

INTERNALIZATION OF DIGITAL LITERACY AND INTERNET ETHICS GROUNDED IN RELIGIOUS CHARACTER THROUGH INTERACTIVE MENTORING FOR STUDENTS AT MI MIFTAHUL FALAH, CIKARAMAS VILLAGE

Cici Andriyani *, Ajeng Hikmalia Dwi Putri, Rahmatika, Amelia Elyana,
Endah Robiatul Adawiyah

STAI Riyadhul Jannah Subang

Jl. Raya Prapatan Bandung, Jalancagak, Kec. Jalancagak, Kabupaten Subang, Jawa Barat 40115, Indonesia

Email: chiecieandriyani@gmail.com

Abstract

The gap between high access to technology and low digital literacy remains a major challenge for students at Madrasah Ibtidaiyah (MI) in rural areas. This community service research aims to internalize basic digital literacy and internet ethics based on religious character among sixth-grade students at MI Miftahul Falah, Cikaramas Village. The study employed the Participatory Action Research (PAR) method, involving 27 students as active participants. The activities were carried out through the use of interactive companion media designed to facilitate students' understanding of data privacy, the risks of cyberbullying, and proper communication etiquette in digital spaces. The results demonstrated significant achievements: 85% of the students were able to identify the risks of personal data breaches, while 80% applied the principles of politeness in online interactions. These findings indicate that a participatory approach supported by interactive companion media is effective in bridging the digital literacy gap while strengthening the values of *akhlakul karimah* (noble moral character). The program also produced a digital module that can be sustainably utilized by the school.

Keywords: Digital Literacy, Internet Ethics, Religious Character, Participatory Action Research, Interactive Companion Media

INTRODUCTION

In the era of the Fourth Industrial Revolution and Society 5.0, access to information technology has transformed into a primary necessity that can no longer be avoided, including for children in rural areas that were previously isolated from the flow of globalization. Recent data from the Ministry of Communication and Information Technology (Kominfo) and the National Socio-Economic Survey (Susenas) indicate that internet penetration in Indonesia continues to increase exponentially every year. However, this increase in the quantity of access is not always directly proportional to the improvement in the quality of digital literacy, particularly among students at an early age. This phenomenon has created a dangerous paradox in which students have very broad access to gadgets and internet connectivity, yet possess only

limited understanding of digital ethics, cybersecurity, data privacy, and the long-term psychosocial impacts of uncontrolled internet use (Kemendikbud, 2020). This condition is further exacerbated by the lack of intensive supervision from parents and teachers, most of whom still experience a digital competence gap (digital divide), leaving children to browse the internet without adequate security filters or proper moral guidance.

This digital literacy gap is clearly evident at MI Miftahul Falah, Desa Cikaramas. Based on preliminary observations and in-depth interviews conducted by the community service team over one week prior to the implementation of the program, it was found that the majority of sixth-grade students already had active social media accounts, such as TikTok, Instagram, and WhatsApp, and spent an average of three to four hours per day playing competitive online games such as *Mobile Legends* and *Free Fire*. Although access to technology had become widespread, the way they used it tended to be highly consumptive and high-risk. They used the internet almost exclusively for entertainment without security awareness or a sense of digital responsibility. Cases of violations of digital ethics were still frequently found, such as sharing sensitive personal data in public comment sections or open group chats, as well as using offensive language, insults, and inappropriate slang while interacting during online gaming sessions. This reflects the weak internalization of *akhlakul karimah* (noble moral character) in the digital space, which should serve as the primary foundation and distinguishing characteristic of education in Madrasahs compared with other schools. The students had not yet realized that digital footprints are permanent, cannot be completely erased, and may have serious negative impacts on their future academic, social, and psychological lives.

