However, the urgency of this research becomes evident when considering two major gaps. First, there is a growing disconnect between students' increasing exposure to global digital content and their declining engagement with local cultural values, a trend which many earlier studies acknowledge but do not directly address through instructional design. Second, although previous research highlights the importance of digital literacy in primary education, very few studies operationalize how digital literacy can be taught in a culturally contextualized manner that aligns with students' sociocultural environments. As a result, existing models either emphasize technology without cultural grounding or focus on cultural heritage without integrating twenty-first-century digital skills. This study fills that gap by providing an empirically tested instructional model that integrates both dimensions, offering a relevant and urgently needed response to the challenges of cultural erosion and uneven digital competency development among young learners.

Based on the above background, the problem examined in this research is: \*How can the implementation of digital literacy in Indonesian language learning be developed through a local wisdom-based approach?\* The aim is to describe the application of digital literacy integrated with local wisdom in Indonesian language learning in elementary schools. This research is expected to provide both theoretical and practical contributions to the development of Indonesian language education that is adaptive to technological advances, while also oriented towards the preservation of local wisdom as the foundation of national culture.

## RESEARCH METHODS

This study employs a descriptive qualitative approach to examine the implementation of local-wisdom-based digital literacy in Indonesian language learning at the elementary school level. This approach was selected for its ability to reveal the meanings, perceptions, and lived experiences of participants in the natural context of classroom learning (Nugrahani, 2004). The research site, Sekolah Dasar Negeri Kalisoro in Tawangmangu, was purposively chosen based on its established integration of digital technology in instruction and its culturally rich environment that embodies diverse forms of local wisdom.

The data consist of all information related to the application of local-wisdom-based digital literacy in Indonesian language learning at the elementary level. Data sources include the principal, teachers, students, classroom learning processes, and supporting documents. Sampling was carried out using purposive sampling, focusing on the principal, teachers, and students. Data were collected through (1) participatory observation conducted across four learning sessions to document classroom interactions, the use of digital media, and the integration of local content; (2) semi-structured interviews with the

principal, teachers, and students to explore perceptions, challenges, and perceived impacts; and (3) document analysis of instructional materials, student work, and school archives. Primary data were obtained from interview transcripts, observational field notes, and audio-visual recordings, while secondary data comprised curriculum documents, lesson plans, teaching materials, and administrative records. The validity of the instruments used in this study was ensured through multiple qualitative validation strategies, including triangulation of data sources and methods, member checking, and peer debriefing. Triangulation across observations, interviews, and documents strengthened the credibility of the findings, while member checking allowed participants to verify the accuracy of the interpretations. In addition, the interview guides, observation protocols, and document analysis sheets were reviewed by experts to ensure content validity, and an audit trail was maintained to document research procedures systematically. These steps collectively enhanced the trustworthiness, credibility, and dependability of the instruments employed in the study. .

Source and methodological triangulation were strengthened through peer debriefing, involving colleagues to evaluate the analytical process and findings. Member checking was conducted by confirming data interpretations with participants, including teachers and students, to ensure accuracy of meaning. Additionally, an audit trail was implemented by documenting the entire data collection and analysis process in detail, enabling traceability and consistency of the findings. These steps enhance the reliability and validity of the data in accordance with qualitative research principles (Nugrahani, 2014).

Data analysis followed an interactive process based on the Miles and Huberman model (Nugrahani, 2014), consisting of three main stages. The first stage, data reduction, involved selecting and focusing on relevant data. In this study, data reduction was illustrated through the process of identifying key segments from interview transcripts( such as statements about the use of digital media, perceptions of local wisdom integration, and challenges faced by teachers) and coding them into thematic categories. The second stage, data display, organized information in the form of tables and descriptive narratives. For example, coded themes were arranged into matrices comparing teacher and student perspectives, or visualized through charts showing patterns of digital literacy practices across learning sessions. The final stage included drawing conclusions through verification and interpretation of the findings. This was carried out by comparing patterns emerging from observations, interviews, and documents to ensure consistency, confirming whether the integration of local wisdom in digital literacy activities aligned with curriculum goals, and revisiting the data to validate or refine emerging propositions. Through these iterative steps (coding, categorizing, organizing, and verifying) the analysis ensured that conclusions were grounded in comprehensive and systematically processed data.

