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Integrating Generative Artificial Intelligence into Islamic Character Education: Practices and Challenges in Indonesian Islamic School

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ABSTRACT

The rapid growth of generative technology, particularly Generative Artificial Intelligence (GAI), provides new opportunities to strengthen character education in Islamic schools. However, previous studies on Islamic character education have largely relied on conventional teaching approaches, while research discussing the integration of generative AI into value-based education remains limited. In addition, many studies on artificial intelligence in education focus on cognitive outcomes rather than moral development, leaving a gap in understanding how generative technology can support character formation in religious educational settings. This study aims to examine the development of a generative technology–based Islamic character formation model at SMP Islam As Sakinah Sidoarjo as part of efforts to prepare the Indonesian Golden Generation 2045. The study used a descriptive qualitative design through observations, interviews, and analysis of school documents. The results show that GAI supports teachers in developing contextual moral learning materials, generating ethical case simulations, and facilitating reflective learning adapted to students' needs. These practices strengthen values such as honesty, responsibility, discipline, and empathy through adaptive learning scenarios. The school also applies ethical supervision and digital literacy guidance to ensure that technology use remains aligned with Islamic principles. This study proposes an AI-assisted Islamic character education model integrating generative learning, reflective value formation, and ethical control, which represents a novel framework for character education in the digital era.

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1. INTRODUCTION

The rapid expansion of digital technology over the past two decades has transformed nearly all dimensions of human life, including education. The emergence of Generative Artificial Intelligence

(GAI) represents a new phase of digital transformation that not only reshapes professional work but also changes how individuals learn, teach, and construct knowledge. Unlike earlier educational technologies that primarily functioned as delivery tools, generative systems are capable of producing adaptive content, simulations, narratives, and problem-solving responses based on user interaction. Through deep learning and large language models, GAI can generate context-sensitive outputs that resemble human reasoning patterns, allowing it to function as an interactive partner in the learning process (Haase & Hanel, 2023; F. Jin, Lin, & Lai, 2025). Within the field of education, this technology holds strong potential as a powerful tool to enrich learning experiences, enhance students' creativity, and support teachers in designing instructional practices that are more dynamic and responsive to learners' needs (Cetinic & She, 2022; Iqbal et al., 2025; Lan & Chen, 2024). Beyond its academic advantages, GAI is increasingly viewed as a promising medium for strengthening character education, including the development of Islamic character.

Within Islamic educational philosophy, character formation occupies a foundational position in shaping Muslims with noble conduct (akhlaq al-karimah). Character is understood not merely as a set of observable behaviors but as the integration of values, beliefs, and moral principles manifested through daily actions (Wolkenhauer & Hooser, 2021). Classical Islamic scholars, particularly Al-Ghazali, described character as a stable disposition of the soul that guides individuals to act virtuously without coercion. According to Al-Ghazali, moral development requires a gradual process consisting of knowledge (ma'rifah), practice ('amal), habituation (ta'wid), and spiritual purification (tazkiyah al-nafs) (Murdani & Fauzi, 2024; Sholeh, Muhammad, & Susandi, 2022). Character formation cannot rely solely on cognitive instruction but must involve emotional engagement, reflection, and consistent practice. Therefore, modern Islamic education seeks to integrate moral knowledge, moral feelings, and moral actions within a unified pedagogical system. This framework demonstrates that character education cannot rely solely on cognitive instruction but must involve emotional engagement, reflection, and consistent practice. Therefore, modern Islamic education seeks to integrate moral knowledge, moral feelings, and moral actions within a unified pedagogical system (Budi Utomo, 2021; Deng, Kiramba, & Viesca, 2021; Setiawan, Anwar, Subakti, & Haris, 2024).

When compared with contemporary AI-based learning models, the classical Islamic approach offers a deeper philosophical foundation for character formation. Most AI-supported education frameworks emphasize efficiency, personalization, and performance outcomes, whereas Islamic moral education emphasizes intentionality (niyyah), ethical awareness, and self-control. This difference indicates that the integration of generative technology into Islamic schools cannot simply adopt existing AI in education models. Instead, it requires a conceptual framework that aligns technological capability with Islamic ethical principles. In this context, the dialogue between Islamic moral philosophy and AI ethics becomes essential. AI ethics in education highlights issues such as bias, transparency, accountability, and responsible use of technology ((Eggers, Oostdam, Voogt, & Bonne, 2025; Haase & Hanel, 2023; Kazemitabar, Lajoie, & Doleck, 2021). These concerns resonate with Islamic principles of justice ('adl), trustworthiness (amanah), and responsibility (mas'uliyyah), suggesting that the integration of GAI into Islamic character education must be guided by both technological standards and religious values.

