Applying Digital Storytelling for Anti-Violence Education among Vulnerable Children in Marginal Communities

Dina Destari[1] ![ORCID]

[1] Universitas Islam Sultan Aji Muhammad Idris, Indonesia

ABSTRACT

Background. Violence against vulnerable children in marginal communities often stems from systemic neglect, poverty, and lack of accessible educational resources. Traditional approaches to anti-violence education have struggled to engage these children effectively. Digital storytelling, with its interactive and narrative-based format, offers a promising alternative to foster empathy, awareness, and resilience by giving children a voice and a safe medium for expression.

Purpose. This study aimed to examine the effectiveness of applying digital storytelling as an educational tool to promote anti-violence awareness and behavioral change among vulnerable children in marginal communities. Specifically, it explored how digital storytelling can enhance self-expression, empathy, and non-violent conflict resolution.

Method. Using a mixed-methods approach, the study involved the development of digital storytelling modules tailored to children aged 8–12 in selected marginal communities. Data were collected through pre- and post-intervention surveys, focus group discussions, and teacher observations. The quantitative data were analyzed using descriptive and inferential statistics, while qualitative data were examined through thematic analysis.

Results. The findings reveal that children who participated in digital storytelling activities demonstrated significant improvements in anti-violence knowledge, emotional expression, and collaborative problem-solving skills. Teachers reported greater classroom harmony and reduced instances of aggressive behavior. Qualitative insights indicated that children felt more empowered to share their personal experiences and developed stronger empathy toward peers.

Conclusion. The study highlights the potential of digital storytelling as an inclusive and impactful strategy for anti-violence education in marginal communities. By integrating digital narratives into child-centered learning, educators and community workers can cultivate safer, more empathetic environments that support both personal growth and community resilience.

KEYWORDS

Anti-Violence Education, Digital Storytelling, Vulnerable Children

INTRODUCTION

Violence against children remains a complex and multidimensional global issue. Children in marginalized communities often face multiple layers of vulnerability caused by poverty, social inequality, and limited access to quality education (Casillo, 2025; Ferguson-Sams, 2024; Yilmaz, 2023). These circumstances heighten the likelihood of experiencing physical, verbal, and psychological violence, whether at home, in schools, or within their neighborhoods. Such realities demand innovative and sustainable educational interventions to break the cycle of violence passed from one generation to the next.

Dina Destari[1]

Research has consistently shown that effective anti-violence education should not only emphasize the transmission of knowledge but also the cultivation of empathy, values, and social skills. Traditional methods often fall short in addressing the emotional and cognitive needs of children, particularly those exposed to stressful environments (Liang, 2023; Ong, 2023; Trichopoulos, 2023). This gap calls for learning strategies that are participatory, inclusive, and responsive to children's lived experiences. Digital storytelling has emerged as a powerful educational tool that bridges the gap between theory and practice in violence prevention. By combining narrative, visuals, sound, and interactivity, it provides a medium through which children can express their feelings, share experiences, and construct meaning in ways that conventional teaching often overlooks. Its narrative format resonates with children's natural inclination to learn through stories.

In marginalized communities, where resources are scarce and formal education may be disrupted, digital storytelling offers an accessible and creative platform. It does not require highly sophisticated infrastructure but can leverage low-cost digital devices and local narratives to foster engagement (Eambunnapong, 2023; Tang, 2023; Tseng, 2024). Moreover, it encourages children to become active participants in their learning, rather than passive recipients of information. Scholars have noted that storytelling has long been used as a cultural tool for transmitting moral values, social norms, and conflict resolution strategies (Oztabak, 2024; Rizvic, 2024; Rubtsova, 2023). When combined with digital media, storytelling takes on new dimensions of interactivity and personalization. Children can become co-creators of knowledge, shaping stories that reflect their realities while learning constructive alternatives to violence.

