



Learning with Light: Integrating Islamic Character Education into Multimedia Storytelling at Rural Elementary Schools

Faiz Azizi*, Ach. Nurfuad Al-Fajri

Sekolah Tinggi Agama Islam Raden Abdullah Yaqin Mlokorejo Jember, Indonesia

Email : faiz_azizi@stairaya.ac.id

Abstract

This study aims to analyze the strengthening of Islamic character values through the implementation of digital storytelling in the learning process. The research is motivated by the need to present a contextual and engaging learning approach that aligns with the characteristics of the digital generation while maintaining Islamic moral principles. Employing a qualitative case study design, the research involved teachers and students in learning activities using digital media such as videos, audio recordings, and narrative slides featuring stories of the Prophets, companions, and Islamic moral tales. Data were collected through interviews, observations, and documentation, and analyzed using the Miles and Huberman interactive model. The findings reveal that digital storytelling effectively instills Islamic character values such as honesty, responsibility, empathy, and care. Teachers act as innovators, transforming conventional lectures into interactive digital narratives, while students actively participate as creators of moral content, enhancing their moral understanding through direct experience. Moreover, the successful integration of digital storytelling is supported by the school's religious culture and community involvement, including parents and local religious figures, who reinforce students' moral environments. This study concludes that strengthening Islamic character education in the digital era requires not only the use of modern media but also the synergy of values, culture, and technology within a cohesive learning ecosystem.

Article History

Received : Januari 2025
Revised : March 2025
Accepted : June 2025

Keywords:

Digital Storytelling, Islamic Character Education, Learning Innovation

How to Cite:

Azizi, F., & Al-Fajri, A. N. (2025). Learning with light: Integrating Islamic character education into multimedia storytelling at rural elementary schools. *International Journal of Instructional Technology*, 4(1), 15-29.

INTRODUCTION

The development of digital technology has changed the way students learn and interact with information (Alenezi et al., 2023; Hamad & Jia, 2022; Pettersson, 2021). In the context of character education, various studies show that the use of digital media, such as video, animation, and digital storytelling, can increase students' emotional engagement and strengthen the internalization of moral values (Puspitasari et al., 2025; Saripudin et al., 2021; Sarica, 2023). Research by Saripudin et al. (2021) develops value-based digital storytelling for social studies learning and finds that the media significantly impacts students' character development. In Islamic education, the digital storytelling method has also been proven to foster students' religious identity through Islamic value-based stories and interactive media.

Ardani Research (2025) shows that this approach is practical for internalizing Islamic character among the millennial generation. A similar phenomenon was observed at MI Al-Huda Purwoasri, Jember, where teachers began adapting the method by using videos and audio of Islamic stories in response to the characteristics of today's students, who tend to be quickly saturated with lecture methods. Thus, the digital storytelling approach not only enhances the appeal of learning but also strengthens values such as honesty, responsibility, empathy, and care in Islamic character education.

Previous studies have shown a shift in the approach to character education from an instructive to a participatory model that emphasizes students' emotional involvement. A study by Putri et al. (2024) in the *Metta Journal of Islamic Education* shows that nuanced Islamic digital media significantly increases students' active participation and moral responsibility as they experience value through visualized stories. Next, Jiang (2024) emphasizes that digital storytelling strengthens the affective dimension of moral education by stimulating empathy through the integration of sound, images, and text.

On the other hand, Alifia Fitri Rosadi et al. (2023) in the *Journal of Basic Education and Social Humanities* emphasize that the success of digital story media is greatly influenced by religious school culture and by teachers' roles as value facilitators rather than just storytellers. Research conducted by Xiao et al. (2023) also shows that multimedia-based story-based learning strengthens the moral connection between narrative experiences and social practices, making students not only listeners but also creators of meaning. The synthesis of these findings shows two main patterns. First, digital storytelling has proven to be an effective medium for character education. Second, the success of its implementation depends heavily on a learning environment that supports active student participation and teachers' digital competence.

However, numerous knowledge gaps (research gaps) remain that have not been widely studied. Most research focuses on the impact of digital storytelling on student learning outcomes or motivation, rather than on the process of internalizing Islamic character values within the socio-religious context of rural pesantren or madrasas. The dominant methodological approach is quantitative, so it is less able to capture the dimensions of experience, emotion, and meaning that emerge during the narrative process. There have been few studies that have examined in depth how teachers, students, and school communities collaborate to build a digital ecosystem of Islamic values, especially in community-based basic education institutions such as MI Al-Huda Purwoasri.