In the Indonesian context, the emphasis on character education aligns with the national agenda of preparing the Golden Generation 2045—youth who are globally competitive while grounded in strong moral integrity (Badan, Asesmen Pendidikan Kementerian Pendidikan, Teknologi, Indonesia, & Pengembangan, 2022). Islamic schools and madrasahs play a strategic role in achieving this goal because they combine religious instruction with general education. However, rapid exposure to digital media and online culture has created a gap between the moral values taught in school and the realities experienced by students in everyday life. Adolescents encounter diverse information, social influences, and ethical dilemmas that cannot always be addressed through traditional lecture-based character education (Murdani & Fauzi, 2024; Nippa, Patnaik, & Taussig, 2021; Stahl, 1979). Teachers often face

limitations in time, resources, and instructional materials to present contextual moral learning that reflects contemporary challenges. As a result, character education risks becoming theoretical rather than experiential.

Generative Artificial Intelligence offers possibilities to bridge this gap by enabling the creation of contextual moral scenarios, interactive dialogues, and reflective simulations that connect ethical values with real-life situations. Compared with earlier educational technologies, GAI allows dynamic generation of narratives, case studies, and problem-based learning activities tailored to students' needs. For example, generative systems can produce ethical dilemmas related to digital communication, academic honesty, or social responsibility, allowing students to practice decision-making in realistic contexts. Such features make GAI potentially more suitable for character education than previous rule-based or multimedia systems, because it supports reflection and internalization rather than mere memorization

Nevertheless, the integration of GAI into Islamic education raises significant ethical challenges. Generative systems may produce content that is inaccurate, culturally inappropriate, or inconsistent with Islamic teachings if not carefully controlled. Algorithmic bias and data limitations can also lead to outputs that conflict with the principles of aqidah and sharia. In addition, excessive reliance on automated systems may weaken students' independence and reduce the role of teachers as moral guides. From the perspective of Islamic pedagogy, technology must remain a tool that supports human guidance rather than replacing it. Al-Ghazali emphasizes that moral education requires the presence of a teacher who serves as a role model (uswah), demonstrating virtuous behavior through daily interaction. Therefore, the use of generative technology must be accompanied by strong supervision, ethical filtering, and clear institutional policies (Ahlstrand & Andersson, 2024; Kim & Lee, 2023).

To address these issues, a structured implementation model is needed that integrates generative technology with Islamic character education in a systematic manner. Such a model should include clearly defined objectives, instructional strategies, value-integration mechanisms, monitoring procedures, and evaluation methods. Unlike previous AI-based educational models that focus mainly on cognitive outcomes, the proposed framework emphasizes the internalization of Islamic values through habituation, reflection, and guided interaction. In this model, GAI functions as a medium for enrichment rather than as the primary source of authority. Teachers remain responsible for validating content, guiding discussion, and ensuring that all learning activities align with Islamic ethical principles

SMP Islam As Sakinah Sidoarjo, as an Islamic middle school, occupies a strategic position in developing a character formation model that aligns with the demands of the digital era. Islamic schools serve not only as centers for strengthening religious knowledge but also as environments where students learn to integrate Islamic values with contemporary societal challenges (Anwar, 2021; Fauzan, 2017; Rutten, Butville, & Dvir, 2024; Spiele, Janssen, Schildkamp, & Poortman, 2025). As an institution committed to nurturing moral character, the school faces the challenge of continuously adapting to technological advancements while upholding Islamic principles. This condition necessitates innovative approaches to utilizing generative technology as a supporting tool for Islamic character education (Fajarini, 2014; Matsko, Ronfeldt, & Nolan, 2022; Vu & Vu, 2025). Hence, there is an urgent need to design a model that is not only effective but also aligned with Islamic values and the school's vision for cultivating a generation with strong moral character.

The significance of this study lies in its effort to construct a conceptual bridge between three domains that have rarely been integrated systematically: Islamic moral philosophy, AI ethics in education, and generative learning technology. While previous research has examined AI in academic learning, few studies have explored its application in Islamic character formation at the madrasah level. By analyzing the implementation at SMP Islam As Sakinah Sidoarjo, this study aims to formulate a generative technology–supported Islamic character education model that is theoretically grounded, ethically guided, and pedagogically applicable. The findings are expected to contribute both to the academic discourse on value-based education in the digital era and to the practical development of character education models that can be replicated in Islamic schools across Indonesia. Through a

balanced integration of technological innovation and Islamic ethical principles, madrasahs can play a crucial role in preparing a generation that is intellectually capable, morally responsible, and spiritually grounded, in line with the aspirations of the Golden Generation 2045

