

Ecotourism and Digital Storytelling for Sustainability Education: A Transformative Approach in Islamic Higher Education

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ABSTRACT

This study investigates the integration of ecotourism and digital storytelling as a transformative approach to sustainability education in Islamic higher education. Using a qualitative case study design, data were collected through semi-structured interviews, participant observation, and document analysis involving English education students and lecturers from three universities in Banyuwangi, Indonesia. The findings reveal three major outcomes. First, ecotourism activities provided authentic contexts for English communication, enabling students to enhance fluency, intercultural competence, and confidence in real-life interactions with international visitors. Second, digital storytelling—through videos, blogs, and social media posts—served as a reflective and creative practice, allowing students to document and disseminate sustainability narratives beyond the classroom. Third, students connected their learning experiences with Islamic values, particularly *khalifah fil ardh* (stewardship) and *amanah* (responsibility), framing environmental preservation as both an academic and spiritual duty. These results highlight the potential of ecotourism as a “living laboratory” for transformative education, where experiential learning, technology, and Islamic values converge to foster linguistic competence, environmental awareness, and moral responsibility. The study contributes to sustainability education and Islamic pedagogy by proposing ecotourism and digital storytelling as innovative practices that prepare graduates to navigate global challenges while remaining rooted in local and spiritual commitments.

Keywords: ecotourism, digital storytelling, transformative learning, sustainability education, Islamic higher education

Introduction

The integration of sustainability education into higher education has become increasingly urgent as the world faces interconnected challenges of environmental degradation, cultural erosion, and global communication needs. Education in the 21st century must prepare students not only with academic

skills but also with the ability to respond critically and responsibly to real-world issues (Mezirow, 1991; O'Sullivan, 1999; Prahmana, 2024). Within this framework, transformative learning emerges as a powerful approach, aiming to shift learners' perspectives through reflection, critical thinking, and authentic engagement with their environment (Fleming, 2024).

One promising context for transformative education is ecotourism, which emphasizes responsible interaction with natural and cultural environments (Buckley, 2009; Kolb, 2015; Fennell, 2020; Hasrina et al., 2024). Banyuwangi, located in East Java, Indonesia, provides a rich landscape for this integration, with iconic destinations such as Kawah Ijen, Alas Purwo National Park, and Kemiren cultural village. These sites not only attract international visitors but also offer authentic opportunities for students to practice English, engage with diverse cultures, and develop environmental awareness. Previous research has highlighted that experiential learning in tourism contexts fosters linguistic competence, intercultural sensitivity, and ecological responsibility (Walter, 2016; Indrapuri et al., 2024). However, much of this work has not yet examined how ecotourism can be systematically integrated into higher education within Islamic learning contexts, particularly when combined with digital innovations.

The role of technology is crucial in extending the transformative impact of ecotourism-based education. Platforms such as social media, blogs, and digital storytelling enable students to document, reflect, and share their experiences with wider audiences, turning local learning into global narratives (Fatema & Hossain, 2023; Zahra et al., 2024). By producing digital outputs—such as videos, online journals, and multimedia reflections—students not only practice language and communication skills but also critically engage with sustainability issues. Fernández et al., (2019) and Abubakari (2023) argue that technology enhances environmental education by making learning more interactive and relatable. In this sense, digital storytelling functions as both a pedagogical tool and a medium for advocacy, enabling students to embody their roles as agents of environmental and cultural preservation.

In the context of Islamic higher education, the integration of ecotourism and digital storytelling takes on additional significance. Education in pesantren-based universities is not only tasked with transmitting academic knowledge but also with instilling values of stewardship (*khalifah fil ardh*), social responsibility, and cultural preservation. Transformative learning rooted in Islamic values can thus empower students to link their academic growth with broader ethical responsibilities, including environmental sustainability and community development (Anggraeni & Rahmafritria, 2019; Saliba, 2024). By situating ecotourism within Islamic education, students are encouraged to see language and technology not merely as skills, but as tools for serving society and safeguarding creation.

This study seeks to explore the potential of ecotourism combined with digital storytelling as a transformative approach in Islamic higher education. Specifically, it investigates how university students in Banyuwangi develop English communication skills, environmental awareness, and critical reflection through experiential engagement in ecotourism and the use of digital media. In doing so, the research aims to contribute to sustainability education, while also

demonstrating how Islamic higher education can foster globally competent and socially responsible graduates.