This research aims to fill this gap by examining the practical application of strengthening Islamic character values through the integration of digital storytelling in madrasas with a strong religious culture but limited technological facilities. This approach is expected to make a conceptual contribution to the development of a contextual and adaptive Islamic character education model for the digital era. This research was conducted to explore how teachers at MI Al-Huda Purwoasri integrate Islamic character values through digital storytelling media in the learning process. This research aims to: (1) identify forms of teacher innovation in the use of digital media with Islamic values, (2) analyze students' active involvement in the production of digital content with moral nuances, and (3) describe the cultural support of schools and communities in strengthening the technology-based character education ecosystem.

The focus of this research lies in a deep understanding of the dynamics of digital story-based learning as a means of forming Islamic character. The central argument is that digital storytelling is not just a learning tool, but a reflective space that allows learners to experience value through an emotional and social narrative-visual process. Through practice at MI Al-Huda Purwoasri, this research explores how simple technologies, such as YouTube videos, audio recordings, and illustrated presentations, are used to convey the stories of the Prophet, the companions, and Islamic fables relevant to students' lives. In this way, values such as patience, honesty, and responsibility are internalized not only through verbal advice but also through participatory experiences that involve cognitive, affective, and psychomotor aspects.

RESEARCH METHOD

This study uses a qualitative, case-study approach to explore the practice of strengthening Islamic character values through digital storytelling at MI Al-Huda Purwoasri (Cole, 2024; Priya, 2021; Stapley et al., 2022). The case study was chosen because it allows researchers to explore in depth an educational phenomenon that is unique and context-specific in real-world settings, namely the integration of digital narratives into Islamic moral learning (Cleland et al., 2021; Hämäläinen et al., 2023; Macenski et al., 2022).

The design of this case study is exploratory-descriptive (Abraham et al., 2022; Davidson et al., 2024; Stewart et al., 2021), and it examines how teachers and students interpret and implement digital media as a tool for character education. The research setting is the classroom environment and learning activities in madrassas that are based on Islamic values. The qualitative approach is grounded in a naturalistic paradigm, in which the researcher seeks to understand reality from participants' perspectives.

Data collection was conducted through participatory observation, in-depth interviews, and documentation of learning media. Observations are conducted directly during the learning process, while semi-structured interviews focus on teachers' and students' experiences in implementing and responding to digital storytelling. The researcher is involved as an active observer, recording interactions and classroom dynamics. The informants include PAI subject teachers, madrasah heads, and upper-class students (IV–VI) involved in digital narrative projects. The research was conducted at MI Al-Huda Purwoasri in Jember Regency for two months (April-May 2025). The validity of the data is maintained through triangulation of techniques and sources, as well as member checking with the main speakers. This technique reinforces credibility and ensures findings reflect real conditions on the ground. Here is a table of informants used in the study:

Table 1. Research Informant

Informant	Background	Role in Research
Ustadzah Lina	Teacher of Moral Faith	The leading implementer of the digital storytelling method
Mr. Anwar	Head of Madrasah	Learning innovation policy makers
Ustadz Doni	Classroom teacher & classroom video editor	Technical Assistant for Student Storytelling Production
Ahmad	Grade V students	Active participants in digital story projects
Aisha	Grade VI students	Script contributor and narrator of Islamic stories

Data analysis was carried out using an interactive model by Miles and Huberman, consisting of three main stages: data reduction, data presentation, and conclusion/verification (Adanur-Sönmez et al., 2025; Belmonte Almagro & Bernárdez-Gómez, 2021; Briand et al., 2023). The reduction process included selecting information from interview transcripts, observation notes, and digital artifacts relevant to the theme of Islamic character values. The presentation of data used thematic categorization, tables, and analytical narratives to display the relationship between the use of digital media and the formation of students' characters. Conclusions are drawn inductively by considering the patterns of findings and the madrasah's socio-cultural context. This analysis maintains credibility through trail audits, peer debriefing (Van Der Winden et al., 2023), and validation of findings with the field. The use of qualitative case studies provides depth of interpretation, enabling a thorough understanding of the phenomenon and underscoring the importance of value-based pedagogical innovation in the faith-based school ecosystem.

RESULT AND DISCUSSION

Result

Strengthening Islamic Character Values through Digital Storytelling in the Classroom

Digital storytelling is a story-based learning method presented through digital media such as video, animation, audio, or interactive presentations. In Islamic character education, this approach serves to instill the values of honesty, responsibility, empathy, and care through the exemplary stories of the Prophet, companions, or other moral stories. At MI Al-Huda Purwoasri, teachers began using this method in response to learning needs that are more engaging and in line with today's students' characteristics. The transition from oral lectures to digital narratives allows Islamic values to be conveyed not only verbally but also visually, in context and with emotional resonance. This research highlights the role of digital storytelling in shaping students' character through the integration of narratively and visually presented Islamic content.