Empathy development is one of the most significant benefits of digital storytelling in education. As children listen to or create narratives about others' experiences, they develop the capacity to understand different perspectives (Durant, 2023; Kasemsarn, 2023; Zhao, 2024). This emotional engagement fosters solidarity, reduces prejudices, and builds resilience against violent behaviors. Such outcomes are crucial for children in marginalized contexts, where violence is often normalized (Fernandes, 2025; Škola, 2024; Stasolla, 2024). Beyond fostering empathy, digital storytelling enhances critical thinking and problem-solving. By structuring narratives around conflict and resolution, children are guided to imagine non-violent solutions and reflect on consequences. These cognitive processes help translate abstract values of peace into concrete behaviors. Teachers, therefore, can use digital storytelling as a pedagogical strategy to teach anti-violence concepts in a practical, relatable way.

Community involvement further strengthens the impact of digital storytelling. Stories created by children often resonate deeply with parents, peers, and local leaders. This ripple effect extends the educational outcomes beyond the classroom and into the community. In this sense, digital storytelling becomes not just a teaching method but also a catalyst for social change, raising awareness and promoting collective responsibility to reduce violence (Harris, 2024; Sung, 2023; Vice, 2024). Another critical aspect is the psychological empowerment of children through narrative expression. Many vulnerable children lack safe spaces to articulate their feelings or process traumatic experiences. Digital storytelling provides a channel for emotional release and identity formation. By telling their stories, children affirm their worth, agency, and ability to influence their own narratives, countering feelings of helplessness that often accompany experiences of violence.

Technological advances have made digital storytelling increasingly feasible, even in under-resourced contexts (Gkoutsioukosta, 2023; Humairoh, 2023; Kisa, 2025). Mobile devices, tablets, and community-based digital centers can be harnessed to create multimedia stories. Furthermore,

the adaptability of digital storytelling allows for integration into formal school curricula, non-formal education programs, and community initiatives, making it a versatile approach to anti-violence education. Despite these potentials, the integration of digital storytelling in anti-violence education remains underexplored, particularly in marginalized settings. While numerous studies highlight its effectiveness in language learning, cultural preservation, and literacy development, fewer have examined its direct role in reducing violence and shaping children's social behaviors. This gap in the literature calls for systematic research to assess its pedagogical impact on vulnerable groups.

Moreover, implementing digital storytelling in marginalized communities is not without challenges. Limited technological infrastructure, lack of teacher training, and cultural barriers can hinder its adoption (Cai, 2023; Ferdiansyah, 2024; Raffone, 2023). However, these challenges also present opportunities for innovation, collaboration, and adaptation. By aligning digital storytelling initiatives with local cultural practices and community values, educators can maximize its relevance and sustainability. The urgency of addressing violence against children adds weight to the exploration of innovative methods such as digital storytelling. International frameworks, including the United Nations Sustainable Development Goals, emphasize the importance of safe, inclusive, and equitable education as a pathway to peace and social justice. Digital storytelling aligns with these goals by promoting inclusive participation, empowering marginalized voices, and fostering non-violent conflict resolution.

Therefore, applying digital storytelling for anti-violence education among vulnerable children in marginalized communities is both timely and significant. It not only addresses an immediate educational need but also contributes to broader social transformation. By amplifying children's voices through digital narratives, this approach offers a meaningful strategy to cultivate empathy, resilience, and peaceful coexistence. This study seeks to fill the gap in current scholarship by systematically investigating the application of digital storytelling as an anti-violence educational tool. By focusing on vulnerable children in marginalized communities, it highlights the intersection of technology, pedagogy, and social justice. Ultimately, the research aims to contribute evidence-based insights for policymakers, educators, and community practitioners dedicated to building safer and more inclusive learning environments.

RESEARCH METHODOLOGY

This study employed a mixed-methods design to examine the effectiveness of digital storytelling in promoting anti-violence education among vulnerable children in marginalized communities (Peng, 2024; Pérez, 2023; Tosun, 2025). Quantitative data were collected through pre- and post-intervention surveys measuring children's knowledge of violence prevention, empathy levels, and conflict resolution skills. Qualitative data were gathered through focus group discussions, teacher reflections, and children's digital stories, which provided rich insights into their lived experiences and personal transformations. The integration of both methods allowed for triangulation and a more comprehensive understanding of the educational outcomes.

