

Student Character Education Through the Digital Literacy Movement at Ma'arif Walisongo Gempol Senior High School

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A B S T R A C T

While extensive research on digital literacy focuses primarily on technical infrastructure and operational skill acquisition, its explicit integration as an instrument for cultivating moral character and ethical behavior in secondary education remains under-explored. This study investigates how digital literacy initiatives are systematically integrated into Indonesian language instruction to foster students' character education and critical thinking skills in 21st-century learning environments. Employing a descriptive mixed-methods approach, the study was conducted at SMA Ma'arif Walisongo Gempol. Data were gathered through unstructured interviews with language teachers, participant observations, document analysis, and closed-ended Likert-scale questionnaires administered to 30 students. Quantitative data were analyzed using percentage descriptive statistics, while qualitative data underwent reduction, data display, and verification via source triangulation. Findings reveal five effective implementation strategies: (1) editorial text analysis on news portals, where 70% of students mastered information structure while learning to combat hoaxes; (2) digital biography research, resulting in 90% of students identifying and internalizing national figures' exemplary traits; (3) short story analysis via the Gramedia Digital app, enabling 83% of students to connect moral narratives with social empathy; (4) digital editorial discussions, fostering critical thinking and collaboration in 80% of participants; and (5) audio-based biography podcasts via Spotify, yielding the highest engagement with 93% of students demonstrating reflective character analysis. The integration of digital literacy into language pedagogy transcends technical skill acquisition, serving as a powerful vehicle for internalizing core character values such as integrity, critical reflection, responsibility, and empathy, thus supporting national education policy frameworks.

Keywords: Digital Literacy, Character Education, Indonesian Language Instruction, 21st-Century Learning

INTRODUCTION

In the digital era, the vast access to information provided by the internet significantly impacts student character development. Digital literacy in schools is not merely about the ability to access and comprehend information; it is also linked to the cultivation of positive character traits such as responsibility, critical thinking, creativity, and empathy. Character education through digital literacy initiatives aims to shape a generation that is not only intellectually intelligent but also morally grounded. According to Rowsell and

Pahl (2015) in **The Routledge Handbook of Literacy Studies**, literacy is understood as a practice that extends beyond the mere ability to read and write. In their view, literacy encompasses skills employed within diverse social and cultural contexts. They argue that literacy is not limited to the technical skills of reading and writing but also includes the understanding and use of texts in various forms, as well as interaction with media and technology in daily life. In this context, literacy is viewed as part of a social process occurring within a society that is constantly evolving and transforming, involving a wide range of texts and media.

According to Gilster (1997), digital literacy is the ability to understand and use information in various formats delivered via computers. This definition emphasizes the importance of critical and evaluative thinking skills in managing digital information. On the other hand, Martin (2006) states that digital literacy is a skill encompassing the understanding, evaluation, and application of information available in digital formats. This indicates that digital literacy is not merely about access, but also the ability to process and utilize information ethically and effectively.

The application of digital literacy can help students develop character values such as honesty (in verifying information sources), hard work (in filtering and utilizing appropriate information), and respect (for the work of others by honoring copyright). Furthermore, digital literacy fosters critical and reflective thinking skills, which are essential for navigating the vast influx of digital information.

In Indonesia, the policy to integrate digital literacy into the curriculum is already underway but still faces challenges, particularly regarding teacher readiness, facilities and infrastructure, and students' digital skills. Therefore, further support from the government, schools, and the community is needed to ensure this digital literacy initiative succeeds in shaping students who are both digitally competent and of good character.

Modern education requires teachers to be sensitive and responsive to technological advancements. Amidst rapid technological progress, teachers—acting as facilitators—must be able to meet student needs with prompt responses. 21st-century education entails that teachers actively utilize information technology as a medium and resource for instruction; proficiency in technology can be leveraged to create, discover, and disseminate knowledge to the wider community—and students in particular—with the aim of enhancing students' lifelong learning capabilities (Nurhabibah, 2019).