One of the central issues in character education within the digital era is the gap between the values taught at school and the realities students encounter in their everyday lives. The fast-paced exposure to technology, digital media, and an abundance of information often leads to value dissonance (Ali, Anwar, Azam, & Ashraf, 2024; Bommasani et al., 2022; Liu, Shindo, & Matsumoto, 2019). Traditional methods of delivering character education frequently fall short in addressing the moral challenges that emerge from digital environments. Additionally, teachers often struggle with limited time and resources to produce contextual, engaging, and up-to-date character learning materials (Fauzan, 2017; Suryanto, Degeng, Djatmika, & Kuswandi, 2021). GAI has the potential to bridge this gap by generating moral narratives, case simulations, dialogues, and scenario-based learning that resonate with students' current realities. This technology can also assist teachers in creating more personalized learning experiences, enabling students to better comprehend and internalize Islamic values within the context of their real-world experiences.

At SMP Islam As Sakinah Sidoarjo, the integration of generative technology can be directed toward strengthening values such as honesty, proper communication etiquette, discipline, responsibility, empathy, and respect. For example, GAI can be utilized to generate ethical case simulations depicting moral dilemmas relevant to students' lives, produce inspirational narratives rooted in Islamic teachings, or design interactive dialogues on everyday etiquette (Kostka & Toncelli, 2023). Through these approaches, students are not only taught values theoretically but are also trained to apply them in contexts that resonate with their digital experiences. Thus, generative technology can serve as an effective partner for educators in nurturing a generation that is digitally literate while maintaining strong moral and spiritual foundations.

This study is crucial because existing research on the integration of generative technology into Islamic character education at the madrasah level remains very limited. Most prior studies have focused on the use of GAI for academic learning purposes, such as language instruction, science education, or writing enhancement (Hannah & Avolio, 2010; Mårtensson, Runesson Kempe, & Hansson, 2024; McFarland, 1974). Yet, the broader potential of this technology can also be directed toward character development and the cultivation of moral conduct. SMP Islam As Sakinah Sidoarjo, as the chosen case study, offers a concrete example of how an Islamic school can adopt advanced technologies while preserving its core identity and foundational educational values.

The findings of this research are expected to contribute to the development of a technology-based Islamic character education model that can be replicated across various madrasahs in Indonesia. Accordingly, the focus of the study is to analyze and formulate a generative technology–supported Islamic character formation model at SMP Islam As Sakinah Sidoarjo as part of a broader strategy to prepare the Golden Generation. The study examines how generative technology is utilized in moral and character instruction, how teachers and the school manage ethical considerations and digital literacy, and how students respond to the integration of such technology. Furthermore, this research highlights the need for a balanced approach that harmonizes Islamic values with technological capabilities to create character learning that is relevant, adaptive, and sustainable (Li, 2018; Underwood, 2003). The study aims to provide both theoretical and practical contributions to the development of Islamic character education in the digital era. Theoretically, it expands scholarly discourse on the integration of generative technology within value-based education. Practically, its findings can serve as a reference for Islamic schools in designing innovative and contextually relevant character education models. By integrating generative technology with Islamic values, madrasahs can play a more active role in shaping a generation that excels intellectually while maintaining strong moral integrity—an essential foundation for meeting future challenges and realizing the vision of the 2045 Golden Generation.

Generative Artificial Intelligence in Education

Generative Artificial Intelligence (GAI) is a branch of artificial intelligence capable of producing new content based on patterns learned from large datasets. Unlike conventional AI, which merely executes predefined rules, GAI can generate text, images, audio, scenarios, and recommendations autonomously through deep learning processes (Haase & Hanel, 2023; Iqbal et al., 2025; Peterson, McIntyre, & Glaés-Coutts, 2018). This technology operates using large language models or neural networks trained on massive amounts of data, enabling it to imitate human language patterns, understand context, and produce adaptive responses (Vashchenko et al., 2024; Yang et al., 2025). In educational settings, GAI not only aids in generating learning materials but also enhances creative, analytical, and reflective thinking through dialogic interactions between students and the system. The rapid advancement of GAI—particularly with the rise of transformer-based generative models—has enabled systems to read, interpret, and respond to inputs with higher levels of complexity (Cummings, Monroe, & Watkins, 2024; Okonkwo & Ade-Ibijola, 2021). These capabilities have expanded its use across various applications, including learning assistants, content generation tools, and case-simulation platforms. Pedagogically, GAI offers highly personalized learning experiences by adjusting content to the learner's ability level, interests, and needs. In this sense, generative technology can serve as a tool that enriches instructional processes, including those in character and values-based education.