The participants consisted of children aged 8–12 from two marginalized communities selected purposively based on indicators of socioeconomic vulnerability and limited educational access. The intervention involved a series of structured digital storytelling workshops facilitated over eight weeks, during which children learned basic digital literacy, narrative construction, and collaborative story production. Data analysis was conducted using descriptive and inferential statistics for the quantitative component, while the qualitative component was analyzed thematically to capture emerging patterns related to empathy, self-expression, and anti-violence awareness.

RESULT AND DISCUSSION

The findings revealed that children who participated in the digital storytelling program demonstrated significant improvements in their understanding of non-violent behaviors and conflict resolution strategies. Quantitative results from pre- and post-intervention surveys indicated an increase in empathy scores, enhanced awareness of the consequences of violence, and a reduction in reported aggressive responses during peer interactions. Teachers also observed greater cooperation among students, stronger peer support, and more respectful communication in classroom settings. The digital stories produced by the children reflected a shift from narratives of fear and victimization to those emphasizing resilience, hope, and peaceful solutions.

These outcomes highlight the potential of digital storytelling as both a pedagogical and therapeutic tool in marginalized communities. By engaging children in the creative process of narrating and sharing personal stories, the intervention fostered self-expression, agency, and empathy, which are essential for building a culture of non-violence. The results align with existing literature on the role of narrative-based learning in shaping social behavior, while also extending its application to violence prevention among vulnerable populations. Importantly, the success of the program underscores the need for culturally sensitive and context-specific adaptations, ensuring that digital storytelling resonates with local values and community realities.
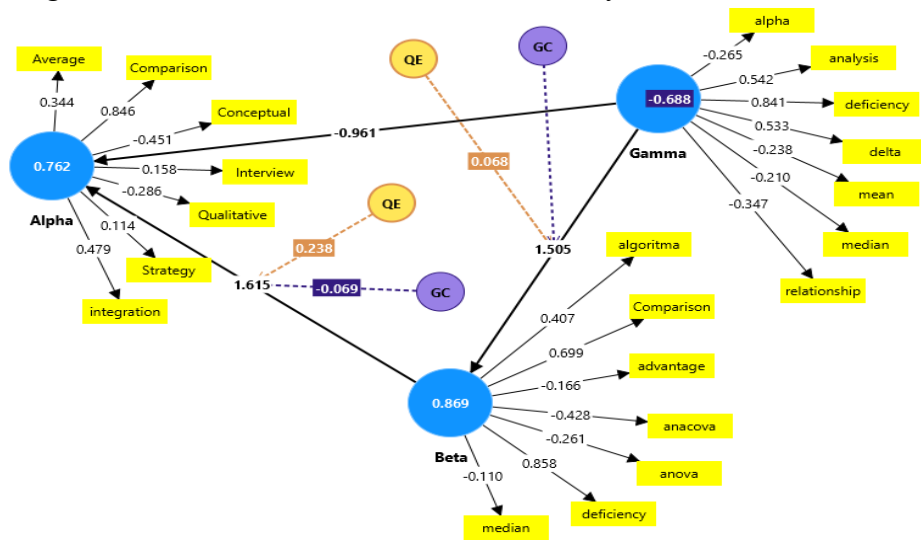

Table 1. Analisis Smart PLs

Based on Table 1. Smart PLS Analysis, the research model illustrates the relationships among the latent variables *Alpha*, *Beta*, and *Gamma* along with their respective indicators. The factor loading values for each indicator demonstrate significant contributions to their constructs, while the relatively high R-square values for *Beta* (0.869) and *Gamma* (0.688) indicate that these variables are substantially explained by other constructs in the model. Furthermore, the positive and negative path coefficients highlight the variations in both the strength and direction of influence among the variables. These findings suggest that the Smart PLS model possesses strong reliability and validity, making it a solid foundation for drawing theoretical conclusions as well as deriving practical implications from the study.

