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Designing and evaluating a seminar on cultural heritage and tourism using digital storytelling

Vana Chiou

Laboratory Teaching Staff
Department of Geography
University of the Aegean, Greece
b.xiou@aegean.gr

Mara Cerquetti

Associate Professor
Department of Education, Cultural Heritage and
Tourism
University of Macerata, Italy
mara.cerquetti@unimc.it

Abstract

This paper aims to present the educational design, the implementation, and the evaluation of a Travelling Seminar focused on cultural heritage and tourism, using digital storytelling. The seminar was organized collaboratively by two universities, members of the European Reform University Alliance (ERUA). Participants were 12 students, 8 from the University of the Aegean and 4 from the University of Macerata. Participants attended a series of lectures on digital storytelling and its potential to promote and teach cultural heritage and tourism through a variety of digital tools. Afterwards, they divided into four mixed groups and worked collaboratively to design and present digital stories on cultural heritage and tourism. The project's outputs were one video, two e-comics, and one educational e-poster. The evaluation of the project shows that students benefited from the seminar by enhancing their knowledge and skills to design digital stories by adopting diverse digital means.

Keywords: Digital storytelling, seminar, cultural heritage, tourism, human geography

Introduction

Digital storytelling is considered a powerful educational tool with various strengths and benefits for teaching and learning. Since its initial introduction at the Center of Digital Storytelling in the U.S.A. in the 1980s as an empowered personal storytelling tool (StoryCenter, n.d.), it has been disseminated and adopted across various educational settings from primary to secondary and tertiary levels (Wu & Chen, 2020). It comprises a technology application (Robin, 2008) that combines the art of storytelling and multimedia modes such as audio, text, video, graphics, and images (Choo et al., 2020; Robin, 2008).

The increased accessibility of schools to various digital and technological resources, such as computers, cameras, microphones, software programmes and others, has provided teachers and students with numerous opportunities to design and create digital stories in recent years (Armstrong, 2003; Smeda et al., 2014). There is an increasing interest in its educational potential and dynamics, indicating its adoption either as a stand-alone pedagogy or in combination with other pedagogies (Wu & Chen, 2020). Additionally, a growing body of research systematically highlights the numerous benefits of digital storytelling in education, suggesting it as a powerful educational tool

for fostering a wide range of competencies among teachers and students (Choo et al., 2020).

Teachers' engagement with digital storytelling can contribute to the development of their content knowledge, pedagogical knowledge, technological knowledge, and technological pedagogical knowledge, which are critical for effective teaching.

By adopting digital storytelling, teachers create content-related material by investigating relevant information sources, making decisions on the story plot, and crafting to reach the final form of the digital story. While working on the content-making process, various skills are supported, such as creativity and critical and reflective thinking, while a deep understanding of content is also facilitated (Sadik, 2008).

Moreover, digital storytelling can be used as educational and assessment material in classes (Barret, 2006). By deciding on how to implement it and in which phase of the teaching process, while by recognizing its potential to be used as a critical assessment tool for students' knowledge and competencies, teachers enhance their pedagogical knowledge and pedagogical reflections (Robin, 2008). By integrating digital storytelling in classrooms, teachers can foster a student-centered and positive learning environment (Yang & Wu, 2012).

Moreover, teachers' decision to use digital storytelling as an educational tool helps them to strengthen their technological knowledge and technological pedagogical knowledge. Engaging with digital storytelling techniques encourages teachers to continually update their technological skills. This ongoing process contributes to their professional development and enhances their technological literacy (Kearney, 2011). Furthermore, it contributes to understanding the added value of technological applications and digital stories in teaching and learning.