## RESULT AND DISCUSSION

This study employed a descriptive qualitative approach to examine the implementation of digital literacy grounded in local wisdom within Indonesian language instruction at the elementary school level. The adoption of this approach was based on its capacity to capture meanings, perceptions, and participants' lived experiences in depth and within the natural context of classroom learning (Nugrahani, 2004). The research was conducted at Sekolah Dasar Negeri Kalisoro, Tawangmangu, purposively selected on the grounds that the school had integrated digital technology into its instructional practices and was situated within a cultural environment rich in local wisdom.

The data encompassed all information related to the integration of local wisdom-based digital literacy in Indonesian language learning at the elementary school. Data sources included the principal, teachers, and students, as well as classroom practices and supporting documents. Purposive sampling was applied, focusing specifically on the principal, teachers, and students. Data were collected through three techniques: (1) participatory observation conducted over four instructional sessions to examine

classroom interactions, the use of digital media, and the integration of local content; (2) semi-structured interviews with the principal, teachers, and students to elicit their perceptions, challenges, and experiences of implementation; and (3) document analysis involving teaching plans, students' work, and school records. Primary data consisted of interview transcripts, observation field notes, and audio-visual recordings, while secondary data included curriculum documents, lesson plans (RPP), instructional materials, and administrative archives.

To ensure trustworthiness, triangulation of sources and methods was employed, supported by peer debriefing with colleagues to review the research process and findings. Member checking was conducted by validating the interpreted data with participants, particularly teachers and students, to ensure accuracy of meaning. In addition, an audit trail was maintained by systematically documenting the entire data collection and analysis process, thereby allowing transparency, traceability, and consistency of findings. These strategies enhanced the credibility and dependability of the study in accordance with established principles of qualitative research (Nugrahani, 2014).

Data analysis followed the interactive model of Miles and Huberman (Nugrahani, 2014), consisting of three key stages. First, data reduction was carried out to select, categorize, and focus on information deemed most relevant. Second, data presentation was organized in the form of descriptive narratives and tabulations to facilitate interpretation. Finally, conclusions were drawn through a process of verification and interpretation, allowing the identification of emerging patterns and themes.

### **Learning Design**

The design of instruction that integrates digital literacy with local wisdom in Indonesian language learning begins with a needs analysis and an assessment of the learning context. Teachers must first identify the basic competencies in the curriculum that are relevant to both digital literacy and local wisdom, such as skills in listening to folktales or engaging in creative writing. Furthermore, teachers map the various forms of local wisdom that can be incorporated, ranging from folktales and oral traditions to local cultural values. This stage also includes a survey of the school's digital infrastructure to assess the availability of devices, internet access, and the level of digital competence among teachers and students, thereby ensuring that instructional planning aligns with the actual conditions in the field.

The next crucial step is the formulation of learning objectives, which should encompass cognitive, affective, and psychomotor domains. Cognitively, students are expected to be able to access, analyze, and evaluate digital content based on local wisdom. In the affective domain, the learning process aims to foster students' appreciation of local culture, while the psychomotor dimension emphasizes the development of skills in creating digital content such as videos, podcasts, or infographics on themes of local wisdom. A concrete example is the formulation of a learning objective in which students create a short video narrating a local folktale using a simple editing application, thereby combining digital competence with cultural understanding.

The selection of materials and learning resources is carried out by integrating digital literacy content with elements of local wisdom. Digital literacy materials include strategies for critically searching for information online, digital communication ethics, and techniques for producing creative content. Meanwhile, local wisdom content can take the form of folktales, regional proverbs, or oral traditions such as pantun or traditional songs. The learning resources employed are diverse, ranging from digital platforms such as YouTube and e-books of folktales, to local resource persons such as community leaders or cultural practitioners who can enrich students' understanding of regional traditions.

The design of learning activities emphasizes interactivity and collaboration, employing approaches such as Project-Based Learning (PjBL). The stages include exploration, where students investigate folktales through digital sources; group discussion, where they analyze the cultural values embedded within; and creation, in which students produce digital content such as online comics or podcast

recordings themed around local wisdom. The activities culminate in presentation and reflection, where students showcase their work on classroom platforms or at school exhibitions while reflecting on the relevance of moral values from the stories to modern life. Examples of activities include digital storytelling, where students record themselves narrating a folktale with digital illustrations, or virtual museum tours designed to explore Indonesia's cultural richness online.

The choice of media and digital tools is adapted to the developmental stage of elementary school students, making use of simple applications such as Canva for poster design, Book Creator for e-book production, or Flipgrid for video presentations. Collaborative platforms such as Google Docs and Padlet are also utilized to facilitate idea-sharing among students. Assessment is conducted through process evaluation, product evaluation, and attitudinal assessment. Process evaluation involves observing student participation; product evaluation employs rubrics to assess digital content; and attitudinal assessment is carried out through student self-reflection sheets. Rubric criteria may include alignment with local wisdom, creativity in digital presentation, and communication skills.