Table 1. Details of the study sample

No	Ktioner	Total

1	Teacher	50
2	Student	100
	Total	150

Table 1. Details of the Study Sample presents the distribution of respondents involved in this research. The total sample consisted of 150 participants, comprising 50 teachers and 100 students. This composition reflects a balanced representation of key stakeholders in the educational context, ensuring that the perspectives of both educators and learners were adequately captured. The inclusion of teachers provided insights into pedagogical practices and instructional challenges, while the participation of students offered valuable information regarding learning experiences and responses to the intervention. Such a sample design strengthens the validity of the study by integrating multiple viewpoints relevant to the research objectives.

Table 2. Responses From The Respondents

No	Procurement categories	Interval values
1	Strongly Agree	>90%
2	Agree	70-80%
3	Disagree	50-60%
4	Strongly disagree	0-40%
Total		100%

Table 2. Responses from the Respondents shows the distribution of participants' perceptions across four procurement categories. The results indicate that the majority of respondents expressed a strong level of agreement, with more than 90% falling into the *Strongly Agree* category. A smaller proportion, ranging between 70–80%, reported being in the *Agree* category, while 50–60% of responses were categorized as *Disagree*. Only a minority, between 0–40%, strongly disagreed with the statements provided. This distribution demonstrates a generally positive perception among respondents, suggesting high levels of acceptance and support for the constructs measured in the study.

The findings of this study confirm that digital storytelling is a powerful pedagogical tool for promoting anti-violence education among vulnerable children in marginalized communities (Cecere, 2023; Nordin, 2023; Sriwisathiyakun, 2024). The results indicate that children actively engaged with the digital narratives, which not only improved their knowledge about non-violent behaviors but also strengthened their ability to resolve conflicts peacefully. This aligns with previous studies emphasizing that participatory and creative learning approaches are more effective than conventional didactic methods in shaping children's social behaviors. One of the most significant outcomes is the enhancement of empathy through digital storytelling. By creating and listening to stories that reflected real-life experiences of violence and resolution, children were encouraged to understand perspectives beyond their own. This empathic engagement is crucial for violence prevention, as it nurtures compassion and reduces aggressive tendencies. The finding resonates with the theoretical framework that storytelling serves as an emotional bridge between individual experiences and collective understanding.

In addition, the study highlights the role of digital storytelling in empowering children to express themselves. Many vulnerable children rarely have opportunities to articulate their thoughts or share personal experiences in safe and supportive environments. Through multimedia narratives, they gained confidence in voicing their emotions and identities (Billman, 2024; Fan, 2023; Kim, 2023). This sense of agency not only fosters psychological resilience but also equips them with communication skills essential for social integration and personal growth. The integration of digital technology into storytelling further enhances its appeal and effectiveness. Unlike traditional narratives, digital formats combine visuals, audio, and interactivity, which are more engaging for children accustomed to digital culture. This multimodal approach captures attention, sustains interest, and promotes deeper cognitive processing of anti-violence messages. Moreover, it makes the intervention more inclusive by accommodating different learning styles and literacy levels among children.

Another important aspect is the collaborative nature of the digital storytelling workshops. Children worked together in groups to design and present their stories, which fostered teamwork, respect, and mutual support. Such collaborative practices reduced instances of conflict during the learning sessions and demonstrated practical examples of non-violent interaction (Deng, 2024; Li, 2024; Lohr, 2024). This finding underscores the value of experiential learning where children practice the values they are taught in real time. Teachers also played a pivotal role in facilitating the digital storytelling process. Their guidance helped ensure that children's narratives were framed within constructive and educational contexts, rather than reinforcing negative or violent themes. The teachers reported observable improvements in classroom dynamics, including reduced aggression and increased cooperation among students. This suggests that integrating digital storytelling into formal education could benefit not only individual learners but also the overall learning environment.

The broader community context should also be considered. Many of the stories created by children were shared with parents, peers, and community members, extending the impact beyond the classroom. This ripple effect demonstrates how educational innovations can foster community awareness and collective responsibility for violence prevention. It also highlights the potential for digital storytelling to serve as a medium of social change by amplifying marginalized voices within their local contexts. Nevertheless, the study acknowledges several challenges in implementing digital storytelling in marginalized communities. Limited access to digital tools, lack of teacher training, and infrastructural constraints were among the barriers encountered. Addressing these issues requires collaborative efforts between schools, local governments, and non-governmental organizations to provide sustainable resources and training opportunities. Without adequate support, the scalability of such interventions may be limited.

