Digital Storytelling: An Effort to Empower Local Wisdom at SMA Sains Plus Tahfidz Qur'an Al-Ammar

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Abstract: This community service program aims to empower local wisdom through the implementation of digital storytelling at SMA Sains Plus Tahfidz Qur'an Al-Ammar, an Islamic boarding school integrating Qur'anic values, science education, and character development. The program addresses three main challenges; 1) the limited integration of local wisdom in learning, 2) students' low academic storytelling skills, and 3) the absence of an integrated digital storytelling learning model. A participatory Project-Based Learning (PjBL) approach was employed, involving teachers and students in workshops, training, and mentoring focused on cultural literacy, storytelling techniques, and digital content production. The methods included needs analysis, capacity building, storytelling training, and the development of digital storytelling videos. The results demonstrate notable improvement in students' understanding of local wisdom, storytelling competence, digital literacy, and creative expression. Key outputs include educational digital storytelling videos, a practical learning guide, and an integrated digital storytelling learning model. This program contributes to strengthening cultural identity, enhancing 21st century skills, and promoting sustainable, culturally responsive learning within Islamic secondary education.

Introduction

The rapid advancement of digital technology has transformed contemporary educational practices, particularly in the areas of literacy, communication, and learning media. In the context of 21st century education, digital literacy extends beyond technical competence to include the ability to create, interpret, and communicate meaningful content that reflects cultural identity and social values (Sadik, 2008). However, the integration of local wisdom into digital based learning remains limited, especially in islamic secondary education where cultural narratives

and religious values are often transmitted implicity rather than through structured, cerative, and technology mediated pedagogical approach.

Local wisdom constitutes an essential cultural asset encompassing moral values, social norms, and collective identity embedded within a community. In educational settings, local wisdom functions as a contextual learning resource that supports character education, cultural awareness, and students' sense of belonging (Noorhayati et al., 2023). Nevertheless, many schools have yet to systematically integrate local wisdom into learning activities, particularly in the form of digital product. Traditional oral narratives, local Islamic traditions, and culturally rooted experiences are increasingly vulnerable to erosion in the digital era if they are not documented and adapted into contemporary learning media.

Digital storytelling offers a pedagogical approach with strong potential to address these challenges. By integrating narrative structures with multimedia elements such as images, audio, and video. Digital storytelling enables students to actively construct meaning while developing communication, creativity, and critical thinking skills (AAVV, 2014). Empirical studies have shown that digital storytelling enhances students' academic achievement, learning motivation, and engagement through multimodal and narrative based learning experiences (Yang & Wu, 2012). Furthermore, digital storytelling aligns closely with project-based learning positioning learners as producers of knowledge rather than passive recipients.

SMA Sains Plus Tahfidz Qur'an Al-Ammar, an Islamic boarding school in North Sumatera, provides a distinctive educational context in which Qur'anic studies, science educational, and character development are integrated. The school accommodates students from diverse cultural backgrounds, creating substantial potential for exploring and documenting local wisdom. However, preliminary observations reveal challenges faced by the institution, including the limited integration of local wisdom into formal learning activities, students' low storytelling learning model that connects cultural values, Islamic teachings, and digital technology.

This community service program was designed to empower local wisdom through the implementation of digital storytelling. The program aimed to enhance students' digital literacy and storytelling competence support teachers in developing culturally responsive learning practices, and produce sustainable digital learning resources. Through a participatory and project-based learning approach, teachers and students were actively involved in workshops, training sessions, and mentoring

activities focusing on cultural literacy, narrative development, and digital content production. The implementation and outcomes of the program and highlights its contribution to strengthening cultural identity, improving 21st century skills, and promoting sustainable, culturally responsive learning in Islamic.

Method

This community service program employed a participatory and Project-Based Learning (PjBL) approach to empower local wisdom through digital storytelling. The program was conducted at SMA Sains Plus Tahfidz Qur'an Al-Ammar, an Islamic boarding school in North Sumatera, and involved teachers and students as active participants throughout all stages of implementation. Participatory approaches are widely recognized as effective in community-based educational programs because they encourage shared ownership, collaboration, and contextual relevance (Denzin, 2008). The target participants consisted of teachers and approximately 30-35 students selected based on their interest in literacy, culture, and digital media. The implementation of the program was divided into four main stages.

1. Stage was a needs analysis and preliminary assessment, conducted through focus group discussions (FGDs), observations, and informal interviews with school stakeholders. This stage aimed to identify existing learning practices, students' digital literacy levels, and the potential forms of local wisdom relevant to Islamic values and the school's educational vision. Needs analysis is essential in community based programs to ensure contextual relevance and shared understanding between the service team and the partner institution (Noorhayati et al., 2023; Stringer & Ortiz Aragón, 2021)

2. Stage focused on capacity building in local wisdom-based education. Workshops were conducted to introduce the concept of local wisdom as a learning resource, emphasizing its connection to Qur'anic values and character education. Teachers and students collaboratively experiences. This stage was designed to strengthen cultural awareness and position local wisdom as an integral component of contextual learning. In line with culturally responsive pedagogy principles (Gay, 2018).