Method

Research Design

This study employed a qualitative case study approach to investigate how ecotourism combined with digital storytelling can serve as a transformative strategy in Islamic higher education. The case study design was chosen because it allows researchers to explore contemporary phenomena within their real-life contexts, particularly when the boundaries between phenomenon and context are blurred (Yin, 2018). A qualitative approach also provides the flexibility to capture students' reflections, transformative shifts, and meaning-making processes in depth (Creswell & Poth, 2017).

Participants

The participants were English education students and lecturers from three universities in Banyuwangi with pesantren-based traditions: Universitas KH. Mukhtar Syafa'at (UIMSYA), Universitas 17 Agustus 1945 Banyuwangi (UNTAG), and Universitas PGRI Banyuwangi (UNIBA). A purposive sampling strategy was applied to recruit students who had engaged in ecotourism-based learning activities, such as guiding tourists, cultural exchanges, or community projects. Lecturers who had experimented with transformative, service-learning, or technology-supported teaching were also included to provide complementary perspectives.

Research Sites

Fieldwork was conducted in several ecotourism destinations in Banyuwangi, including Kawah Ijen, Alas Purwo National Park, Pulau Merah, and Kemiren cultural village. These sites were selected because they attract international visitors and offer opportunities for authentic English communication, environmental learning, and cultural engagement. In addition, they align with Islamic higher education's emphasis on stewardship (*khalifah fil ardh*) and character education, connecting classroom knowledge to real-world challenges.

Data Collection

Data were gathered through three techniques:

1. *Semi-Structured Interviews*

Conducted with both students and lecturers to explore their experiences integrating ecotourism, digital storytelling, and English language learning. Questions focused on: (a) perceived benefits of ecotourism for language and sustainability learning, (b) challenges in combining experiential and digital methods, and (c) reflections on Islamic values in transformative learning.

2. Semi-structured interviews allowed flexibility while ensuring that central research questions were addressed (Cohen et al., 2013).

Participant Observation

Researchers observed students' interactions during ecotourism activities, including guiding tourists, engaging in cultural performances, and producing digital storytelling outputs such as blogs or video reflections. Observations focused on language use, environmental engagement, and expressions of reflective or transformative learning. Field notes and digital recordings supported data accuracy (Yin, 2018).

Document and Digital Artifact Analysis

Students' reflective journals, digital stories, social media posts, and other multimedia outputs were analyzed to capture evidence of learning processes. Document analysis enriched the findings by highlighting students' self-reflections, creative expression, and dissemination of sustainability narratives (Bowen, 2024).

Data Analysis

Data were analyzed using the Interactive Model of Qualitative Data Analysis (Huberman & Miles, 2002). This involved:

1. Data Reduction – transcribing interviews, coding relevant statements, and categorizing themes related to transformative learning, sustainability, and digital storytelling.
2. Data Display – organizing findings into matrices and thematic charts.
3. Conclusion Drawing and Verification – identifying patterns and confirming them through triangulation and member checking.

Trustworthiness

To ensure credibility and trustworthiness, the study employed triangulation across interviews, observations, and digital artifacts (Denzin & Lincoln, 2005). Member checking was carried out by returning preliminary interpretations to participants for validation (Creswell & Poth, 2017). Peer debriefing with colleagues further enhanced reliability.

Results

Analysis of interviews, observations, and digital artifacts revealed three major themes: (1) authentic English communication through ecotourism, (2) digital storytelling as reflective and creative practice, and (3) integration of Islamic values in sustainability education.

Authentic English Communication through Ecotourism

Students reported that ecotourism sites provided authentic opportunities to use English in real contexts. Activities such as guiding tourists at Kawah Ijen, interviewing international visitors at Pulau Merah, and engaging in cultural exchanges in Kemiren village required students to communicate spontaneously in English. Observations confirmed that students demonstrated noticeable improvements in fluency, vocabulary expansion, and intercultural confidence.

Student 1 (UIMSYA, Female, 20 years old)

“When I guided foreign tourists at Kawah Ijen, I was really nervous at first. But when they asked about the blue fire and local culture, I had no choice but to explain in English. I realized that I can actually communicate better than I thought, and it gave me more confidence.”

Student 2 (UNIBA, Male, 21 years old)

“Talking with international visitors at Pulau Merah helped me improve my listening skills. Sometimes they spoke fast or used words I didn’t know, but I learned to ask them to repeat or explain. It was like a real test for my English, not just practice in class.”

Student 3 (UNTAG, Female, 19 years old)

“In Kemiren cultural village, I explained about Osing traditions to some tourists. They were very curious about our rituals. I was proud to share my culture in English, and at the same time I felt I was also learning from them.”