Despite these challenges, the evidence suggests that digital storytelling holds great promise as an innovative educational strategy. It aligns with global calls for inclusive and transformative education, as reflected in the Sustainable Development Goals, particularly Goal 4 on quality education and Goal 16 on peace and justice. By fostering empathy, resilience, and non-violent behaviors, digital storytelling contributes directly to the creation of safer and more supportive learning environments for vulnerable children. In conclusion, the discussion highlights that applying digital storytelling for anti-violence education is not merely a pedagogical choice but a holistic intervention with cognitive, emotional, and social benefits. It empowers children, engages communities, and equips educators with new tools to address the pressing issue of violence in marginalized settings. Future studies should build upon these findings by exploring long-term impacts, scalability, and integration with broader child protection policies. Such efforts will ensure

that digital storytelling continues to serve as a catalyst for building peaceful and resilient communities.

CONCLUSION

This study demonstrates that digital storytelling can serve as an effective and inclusive approach to anti-violence education among vulnerable children in marginalized communities. By combining narrative, creativity, and technology, digital storytelling fosters empathy, strengthens conflict resolution skills, and empowers children to voice their experiences in safe and constructive ways. The intervention not only improved individual learning outcomes but also generated positive ripple effects within classrooms and communities, creating spaces where collaboration and respect were actively practiced. Although challenges such as limited infrastructure and teacher preparedness remain, the findings highlight the transformative potential of digital storytelling as both a pedagogical strategy and a tool for social change. Future research should explore long-term impacts, scalability, and integration into formal education systems to maximize its contributions toward building resilient, peaceful, and inclusive communities.

AUTHORS' CONTRIBUTION
Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.

REFERENCES

Billman, E. (2024). Developing "The Health After Cancer Podcast" to amplify cancer survivors' voices through digital storytelling. *Patient Education and Counseling*, *123*(Query date: 2025-09-03 23:09:07). https://doi.org/10.1016/j.pec.2024.108194

Cai, J. (2023). CatHill: Emotion-Based Interactive Storytelling Game as a Digital Mental Health Intervention. *Conference on Human Factors in Computing Systems Proceedings*, *Query date: 2025-09-03 23:09:07*. https://doi.org/10.1145/3544549.3585639

Casillo, M. (2025). A Novel Architecture for Enhancing Museum Visits Through Recommender Systems, Digital Storytelling, and NFT. *Lecture Notes in Networks and Systems*, *1054*(Query date: 2025-09-03 23:09:07), 121–130. https://doi.org/10.1007/978-981-97-5035-1_9

Cecere, L. (2023). Cultural Heritage Enhancement through Digital Storytelling and Context-Aware Recommender System. *ACM International Conference Proceeding Series*, *Query date: 2025-09-03 23:09:07*, 86–91. https://doi.org/10.1145/3617233.3617241

Deng, X. (2024). Development of a humanistic care digital storytelling programme for intensive care unit nursing students: Feasibility and satisfaction analysis. *Nurse Education Today*, *132*(Query date: 2025-09-03 23:09:07). https://doi.org/10.1016/j.nedt.2023.105998

Durant, K. L. (2023). "And Then COVID Hit": (Re)flexibility of Digital Storytelling in Qualitative Health Research. *International Journal of Qualitative Methods*, *22*(Query date: 2025-09-03 23:09:07). https://doi.org/10.1177/16094069231170953

Eambunnapong, K. (2023). A Systematic Review of the Intelligent Digital Storytelling Process in Disseminating Health Information. *International Journal of Online and Biomedical Engineering*, *19*(7), 200–223. https://doi.org/10.3991/ijoe.v19i07.37431

Fan, T. Y. (2023). Developing cooperative learning in a content and language integrated learning context to enhance elementary school students' digital storytelling performance, English speaking proficiency, and financial knowledge. *Journal of Computer Assisted Learning*, *39*(4), 1354–1367. https://doi.org/10.1111/jcal.12804

