

Enhancing Undergraduate Student's Understanding of Cultural Heritage Studies Through Digital Storytelling Software

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ABSTRACT

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The young generation that grew up after the 21st century is under the influence of digital data, smart gadgets, as well as tools that allow them to process information differently. To date, digital storytelling has been studied as a platform for communicating with students in developing information literacy and cultural understanding. Therefore, this study investigated whether DST can help students increase their knowledge of arts and cultural heritage and improve their engagement in developing technological and scientific skills. A purposive sample of 60 (Group 1 and Group 2) first-year students enrolled in an arts and heritage course at UMT were interviewed using qualitative research with seven (8) open-ended interview questions and the questionnaire was distributed via a Google form. Upon completion of the digital storytelling project, the data was collected and analysed. The results are organised as follows: i) Knowledge and improvement of the subject of arts and cultural heritage management ii) Building technical research skills iii) Affective responses to digital storytelling iv) Working in a group. Digital storytelling enhanced students' experiences, perceptions of cultural competence, and development of research and technical skills. Benefits included the use of creative thinking and ultimately producing a short video on a diversity topic of their choosing without identifying themselves as artists or filmmakers. able to create or enhance meaning through the use of additional tools.

Contribution/Originality: This study contributes to the existing literature on digital storytelling that also emphasizes the practicality of conducting online teaching and learning in higher education. It is hoped that this study adds knowledge towards the current issue of digital learning and proposed insights to the authority in improving ODL in Malaysia.

1. Introduction

The new generation born after the 21st century is called "digital natives". They have grown up surrounded by digital information, technological devices and tools that help them process information differently than those born before the 1980s. The area most impacted by this digital transformation is educational institutions, which are synchronising traditional and modern teaching and learning in the classroom. Educators are encouraged to embrace media and digital technology to provide more contemporary education and learning to promote student engagement in school or university. Current research has shown that nearly 85% of social media users are "digital natives."

Digital literacy is one of the essential skills for our students today, and they are required to express their ideas in digital media. Previous literature indicates that students must be able to read digital texts and represent ideas in digital media in order to communicate effectively with others (Frazel, 2010; Jolls, 2008; Kress, 2003; Kress & Van Leeuwen, 2006; Ohler, 2008). Ensuring that students can effectively develop such digital literacies is a challenge (Frazel, 2010). This digital storytelling task is intended to improve students' understanding of arts and heritage courses in order to answer the two (2) research questions of this study.

- i. Does digital storytelling assist students in the enhancement and knowledge of arts and cultural heritage?
- ii. Did the digital storytelling projects engage students in technological and research skill development?

2. Literature Review

2.1. Digital Story

In this age of rapid modernization, students are becoming more familiar with the digital environment and instructors are seeking alternative traditional teaching and learning methods. One example is the use of digital storytelling (DST) in student assignments. According to Abdel-Hack and Helwa (2014), DST provides real experiential learning for digital content development in the classroom. It provides a high level of engagement with students' knowledge and helps them achieve the learning outcome of the course. This technology-enabled method allows 21st century learners to use technologically advanced learning resources to turn ideas into high-quality stories and content. It also allows them to deepen and apply their knowledge (LaFrance & Blizzard, 2013).

The ability to understand and use information in a variety of formats is defined as digital literacy, focusing on critical thinking rather than information and communication technology skills (Boase, 2008). According to Bumgarner (2012), the screen has become the primary medium of communication. People must read and interpret the meaning of digital text, symbols, and graphics (Dupain & Maguire, 2005). According to Bull and Kajder (2004), people have new kinds of knowledge associated with "digitally saturated social practises." They frequently use shortcut messaging through "dominant forms of communication" such as Facebook, Twitter, and YouTube (Barrett, 2006). The importance of digital literacy, media literacy, and information literacy cannot be overstated for primary, secondary, and higher education (Koltay, 2011). This is consistent with the ideas promoted in the 21st Century Learning Framework (Partnership for 21st Century Learning, 2015). The structure shows the definitions and

meanings of skills and competencies needed in the twenty-first century and focuses on educational requirements (Dupain & Maguire, 2005).

Digital literacy can be viewed as an overarching framework of skills, knowledge, and ethics (Clandinin & Connelly, 2000) and defines a digitally competent person as one who identifies, accesses, manages, and creates digital content. Digital resources must be integrated, evaluated, analysed, and synthesised. He believes that digital literacy can be defined on three levels. Some authors emphasise the cognitive and socio-emotional aspects, while others focus on technical skills (Fletcher & Cambre, 2009). Digital literacy has evolved. According to various definitions, digital literacy can be defined as reading, writing, viewing, listening, composing, and communicating digitally for information exchange (Dole, Bloom & Kowalske, 2016). Martin (2008) concluded that digital literacy can be improved.