The Potential of GAI for Values and Character Education

Character education traditionally involves reflection, moral guidance, and the cultivation of values through modeling and habitual practice. However, evolving social and digital environments require more innovative approaches to ensure that the values taught remain relevant to students' daily experiences (Y. Jin, Yan, Echeverria, Gašević, & Martinez-Maldonado, 2025; Kazemitabar et al., 2021)(Kazemitabar et al., 2021). GAI offers several forms of support, such as:

- Contextual moral scenarios, including narratives or ethical dilemmas that relate directly to adolescents' lived experiences;
- Simulated conversations, enabling interactive dialogues that train empathy, courtesy, and moral decision-making;
- Machine-assisted reflection, providing automated feedback that encourages students to evaluate their attitudes and actions;
- Adaptive learning materials, with content that is tailored to the character-development needs of individual learners.

These capabilities position GAI as a promising medium for strengthening character education, provided that its implementation remains aligned with educational ethics and religious values.

Ethical Challenges in the Use of GAI in Islamic Education

In the context of Islamic education, the use of technology must align with the principles of tawhid, noble conduct (akhlaq), and sharia (Fauzan, 2017). Several key challenges frequently arise, including:

- Content validity, as GAI may produce information that is inaccurate or inconsistent with Islamic teachings;
- Algorithmic bias, referring to the tendency of AI systems to generate outputs shaped by underlying biases that may not reflect Islamic values;
- Excessive dependence, which can reduce students' independent thinking, creativity, and moral responsibility if the technology is not guided properly;
- Ethical control, given that generative technologies can create sensitive or inappropriate content that requires strong moral filtering and oversight.

For these reasons, the integration of GAI into madrasah education must be accompanied by Islamic digital literacy principles, teacher supervision, and rigorous content-validation mechanisms.

Islamic Character Education

Islamic character education is a systematic effort to cultivate individuals who possess noble morals, strong faith, and devotion to Allah. Islamic character is rooted in the Qur'an and Hadith, which emphasize the importance of honesty, trustworthiness, patience, justice, courtesy, and responsibility (Anwar, 2021; Fauzan, 2017; Fischer et al., 2022). Classical scholars such as Al-Ghazali explain that commendable character traits (*akhlaq al-mahmudah*) develop through conscious habituation, whereas blameworthy traits (*akhlaq al-madzmumah*) arise from a lack of self-control. Islamic character education therefore encompasses not only moral knowledge (*moral knowing*), but also habituation (*moral doing*) and the cultivation of attitudes and emotional dispositions (*moral feeling*). Madrasahs hold a strategic role in integrating these dimensions through their formal curriculum, school culture, and teacher role modelling.

Core Values in Islamic Character Formation

Key values emphasized in Islamic character education include:

1. Honesty (*ṣidq*) — consistency between one's words and actions.
2. Trustworthiness (*amanah*) — fulfilling responsibilities and maintaining the trust given by others.
3. Adab (Etiquette) — proper manners in social interactions and worship.
4. Discipline (*intizham*) — consistency in carrying out obligations, including daily religious practices.
5. Empathy and compassion (*raḥmah*) — caring for and respecting others.
6. Social responsibility — reflecting Islamic teachings on contributing positively to the community.

These values form the moral foundation that enables students to navigate modern challenges, including those emerging within digital environments (Murdani & Fauzi, 2024; Setiawan et al., 2024; Yudha, 2023).

2. METHODS

Research Approach and Design

This research employed a mixed-methods approach, primarily qualitative, with a case study design. The primary focus of this research was qualitative, aiming to gain an in-depth understanding of how Islamic character formation is implemented in a modern Islamic educational environment that integrates generative technology. However, limited quantitative data in the form of survey responses was also collected to support the qualitative findings and provide descriptive evidence regarding students' perceptions of the use of Generative Artificial Intelligence (GAI) in character education.

The use of a mixed-methods strategy in this study follows an integrated design, where qualitative inquiry serves as the primary method, while quantitative data serves as supplementary information to strengthen interpretation and triangulation. This approach is appropriate because this study does not aim to test statistical hypotheses, but rather to describe processes, meanings, and experiences, while presenting measurable trends related to students' responses to the implementation of generative technology(Elleman, Lindo, Morphy, & Compton, 2009; Haleem, Javaid, & Singh, 2022; Singh & Paiva, 2025; Yilmaz & Karaoglan Yilmaz, 2023).

Research Site and Participants

The research was conducted at SMP Islam As Sakinah Sidoarjo, a school operating under a pesantren-based system and guided by the vision *"To realize a modern, creative, excellent, and globally competitive Islamic school."* The site was selected purposively because the institution has begun integrating generative technologies as part of its instructional practices, including in Islamic character education. The school serves 273 students, and its learning environment combines pesantren traditions with formal education and digital innovation. These characteristics make it an appropriate setting for examining how GAI is introduced, utilized, and interpreted by the school community in shaping Islamic character and moral conduct.