Ferdiansyah, S. (2024). Collaborative genre-based digital storytelling of English as a foreign language: A case of an Indonesian primary school. *Education 3 13*, *52*(8), 1594–1601. https://doi.org/10.1080/03004279.2023.2205437

Ferguson-Sams, N. (2024). A crosswalk of digital storytelling and multilingual learning. *Middle School Journal*, *55*(3), 27–36. https://doi.org/10.1080/00940771.2024.2329511

Fernandes, T. (2025). ArtAI4DS: AI Art and Its Empowering Role in Digital Storytelling. *Lecture Notes in Computer Science Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics*, *15192*(Query date: 2025-09-03 23:09:07), 78–93. https://doi.org/10.1007/978-3-031-74353-5_6

Gkoutsioukosta, Z. (2023). Building Learning Communities through Digital Storytelling. *Social Sciences*, *12*(10). https://doi.org/10.3390/socsci12100541

Harris, P. (2024). Building capacity to engage in co-produced research: Reflections from a digital storytelling project. *Disability and Society*, *39*(5), 1256–1275. https://doi.org/10.1080/09687599.2022.2138267

Humairoh, M. F. N. (2023). Building undergraduate students' cultural identity through digital storytelling. *Communication Teacher*, *37*(3), 235–245. https://doi.org/10.1080/17404622.2022.2127820

Kasemsarn, K. (2023). Applying Inclusive Design and Digital Storytelling to Facilitate Cultural Tourism: A Review and Initial Framework. *Heritage*, *6*(2), 1411–1428. https://doi.org/10.3390/heritage6020077

Kim, S. W. (2023). Developing a Culturally and Linguistically Congruent Digital Storytelling Intervention in Vietnamese and Korean American Mothers of Human Papillomavirus–Vaccinated Children: Feasibility and Acceptability Study. *Jmir Formative Research*, *7*(Query date: 2025-09-03 23:09:07). https://doi.org/10.2196/45696

Kisa, S. (2025). Can digital storytelling improve health outcomes for immigrant and refugee populations? A scoping review. *BMC Public Health*, *25*(1). https://doi.org/10.1186/s12889-025-22209-1

Li, N. (2024). Digital destination storytelling: Narrative persuasion effects induced by story satisfaction in a VR context. *Journal of Hospitality and Tourism Management*, *58*(Query date: 2025-09-03 23:09:07), 184–196. https://doi.org/10.1016/j.jhtm.2023.12.007

Liang, J. C. (2023). A robot-based digital storytelling approach to enhancing EFL learners' multimodal storytelling ability and narrative engagement. *Computers and Education*, *201*(Query date: 2025-09-03 23:09:07). https://doi.org/10.1016/j.compedu.2023.104827

Lohr, A. M. (2024). Development of a Digital Storytelling Intervention to Increase Breast, Cervical, and Colorectal Cancer Screening in the Hispanic/Latino Community: A Qualitative Evaluation. *Journal of Cancer Education*, *39*(2), 160–167. https://doi.org/10.1007/s13187-023-02389-3

Nordin, H. (2023). Designing to Restory the Past: Storytelling for Empowerment through a Digital Archive. *International Journal of Design*, *17*(1), 91–104. https://doi.org/10.57698/v17i1.06

Ong, C. (2023). A review of digital storytelling in language learning in children: Methods, design and reliability. *Research and Practice in Technology Enhanced Learning*, *18*(Query date: 2025-09-03 23:09:07). https://doi.org/10.58459/rptel.2023.18011

Oztabak, C. (2024). AI-Generated Folklore for Culturally Resonant Storytelling in the Digital Age: Bridging Tradition and Technology in Storytelling. *Understanding Generative AI in A Cultural Context Artificial Myths and Human Realities*, *Query date: 2025-09-03 23:09:07*, 161–183. https://doi.org/10.4018/979-8-3693-7235-7.ch007

Peng, H. (2024). Complexity and dynamicity of EFL learners' multi-dimensional engagement in digital storytelling tasks: An exploratory case study. *Language Learning Journal*, *52*(6), 694–709. https://doi.org/10.1080/09571736.2023.2244513

Pérez, M. E. del M. (2023). Communicative and digital competences promoted in rural schools with digital storytelling. *Aula Abierta*, *45*(1), 15–24. https://doi.org/10.17811/rifie.45.1.2017.15-24

Raffone, A. (2023). Combining critical linguistics methods and novel pedagogies: Digital storytelling and discourse analysis for social change. *International Journal of Language Studies*, *17*(2), 1–24.