The concept is based on digital literacy, usage, and transformation. Center for Digital Storytelling (2011) further elaborated that "situational embeddedness" is crucial for digital literacy (Level I) by integrating the successful use of digital media into a life situation. The level of digital use (Level II) is considered through the application of digital literacy in a specific professional context, and digital use is "embedded and developed" with the community (Martin, 2008). Digital storytelling can effectively improve your digital literacy (Robin, 2006). Digital transformation (stage III) contributes to the digital use of the profession or knowledge domain through innovation and creativity (Martin, 2008).

According to the literature, digital storytelling activities can help students develop their digital competencies. Students could improve their digital competencies by mastering basic digital media creation skills using technological tools during digital storytelling activities (Abdel-Hack & Helwa, 2014; Frazel, 2010; Ibrahim et al., 2013). Sadik (2008) argues that digital storytelling enables students to use new technologies effectively, especially in using digital resources and helpful editing tools to create high-quality stories.

3. Methodology

A purposive sample of 60 (Group 1 and Group 2) 1st-year undergraduate students enrolled in an Arts and Heritage Management course at UMT.

The researcher used qualitative research with seven (8) open-ended interview questions and distributed the questionnaire through the google form.

The open-ended interview questions are asked about the digital storytelling assignment that students must do. The student's response was analysed using coding analysis techniques, and the theme that emerged from the qualitative raw data of the participant's interview will be identified.

Data analysis started once the completion of the digital storytelling project. The eight (8) interview questions' input was transferred to the Atlas Ti Software. This software offers a practical convenience in analysing data and creating, classification, and editing the codes. Coding is the process of tagging the content of the data or similar views by naming the meaningful parts (such as a word, sentence, paragraph) of the data and gathered under the same code (Boase, 2008). Codes then were grouped under the

instrument topic themes (Dupain & Maguire, 2005) knowledge and enhancement of arts and heritage management, technical research skill-building, affective reactions and teamwork.

3.1. Description of digital storytelling assignment

This digital storytelling assignment is a semester-long assignment designed by course content and textbook. The student was assigned to work in a group to tell a story relevant to arts and cultural heritage management. The instructor selects several topics based on the textbook structured chapters and asks them to discuss and choose the best case for their group.

The instructor instructed on the length of the video, media element requirements, and tools and platforms to develop the students' digital stories. It is to include sharing numerous online resources and examples of digital stories. Most importantly, students were asked to choose only free platforms or tools in developing their content. The allocation of time for group discussion on any issues they encountered was conducted, and some class time was used to teach elements of digital storytelling such as hardware, software, and media resources. A storyboard is an essential tool while we are in the discussion session, and it is the draft for the progress report and any assignment improvement.

3.2. Digital storytelling project outline

The digital storytelling instruction was outlined in the syllabus, and the instructor allocated the first two weeks of the class to discuss the topic, including the rubric. Below are the outline elements of the digital storytelling:

- i. Develop topic based on group discussion and agreement
- ii. Researching and collecting resources, such as storyboarding videos, creating media scripts, and various free media such as music, video, pictures, drawings, text, spoken words, quotes.
- iii. One of the main topics during lecture class was the ethical usage of resources such as copyright law and fair use of media information.
- iv. Criteria for evaluation included integrating content from the topic chosen, literature, teamwork and contribution with group members, creativity, originality of the work.
- v. The instructor uploaded the criteria evaluation/rubric format in the e-learning course.

4. Result

The choice of using this method was based on the researchers' interest to understand the impact of digital storytelling in enhancing students' understanding of arts and cultural heritage management. This is also to capture any significant improvement of this educational journey implementing digital storytelling as a central pedagogy (Creswell, 2014).

4.1. Knowledge and Enhancement of Arts and Cultural Heritage Management Subject

The integration of cultural heritage and technology was an essential highlight in disseminating the awareness of ones' heritage to society. Infusing the DST into teaching and learning practices enables students to be more educated about arts and cultural heritage issues. Based on the DST project, some respondents reported being more knowledgeable and attached to the chosen topic. This is supported by respondents' comments such as

"During the project, our group more understand what the cultural heritage is and how it meant to shape our belief and sense of nationality of being Malaysian."

"At first, I was not so sure to register for this course as I think it has less impact on my academic journey, but I registered anyway. It turns out that when doing this assignment, we had to do some reading and research; I found that there are so much more about heritage I never knew existed, and it shaped my knowledge on the importance of protecting our culture for the next generation."

"It has opened my eye to the way I see arts and heritage. And honestly, I did not know the issue of Malaysians' cultural heritage were required attention for many stakeholders."

"I used to think that arts and heritage just about dance, theatre, performing arts. But after the completion of the DST project, I understand that managing arts and heritage is challenging and endangered."