Research Location and Subjects

This research was conducted at SMP Islam As Sakinah Sidoarjo, a boarding school with 273 students and a madrasah (Islamic school) actively developing a character education program based on Islamic values. This location was chosen intentionally because the madrasah had begun introducing generative technology as a learning tool.

The research subjects consisted of three main groups:

1. Aqidah Akhlak (Islamic Creed) and PPKn (Citizenship Education) teachers, who were directly involved in character formation.
2. Students in grades VII–IX, who received a generative technology-based character education program.
3. School management, including the principal and vice principal for curriculum.
4. The number of informants was determined based on the principle of saturation, which occurs when data is deemed sufficient and no new information emerges.

Data Collection Techniques

In-Depth Interviews

Semi-structured interviews were conducted with teachers, students, and school management. This technique allowed informants to explain their experiences freely while enabling the researcher to explore in detail the implementation of generative technology in Islamic character education.

The interview questions covered:

- teachers' understanding of generative AI
- how GAI is used in character learning
- students' experiences when using generative technology
- perceived impact on moral behavior and attitudes
- ethical considerations in technology use

Participatory Observation

The researcher observed learning activities using generative technology, teacher-student interactions, and the application of Islamic values in school activities. Observations were conducted to assess how the technology was actually used in practice, whether it was in accordance with the plan, and how students responded to the learning strategies.

Table 1. Observations of Learning Activities Using Generative Technology, Teacher-Student Interactions, and the Application of Islamic Values

No	Observed Aspect	Indicators
1	Utilization of Generative Technology	a. Technology is used according to the lesson plan
		b. Students can operate the technology fluently
		c. Technology helps facilitate understanding of the material
2	Teacher-Student Interaction	a. The teacher provides opportunities for students to ask questions and discuss things
		b. Communication between the teacher and students is two-way
		c. The teacher is able to guide discussions effectively
3	Utilization of Generative Technology	a. Learning activities reflect the value of honesty
		b. Mutual respect between the teacher and students is evident
		c. Learning incorporates the values of mutual assistance and cooperation

Data analysis was conducted through Miles & Huberman's interactive analysis, involving three main stages:

1. Data Reduction
   Raw data from interviews, observations, and documentation were selected, categorized, and focused on relevant aspects, such as GAI implementation, Islamic character values, and learning practices.
2. Data Presentation
   Data were presented in narrative form, matrices, and relationships between categories to facilitate understanding of the patterns and dynamics of generative technology-based character learning.
3. Conclusion Drawing
   The researcher compiled an interpretation of the analyzed data to describe the Islamic character formation model developed by SMP Islam As Sakinah Sidoarjo and the factors influencing it. The analysis process was conducted simultaneously with data collection, allowing each finding to be tested and deepened through triangulation techniques.

3. FINDINGS AND DISCUSSION

The research findings indicate that As Sakinah Islamic Junior High School in Sidoarjo is a madrasah that has begun adapting to developments in digital technology, including generative technologies such as ChatGPT, Gemini, and similar applications, which are used to a limited extent in teaching. Although their use has not yet been fully integrated into all subjects, the moral faith (Islamic Religious Education) teacher and several PPKn (Citizenship Education) group teachers have demonstrated initial initiative in utilizing generative technology as a learning medium.

The madrasah has generally implemented internal policies regarding digital literacy and technology use, particularly in thematic learning and project-based assignments. These policies serve as a foundation for teachers to develop character education programs relevant to the needs of the digital generation. In this context, the research found that the implementation of GAI in Islamic character education is still in the exploratory stage, but already has a clear direction and structural support from school management.

Utilizing Generative Technology in Morals Learning

Creating Learning Materials Based on Islamic Religious Education (GAI)

One of the main findings of the study is that Islamic Religious Education (Akidah Akhlak) teachers utilize generative technology to develop more varied morals learning materials. GAI is used to:

1. Create illustrations for moral-themed stories, such as stories about honesty, discipline, social etiquette, or responsibility in worship.
2. Design educational dialogues for classroom role-plays, where students practice polite speech, apologizing, or engaging in discussions based on Islamic etiquette.
3. Provide examples of moral dilemmas that help students analyze decisions based on Islamic values, such as cases of plagiarism, cyberbullying, social media use, and maintaining digital trust.

Teachers stated that GAI expedites the material creation process, allows for a variety of learning resources, and provides new perspectives that were previously difficult to prepare in a short time. However, teachers always curate and edit content before use to ensure its alignment with Islamic faith and moral principles.