Teachers are beginning to apply digital storytelling as a new approach to conveying moral material. One of the teachers explained:

"I feel that children now get bored faster if they just tell ordinary stories. So I started playing a short video of the Prophet's story before the lesson started. After watching, I invited them to discuss what value can be taken. It turns out that they are more enthusiastic and can remember the story longer."

A similar thing was conveyed by another teacher who has tried a form of audio storytelling:

"We tried to play the sound of Islamic stories from YouTube with sound effects and background music. The children are focused; they can even imagine the story's atmosphere. After that, we made a reflection together. Some say they want to imitate the patient nature of the story."

The results of the interviews show that teachers are innovating in conveying the value of Islamic character through simple yet effective digital media. By using video and audio storytelling, teachers can shift the learning environment from passive to interactive. Students not only listen to the story but also engage emotionally, interpret it, and discuss its content. Digital narratives allow values such as patience, honesty, or responsibility to be conveyed through a more immersive audio-visual experience. This transformation is important in the context of rural madrassas such as MI Al-Huda, which previously relied on lecture-based instruction. With this approach, teachers can build a more contextually and practically relevant understanding of morality. This proves that, even with limited facilities, digital media can still be optimized to strengthen character education.

Based on the findings at MI Al-Huda, teachers use various simple media to support the Islamic storytelling process. Some teachers use YouTube videos featuring the stories of the Prophet and his companions, then connect them to a discussion of moral values. Some play audio Islamic stories from online applications, complete with sound effects, to foster students' imagination. Use is

via the teacher's personal laptop or mobile phone, connected to the speaker. In addition, teachers also use serial images in slides as a tool to convey stories. This activity is carried out in stages, depending on the class's readiness. The lack of complete multimedia facilities in schools is not an obstacle, as teachers' spirit of innovation is relatively high. Digital storytelling is mainly used in the subjects of Akidah Akhlak and PAI as a tool to foster a more lively and memorable Islamic character. Building on this, the structure for conveying character values through digital Islamic stories is presented in Table 2.

Table 2. Structure of Character Values Delivered through Digital Islamic Stories			
Story Content Type	Moral Message Emphasized	Learning Objective Addressed	Student Behavioral Indicator
Story of Prophet Yusuf	Patience and integrity	Understanding perseverance	Students can explain the meaning of sabar
Story of the Honest Merchant	Honesty and trustworthiness	Practicing honest behavior in school	Increased peer accountability
Fable with Islamic values	Helping others and cooperation	Encouraging teamwork and social care	Students collaborate respectfully

Table 2. Explain the structure of character values conveyed through digital Islamic stories in the context of learning. Each type of story has a different moral focus and learning objectives, but they complement one another. The story of the Prophet Joseph emphasizes the value of patience and integrity, aiming to foster an understanding of perseverance and providing indicators of student behavior that explain the meaning of patience in context. The story of honest traders highlights honesty and trustworthiness, encouraging students to practice honest behavior in school life and to reflect on their growing sense of responsibility towards peers. Meanwhile, Islamic fables emphasize the value of helping and social cooperation, encouraging students to collaborate politely and to respect one another.

The results of this study show that the success of implementing the digital system within the Palangka Raya City Education Office is not determined solely by technological devices, but also by adaptation strategies and collaboration among employees. Intergenerational collaboration is a practical approach to bridging the digital skills gap. At the same time, technical strategies, such as dual storage and capacity-based workload partitioning, are contextual solutions to infrastructure limitations. Adaptation takes place not only at the institutional level but also informally through collective work mechanisms and staff solidarity. These findings confirm that the digitalization process requires a flexible, participatory approach, placing bureaucratic actors as active subjects able to respond creatively to challenges. Therefore, strengthening a collaborative and adaptive culture is an important prerequisite for driving sustainable digital transformation in the public sector.

Active Involvement of Students in the Production of Digital Islamic Stories

The active involvement of students in the production of digital Islamic stories is a participatory process in which students serve not only as recipients of information but also as creators of content that conveys Islamic moral values. At MI Al-Huda Purwoasri, this approach is realized through various activities, such as the creation of short videos on moral themes, digital dramas, and visualized Islamic story projects. Through this process, students internalize the values of honesty, responsibility, and cooperation through hands-on experience. This activity also develops 21st-century skills such as digital literacy, critical thinking, and creative expression. This study found that students' involvement in creating Islamic digital narratives strengthened their understanding of character values in a deeper, more meaningful, and more contextually relevant way, in accordance with the realities of daily life.