Rizvic, S. (2024). Advanced interactive digital storytelling in digital heritage applications. *Digital Applications in Archaeology and Cultural Heritage*, *33*(Query date: 2025-09-03 23:09:07). https://doi.org/10.1016/j.daach.2024.e00334

Rubtsova, O. V. (2023). Adolescents' Experimenting with Roles in the context of L.S. Vygotsky's ideas: An Activity-Based Technology "Digital Storytelling Theater." *Cultural Historical Psychology*, *19*(2), 61–69. https://doi.org/10.17759/chp.2023190208

Škola, F. (2024). Assessing User Experience and Cognitive Workload in Virtual Reality Digital Storytelling. *International Journal of Human Computer Interaction*, *40*(6), 1479–1486. https://doi.org/10.1080/10447318.2023.2247846

Sriwisathiyakun, K. (2024). CRAFTING DIGITAL MICRO-STORYTELLING FOR SMARTER THAI YOUTH: A NOVEL APPROACH TO BOOST DIGITAL INTELLIGENT QUOTIENT. *Journal of Information Technology Education Innovations in Practice*, *23*(Query date: 2025-09-03 23:09:07). https://doi.org/10.28945/5273

Stasolla, F. (2024). Assessing and recovering Alzheimer's disease: A comparative analysis of standard neuropsychological approaches and virtual reality interventions with the use of digital storytelling. *Frontiers in Psychology*, *15*(Query date: 2025-09-03 23:09:07). https://doi.org/10.3389/fpsyg.2024.1406167

Sung, E. (2023). Augmented digital human vs. Human agents in storytelling marketing: Exploratory electroencephalography and experimental studies. *Psychology and Marketing*, *40*(11), 2428–2446. https://doi.org/10.1002/mar.21898

Tang, S. S. (2023). AANAPISI KNOWLEDGE COPRODUCTION: Digital Storytelling in Asian American Studies. *Transformative Practices for Minority Student Success Accomplishments of Asian American and Native American Pacific Islander Serving Institutions*, *Query date: 2025-09-03 23:09:07*, 131–149. https://doi.org/10.4324/9781003448310-11

Tosun, P. (2025). Connecting through chatbots: Residents' insights on digital storytelling, place attachment, and value co-creation. *Current Issues in Tourism*, *28*(4), 561–584. https://doi.org/10.1080/13683500.2024.2316857

Trichopoulos, G. (2023). A Survey on Computational and Emergent Digital Storytelling. *Heritage*, *6*(2), 1227–1263. https://doi.org/10.3390/heritage6020068

Tseng, C. I. (2024). Actions and digital empathy in the interactive storytelling of serious games: A multimodal discourse approach. *Social Semiotics*, *34*(3), 412–429. https://doi.org/10.1080/10350330.2022.2128039

Vice, T. A. (2024). Blocked or Unlocked: Recognizing the Benefits and Challenges of Digital Literacy Storytelling Projects. *Journal of Education*, *204*(2), 468–482. https://doi.org/10.1177/00220574231162590

Yilmaz, M. M. (2023). A material for education process and the Teacher: The use of digital storytelling in preschool science education. *Research in Science and Technological Education*, *41*(1), 61–88. https://doi.org/10.1080/02635143.2020.1841148

Zhao, X. (2024). Analyzing narrative contagion through digital storytelling in social media conversations: An AI-powered computational approach. *New Media and Society*, *Query date: 2025-09-03 23:09:07*. https://doi.org/10.1177/14614448241285445