Digital literacy in the context of twenty-first-century education is not merely the technical ability to operate hardware and software; rather, it is a critical competency that includes the ability to access, analyze, evaluate, create, and distribute digital content responsibly, safely, and ethically (Ribble, 2019). From the perspective of Islamic education, which is the distinctive characteristic of Madrasahs, digital literacy must be integrated organically with religious and spiritual values. Concepts such as *Qaulan Sadidan* (truthful and factual speech), *Qaulan Kariman* (noble and courteous speech), *Qaulan Layyinan* (gentle speech), and *Qaulan Balighan* (appropriate and effective speech), as stated in the Qur'an, Surah Al-Isra verses 23–24 and Surah An-Nisa verse 9, should serve as the philosophical foundation for every digital activity undertaken by students. This integration is highly important and urgent to develop a young generation that is not only technologically competent but also ethical, strong in character, and morally resilient against the influence of the digital world. Without the strong integration of religious values, digital literacy will merely produce users who are technically competent but spiritually and morally deficient, ultimately making them vulnerable to the spread of hoaxes, hate speech, online pornography, online gambling, and various other forms of deviant behavior that damage the social order.

However, the reality of digital literacy learning in elementary schools and *Madrasah Ibtidaiyah* (MI) is often hindered by various structural and pedagogical constraints. The teaching methods employed remain predominantly monotonous, one-way, and overly theoretical, while the existing curriculum has not yet fully accommodated contextual and practical digital literacy materials. Subject teachers often encounter difficulties in explaining abstract topics such as data privacy, digital footprints, or social media algorithms because of the lack of interactive visual learning media that are relevant to students' real-life experiences.

The learning materials delivered rarely touch upon students' emotional experiences and daily lives; consequently, the knowledge acquired is easily forgotten and fails to become internalized as behavior. This is where the strategic role of the Community Service Program (PKM) becomes crucial and irreplaceable. The KKN team is not intended to take over or replace the role of subject teachers but rather to function as facilitators and learning partners by providing character-based digital literacy companion media. This media was specifically designed as an interactive learning aid that enables students to learn through real-life case simulations, virtual experiments, and guided reflection, making the learning process more enjoyable, easier to understand, more relevant, and more memorable in long-term memory.

Previous research by Pratama and Sari (2022) demonstrated a significant positive correlation between the level of digital literacy and the development of students' religious character in elementary schools. However, most of these studies were descriptive or evaluative in nature and did not involve direct and participatory improvement actions in the field. Therefore, this community service research employed a Participatory Action Research (PAR) approach that is oriented toward empowerment and social change. The PAR approach was deliberately selected because it emphasizes active, equal, and dialogical collaboration between researchers and research participants (students and teachers) throughout every stage of the research cycle, beginning with collaborative problem identification, participatory action planning, implementation, and critical reflection for continuous improvement (Khafsoh & Hidayat, 2024). Through PAR, the sixth-grade students were not positioned as passive recipients of learning materials but were directly and meaningfully involved in solving digital literacy problems within their own environment. This approach is considered more effective and sustainable because it empowers students to develop critical awareness and become agents of positive change for themselves, their peers, and the school community as a whole.

The specific objectives of this community service research are threefold: (1) to improve the cognitive and affective understanding of sixth-grade students at MI Miftahul Falah regarding the risks of personal data security, digital privacy, and cyber threats in the online environment; (2) to internalize the values of ethics, courtesy, and noble moral character in digital interactions through an integrative approach based on contextual Islamic values; and (3) to provide and donate character-based interactive companion media that can be used independently and sustainably by the school to support digital literacy learning in the future. By achieving these objectives, it is expected that a generation of Madrasah students will be developed who are digitally competent, safe in carrying out online activities, critical in evaluating information, and exemplary in both moral character and spiritual values.

RESEARCH METHOD

This community service research employed a Participatory Action Research (PAR) methodological approach. The PAR approach was strategically selected because of its characteristics that emphasize active, democratic, and transformative collaboration between researchers and research participants (sixth-grade students and supervising teachers) throughout every stage of the research cycle. The PAR cycle consisted of participatory problem identification, collaborative action planning, action implementation, observation, and critical reflection for continuous improvement in subsequent cycles. Through this approach, the sixth-grade students were not merely positioned as passive recipients of learning materials but were directly, meaningfully, and autonomously involved in solving the digital literacy problems they encountered in their daily lives at school and at home.