Beyond the benefits of digital storytelling among teachers, digital storytelling is considered an innovative pedagogical approach that can engage students in a dynamic and constructivist learning experience (Smeda et al., 2014). Research systematically highlights the numerous benefits of digital storytelling as a powerful educational tool for fostering important 21st-century skills among students, such as digital literacy, communication, cooperation, problem-solving, linguistic and writing skills, information literacy, critical thinking, and creativity (Bello, 2022; Bilici & Yilmaz, 2024; Hill & Nelson, 2011; Shahid & Khan, 2022; Smeda et al., 2014) as well as motivation, control over learning, increased academic performance (Alpochoritis & Chiou, 2021; Kay, 2012) and better study habits (Kay, 2012).

Specifically, the process of designing digital storytelling engages students to think critically about the information they wish to convey (Yang & Wu, 2012), organize it coherently and present it in an engaging way. Therefore, this process not only enhances problem-solving skills but also fosters creativity (Ertan Özen & Duran, 2021; Tabieh et al., 2021). Cooperation and communication comprise another key benefit, as many digital storytelling projects require students to work together and make decisions collaboratively.

In addition, digital storytelling supports the development of language, writing, and communication skills (Lim & Noor, 2019). Digital storytelling as a creative teaching method in promoting secondary school students' writing skills. When creating digital stories, students need to communicate their ideas clearly by writing and narration. By using digital media to communicate their stories to the audience, they also foster digital competencies by using audio and visual means. Moreover, the meticulous selection of information sources that will help them convey their idea enhances their information literacy. By presenting their stories, they foster their presentation, communication, and social skills. Finally, digital storytelling supports constructivist learning by fostering their own understanding of concepts and phenomena, offering meaningful experiences.

Beyond cognitive skills, digital storytelling also encourages self-reflection. The process of creating and crafting story plots, and making decisions fosters students to think critically about their understanding, their decisions, and their cooperation in class.

More recently, digital storytelling has been identified as a powerful communication tool in the field of cultural heritage and tourism, for promoting both local cultural resources and citizen participation. Indeed, in current society, a people-centered approach is emerging, according to which increasing understanding and enjoyment of cultural heritage and its environment "leads to people valuing it more and as a consequence caring for it better" (Thurley, 2005, p. 26). Within this context, digital storytelling could be a powerful tool for spreading the value of cultural heritage beyond main world attractions and enhancing new potential destinations, such as peripheral areas, as emerged after the COVID-19 pandemic (Romagosa, 2020). Moreover, compared to other communication tools, digital communication can help engage with people and tell stories (Johnsson, 2006; Maulini, 2019) through a variety of means, such as social media, gaming, mobile devices, and virtual and augmented reality (Alexander, 2017). Moving from these assumptions, this paper aims to present the educational design, implementation, and evaluation of a travelling seminar for university students focused on teaching and promoting cultural heritage and tourism by adopting digital storytelling.

The Seminar "The digital storytelling as a powerful educational tool"

The Idea of the Seminar

The idea of organizing this seminar emerged when the European Reform University Alliance (ERUA) announced a call for the design and implementation of Travelling Seminars for students among the partner Universities. Following the completion of the course "Methods of Teaching and Promoting Human Geography" at the Postgraduate Programme "Human Geography, Development and Spatial Planning", Department of Geography, University of the Aegean (Greece) where students were introduced to digital storytelling, the first author submitted a proposal for a travelling seminar in cooperation with the Department of Education, Cultural Heritage and Tourism, University of Macerata, Italy.

Both Departments focus on human geographical issues, including cultural heritage and tourism from different perspectives. It was hypothesised that students from the two departments could cooperate and jointly design digital stories about cultural heritage and tourism.

The proposed seminar, “The digital storytelling as a powerful educational tool”, was aligned with the ERUA’s priorities and principles. It was anticipated to facilitate contact and cooperation between teaching staff and students from different geographical areas and motivate them to work on interdisciplinary topics combining education, human geography, cultural heritage, and tourism. The seminar was also structured and built on openness, inclusiveness, and student-centered methods, which are core values of ERUA. Finally, this seminar was expected to equip students with contemporary pedagogical approaches and methods, promoting their initiative to create and share their projects with their community which is in line with ERUA’s principles.