Lecturers also observed that students became more active and confident in class after participating in ecotourism activities, suggesting that real-world experiences helped bridge the gap between theory and practice.

Lecturer (UIMSYA, Male, 40 years old)

“Students who joined the ecotourism program became more active in class. Their fluency improved, and they were not afraid to make mistakes anymore. The authentic interaction with tourists gave them real motivation to use English.”

Digital Storytelling as Reflective and Creative Practice

A second major finding was the role of digital storytelling in extending ecotourism-based learning. Students created videos, blogs, and social media posts documenting their experiences in English. These digital artifacts revealed not only language practice but also deep reflection on environmental and cultural issues.

For example, one group produced a short documentary on Alas Purwo National Park, combining narration in English with footage of wildlife conservation. Another group used Instagram reels to showcase Kemiren’s Osing cultural traditions, accompanied by captions explaining the rituals in English.

Students valued digital storytelling as a way to share their learning with wider audiences.

Student 4 (UNIBA, Male, 20 years old)

“Making a video about Alas Purwo was more than just practicing English. I had to research, write a script, and then record my voice. When I watched it again, I realized how much my pronunciation improved. It felt like I was teaching myself.”

Student 5 (UIMSYA, Female, 21 years old)

“Posting our ecotourism project on Instagram made me proud because people from outside our campus commented. Some even asked questions in English. I felt that my English was useful in the real world, not only in the classroom.”

Student 6 (UIMSYA, Male, 21 years old)

“When I uploaded my video about Alas Purwo, I received comments from friends abroad. It made me realize that my English is useful, and I can also introduce Banyuwangi’s nature to the world.”

Student 7 (UNTAG, Female, 20 years old)

“Blogging about Kemiren village helped me to reflect more deeply. When I wrote the post in English, I thought carefully about the words I used. It also made me realize that writing is another way to share our culture and care for the environment.”

Lecturer (UNIBA, Female, 38 years old)

“Digital storytelling pushed students to be more creative. They were not just writing essays but producing videos, blogs, and social media content. This motivated them, and I could see their improvement in both language skills and critical reflection.”

These outputs indicate that digital storytelling served as both a language-learning tool and a platform for environmental advocacy.

Integration of Islamic Values in Sustainability Education

The third theme highlights the integration of Islamic values into students’ reflections on sustainability. Many students connected their experiences in ecotourism with the concept of *khalifah fil ardh* (stewardship of the Earth) and *amanah* (responsibility). In reflective journals, students frequently expressed that preserving the environment is part of their duty as Muslims.

Student 8 (UIMSYA, Female, 20 years old, pesantren-based)

“When I saw the condition of the forest in Alas Purwo, I remembered that Allah has given us amanah to take care of nature. For me, protecting the environment is not only an academic lesson, but also part of my ibadah. Speaking English about this issue felt like I was also doing da’wah.”

Student 9 (UIMSYA, Male, 21 years old, pesantren-based)

“In pesantren, we always learn that humans are khalifah fil ardh. During the ecotourism program, I felt that responsibility more strongly. Using English to tell tourists about conservation made me realize that I can connect Islamic values with global issues.”

Student 10 (UNIBA, Female, 21 years old, non-pesantren background)

“For me, the activity was more about learning English and understanding the environment. I don’t usually connect it with religion.”

But when my UIMSYA friends explained about khalifah, I started to see that religion can also guide us to protect nature."

*Student 11 (UNIBA, Male, 21 years old, non-pesantren background)
"Learning about conservation in Alas Purwo reminded me that Allah has given us amanah to protect nature. Speaking English is not only for communication, but also for da'wah about caring for the environment."*

*Student 12 (UNTAG, Male, 21 years old, non-pesantren background)
"I never thought much about religion and the environment together. But after joining discussions with pesantren students, I realized that Islamic values can give stronger reasons why we should care for nature, not only because it is important for humans, but also because it is part of our duty to God."*

Lecturers emphasized that framing ecotourism and digital storytelling within Islamic values strengthened students' sense of purpose, linking academic learning with spiritual and ethical responsibilities.

*Lecturer (UIMSYA, Male, 45 years old)
"Pesantren-based students naturally integrate Islamic concepts such as amanah and khalifah when reflecting on sustainability. Non-pesantren students may not begin with this perspective, but the collaboration encouraged cross-learning. This shows that Islamic higher education can offer added value by grounding sustainability education in spiritual responsibility."*

Discussion

This study explored how ecotourism combined with digital storytelling can function as a transformative educational approach in Islamic higher education. The findings demonstrated three major outcomes: (1) ecotourism fostered authentic English communication, (2) digital storytelling deepened reflection and engagement, and (3) Islamic values enriched students' understanding of sustainability. Together, these outcomes highlight the potential of integrating experiential learning, technology, and religious values to prepare students for a sustainable future.