The teacher described students' enthusiasm when asked to be directly involved in producing digital content with Islamic values. One teacher explained:

"Our children were tasked with making short videos about their own version of Islamic stories. Some write the script, serve as the narrator, and some draw the story's background. They were so excited because they felt like filmmakers. After that, we watched it together, and they were proud to be able to convey a moral message."

Other teachers observed the development of students' attitudes after this activity:

"When they make their own stories, they seem to understand the value of being told better. For example, when the group makes a story about sharing, they become more attentive to their friends who are not bringing provisions. This shows that the story is not only told but lived."

The results of the interviews show that students are not only recipients of stories but also initiators and producers of morally charged Islamic narratives. This creative process combines cognitive (story composition), affective (appreciation of values), and psychomotor (drawing, recording, editing) aspects. With direct involvement, students are better able to relate the story's value to their real lives. For example, stories about sharing are not only understood as concepts, but are also actualized in concrete attitudes in schools. This activity forms morals through an experiential approach, not just instruction. In addition, communication skills, cooperation, and responsibility develop throughout the media production process. This supports Islamic character learning, which is not only declarative but also transformative.

At MI Al-Huda, students' involvement in producing digital Islamic stories is through weekly project assignments and group activities. Students were asked to create a simple Islamic story scenario, perform a short recorded performance, or create a sequential image to be used as a video slide. Teachers give themes such as "sharing with friends," "honesty at school," or "helping when friends are

struggling." The process is collaborative, with tasks divided among narrators, illustrators, and editors. The teacher then shows the work in class and guides a reflection session to discuss the moral values conveyed. This activity has been proven to increase students' confidence and encourage the application of moral values in daily life. Students are also more active in expressing their understanding of Islamic values, not only verbally but also through visual and narrative media.

Departing from this, the production patterns and values that emerge from the student project are presented in Table 3.

Table 3. Student-Created Digital Storytelling Projects and Internalized Islamic Values				
Project Type	Story Theme	Role Distribution Among Students		Internalized Values Observed
Short video skit	Helping others in need	Script writer,	actor, videographer	Empathy, cooperation
Digital slide-based story	Honesty at school	Illustrator,	narrator, text animator	Integrity, responsibility
Animated moral tale (basic tools)	Respecting parents and teachers	Character designer,	voice actor, editor	Respect, gratitude

Table 3 explains how students' digital storytelling projects are an effective means to instill Islamic values in context. Each project type demonstrates a moral theme directly linked to the student's active role in the creative process. The help-themed short video project encourages students to work together as scriptwriters, actors, and videographers, so that the value of empathy and collaboration grows naturally through hands-on experience. Slide-based digital stories on the theme of honesty in school emphasize integrity and responsibility, with students serving as illustrators, narrators, and text animators, reinforcing a sense of belonging to the moral message. Meanwhile, simple animated stories about respecting parents and teachers foster the values of respect and gratitude by dividing creative roles.

Based on these findings, student involvement in the production of digital Islamic stories is a practical approach to forming Islamic characters. Through the creative process, students not only understand values cognitively, but also live them emotionally and socially. The storytelling project provides them with space to think critically, work together, and convey moral messages in a meaningful way. The role of students as creators of Islamic stories strengthens their sense of belonging to the values carried. In addition, this activity develops digital skills relevant to current demands. This research shows that Islamic character education will be stronger if students are actively involved in experiential learning. Digital storytelling is not just a means of entertainment but also a medium for the formation of Islamic identity in a reflective and applicable manner.

School and Community Cultural Support

School and community cultural support is an important factor in the successful integration of technology, especially digital Islamic media, in character education. At MI Al-Huda Purwoasri, the religious atmosphere is not just routine; it has formed an educational ecosystem that supports the internalization of Islamic values. Activities such as morning tadarus, congregational Dhuha prayers, and the involvement of parents and community leaders in religious activities strengthen the synergy between schools and communities. This study found that collectively embedded Islamic values provide a strong foundation for the acceptance of digital media that convey moral messages. The integration of digital storytelling does not stand alone; it is facilitated by an environment that consistently displays examples, provides support, and oversees the formation of students' Islamic character both at school and at home.