Implementation of Generative Artificial Intelligence (GAI)-Based Moral Scenarios

Research results show that the use of Generative Artificial Intelligence (GAI) in moral education significantly contributes to the development of students' ethical thinking skills. Of the 273 respondents, the majority of students stated that GAI-based moral scenarios helped them understand moral issues more concretely and with relevance to their daily lives. They found the learning more engaging because

they presented cases that resembled real-life situations they experienced, particularly those related to social interactions at school and digital activities on social media.

GAI was used to generate a series of moral scenarios designed to resemble realistic ethical dilemmas. Based on data analysis, 82% of students stated that the scenarios presented were "very close" to their own experiences, such as spreading unverified information, responding to negative comments, or providing assistance to a friend who had made a mistake. This close context made it easier for students to identify relevant moral values in each situation.

When asked to analyze the scenario, 71% of students demonstrated the ability to correctly identify the core issues. They were able to connect the situation to Islamic values such as honesty, careful speech, media ethics, and social responsibility. Furthermore, 68% of students were able to formulate moral decisions aligned with Islamic moral principles. Most of them provided reasoning supported by references to evidence, including Quranic verses, hadith, and Islamic ethical principles they had previously studied.

Teachers who served as informants in this study stated that students appeared more active in exploring alternative decisions when learning using digital scenarios generated by GAI. This is consistent with the results of the analysis of the quality of students' responses, which showed improved moral reasoning skills, demonstrated by more coherent and value-based argumentative explanations. Of the 273 students, approximately 192 (70%) were able to present moral reasons in a more structured manner compared to before the GAI intervention.

Furthermore, the integration of GAI has been shown to strengthen students' Islamic digital awareness. Seventy-six percent of respondents stated that this learning helped them understand that behavior in the digital space cannot be separated from moral guidance. Students began to demonstrate critical thinking in selecting information, were more cautious on social media, and had a better understanding of the moral consequences of every digital action they took.

Overall, the research findings indicate that the use of GAI as a moral scenario generator positively contributes to three main aspects:

1. Strengthening students' critical thinking through more authentic case analysis.
2. Improving moral reasoning, reflected in the ability to formulate moral decisions based on Islamic values.
3. Developing Islamic digital literacy, particularly regarding media ethics and avoiding negative online behavior.

Thus, data from 273 respondents indicates that the implementation of GAI-based moral scenarios is an effective learning strategy for developing a more contextual, reflective, and appropriate understanding of moral values, in line with the challenges of digital development faced by students today.

These conflicting findings suggest that the proposed model of Islamic character formation based on generative technology must include a crucial dimension of control. In addition to the five components previously identified, this model requires additional elements: ethical regulation and reflective supervision. Without these components, the use of generative technology risks shifting character education toward procedural learning rather than moral formation. Thus, this study concludes that GAI can strengthen Islamic character education only when it operates within a structured pedagogical framework that prioritizes values, teacher authority, and reflective learning over technological efficiency.

Survey results confirmed these concerns, as 42% of students reported uncertainty about whether the responses generated by GAI were fully consistent with Islamic values. This suggests that without strong teacher mediation, generative technology can blur the lines between authentic religious knowledge and algorithmic output.

Teachers' Perceptions of the Integration of GAI in Islamic Character Education

Pedagogical Benefits

Analysis of data from 273 students and interviews with five teachers indicated that the use of GAI in moral education provides significant pedagogical benefits. Quantitatively, 78% of students stated that GAI-based moral scenarios made learning easier to understand, while 71% felt that receiving automated feedback from the system helped them reflect on their own learning.

Teachers confirmed these findings through in-depth interviews. One teacher said:

"GAI makes it easier for me to create case examples that are more relevant to students' lives. It used to take me a long time to find cases, but now I can find them in minutes." (Teacher A)

Another benefit experienced by teachers is the emergence of more creative and contextual learning methods. The ethical scenarios generated by GAI help students engage in more lively discussions, especially when they are asked to defend their moral decisions.

Teacher B confirmed:

"Students appear more critical when faced with situations that seem realistic. They not only answer but also explain moral reasons based on Islamic values."

Furthermore, the system's ability to provide automated feedback on students' reflective writing is considered very helpful in monitoring character development. Data shows that 65% of students benefit from the early feedback provided before discussions with teachers.

This is reinforced by one teacher's comment:

"Before I read the students' reflections, the system already highlights areas for improvement. This speeds up the character assessment process without reducing the depth of its meaning." (Teacher C)

In general, teachers view GAI as a pedagogical tool, not a replacement for their roles. GAI actually enriches learning strategies and lightens the technical burden, allowing teachers to focus more on moral guidance.