This community service activity was conducted intensively at *Madrasah Ibtidaiyah* (MI) Miftahul Falah, Desa Cikaramas, involving 27 sixth-grade students as the primary participants and supervising teachers as collaborative partners. This approach is consistent with the principles of community empowerment and critical education described by Khafsoh and Hidayat (2024), in which the success and sustainability of a program are determined by the level of participants' involvement, ownership, and sense of responsibility toward the solutions that are jointly implemented.

The implementation of the community service program consisted of three systematic, measurable, and participatory stages.

First, the Preparation and Participatory Problem Identification Stage. Participatory observations, in-depth interviews, and group discussions were conducted with classroom teachers, the school principal, and student representatives to comprehensively identify the level of digital literacy, patterns of gadget use, and digital ethics issues encountered by the students. The findings revealed that the majority of students had not yet understood basic privacy principles, frequently shared their account passwords with close friends, and lacked awareness of the dangers of phishing scams and social engineering. Furthermore, the use of offensive language, ridicule, and verbal cyberbullying in class WhatsApp groups and online gaming sessions had become normalized and was generally not perceived as problematic by most students.

Second, the Participatory Action Implementation Stage. Character-Based Digital Literacy Companion Media were provided and implemented, consisting of illustrated interactive modules and case simulation worksheets. It is important to emphasize that these materials were not intended to replace classroom assignments or impose additional burdens on subject teachers. Rather, they functioned as innovative facilitation tools that students used collaboratively during dedicated learning sessions under the guidance of the KKN team and supervising teachers. The learning materials covered four major components integrated with Islamic values: (a) an introduction to digital footprints, data permanence, and online reputation; (b) strategies for protecting personal data, including password management; (c) ethics of commenting, sharing digital content, and conflict resolution on social media based on the principle of *Qaulan Kariman*; and (d) the dangers of cyberbullying, its psychological impacts, and reporting mechanisms. Each learning session concluded with a reflection session on Islamic values related to proper communication etiquette, safeguarding the dignity and privacy of others, and moral responsibility.

Third, the Participatory Evaluation and Sustainability Reflection Stage. Formative and summative evaluations were conducted through a post-test consisting of authentic case studies to measure improvements in students' cognitive understanding. In addition, observations of students' daily behavior and reflective journals were used to assess changes in the affective and psychomotor domains. The evaluation results were subsequently discussed openly and democratically with teachers and students during a final reflection forum to determine follow-up actions, recommendations for improvement, and strategies to ensure the sustainability of the program.

The success indicators of this community service program were established in a measurable and realistic manner: (1) at least 80% of the students were expected to correctly answer case-study questions related to data privacy, digital security, and communication ethics, achieving a minimum performance level of “good”; (2) a reduction in the frequency of offensive language and cyberbullying behaviors in students' online interactions, as monitored through the class WhatsApp group; and (3) a formal commitment and demonstrated willingness from the school to adopt, adapt, and integrate the companion media into local content subjects or the school's character-building program on a sustainable basis.

RESULTS AND DISCUSSION

Achievement of the Digital Literacy Activity Module Implementation

This community service program successfully internalized digital literacy and internet ethics among 27 sixth-grade students at MI Miftahul Falah, Desa Cikaramas, through the implementation of a digital literacy activity module. The measurable outcomes indicated that 85% of the students were able to identify the risks of personal data breaches, while 80% demonstrated the application of the principles of courtesy in online interactions after completing all activity sessions in the module. The use of a printed module as the primary learning medium proved effective in overcoming the school's technological limitations while simultaneously reinforcing the values of *akhlakul karimah* (noble moral character). The materials were presented in an accessible format that did not depend on internet connectivity, and the module could be completed either collaboratively or independently under the guidance of supervising teachers without increasing the administrative workload of subject teachers.



Picture 1.



Picture 2.