The success of digital Islamic storytelling is not only determined by the quality of the media or the role of teachers, but also by the sustainability of values in the student environment. MI Al-Huda already has an established religious culture, so the moral message in digital stories is not new to students. The media serves as a visual and emotional reinforcement of the values that have been lived in their daily lives. In addition, parental support is an important factor. Their involvement in helping children listen and work on value-based projects creates a collaborative space between home and school. In this context, digital storytelling is not just a teaching tool but part of a character formation system that receives full community support. The success of this practice underscores the importance of synergy among schools, families, and communities in fostering a contextual and digitally literate Islamic generation.

The school culture at MI Al-Huda also fosters an intense atmosphere of Islamic habituation. Activities such as congregational prayers, hajj manasik simulations, and Islamic competitions are part of the students' routine. The school implements character-strengthening systems such as "moral pickets" and "adab reminders," which students carry out in turn. The madrasah's social environment is also supported through collaboration with the school committee, alums, and local figures from Nahdlatul Ulama (NU). Activities such as recitation, social service, and joint nutrition programs show that Islamic values are instilled collectively. In this context, the use of digital media, such as Islamic videos or storytelling projects, is well-received because it aligns with established values. Teachers also find it easier to convey character material because students have a strong moral foundation from their environment.

These findings reinforce that a conducive religious atmosphere is a prerequisite for the successful integration of digital moral media. The form of community support for the implementation of digital Islamic media is presented in Figure 1.

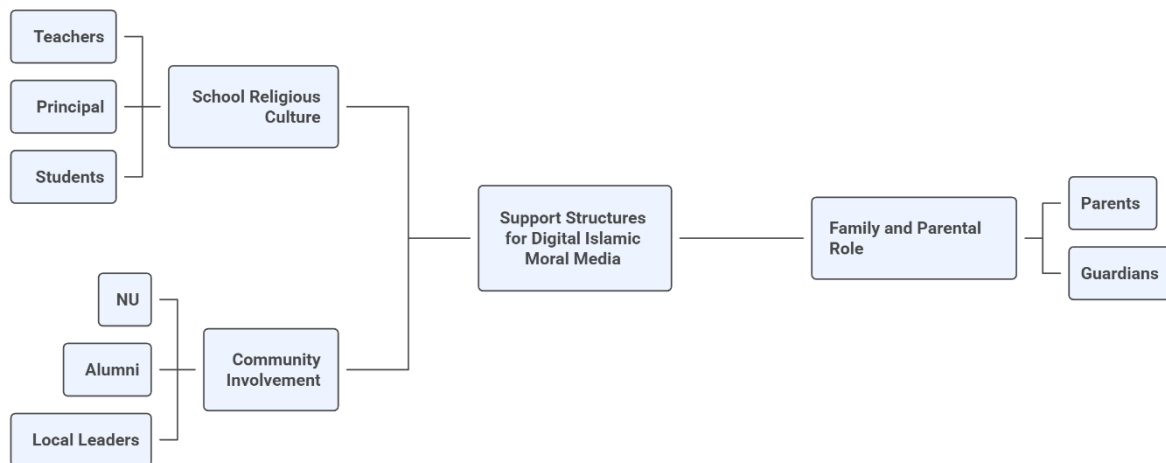


Figure 1. Support Structures for Digital Islamic Moral Media

Figure 1 explains the support structure of schools and communities that play an important role in strengthening digital-based Islamic moral media. Three main pillars are interconnected, namely the school's religious culture, the role of the family, and community involvement. The school's religious culture, built by teachers, principals, and students through activities such as daily prayers, moral patrols, and religious routines, is the primary foundation for instilling Islamic values consistent with digital media messages. Family support from parents and guardians manifests as encouragement, technical assistance, and the habit of watching together, which strengthens the child's emotional attachment to moral messages. Meanwhile, the involvement of communities such as Nahdlatul Ulama (NU), alums, and local leaders contributed to joint activities that strengthened the cultural legitimacy of Islamic content.

The school's and community's cultural support plays a central role in the successful integration of digital Islamic media at MI Al-Huda. The religious culture rooted in schools provides a strong foundation for accepting moral messages in the media. Students do not feel unfamiliar with the story's values because they are accustomed to encountering them in their daily lives. The roles of parents and the community further strengthen the internalization process, mainly when digital storytelling activities are carried out together or discussed at home. Collaboration between schools and communities makes character education not only a formal institutional task but also a collective responsibility. Thus, digital media is not only an auxiliary technology but an extension of an established culture of values. These findings confirm that digital-based Islamic character education will be effective only if it operates within a consistent, synergistic value ecosystem.