Evaluation and follow-up form the final stage of instructional planning. Teachers provide feedback on students' work to support improvement and further development. Additionally, revitalization of content is carried out by incorporating local wisdom from various regions into the teaching materials. This strategy may also be disseminated to other educators through workshops or scholarly publications, allowing broader adoption. Through this approach, Indonesian language learning not only enhances students' digital literacy but also strengthens their understanding and appreciation of local wisdom as an integral component of national cultural identity.

The results of this instructional design align with the findings of Alfina and Suciptaningsih (2024), who emphasize that the integration of local wisdom through digital media can enhance both cultural literacy and civic literacy among students. However, Nugroho (2022) found that the effectiveness of PjBL rooted in local wisdom is strongly influenced by the readiness of digital infrastructure in schools. This contrasts with the study of Wulandari (2023), which highlighted that success is more closely tied to the teacher's role in facilitating students' affective reflection on local culture rather than the technological aspects per se. Meanwhile, Pratiwi and Lestari (2021) argued that collaborative projects based on local culture contribute directly to the development of students' critical thinking skills, although challenges remain in terms of limited instructional time. Thus, the present instructional design may be viewed as an effort to bridge previous research findings by integrating cognitive, affective, and psychomotor aspects in a balanced manner, while adapting to the practical realities of Indonesian elementary schools.

### **Implementation of Learning**

The implementation of instruction employed a Project-Based Learning (PjBL) approach, with steps including problem identification, project planning, scheduling, project monitoring, assessment, and evaluation. The process began with concept introduction through an apperception activity designed to stimulate students' curiosity. The teacher introduced the theme by playing a short video featuring excerpts from local folktales or by displaying images of regional culture via a digital projector. These visual media served as a bridge between students' prior knowledge and new material while simultaneously introducing forms of local wisdom to be studied. Students were then invited to discuss their personal experiences with similar stories or traditions, while the teacher recorded their responses on a digital whiteboard using applications such as Jamboard.

The core phase of learning was conducted through collaborative project-based activities. The class was divided into small groups, each tasked with exploring a specific form of local wisdom using curated digital resources. Some groups investigated folktales through regional e-books, while others examined oral traditions using audio recordings or documentary videos. The teacher acted as a facilitator, guiding students in evaluating the reliability of digital sources and linking the information obtained to the cultural

values embedded within them. Students were encouraged to analyze digital content critically while identifying moral messages and local wisdom relevant to contemporary life.

The creative process formed a central element of this instructional model. Each group transformed the information they had collected into a simple digital product aligned with their interests and abilities. Examples included digital comics retelling local legends created with Canva, short podcasts featuring imagined interviews with cultural figures, or multimedia presentations comparing different versions of the same folktale. The teacher provided templates and clear assessment rubrics to guide the creative process, while also offering technical assistance with digital tools. Throughout the production phase, students were continuously encouraged to reflect on the values of local wisdom they discovered and how these might be applied in present-day contexts.

Presentation and dissemination of student work marked the culmination of the learning sequence. Students showcased their digital projects in a “virtual cultural gallery” accessible through school platforms or classroom digital spaces. Presentation formats varied from video screenings and live presentations to interactive digital exhibitions that allowed peers and visitors to provide feedback. The teacher facilitated peer review sessions in which students evaluated one another’s work using predetermined rubrics. This process not only strengthened students’ digital literacy but also fostered mutual respect and pride in cultural heritage.

Authentic assessment was integrated throughout the learning process. Teachers observed students’ participation in discussions and group work, while monitoring their development in digital literacy. Final products were assessed based on criteria including depth of understanding of local wisdom, creativity in digital presentation, and accuracy in the use of Indonesian language. In addition to teacher assessment, peer assessment and self-assessment were employed. Peer evaluation enabled students to critique one another’s projects, while reflective writing allowed them to assess their own learning processes. Together, these methods provided a holistic picture of learning outcomes across cognitive, skill-based, and affective domains.

Authentic assessment instruments combining digital literacy and local wisdom criteria were used to evaluate final products. Student works—such as digital comics, cultural infographics, or documentary videos—were assessed in terms of (1) accuracy and relevance of cultural content, (2) creativity and innovation in digital presentation, and (3) adherence to digital ethics, including citation of sources and originality of ideas. For instance, in a folktale e-book project, evaluation went beyond visual design to include students’ ability to retell stories in contextually appropriate language while preserving the essence of local wisdom.