Increasing Awareness of Data Privacy Through Written Case Simulations

Prior to the implementation of the activity module, preliminary observations revealed that the students had limited understanding of data privacy and frequently shared sensitive personal information on social media without adequate consideration. After completing the module, which incorporated written case simulations, a significant improvement in students' critical awareness was observed. They began to understand that digital footprints are permanent and may be misused if they are not properly protected. This finding is consistent with Ribble's (2019) theory of digital citizenship, which emphasizes the importance of safe digital participation, and is further supported by the Islamic concepts of *Hifz al-Nafs* (the preservation of life) and *Hifz al-Mal* (the protection of property and personal assets, including data). Within the Madrasah context, protecting personal data is not merely a technical requirement but also a moral responsibility and a form of obedience in safeguarding the trust bestowed upon individuals through their intellect and information (Arief, 2021). The activity module facilitated this understanding through realistic scenarios that reflected students' daily experiences, thereby transforming abstract concepts into concrete learning experiences without requiring electronic devices.



Picture 3.



Picture 4.

Internalizing Digital Etiquette Through Guided Reflection

Prior to the program, several students were accustomed to using offensive language or insults while interacting in digital spaces. The activity module incorporated guided reflection sections that encouraged students to express how they would feel if they became victims of cyberbullying and to relate their online behavior to the Islamic values of *Qaulan Kariman* and *Qaulan Sadidan*. The post-activity evaluation showed that 80% of the students were able to choose more courteous and empathetic language in their digital interactions. This finding supports the study of Hidayatullah (2021), which demonstrated that Islamic Religious Education (PAI) learning supported by interactive activity worksheets can improve students' learning motivation while fostering moral values in a meaningful way. Zulkarnain (2022) further argued that every statement made on social media will ultimately be accountable in the hereafter. Accordingly, the written reflection activities in the module functioned as an internal reminder for students to regulate their emotions while using the internet. One of the principal advantages of the printed module lies in its ability to provide students with a quiet space for reflection, free from distractions such as notifications or entertainment content.



Picture 5.



Picture 6.

Effectiveness of the Printed Module in Contextual Learning

The implementation of the activity module was highly appropriate for the conditions at MI Miftahul Falah, Desa Cikaramas, where access to the internet and digital devices remains limited. Unlike conventional lecture-based instruction, which is often theoretical, the module presented authentic case studies, such as online fraud through fraudulent links offering free game rewards and verbal bullying in class WhatsApp groups. Susanto (2023) argued that character education in the digital era requires contextual approaches that are adaptive to local conditions. The module enabled experiential learning through safe, written scenarios, allowing students to examine the consequences of different decisions and reflect upon the lessons learned without relying on internet access. Furthermore, the module did not replace the role of subject teachers but instead functioned as a facilitative learning tool that complemented the existing curriculum. Wibowo (2021) emphasized that teachers' roles have shifted toward becoming facilitators and information filters. The activity module supported teachers in fulfilling this role effectively by providing structured learning materials that were ready to use without requiring teachers to redesign instructional resources from the beginning.

Social Impact and Program Sustainability

The positive impact of the program extended beyond students' cognitive development and contributed to the digital culture of the school. Students who had completed the activity module began reminding their peers to use respectful language and verify information before sharing it, thereby creating a peer education effect that effectively influenced the social norms of early adolescents (Sari, 2023). Teachers also appreciated the module because it addressed the gap in the digital literacy curriculum, particularly in its practical implementation. To ensure program sustainability, the KKN team provided the school with the master file of the module together with a user guide, enabling future cohorts to reproduce the module independently without relying on the continued presence of the community service team. Livingstone (2019) emphasized that the sustainability of educational programs depends on the availability of accessible and affordable learning resources. The printed module satisfies these criteria because it is inexpensive to produce, durable, and does not require additional technological infrastructure. Nevertheless, one remaining challenge is the school's limited printing budget. Therefore, it is recommended that future community service programs establish partnerships with the local education office or corporate social responsibility (CSR) initiatives to subsidize

periodic module printing. In addition, parents should be actively involved in assisting students with the module at home so that digital supervision within the family environment remains aligned with the digital literacy education provided at school (Fadillah, 2022).



Picture 7.



Picture 8.