Discussion

The results of this study show that integrating digital storytelling into learning at MI Al-Huda Purwoasri significantly strengthens students' Islamic character values. These findings align with the research focus on how narrative-visual media can be an effective strategy for character education in madrasas. In the context of value-based education, this approach has been shown to increase students' emotional and cognitive engagement and to present Islamic values in a more applicable and contextual way. The relevance of these findings is even stronger considering the need for Islamic educational institutions to adapt learning methods to the characteristics of the digital generation. Therefore, this section elaborates on the relationship between the research results, the theoretical framework of character education, and the findings of previous studies.

The finding that digital storytelling is compelling in instilling values such as honesty, responsibility, and empathy is consistent with social constructivist learning theories (Alismaiel et al., 2022; Almulla, 2023; Marougkas et al., 2023), which emphasize the importance of social and cultural interaction in shaping students' understanding. Narrative visualization allows students to build meaning through contextual experiences. This is in line with Ardani's (2025) research, which found that Islamic digital stories enhance moral understanding through emotional engagement. A study by Saripudin et al. (2021) also shows that digital Islamic story media is more effective than conventional methods in instilling character values. Meanwhile, Lin & Chang (2021) affirm that the digital narrative approach supports holistic and fun character education. The three studies emphasized the importance of digital media as a vehicle for amplifying moral messages. The findings at MI Al-Huda reinforce the view that limited facilities are not an obstacle, but a trigger for pedagogical innovation.

Student participation in the production of digital Islamic stories reflects the principle of experiential learning (Asad et al., 2021; Fromm et al., 2021; Tembrevilla et al., 2024), in which meaningful learning occurs through hands-on experience. The finding that students show behavioral changes after making moral story videos indicates a deep internalization of values. These results align with Puspitasari (2025), who found that creative experience in digital media production increases confidence and responsibility. Sarica (2023). It was also found that involvement in media projects with nuanced characters strengthens students' moral and digital literacy. Research & Jia (2022) emphasize that the production of digital Islamic stories fosters a sense of ownership of moral messages. Thus, students' active involvement in the creative process develops not only cognitive but also affective aspects and 21st-century skills.

The success of digital storytelling at MI Al-Huda is inseparable from the school's religious culture and strong community support. Religious culture at MI Al-Huda serves as the foundation for the internalization of Islamic values, which

is strengthened through the roles of parents and community leaders. Research by Alifia Fitri Rosadi et al. (2023) shows that synergy between schools and communities accelerates the transformation of students' Islamic character. Asad et al. (2021) also emphasize the importance of collective examples in moral education. Next, Saripudin (2021) affirms that the effectiveness of digital media increases when applied in an environment that has internalized the same values. Thus, the successful implementation of digital Islamic media depends heavily on sustained cultural support.

In practice, this study recommends that madrassas and Islamic educational institutions adopt digital storytelling as a medium for character development. Teachers can design Islamic stories that are relevant to students' lives and encourage them to become creators rather than just media consumers. This approach has the potential to shape transformative character learning. On the theoretical side, this study strengthens the relevance of constructivism, experiential learning, and educational ecology in the context of digital-based Islamic education. These findings also expand the literature on innovative pedagogical strategies for strengthening contextual, collaborative, and participatory Islamic character.

Digital storytelling has proven an effective strategy for integrating Islamic character values into meaningful, contextual learning. Learning experiences that involve emotions, creativity, and social interaction encourage the deep internalization of values. School culture support and community involvement are the primary reinforcers of the effectiveness of this strategy. Further research is suggested to explore the long-term impact of digital storytelling on the formation of Islamic character and to test its effectiveness across various educational levels using quantitative, longitudinal methods.

CONCLUSION

This research reveals that digital storytelling is a practical pedagogical approach in strengthening Islamic character values at MI Al-Huda Purwoasri. The presentation of Islamic stories through digital media, such as video, audio, and interactive presentations, has increased students' emotional and cognitive engagement in understanding and internalizing values such as honesty, responsibility, empathy, and cooperation. The active involvement of students in the production of digital narratives deepens their understanding of moral values through a reflective, collaborative process. In addition, the success of digital media integration is inseparable from the school's religious culture and community support, which together create a consistent, synergistic learning ecosystem. These findings confirm that digital storytelling is not just a teaching tool but a transformative medium for shaping Islamic characters in context. This approach opens the way for the development of experiential learning methods that are relevant to the dynamics of 21st-century learning.