"Before the DST project, I have zero cultural heritage knowledge, although I like to watch theatre performances. I have the perception that being on stage and acting would not be that hard, but after making this DST project, I have learned that there are so many elements of the art performance to study to be on stage."

The majority of respondents reported that the DST project was valuable and engaging; as indicated by respondents, it gained knowledge of arts and cultural heritage management course.

4.2. Technical Research Skill-Building

DST is considered as utilising the maximum usage of technology in integrating resources for an engaging video. In addition, it helps to close the bridge of technology incompetency among students, especially in higher education. With the proper instruction and guidelines from trained educators, students might be unlocking the next level of digital literacy skills like gathering information, communicating across the platform, critically analysing digital data, and creating digital artefacts (Wang & Zhan, 2010).

In this study, many respondents reported that the DST project aids them to build up their technical research skills when using technology to complete the task. Students' comments such as

"Although I consider myself as digital natives when it comes to applying technology in this project, it was pretty tough. Glueing myself to social media or gaming is different from properly using the technology. However, I have managed to complete the task with our instructors' help and enhance my skills for digital competency."

"There is so much software available to help the students complete this task. I have learned how to prioritise information, data filtering, editing, and other technical skills that I had not known previously."

"I felt that the digital storytelling project helped me to be more critical in my presentation of arts and cultural heritage course."

"Being technologically literate does not only mean using social media 24/7. I used to think that way, but I got it wrong after this assignment. So many technologies help humans in many aspects of life, and I am aware that the technical skills of research are important for graduates nowadays."

"I never knew understanding technology is essential. Now, in the current situation, we need to cope with technology, and this assignment improves my technical research of how to use technology."

Many students agreed that DST helps them in technical skills such as collecting and analysing digital media, photo and video editing skills, using a camera, microphone and tripod and voice over recording in a quiet place for better quality. In addition, most of them responded that engaging in DST improves their skills of accessing technology effectively.

4.3. Affective reactions to Digital Storytelling

Many respondents stated the DST projects shifted their views of cultural heritage, assisted them in utilising critical thinking skills, and developed emotional reactions to the process and viewing of the digital stories. In addition, most of them felt the projects were vital in raising issues and challenges in cultural heritage fields. Several respondents stated

"This assignment helps me aware of deepening my knowledge on national heritage and how critical the issue of protecting this heritage is."

"I attached to the topic we have chosen because that cultural heritage is close to my heart, and I hope this small task from ours will be an eye-opener to other people in understanding Malaysians' heritage."

"I also enjoyed watching my other classmates' DST project, and I would say they gave a full commitment in completing this assignment."

"DST made me realise how younger generation (including myself) being so ignorant in understanding our heritage."

"I think DST helped me to be more creative in my presentation and sensitive about the history and culture of Malaysia."

The students' feedback is quite positive in achieving course learning outcomes (CLO), the affective domain (A2), responding to phenomena. In addition, it provides a meaningful discussion between the instructor and the students in the making of the DST project a success.

4.4. Working as Group

The final theme of this study is to request respondents to evaluate the social skills, dynamics and cooperation of group members when doing the project. This theme gathered most narrative responses in the study. All participants stated that group evaluation skills were developed through this project. Several narrative statements explained their perspectives and reconciliation of teamwork and supported these findings. For examples;

"I've learned that working in a team is about respecting and considering other peoples' opinion although I believe my opinion was right."

"Being in a team is to understand and listen to what your group member is trying to tell to get the best output for this assignment."

"One of the most significant challenges is dealing with those who were less hard working as a group. We need to be more patient and choose the best way to encourage those 'sleeping members' to work together."

"This project instilled a sense of leadership and learned more as a student."

"One of the biggest challenges was also the biggest benefit; working with group dynamics and trying to diffuse interpersonal conflict gave me a better understanding of myself and how to influence group dynamics."

"Working in a team has made you realise delegating and trusting your partners in achieving the same objective."

"Well, tolerance is the key to making it happen."

"The benefits of working in a team was the open-mindedness to see other peoples' perspective even you disagree with them."

5. Discussion

Findings showed several points to be discussed related to digital storytelling as pedagogy, technology, arts, and heritage competency.

5.1. Technology

College students are frequently assumed to have a broad understanding of various subjects. Technologies, as well as assumptions made by students and instructors, might

lead to errors. Anecdotally, students demonstrate significant talents differences in their use of technology in the classroom, particularly in understanding and transferring educationally beneficial technology.

As a result of this study, educators are encouraged to assess where the class is headed. The level curve exists with student understanding to offer a smoother timeline with pro-completing the project. Students may understand a relatively restricted number of technology applications, such as texting, Instagram, Facebook, Snapchat, and music downloading, are unacquainted with alternative educational technological resources.