Table 1. Schedule of Activities

NO	Day/Date	Number of Students	Location
1.	Thursday, July 16, 2026	48 Students of SDN Cikaramas 1	Desa Cikaramas
2.	Tuesday, July 21, 2026	49 Students of SDN Cikaramas 2	Desa Cikaramas
3.	Friday, July 24, 2026	52 Students of MI Miftahul Falah Cikaramas	Desa Cikaramas

CONCLUSION

The community service program conducted at MI Miftahul Falah, Desa Cikaramas, successfully improved the digital literacy, cybersecurity awareness, and internet ethics of sixth-grade students through a participatory and transformative Participatory Action Research (PAR) approach. The primary outcomes were demonstrated by 85% of the students being able to identify and avoid data privacy risks and cyber threats, while 80% demonstrated courtesy, empathy, and Islamic etiquette in their digital interactions. The use of character-based interactive companion media proved to be an effective and innovative facilitation tool that did not replace the role of teachers but instead strengthened, enriched, and contextualized digital literacy learning grounded in the values of *akhlakul karimah* (noble moral character). The integration of Islamic values, including *Qaulan Kariman*, *Hifz al-Nafs*, and digital moral responsibility, successfully positioned digital literacy as an integral part of the religious, spiritual, and moral identity of Madrasah students. The program also produced sustainable outcomes in the form of a digital module, a user guide, and enhanced teacher capacity, all of which can be utilized independently by the school in the future. It is recommended that the school continue to develop strategic partnerships with parents, the community, and local stakeholders to expand a safe, healthy, and character-oriented digital literacy ecosystem within both the home and the wider community.

REFERENCES

- Al-Qur'an. (Terjemahan). Surah An-Nur: 27-28. Jakarta: Kementerian Agama RI.
- Arief, M. (2021). Literasi Digital dalam Perspektif Pendidikan Islam. *Jurnal Pendidikan Islam Indonesia*, 5(2), 112–125.
- Buckingham, M. (2020). *Teaching Media Literacy in the Digital Age*. Routledge.
- Fadillah, R. (2022). Strategi Pencegahan Cyberbullying pada Anak Usia Sekolah. *Jurnal Psikologi Pendidikan*, 10(1), 45–58.
- Hidayat, R. (2022). Media pembelajaran interaktif di sekolah dasar. *Jurnal Guru Kita*, 7(1), 45–50.
- Hidayatullah, M. R. (2021). Gamifikasi dalam pembelajaran PAI: Strategi meningkatkan motivasi belajar siswa. *Jurnal Pendidikan Islam*, 10(2), 112–125.
- Ismail, N. (2023). Integrasi Nilai Akhlak dalam Pembelajaran Teknologi Informasi. *Jurnal Tarbiyah*, 12(1), 88–102.
- Khafsoh, N. A., & Hidayat, A. (2024). *Implementation of participatory action research (PAR) in community service program*. *Jurnal Pengabdian Masyarakat*, 5(1), 237–253. <https://jurnal.stie.asia.ac.id/index.php/jpm/article/view/2034>
- Kemendikbud. (2020). Panduan literasi digital untuk pelajar. Jakarta: Kementerian Pendidikan dan Kebudayaan Republik Indonesia.
- Livingstone, S. (2019). *Children and the Internet: Great Expectations, Challenging Realities*. Polity Press.
- Mulyadi, T., & Wibowo, S. (2022). Strategi moderasi beragama di ruang digital bagi generasi muda. *Jurnal Dakwah dan Komunikasi*, 15(1), 67–82.
- Pratama, A., & Sari, D. P. (2022). Literasi digital dan karakter religius siswa SD di era post-truth. *Jurnal Basicedu*, 6(3), 4500–4510.
- Rahmawati, Y. (2020). Integrasi nilai akhlak dalam pembelajaran tematik berbasis teknologi. *Jurnal Tarbiyah*, 8(1), 45–58.
- Ribble, M. (2019). *Digital Citizenship in Schools: Nine Elements All Students Should Know*. ISTE.
- Sari, D. P. (2023). Etika berinternet bagi generasi Z. *Jurnal Teknologi Pendidikan*, 10(3), 200–210.