REFERENCES

- Abraham, S. A. A., Doe, P. F., Osei Berchie, G., Agyare, E., Ayisi Addo, S., & Obiri-Yeboah, D. (2022). Explorative-Descriptive Study on the Effects of COVID-19 on Access to Antiretroviral Therapy Services: The Case of a Teaching Hospital in Ghana. *BMJ Open*, 12(5), e056386. <https://doi.org/10.1136/bmjopen-2021-056386>
- Adanur-Sönmez, E., Aydın-Ceran, S., & Koçak, N. (2025). Student Experiences in Context-Based STEM Instructional Design: An Investigation Focused on Scientific Creativity and Interest in STEM Career. *Education Sciences*, 15(9), 1218. <https://doi.org/10.3390/educsci15091218>
- Alenezi, M., Wardat, S., & Akour, M. (2023). The Need of Integrating Digital Education in Higher Education: Challenges and Opportunities. *Sustainability (Switzerland)*, 15(6), 4782. <https://doi.org/10.3390/su15064782>
- Alifia, O., Rosadi, F., Nurhalizah, F., Kusumawardani, S., & Marini, A. (2023). Implementasi Nilai Pendidikan Karakter pada Siswa Kelas 2 SD Berbasis Digital Storytelling. *Jurnal Pendidikan Dasar dan Sosial Humaniora*, 2(3), 413–420. <https://doi.org/10.53625/jpdsh.v2i3.4468>
- Alismaiel, O. A., Cifuentes-Faura, J., & Al-Rahmi, W. M. (2022). Online Learning, Mobile Learning, and Social Media Technologies: An Empirical Study on Constructivism Theory During the COVID-19 Pandemic. *Sustainability (Switzerland)*, 14(18), 11134. <https://doi.org/10.3390/su141811134>
- Almulla, M. A. (2023). Constructivism Learning Theory: A Paradigm for Students' Critical Thinking, Creativity, and Problem Solving to Affect Academic Performance in Higher Education. *Cogent Education*, 10(1), 2172929. <https://doi.org/10.1080/2331186X.2023.2172929>
- Ardani, & Mwila, P. M. (2025). Islamic Education Through the Digital Storytelling Method in Islamic Date Learning. *Permata: Jurnal Pendidikan Agama Islam*, 6(1), 64–72. <https://doi.org/10.47453/permata.v6i2.3275>
- Asad, M. M., Naz, A., Churi, P., & Tahanzadeh, M. M. (2021). Virtual Reality as Pedagogical Tool to Enhance Experiential Learning: A Systematic Literature Review. *Education Research International*, 2021(1), 7061623. <https://doi.org/10.1155/2021/7061623>
- Belmonte Almagro, M. L., & Bernárdez-Gómez, A. (2021). Evaluation of Self-Concept in the Project for People With Intellectual Disabilities: "We Are All Campus." *Journal of Intelligence*, 9(4), 50. <https://doi.org/10.3390/jintelligence9040050>
- Briand, C., Hakin, R., Macario de Medeiros, J., Luconi, F., Vachon, B., Drolet, M. J., Boivin, A., Vallée, C., & Montminy, S. (2023). Learner Experience of an Online Co-Learning Model to Support Mental Health During the COVID-19

- Pandemic: A Qualitative Study. *International Journal of Environmental Research and Public Health*, 20(3), 2498. <https://doi.org/10.3390/ijerph20032498>
- Cleland, J., MacLeod, A., & Ellaway, R. H. (2021). The Curious Case of Case Study Research. *Medical Education*, 55(10), 1131–1141. <https://doi.org/10.1111/medu.14544>
- Cole, R. (2024). Inter-Rater Reliability Methods in Qualitative Case Study Research. *Sociological Methods and Research*, 53(4), 1944–1975. <https://doi.org/10.1177/00491241231156971>
- Davidson, C. A., Jackson, K. T., Tryphonopoulos, P., Stoyanovich, E., & Mantler, T. (2024). Maternal Decision-Making About Social Media After Leaving an Abusive Relationship: An Exploratory Descriptive Case Study of Women in Ontario. *Journal of Child and Family Studies*, 33(12), 3753–3766. <https://doi.org/10.1007/s10826-024-02942-8>
- Fromm, J., Radianti, J., Wehking, C., Stieglitz, S., Majchrzak, T. A., & vom Brocke, J. (2021). More Than Experience? On the Unique Opportunities of Virtual Reality to Afford a Holistic Experiential Learning Cycle. *Internet and Higher Education*, 50, 100804. <https://doi.org/10.1016/j.iheduc.2021.100804>
- Hamad, A., & Jia, B. (2022). How Virtual Reality Technology Has Changed Our Lives: An Overview of the Current and Potential Applications and Limitations. *International Journal of Environmental Research and Public Health*, 19(18), 11278. <https://doi.org/10.3390/ijerph191811278>
- Hämäläinen, P., Tavast, M., & Kunnari, A. (2023). Evaluating Large Language Models in Generating Synthetic HCI Research Data: A Case Study. *Conference on Human Factors in Computing Systems - Proceedings*, 1–19. <https://doi.org/10.1145/3544548.3580688>
- Jiang, J. (2024). “Emotions Are What Will Draw People In”: A Study of Critical Affective Literacy Through Digital Storytelling. *Journal of Adolescent and Adult Literacy*, 67(4), 253–263. <https://doi.org/10.1002/jaal.1322>
- Lin, C. H., & Chang, Y. Y. (2021). A Progressive Digital Narrative Teaching Method to Improve Learning Motivation as a Lifelong Learning Skill. *Sustainability (Switzerland)*, 13(23), 12991. <https://doi.org/10.3390/su132312991>
- Macenski, S., Foote, T., Gerkey, B., Lalancette, C., & Woodall, W. (2022). Robot Operating System 2: Design, Architecture, and Uses in the Wild. *Science Robotics*, 7(66), eabm6074. <https://doi.org/10.1126/scirobotics.abm6074>
- Marougkas, A., Troussas, C., Krouska, A., & Sgouropoulou, C. (2023). Virtual Reality in Education: A Review of Learning Theories, Approaches and Methodologies for the Last Decade. *Electronics (Switzerland)*, 12(13), 2832. <https://doi.org/10.3390/electronics12132832>
- Pettersson, F. (2021). Understanding Digitalization and Educational Change in School by Means of Activity Theory and the Levels of Learning Concept. *Education and Information Technologies*, 26(1), 187–204. <https://doi.org/10.1007/s10639-020-10239-8>