3. Stage involved training and mentoring in academic and educational digital storytelling. Participants received instruction on storytelling structure, narrative coherence, moral messaging, and the integration of Islamic values

into narratives. Technical training covered basic digital production skills, including scriptwriting, audio-visual recording, and simple video editing using accessible digital tools. Digital storytelling was applied as a pedagogical strategy to enhance creativity, communication skills, and student engagement through multimodal learning (Sadik, 2008; Yang & Wu, 2012). During this stage, students worked in small groups to produce digital storytelling videos based on selected local wisdom themes. This process reflects the core principles of Project-Based Learning, which emphasize authentic tasks, collaboration, and meaningful learning outcomes (Thomas, 2000)

4. The final stage comprised evaluation and sustainability planning. Evaluation was conducted using pre-test and post-test instruments, observation sheets, and rubrics assessing storytelling quality, culture content, and digital literacy. Participant reflections and feedback questionnaires were also collected to measure program effectiveness and satisfaction. Sustainability was ensured through the development of a practical digital storytelling guide, the integration of the model into school learning activities, and the management of digital outputs through the school's media channels. This approach aligns with best practices in community service programs that emphasize long-term impact, institutional ownership, and teacher capacity development (AAVV, 2014; Kemmis & McTaggart, 2005).

Results

A. Improvement of Teachers' Pedagogical and Digital Competence

The results indicate a substantial improvement in teachers' pedagogical and digital competencies following the implementation of the digital storytelling program. Pre-test and post-test assessments were administered to measure teachers' understanding of local wisdom integration, digital storytelling concepts, and basic digital literacy skills.

Table 1. teachers' pre-test and post-test result

Competency Aspect	Pre-test Mean Score	Post-Test Mean Score	Improvement
Understanding of local wisdom integration	62	85	23
Academic and educational	60	82	22

storytelling			
Instructional design (PjBL based)	58	80	22
Digital literacy skills	65	83	18

The data show consistent improvement across all assessed aspect. The highest increase was observed in teachers' understanding of local wisdom integration and instructional design using a project-based learning framework. These results indicate that the program effectively enhanced teachers' readiness to implement culturally responsive and technology-integrated learning strategies.

B. Development of Instructional Digital Storytelling Outputs

Following the training and mentoring stages, teachers successfully developed instructional digital storytelling products, including storytelling script, prototype videos, and a practical teaching guide. The instructional materials reflected teachers; ability to transform local cultural narratives and Islamic values into structured learning content suitable for classroom implementation. Evaluation using storytelling rubrics revealed that most teachers achieved good to very good levels in narrative coherence, value integration, and instructional relevance. Teachers demonstrated the ability to align storytelling content with learning objective and to design activities that promote student engagement through collaborative and project-based tasks.

C. Changes in Instructional Practices and Sustainability

Classroom observations and teacher reflections revealed a shift in instructional practices from teacher-centered approaches toward student-centered and project-based learning models. Teachers reported increased confidence in facilitating storytelling project and guiding students in digital content production. Although students were not the primary subjects of the program, teachers observed improved student engagement, creativity, and participation during pilot classroom implementation. Program sustainability was supported through the development of a digital storytelling teaching guide and the integration of the model into regular classroom activities and extracurricular programs. Teachers expressed commitment to continuing the application of digital storytelling as a pedagogical strategy, indicating strengthened institutional capacity and long-term impact.

Discussion

The findings of the study demonstrated that digital storytelling serves as an

effective pedagogical tool for enhancing teachers' instructional competence, particularly in integrating local wisdom, Islamic values, and digital technology. The significant increasing in pre-test and post-test scores confirms previous studies suggesting that digital storytelling support meaningful learning by combining narrative-based instruction with multimodal digital media (Sadik, 2008; Yang & Wu, 2012).

The improvement in teachers' ability to integrate local wisdom aligns with the principles of culturally responsive pedagogy, which emphasize the importance of contextualizing learning within students' cultural background (Gay, 2018). By positioning local wisdom as a core learning resource rather than supplementary content, teachers were able to design learning activities that foster culture awareness, moral reflection, and identity formation.

Furthermore, the application of Project-Based Learning (PjBL) enabled teachers to shift instructional practices toward student-centered learning, consistent with (Thomas, 2000), who argue that authentic project enhance engagement and deep learning. Teachers' increased confidence in instructional design and facilitation indicates that professional development grounded in participatory and practice-oriented approaches contributes to sustainable pedagogical change (Kemmis & McTaggart, 2005)

Overall, these results suggest that empowering teachers through digital storytelling training not only improves pedagogical competence but also strengthens institutional capacity for culturally responsive and technology-integrated education. The findings reinforce the role of community service programs as effective vehicles for sustainable educational innovation.

Conclusion

This community service program demonstrates that digital storytelling is an effective and sustainable pedagogical strategy for empowering teachers to integrate local wisdom, Islamic values, and digital technology into classroom instruction. Using a participatory project-based learning framework, the program enhanced teachers' pedagogical competence, storytelling skills, and digital literacy. The shift toward student-centered and culturally responsive learning practices indicates strengthened institutional capacity. The development of instructional digital storytelling material and a practical teaching guide supports program sustainability. This model offers a transferable framework for community based educational innovation that promotes

cultural preservation and 21st century teaching competencies.

Acknowledgements

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