Education in the era of disruption—driven by the industrial revolution and societal shifts—aims to transform school-based learning. This shift moves beyond treating humans merely as objects (passive elements); instead, they are empowered to act as subjects (active players) who collaborate with physical systems to achieve goals. According to Suwandi (2019), this societal vision necessitates several changes in learning, such as a focus on skill development, flexibility in designing instructional delivery, openness in defining learning outcomes, and the fostering of innovation within the learning process.

Although numerous studies have been conducted on digital literacy (Gilster, 1997; Martin, 2006) and the use of learning technologies (Nurhabibah, 2019; Suwandi, 2019),

most prior research has focused on mastering technical skills and providing digital infrastructure. There is still limited research explicitly investigating how digital literacy initiatives serve as instruments for instilling character values and ethics in students within schools. Therefore, the novelty of this study lies in its comprehensive analysis of integrating digital literacy initiatives to holistically shape student character in the context of 21st-century learning.

Thus, reinforcing character education through digital literacy initiatives within 21st-century learning effectively addresses various issues facing schools. Instilling character education values from an early age fosters improved mindsets and behaviors among students. This approach aligns with the vision of a technology-enabled, people-centered society designed to facilitate and enhance daily life.

METHOD

This study employs a mixed-methods approach—combining qualitative and quantitative descriptive methods—to describe the phenomenon and determine the percentage results regarding efforts to instill character education values through a digital literacy movement in Indonesian language instruction. The research site was selected purposively—specifically, SMA Ma'arif Walisongo Gempol—given that the school has implemented a digital literacy program aligned with national literacy policies. The study utilizes a descriptive design, as its objective is to provide an in-depth account of how digital literacy is implemented as a medium to support student character education. This qualitative component enables an in-depth analysis of data gathered through interviews, observations, and a review of the literature.

The subjects and data sources for this study include: 1) Indonesian language teachers, as key informants who design and implement digital literacy in instruction; 2) students, as subjects of observation to assess their active participation; and 3) school documents, comprising policies, programs, and modules related to the digital literacy movement.

Data collection was conducted using four primary techniques: unstructured interviews, participant observation, literature review, and questionnaires. First, unstructured interviews were held with Indonesian language teachers, guided by an outline of issues focusing on the implementation of digital literacy, associated challenges, and its contribution to students' character education. Second, participant observation involved directly observing the application of digital literacy in Indonesian language instruction, encompassing digital-based activities, teacher-student interactions, and student work. Third, a literature review was employed to reinforce research findings by referencing national policy documents—such as the Regulation of the Minister of Education and Culture (Permendikbud) Number 23 of 2015—as well as academic literature and prior studies. Fourth, closed-ended questionnaires utilizing a Likert scale (scoring 1–4) were distributed to students to quantitatively measure the extent to which character values had been instilled.

Data analysis in this study employed both quantitative and qualitative approaches. Quantitative data analysis was conducted to process percentage data obtained from the questionnaire using the descriptive statistical formula ($P = \frac{f}{N} \times 100\%$). In

this formula, (P) represents the percentage, (f) denotes the frequency of the scores obtained, and (N) refers to the maximum possible score. The resulting percentages were subsequently interpreted based on the scoring criteria, namely 81%–100% as Very Good, 61%–80% as Good, 41%–60% as Fair, and below 40% as Poor.

Meanwhile, qualitative data analysis was conducted through three stages: data reduction, data presentation, and verification and conclusion drawing. Data reduction involved selecting and focusing on relevant information obtained from interviews, observations, and documentation. The data were then presented in narrative descriptions and tables to facilitate interpretation. The final stage involved verifying the findings and drawing conclusions by examining relationships among the data and validating the findings through triangulation across multiple data sources.

RESULTS AND DISCUSSIONS

Strengthening Digital Literacy in Character Education

A culture of literacy is a crucial necessity for navigating the digital era. High literacy proficiency not only enables students to acquire information effectively but also provides a foundation for developing positive character traits. However, the reading literacy of Indonesian students – particularly at the secondary school level – remains low compared to other Southeast Asian nations, especially regarding critical analysis (Rohman & Taufik, 2020). This highlights the importance of the National Literacy Movement as a systematic effort to enhance literacy skills while simultaneously fostering student character.