- Priya, A. (2021). Case Study Methodology of Qualitative Research: Key Attributes and Navigating the Conundrums in Its Application. *Sociological Bulletin*, 70(1), 94–110. <https://doi.org/10.1177/0038022920970318>
- Puspitasari, D., Fitriati, S. W., Widhiyanto, & Rustipa, K. (2025). Integrating Moral Values Into EFL Learning Through a Multimodal Project: A Case Study. *Educational Process: International Journal*, 14, e2025077. <https://doi.org/10.22521/edupij.2025.14.77>
- Putri, W., Kurniawan, M. A., & Nuraini, N. (2024). Peran Guru dalam Membentuk Karakter Siswa. *Metta: Jurnal Ilmu Multidisiplin*, 4(4), 1–14. <https://doi.org/10.37329/metta.v4i4.3617>
- Saripudin, D., Komalasari, K., & Anggraini, D. N. (2021). Value-Based Digital Storytelling Learning Media to Foster Student Character. *International Journal of Instruction*, 14(2), 369–384. <https://doi.org/10.29333/iji.2021.14221a>
- Sarıca, H. Ç. (2023). Emotions and Digital Storytelling in the Educational Context: A Systematic Review. *Review of Education*, 11(3), e3430. <https://doi.org/10.1002/rev3.3430>
- Stapley, E., O’Keeffe, S., & Midgley, N. (2022). Developing Typologies in Qualitative Research: The Use of Ideal-Type Analysis. *International Journal of Qualitative Methods*, 21, 16094069221100632. <https://doi.org/10.1177/16094069221100633>
- Stewart, W. H., & Lowenthal, P. R. (2021). Experiences and Perceptions of Exchange Students Learning Online During the COVID-19 Pandemic in the Republic of Korea: An Exploratory Descriptive Study. *Asian Journal of Distance Education*, 16(1), 119–140. <https://www.asianjde.com/ojs/index.php/AsianJDE/article/view/551>
- Tembrevilla, G., Phillion, A., & Zeadin, M. (2024). Experiential Learning in Engineering Education: A Systematic Literature Review. *Journal of Engineering Education*, 113(1), 195–218. <https://doi.org/10.1002/jee.20575>
- Van Der Winden, D., Van Dijk, N., Visser, M. R. M., & Bont, J. (2023). Walking the Line Between Assessment, Improvement and Learning: A Qualitative Study on Opportunities and Risks of Incorporating Peer Discussion of Audit and Feedback Within Quality Improvement in General Practice. *BMJ Open*, 13(1), e066793. <https://doi.org/10.1136/bmjopen-2022-066793>
- Xiao, L., Min, H., Wu, Y., Zhang, J., Ning, Y., Long, L., Jia, K., Jing, W., & Sun, X. (2023). Public’s Preferences for Health Science Popularization Short Videos in China: A Discrete Choice Experiment. *Frontiers in Public Health*, 11, 1160629. <https://doi.org/10.3389/fpubh.2023.1160629>