Authentic English Communication through Ecotourism

The finding that students improved their English fluency and intercultural confidence through ecotourism aligns with (Kolb, 2015) experiential learning cycle, which emphasizes the role of real-life experiences in shaping knowledge and skills. By guiding tourists or participating in cultural exchanges, students engaged in concrete experiences that required immediate application of linguistic knowledge, reflective observation, and problem-solving.

Indrapuri et al. (2024) found that ecotourism projects enhance students' linguistic competence and intercultural awareness, while Walter (2016)

highlighted the transformative potential of community-based tourism in fostering critical thinking and global engagement. However, the present study extends these insights by demonstrating how ecotourism can be integrated into Islamic higher education, where language learning is not only instrumental but also linked to ethical and spiritual responsibilities.

Digital Storytelling as a Tool for Reflection and Advocacy

The second major theme emphasizes the role of digital storytelling in amplifying ecotourism-based learning. Students' production of videos, blogs, and social media content in English reflects the broader literature on the benefits of technology-enhanced learning. Zahra et al. (2024) argue that multimedia projects increase student motivation and ecological awareness, while Fernández et al. (2019) emphasize that digital platforms make environmental education more engaging and interactive.

In this study, digital storytelling served a dual function: it provided students with opportunities to practice English writing, speaking, and digital literacy, while also transforming them into advocates for sustainability. Fatema and Hossain (2023) similarly note that service-learning projects combined with digital outputs allow learners to construct meaningful knowledge while contributing to community awareness. The novelty here lies in the use of digital storytelling to connect local Islamic university students with global audiences, thereby situating language learning within both local identity and global citizenship.

Integration of Islamic Values in Sustainability Education

Perhaps the most significant finding is the explicit integration of Islamic values, particularly *khalifah fil ardh* (stewardship) and *amanah* (responsibility), into students' reflections on ecotourism and sustainability. This supports O'Sullivan's (1999) view of transformative learning as not only cognitive but also ethical and spiritual. Within Islamic education, environmental stewardship has long been emphasized as part of human responsibility to protect creation (Anggraeni & Rahmafritria, 2019).

The students' reflections indicate that Islamic values provided a moral framework for interpreting their experiences, linking language practice and environmental awareness with spiritual responsibility. Saliba (2024) similarly argues that Islamic pedagogy fosters holistic development, integrating faith, ethics, and academic skills. By framing sustainability as part of *ibadah* (worship) and *da'wah* (propagation), this study illustrates how Islamic higher education can innovate by combining experiential learning with ethical commitments.

This research contributes to the literature in three ways. First, it demonstrates how ecotourism serves as a living laboratory for transformative learning in higher education, fostering linguistic, intercultural, and environmental competencies. Second, it highlights the pedagogical potential of digital storytelling as both a reflective practice and a tool for advocacy in sustainability education. Third, it shows how Islamic values enrich sustainability education, offering an ethical-spiritual dimension often overlooked in secular frameworks.

Conclusion

This study examined the potential of ecotourism combined with digital storytelling as a transformative approach in Islamic higher education, focusing on the development of English communication skills, environmental awareness, and ethical responsibility. The findings revealed three key outcomes. First, ecotourism provided authentic contexts for students to practice English, resulting in greater fluency, confidence, and intercultural competence. Second, digital storytelling extended learning by enabling students to reflect creatively, document their experiences, and share sustainability narratives with global audiences. Third, Islamic values such as *khalifah fil ardh* (stewardship) and *amanah* (responsibility) shaped students' interpretations of their experiences, linking academic learning with spiritual and moral commitments.

The study contributes to sustainability education by demonstrating how experiential learning, technology, and Islamic values can be integrated into a coherent pedagogical model. This integration not only enhances students' academic competencies but also fosters ecological responsibility and character development—key goals of transformative education in the 21st century.

Future studies should investigate the long-term impacts of ecotourism and digital storytelling on students' career trajectories, community engagement, and environmental activism. Comparative research across different regions or Islamic higher education institutions could also offer broader insights into how sustainability education can be contextualized within diverse cultural and religious settings.

In conclusion, ecotourism in Banyuwangi demonstrates the potential to function as more than a tourism resource—it serves as a living laboratory for sustainability education. When combined with digital storytelling and guided by Islamic values, it equips students with the knowledge, skills, and ethical orientation needed to navigate a sustainable future.

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