The National Literacy Movement is an initiative designed to strengthen synergy among key stakeholders by mobilizing resources and expanding public engagement to foster and cultivate a culture of literacy in Indonesia. This movement serves as an implementation of the Regulation of the Minister of Education and Culture Number 23 of 2015 concerning the cultivation of character. The National Literacy Movement encompasses six literacy components: reading and writing literacy, numeracy, scientific literacy, financial literacy, digital literacy, and cultural and civic literacy. It comprises three derivative programs: the School Literacy Movement, the Family Literacy Movement, and the Community Literacy Movement. Based on these components and programs, the researcher focuses on one specific aspect—digital literacy—within the context of the school-based literacy movement.

The school literacy movement represents a form of government awareness regarding the importance of fostering a literacy culture within education – specifically, cultivating reading and writing habits in the school environment—to realize the goal of lifelong learning. Literacy extends beyond mere reading and writing; it encompasses thinking skills that utilize knowledge sources in print, visual, digital, and auditory formats. In the digital era, literacy skills must include digital competence so that students can discern accurate and relevant information from the internet (Fahmi & Wahyuni, 2021).

Efforts to address this issue involve implementing literacy programs in schools, where teacher supervision ensures effective execution. Furthermore, the process of fostering a literacy culture follows a progression: teaching the importance of literacy, establishing routines, practicing consistency, solidifying the habit, evolving into character formation,

and ultimately manifesting as a literacy culture. Character education plays a vital, mutually reinforcing role in cultivating a robust literacy culture. Fundamentally, character education aims to shape an individual's character; Article 2 of the Minister of Education and Culture Regulation No. 20 of 2018 stipulates that Character Education Strengthening is implemented by applying Pancasila values—such as religiosity, honesty, tolerance, discipline, hard work, creativity, independence, democracy, curiosity, national spirit, patriotism, appreciation for achievement, communication skills, love for peace, a fondness for reading, environmental awareness, social concern, and responsibility. Any of these values can support the integration of efforts to foster literacy.

Qualitative findings from observations indicate that students at SMA Ma'arif Walisongo Gempol are beginning to demonstrate the ability to select relevant information through digital-based assignments. This ability is evident when teachers provide guidance on using credible news portals and students discuss the distinction between opinions and facts, reflecting an initial understanding of information evaluation. Furthermore, interview data with teachers reveal that students have become more active in asking questions and discussing the validity of information sources.

The implementation of digital literacy at SMA Ma'arif Walisongo Gempol aligns with Gilster's (1997) theory of digital literacy, which emphasizes the ability to evaluate information as a key component. This integration also supports Martin's (2006) view of digital literacy as the skill to understand, evaluate, and utilize information ethically. Furthermore, this study validates the National Literacy Movement policy—based on Ministry of Education and Culture Regulation No. 23 of 2015—which prioritizes character education through literacy. The use of digital technology has proven not only to enhance students' literacy skills but also to foster character values such as integrity, responsibility, and empathy.

The findings of this study carry significant implications for various stakeholders. For students, digital literacy provides a solid foundation for becoming more critical and responsible individuals in their use of technology. For teachers, the use of digital tools in learning facilitates a teaching process that is more contextual and relevant to 21st-century needs. Meanwhile, regarding education policy, these findings support the development of digital literacy policies in other schools as part of a national strategy to enhance character education.

Implementation of Digital Literacy in Schools

Based on observations and interviews with teachers at SMA Ma'arif Walisongo Gempol, digital literacy has been integrated into Indonesian language instruction using a character education approach, employing several implementation strategies. When studying editorial texts, students are guided to seek information from various digital sources, such as news portals or online articles. This process involves teacher guidance in discerning accurate and relevant information, thereby helping students avoid hoaxes. Values such as responsibility and integrity are instilled through assignments requiring the analysis of editorial text elements, including structure and linguistic conventions. In this context, students utilize their digital skills to search for and evaluate information—

tasks that involve using search engines, comprehending content from credible websites, and comparing information across multiple sources. Character education is incorporated to foster values like integrity and critical thinking; students taught to filter out hoaxes become more aware of the importance of honesty in the dissemination of information.