Objective and focus of the seminar

The objective of this seminar was to enhance university students’ digital literacy as future teachers and agents, as well as their skills in designing digital storytelling with the potential to be used as educational and promotional material for human geographical topics, including cultural heritage and tourism (Poce, 2019; van Laar et al., 2020; Cerquetti, 2023). Digital literacy is on the top of priorities of the European Commission and comprises a basic axis of the contemporary European Curricula. Thus, it is of high importance for universities to: a) prepare students as future teachers to design and create different types of storytelling using a variety of contemporary digital means, and b) raise their awareness of the added value of digital storytelling in promoting learning.

Expected Learning outcomes

Upon the completion of the seminar, students were expected to:

- Recognize the value of digital storytelling in teaching and promoting human geographical issues, including cultural heritage and tourism;
- Efficiently utilize a variety of digital tools appropriate for supporting the creation of digital storytelling;
- Design and create digital storytelling with an emphasis on human geographical topics, including cultural heritage and tourism;
- Acquire skills for engaging citizens and tourists in the experience of a place and its cultural heritage;
- Develop creativity and digital literacy;
- Enhance communication and cooperation skills.

Participants

The ERUA Travelling Seminar on “Digital Storytelling as a Powerful Educational Tool” was attended by 12 students totally. From the University of the Aegean (Department of Geography), 1 undergraduate student, 4 postgraduate students and 3 Ph.D. students attended the seminar. From the University of Macerata (Department of Education, Cultural Heritage and Tourism), participants were 3 postgraduate students and 1 Ph.D. student.

The Seminar Implementation

The Travelling Seminar aimed to train university students in designing various types of digital storytelling, including comics, posters, podcasts, and videos.

The Travelling Seminar was organized in three sessions: an online session (11, 14 and 21 October 2024), an in-person session at the University of the Aegean (11-14 November 2024) and a final in-person session at the University of Macerata (25-28 November 2024).

The seminar was structured in the following three phases.

Pre-seminar arrangements. The faculty members from both universities cooperated online to decide the precise structure and flow of the seminar.

First phase of the seminar

During the initial phase of the seminar, an online meeting took place at the start of October 2024 for introductory purposes. Students and faculty members from both Universities introduced themselves, their area of interest and their motivations for participating in the seminar.

Following this meeting, two lectures were delivered in October 2024.

Lecture 1: The first lecture, entitled “*Digital Storytelling as a Powerful Educational Tool*”, was delivered online by the first author to all seminar participants. It focused on the historical context of digital storytelling, its different types, as well as its benefits and challenges in education.

Lecture 2: The second lecture, entitled “*Digital Storytelling as a Powerful Educational Tool for cultural heritage and tourism*”, was presented online by the second author to all seminar participants. It focused on cultural heritage and tourism and how these can be promoted through digital stories.

The faculty members encouraged students to ask questions, exchange ideas in break-out rooms on the Zoom platform, and participate actively in the discussion.

Following the completion of each lecture, the presentations were uploaded to a common shared cloud.

Second phase of the seminar – University of the Aegean sessions (11-14 November 2024)

In the second phase, students and faculty members met at the University of the Aegean from November 11th, 2025 to November 14, 2025. A series of four training sessions were organized by the first author on how to design and create storytelling as educational material. The students actively participated in these four training sessions, which focused on using various digital tools and platforms that are freely and open access for creating digital storytelling for educational purposes.

The pedagogical methods employed during the seminar were student-centered, including cooperative learning, inquiry-based learning, and experiential learning.

The training programme is described as follows:

Table 1. Training session organized by the University of the Aegean	
Sessions	Title of sessions
1st training session	Designing comics as educational tools

2nd training session	Designing posters as educational tools
3rd training session	Creating podcasts as educational tools
4th training session	Creating videos as educational tools

At the beginning of each session, each type of digital storytelling was introduced, accompanied by its potential and challenges for the education context, as well as different tools for their creation.