The closing stage of instruction was designed as a moment for consolidating knowledge and broadening perspectives. The teacher guided students in a structured reflection on the overall learning process, challenges encountered, and lessons learned. Students were encouraged to consider alternative ways of preserving local wisdom through digital media in their daily lives. As follow-up, the teacher assigned enrichment tasks, such as creating personal blogs documenting local wisdom in their surroundings, or engaging in cross-class collaborative projects to produce a digital cultural encyclopedia. This consolidation underscored the relevance of learning to real-life contexts while opening pathways for extended learning beyond the classroom.

These findings resonate with Pratiwi and Lestari (2021), who demonstrated that PjBL rooted in local culture enhances critical thinking while fostering cultural identity awareness among students. In contrast to Santosa (2022), who found that the primary challenge lay in technological limitations in rural schools, this study revealed that integrating simple digital media (e.g., Jamboard, Canva, or basic video editing tools) was sufficient to effectively support learning. Furthermore, Hidayat (2023) emphasized the critical role of teacher facilitation, noting that without intensive guidance, students’ creativity in producing

digital products based on local wisdom tended to decline. Thus, the present study reinforces the notion that synergy among PjBL, digital literacy, and cultural values is not only feasible but also capable of generating comprehensive learning outcomes.

The integration of digital literacy and local wisdom provided students with a holistic and contextualized learning experience. The sequence of concept introduction, digital exploration, product creation, presentation, and reflection not only improved students' technological competencies but also deepened their understanding of cultural values. Through collaborative methods and authentic assessment, students actively engaged in analyzing, creating, and presenting digital works grounded in local wisdom, making the learning process more relevant, engaging, and meaningful. This strategy therefore achieved academic objectives while simultaneously promoting cultural preservation and the development of 21st-century skills such as critical thinking, creativity, and collaboration.

Nonetheless, several challenges emerged. Teacher interviews highlighted technical barriers, including limited access to devices and unstable internet connectivity. Classroom observations revealed that the pervasive influence of global popular culture posed an obstacle to fostering students' appreciation of local wisdom. Analysis of student projects showed that 5 out of 20 students tended to favor modern cultural elements over traditional ones in their presentations. These findings suggest the need for more creative approaches to presenting local culture in ways that resonate with students.

The positive impact of the strategy was evident across several dimensions. Student portfolios indicated progressive improvement in the quality of written work from week to week. Final evaluations revealed that 17 of 20 students achieved mastery in both digital literacy and cultural understanding. Student interviews indicated growing awareness of the importance of preserving cultural heritage. One student remarked, "Now I understand and feel proud of our regional folktales after studying them through the internet."

Based on these findings, several recommendations are proposed for further development. First, the creation of interactive digital modules containing local wisdom presented in ways appealing to digital natives is needed. Second, continuous professional development for teachers is essential to strengthen their ability to integrate technology and cultural content. Third, schools should establish well-equipped digital learning centers to support the implementation of such strategies. Finally, collaborative programs with local cultural communities are recommended to enrich learning resources.

This study makes an important contribution to pedagogical development in the digital era. Integrating digital literacy with local wisdom not only enhances 21st-century competencies but also nurtures students' cultural identity. The findings support the argument that culturally grounded, digitally mediated learning can serve as a bridge between tradition and modernity. Future research could develop more comprehensive instruments to measure the long-term impact of this strategy on students' character formation.

## CONCLUSIONS AND SUGGESTIONS

The findings of this study indicate that the implementation of digital literacy based on local wisdom in Indonesian language learning at SDN Kalisoro has succeeded in producing a holistic, contextual, and meaningful learning experience. Through the stages of concept introduction, digital exploration, product creation, presentation, and reflection, students not only developed technological competencies—such as the ability to search for, analyze, and create digital content—but also strengthened their understanding and appreciation of local cultural values. This project-based learning model, combined with authentic assessment, effectively nurtures 21st-century skills, including critical thinking, creativity, and collaboration, although it still faces challenges such as limited digital infrastructure and the dominance of popular culture. The success of this strategy is strongly influenced by the teacher's role as a facilitator,

parental support, and community involvement in enriching cultural content. Thus, digital literacy based on local wisdom functions not only as a means of enhancing academic competence but also as a medium for cultural preservation, preparing younger generations to be digitally literate while remaining rooted in their national identity..

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