Descriptions of the observation findings indicate that students at SMA Ma'arif Walisongo Gempol were highly enthusiastic when asked to locate editorial texts from trusted news portals; the teacher guided them in selecting relevant sources and explained how to evaluate the accuracy of the information. Qualitative observation data revealed that, during the editorial text lessons, students demonstrated improved skills in selecting relevant information – evident, for instance, in the second observation session where they actively discussed and compared information from two different digital articles. Quantitatively, out of 30 students, 21 (70%) were able to correctly identify the 5W+1H structure following teacher guidance. Qualitative interview data showed the teacher explaining that using digital articles as teaching materials helped students develop critical thinking skills, particularly in distinguishing between fact and opinion. Quantitatively, following a semester-long implementation, 80% of the students achieved above-average scores on editorial text analysis assignments.

These findings are supported by qualitative data from a literature review of prior research by Fahmi and Wahyuni (2021) – which emphasizes that digital literacy enhances students' ability to understand and effectively utilize information – alongside quantitative data showing a 35% improvement in digital literacy skills following a three-month intensive program. Analysis indicates that the students' enthusiasm reflects the application of character values such as responsibility and integrity. Furthermore, teacher interviews reveal that digital-based learning fosters critical information analysis among students, aligning with Martin's (2006) views on the importance of evaluation within digital literacy. A synthesis of these findings supports the National Literacy Movement policy (Ministry of Education and Culture Regulation No. 23 of 2015), which underscores the significance of digital literacy as a systematic effort to cultivate a culture of reading and critical thinking among students.

The second strategy involves the use of digital media in teaching biographical texts, allowing students the freedom to research the biographies of specific figures using digital platforms. This approach aims to introduce students to the exemplary values of historical or inspirational figures through digital sources – such as researching the biography of independence fighter Ki Hajar Dewantara from reliable sources. Under teacher guidance, students gain an understanding of the figure's life journey and internalize exemplary values, such as a passion for learning, hard work, and patriotism. Regarding digital literacy, students use digital media to gather information on significant figures, learn to select credible sources, and understand how digital biographies are structured. In terms of character education, studying the struggles of these figures enables students to emulate positive traits, such as the drive to keep learning despite adversity. By researching the biographies of national figures online, students not only learn about the individuals themselves but also adopt these positive qualities. Observations indicate that 90% of the

students (27 out of 30) were able to identify two key character values embodied by the figures they studied.

The third strategy involves integrating digital literacy with short stories and **hikayat** (traditional tales) via the Gramedia Digital app to expand students' access to reading materials focused on environmental or social awareness. During these lessons, students are required to read the stories and analyze the underlying moral messages. This approach not only enhances their text analysis skills but also fosters an understanding of character values such as empathy, social concern, and environmental awareness. By using the Gramedia Digital app to locate relevant stories, students practice digital navigation and engage with digital content. The moral messages within the stories serve as an indirect means of cultivating empathy and concern for social or environmental issues. Qualitative data indicate that teachers utilize the Gramedia Digital app to provide access to environmentally themed short stories, followed by discussions on the stories' moral messages. Quantitatively, survey results show that 25 out of 30 students (83%) reported that using the app made it easier to comprehend the stories, identify relevant moral messages, and grasp character values.

The fourth strategy involves an editorial discussion conducted in groups to compare two articles from digital sources, focusing on the analysis of facts and opinions. This activity requires students to comprehend, evaluate, and effectively communicate digital information, while group collaboration teaches them to respect others' opinions and integrate diverse perspectives. As an example of implementation, the teacher asks students to read an environmentally themed short story – such as "Hutan yang Hilang" (The Lost Forest) – via the Gramedia Digital app. After reading, students discuss the story's content in small groups to identify the main characters, the conflict, and the underlying moral message regarding the importance of preserving forests as a source of life. For the final assignment, students write an essay on how they can apply environmental awareness values in their daily lives, such as disposing of trash properly or reducing plastic use. This activity fosters students' digital literacy skills while instilling character values like empathy and environmental responsibility; quantitatively, 24 out of 30 students (80%) demonstrated critical thinking and collaborative skills during the group discussions.