Subsequently, students were asked to work in mixed groups with participants from both universities. They were encouraged to experiment with tools for the different types of digital storytelling. Both instructors were facilitators of the whole process.

During the fourth session, part of the training activities was transferred into the town of Mytilene, where students and faculty members combined the training with visiting cultural monuments. Students were encouraged to capture videos from local traditional places or food and cultural monuments, with the possibility of integrating them into their digital storytelling project by the end of the seminar.

Third phase of the seminar – UniMC sessions (25-28 November 2024)

In the third phase, students and instructors met at the University of Macerata, transitioning from theory to more practice.

Over the first two days, students deepened their knowledge of Wikipedia for enhancing cultural heritage, design thinking for cultural planning, placemaking for tourism promotion, and transcodification (from text narration to video narration) for approaching human geography.

On the third day, students worked in groups to create digital stories (posters, videos, podcasts and/or comics) using student-centered methods, such as learning-by-doing and cooperative, experiential and project-based learning.

On the final day, students presented and discussed their final digital products.

During these sessions, students transitioned from “what they learned” to “how to implement”. Working in groups of students from both departments, participants cooperated to create digital storytelling examples for teaching and promoting topics related to tourism and cultural heritage.

Throughout the design and the creation of the material, the two faculty members offered guidance, facilitated and supported the procedure and the students. Upon the creation of digital storytelling, students presented their outcomes to the entire seminar group during the fourth day of the seminar.

Table 2. Training session organized by the University of Macerata	
Sessions	Title of sessions
1st training session	Wikipedia for sharing cultural heritage and tourism destinations Design thinking for enhancing cultural heritage and tourism destinations

2nd training session	Digital storytelling for communicating cultural heritage, geography and tourism Approaching Human Geography through transcodification: creating digital video stories starting from written narratives Wikipedia for sharing cultural heritage and tourism destinations: practice session
3rd training session	Practice sessions
4th training session	Practice session, group presentations and feedback

During the final training day, four digital stories were presented by the students, as shown in Table 3. Members of other groups and faculty members commented and offered feedback.

Table 3. Project Outputs /Digital stories	
Groups	Digital stories
Group 1	Video Stories that connect us. Our ERUA travelling story to Lesvos
Group 2	E-comic for young readers Luca & Maria: Guardians of Cultural Heritage
Group 3	E-comic for primary and secondary education students The Boboli Gardens
Group 4	E-poster for young children Lesvos Petrified Forest

The Seminar Evaluation

In the seminar evaluation discussion, which took place after the digital storytelling presentations, faculty members asked students to reflect on the seminar's process, their learning experience, and the outcomes of their project activities.

All members of the groups acknowledged that the seminar offered them the opportunity to explore and utilize innovative techniques for teaching and promoting human geographical topics, particularly cultural heritage and tourism. They highlighted that they enhanced their understanding of digital storytelling and its potential when incorporating it into teaching and learning activities. Without a doubt, all students recognized digital storytelling as a powerful tool for engaging students in learning activities.

The students also appreciated teamwork and cooperation throughout the seminar, which fostered shared learning experiences. The international context and exchange were also appreciated.

However, they expressed their feeling for more time to investigate the cultural heritage of the towns visited during the travelling seminar.

Overall, the evaluation was concerning the seminar's objectives while offering constructive feedback for future organisations.

Digital storytelling comprises an innovative pedagogical approach with various potentials for students and teachers. The seminar presented in this paper contained a rich repertoire of learning activities combining both theoretical and practical insights. Students' reflections on the process, learning activities, and their learning experiences indicate that the seminar was aligned with their needs and offered them the possibility to enhance their knowledge on teaching and promoting human geographical topics, particularly cultural heritage and tourism, by creating digital stories. Time restrictions for exploring the cultural heritage in the visited towns will be taken into account by the faculty members when organizing future travelling seminars aiming to include better the exploration of local cultural resources in the learning process.

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