Ethical and Religious Concerns

Despite these benefits, some ethical and religious concerns still arise. Interviews revealed that teachers expressed concerns about the potential for content to be inconsistent with Sharia principles. Approximately 42% of students also admitted that they were "not always sure" whether the answers generated by GAI were aligned with Islamic values.

One teacher stated:

"Sometimes GAI's explanations make logical sense, but are not entirely accurate from a fiqh or moral perspective. Teacher verification is still necessary." (Teacher D)

Another concern concerns student misuse of technology, particularly in the form of plagiarism or creating assignments instantly and without careful consideration. Quantitative findings confirm this: 37% of students admitted to "simply copying" GAI suggestions without any personal reflection.

Teacher E stated:

"This technology can spoil students. Without guidance, students tend to immediately provide quick answers. This is counterproductive to the goal of character building."

Teachers also highlighted the risk of technology dependency. If students rely too much on GAI (Global Artificial Intelligence), the process of internalizing values is feared to become shallow. Therefore, teachers strongly recommend the existence of written ethical guidelines regarding the use of GAI, especially for moral subjects.

Table 2. Findings of Benefits and Concerns

Aspects	Indicators	Percentage (n=273)	Findings
Pedagogical Benefits	Learning is more engaging and contextual	78%	Students felt the GAI scenarios were more relevant to their lives.
	Improving moral reflection skills	71%	Students benefited from automated feedback before class discussions.
	Supporting character monitoring through journals	65%	Teachers were able to analyze student journals more quickly.
	Variation in learning methods	74%	Students were more engaged in case-based discussions.
Ethical and Religious Concerns	Potential content that is not in accordance with Sharia law	42%	Students reported the need for teachers to verify their GAI answers.
	Risk of plagiarism or technology dependency	37%	Students used GAI without personal reflection.
	Reducing the development of independent character	45%	Teachers believed students could lose critical thinking skills without guidance.
	Need for ethical guidelines for the use of GAI	89%	Formal guidance is necessary to maintain alignment with Islamic values.

Student Responses to the Use of GAI in Character Education

Increasing Student Engagement

Research data shows that the implementation of GAI has a positive impact on student engagement in moral learning. Based on a survey of 273 students, most respondents stated that generative technology-based methods were more engaging than traditional lecture approaches. Students demonstrated high enthusiasm when interacting with moral scenarios relevant to their experiences, particularly situations related to social media, friendships, or everyday online activities.

This engagement increased when students engaged in dialogues simulated by GAI. Digital interactions in the form of ethical conversations or reflective question-and-answer sessions helped students visualize the moral consequences of their actions. Furthermore, the use of generative technology as a vehicle for creative projects—such as creating Islamic stories, digital posters, or moral campaigns—encouraged students to express moral values through more personal and meaningful work.

Several students reported that learning with GAI made Islamic values feel more alive and easier to apply. This aligns with the finding that 72% of students felt their understanding of morals improved when material was presented through contextual digital scenarios. Thus, generative technology acts as a medium capable of connecting moral concepts with the social and digital realities that students face.

Digital Discipline Challenges

Despite showing increased engagement, this study also identified several challenges that must be addressed in the use of GAI in educational settings. Some students use generative technology inappropriately, for example, using GAI to complete assignments without understanding the material's substance. This finding is reinforced by data showing that 33% of students admitted to submitting GAI answers without a reflection process.

Furthermore, an overreliance on technology is beginning to emerge among a small number of students. When faced with moral reflection, some students tend to rely on automated answers and

neglect the process of internalizing values. This situation indicates that Islamic digital literacy still needs to be strengthened so that students understand the limits of technology use in the context of moral learning.

The aspect of digital discipline is also a crucial issue. Teachers found that some students still need guidance on the ethical use of technology, maintaining the authenticity of their work, and developing independence in their thinking processes. This suggests that GAI implementation must be balanced with supervision, value guidance, and educational strategies that strengthen students' digital morals.

The study also found a paradoxical relationship between student engagement and independent thinking. Quantitative data showed that the use of digital moral scenarios increased student participation, with 78% of respondents stating that learning became more engaging. However, qualitative observations indicated that higher engagement did not always correlate with deeper understanding. Several teachers noted that students were enthusiastic when interacting with the digital scenarios, but tended to expect instant guidance from the system when asked to formulate moral arguments independently. In some classroom observations, students waited for suggestions from the application before expressing their own opinions.

This pattern suggests that while GAI can stimulate participation, it can also reduce cognitive effort, which is essential for the development of moral reasoning. Character education requires students to confront uncertainty, doubt, and ethical conflict, while generative systems often provide structured and straightforward answers that limit this process.