The fifth strategy involves introducing podcasts via Spotify, allowing students to listen to audio narratives about the lives of notable figures and grasp the exemplary values conveyed through storytelling. This approach introduces audio-based media as an information source, trains students to comprehend content without visual aids, fosters imagination and concentration, and cultivates independence in understanding information and assessing its relevance. As a practical example, teachers utilize Spotify podcasts to teach the biographies of national figures such as Ki Hajar Dewantara. Students are asked to listen to the podcast for 15 minutes – either in class or at home – and then write a summary of the figure's life journey and the exemplary values that can be applied to their own lives. During class discussions, students share their perspectives on the figure's struggles and relate them to their own experiences, highlighting qualities such as the importance of hard work and a passion for learning. This activity not only

trains students in critical thinking and focus but also helps them understand how to use digital media responsibly and productively. Quantitative data indicates that 28 out of 30 students (93%) were able to describe the figure's character in detail and relate it to their daily lives. The overall quantitative data regarding the five aspects of digital literacy learning and character education are systematically summarized in Table 1.

Table 1. Questionnaire Data related to Student Perspectives Regarding the Impact of Using AI on Digital Literacy

Learning Aspect	Activity	Number Of Students	Percentage	Description
Editorial Text	Sorting information from trusted news portals	21 out of 30	70%	Students were able to correctly identify the 5W+1H structure following teacher guidance.
Biographical Text	Searching for national figures' biographies using digital media	27 out of 30	90%	Students successfully identified exemplary values from the studied figures and applied them.
Short Stories via Gramedia Digital	Reading short stories themed on environmental care and identifying moral messages	25 out of 30	83%	Students were able to find moral messages and relate them to character values such as empathy.
Editorial Discussion	Discussing and comparing two digital articles	24 out of 30	80%	Students demonstrated critical thinking skills and cooperation in group discussions.
Introduction to Podcasts (Spotify)	Listening to figure biography podcasts to understand character values	28 out of 30	93%	Students were able to explain the figures' characters in detail and relate them to daily life.

CONCLUSION

This study demonstrates that integrating digital literacy into Indonesian language instruction effectively bridges critical information evaluation skills and character education among secondary school students. The implementation of diverse digital media—ranging from credible news portals and editorial discussions to interactive

platforms such as Gramedia Digital and Spotify podcasts—substantially enhances students' critical thinking, media evaluation capabilities, and active classroom engagement. Crucially, this integrated approach goes beyond technical proficiency by successfully internalizing core Pancasila character values, particularly integrity, empathy, social responsibility, and independent critical reflection, thereby confirming that digital competency and moral character development are mutually reinforcing in 21st-century learning.

Theoretically, these findings enrich the digital literacy discourse by providing empirical validation for Gilster's (1997) and Martin's (2006) frameworks, emphasizing critical evaluation and ethical information utilization as essential components of digital capability. From a policy perspective, the study offers strong empirical support for national initiatives, specifically the National Literacy Movement (Permendikbud No. 23 of 2015) and Character Education Strengthening (Permendikbud No. 20 of 2018). It highlights the critical role of teacher guidance in transforming everyday digital tool consumption into structured, ethically grounded pedagogical practices that foster discerning and responsible digital citizens.

Despite its valuable insights, this study is subject to limitations, including its qualitative focus on a single institution (SMA Ma'arif Walisongo Gempol) and its specific application within Indonesian language instruction. Future research should expand the institutional and geographic scope across diverse school environments, adopt mixed-methods or longitudinal experimental designs, and examine the cross-disciplinary application of digital literacy and character education across broader humanities, science, and social science curricula.

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