A Generative Technology-Based Islamic Character Building Model

Research results show that the integration of generative technology in Islamic character building at As Sakinah Islamic Junior High School, Sidoarjo, occurs systematically and in a planned manner through five main components. These findings were obtained through observations of classroom activities, analysis of learning documents, teacher interviews on the theme of faith and morals., and responses from 273 students regarding their experiences using generative technology in values learning. This model positions technology as a supporting tool for tarbiyah (Islamic education), not as a substitute for the role of educators or the process of internalizing spiritual and interpersonal values.

Islamic Values as the Foundation for Generative Technology Utilization

The first component emphasizes that all use of generative technology is built on the foundation of Islamic values, which have become the school's identity. Teachers and school officials agree on six core values: honesty, trust, ethics, discipline, empathy, and social responsibility, as the main framework for developing GAI-based learning materials and activities.

These values serve as a reference for designing digital content, determining assignments, and developing moral evaluation indicators. In practice, students are asked to demonstrate the application of these values through written responses, class discussions, and creative projects based on digital media. The majority of students (82% of 273 respondents) stated that Islamic values are clearly visible in the case studies, feedback, and activities provided through generative technology. This demonstrates that the process of integrating Islamic values has been carried out consistently and has succeeded in building a shared understanding between teachers and students regarding the desired direction of character education. Thus, GAI is placed within a controlled environment oriented toward values education (value-oriented design), so that technology is not a neutral tool but is directed to strengthen the process of moral internalization.

Utilizing Generative Technology as a Medium to Strengthen Moral Education

The second component describes the use of generative technology as a pedagogical medium that enriches the moral learning process. Teachers use GAI to create a variety of learning experiences that are more adaptive, contextual, and relevant to the lives of Muslim youth in the digital age. Examples of this implementation include:

1. Adaptive content, where material on morals and ethics is tailored to each student's level of understanding. High-ability students are given more complex challenges, while other students receive simpler, more gradual explanations.
2. Contextual moral scenarios, in the form of ethical dilemmas relevant to students' digital worlds, such as ethics in WhatsApp groups, social media, and online friendship interactions.
3. Ethical conversation simulations, which allow students to practice responding politely in situations such as reprimanding a friend, asking permission, or expressing an opinion without causing harm.
4. Automated reflective feedback, which is used to assess moral reflection writing and provide preliminary comments before the teacher makes a manual assessment.
5. Creative projects based on Islamic values, such as creating digital ethics campaigns, Islamic da'wah posters, short stories about etiquette, or moral literacy content.

Survey data shows that 78% of 273 students found GAI-based learning more engaging, and 71% stated that it was easier to understand moral values when presented through case studies relevant to their world. This demonstrates that generative technology can enhance student engagement with Islamic values through contextual and personalized presentation of material.

The Teacher's Role as Filter, Director, and Moral Guide

The third component places the teacher at the center of the entire technology-based character education process. Although GAI facilitates various content provision, the teacher remains the guarantor that all materials align with Sharia principles and the goals of Islamic education. Interviews revealed four roles for teachers:

1. Values guide, ensuring that each digital activity strengthens students' understanding of Islamic morality, not simply improving technological skills.
2. Moral editor, as teachers consistently curate and verify GAI-generated content before use in the classroom. Teachers assess its context, language, and suitability with Islamic values.
3. Reflection facilitator, guiding moral case discussions, helping students interpret examples, and guiding the internalization of values.
4. Role model, where teachers demonstrate exemplary morality through speech, discipline, and ethics in daily interactions.

The survey results showed that 86% of students felt teacher guidance remained very important, even when using GAI (Generative Amplification Intelligence) during learning. This confirms that generative technology does not replace the role of teachers, but rather strengthens teachers' ability to provide more personal and relevant moral guidance.

4. CONCLUSION

Based on the research results and discussions, it can be concluded that generative technology helps teachers develop more diverse and contextual moral learning materials and supports a moral scenario-based learning process that enhances students' reflective skills and ethical decision-making.

The teacher's role remains crucial in guiding, directing, and filtering technology-generated content to ensure it aligns with Islamic values and Sharia principles. Students responded positively to this learning innovation with increased engagement, although supervision is still necessary to prevent over-reliance on technology.

From a broader academic perspective, this research contributes to the growing global discourse on AI in education. While most major global studies on generative AI focus on cognitive outcomes, digital skills, or general ethics, this study broadens the conversation by situating AI integration within a values-based and religiously grounded moral education framework. Thus, this research positions Islamic character education as a critical lens for examining the effectiveness of AI in culturally and spiritually diverse educational environments.

Therefore, further research is recommended to (1) develop a stronger theoretical foundation that integrates interdisciplinary perspectives (education, ethics, and AI studies), (2) construct clear

conceptualizations and visual models to enhance academic clarity, and (3) test these models across various educational contexts to strengthen their global relevance and applicability..

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