5.2. Faculty / Department

The goal of digital storytelling in the classroom is to create connections. Not only between the student and the subject, but also between the students and the instructor. Interestingly, [Thesen and Kara-Soteriou \(2011\)](#) found that instructors rated students' technological understanding and expertise similarly. Although faculty use of educational technology has increased greatly, there is still a gap between faculty use and student expectations of technology use. This means that faculty are not using the technology that students want and need to make progress. According to this is an alignment issue in higher education. Digital storytelling offers the opportunity to align professors, students, content, and concepts to create transformative learning experiences for both faculty and students ([Robin, 2006](#)). Instructors would benefit most from professional development in this area to feel more competent, especially if they notice a gap between themselves and their students. Educators can improve their technical skills, gain confidence, and interact more effectively with students by incorporating a digital storytelling project.

5.3. Investment in Social Issues and

At the same time, there is a disconnect between views on the hurdles of technology integration and budget allocations within university systems to prepare or promote technology as a pedagogy for faculty development. Some argue that institutions are not training their professors to bridge the gap between faculty technical skills, student needs, and employer expectations ([Sadik, 2008](#)). [Martin \(2008\)](#) published a research report showing the importance of colleges prioritising investments in teaching and learning in community-based environments supported by various technologies. Faculty expressed great interest in "developing opportunities to experiment with technologies in the learning environment," and digital storytelling can serve as one form of experimentation. Rather than waiting for opportunities to come to us, we should create them ourselves. While these ideas are not a direct conclusion from the findings, this topic needs to be discussed as faculty address issues relevant to university systems with declining funding. There are often a number of incentives for professors to innovate their curriculum and introduce new technologies to students. Digital storytelling can undoubtedly serve as a starting point for faculty looking to improve their talents with little outside help.

5.4. Development of Communication Skills

Many educators find it difficult to help students develop communication skills, especially those whose subjects are subject- and skill-specific and do not focus primarily on communication skills training. Moreover, these skills are diverse and unique. Students come to university with different skills for speaking in front of others or groups, writing

purposefully, or communicating successfully with an audience. While the digital storytelling project focuses on developing individual skills, key communication skills can be developed by working in a group. In digital storytelling, group work challenges students to understand the perspectives of other individuals and groups, listen to the stories of communities, process the emotions that come from hearing lived experiences, and work to build consensus, share decisions, and overcome conflicts that arise during such a project. The process is more important and valuable than the finished result.

Group projects are mandated in many professional programmes, and in an era where autonomy is valued, working in a group or team is necessary, even if difficult for some. Teamwork is one of the essential elements in developing a successful educational and workplace system. The majority of students in this study felt that the activity as a group project made them analyse their own communication skills and those of their group members. In today's social milieu, people avoid such conversations because they often equate them with resolving various disputes and working together. Nevertheless, developing problem-solving skills will enable our students to better engage with the world around them, rather than trying to avoid conflict at all costs.

5.5. Organizational Training Opportunities

Digital storytelling in community contexts provides opportunities to develop cultural awareness and promotes the preservation of community archives and oral history. Local histories can be preserved through digital storytelling to preserve and remember the past while connecting people within and beyond our immediate environment. Digital storytelling thus becomes an application that crosses generational boundaries and invites a larger audience to observe and interact ([Manning, 2009](#)). Local groups can use digital storytelling to expand opportunities for community members to contribute their stories in local, national, and global contexts. Digital storytelling also serves as a channel to communicate aspects of an organisation and promote services or needs. Students can benefit from working with organisations, such as nonprofits, by creating stories that help the organisation in some way. Students can work with nonprofits to enhance their work by developing a feature story to publicise their clientele or describe their services. This type of effort can also help strengthen the university's involvement in the community.

6. Conclusion

The results of this study shed light on the impact of using a creative and engaging project on building student competencies. Digital storytelling improved students' experiences, perceptions of cultural competence, and development of research and technical skills. [Barrett \(2006\)](#) noted that "the complete digital narrative is also "fixed" in a way that oral stories are not... once complete, it stands as a work of art, a representation distinct from the narrator, a "thing" for reflection and critique" (p.3-4). Participants in the study consistently described their projects as products that provided personal and educational gain. "This was by far my favourite assignment in my university experience," said one student. I was proud to show this film to my friends, colleagues, and family. "This article explored the development of students' technological and cultural competencies through the use of digital storytelling approaches. Benefits included using creative thinking and ultimately producing a short video on a diversity topic of their choosing without identifying themselves as artists or filmmakers. Students were able to watch and listen to stories and self-correct their misconceptions and biases.

Students were able to create or reinforce meaning through the use of additional tools. Another benefit of digital storytelling is that students can engage an audience in their work. They learned how to appeal to different learning styles and pay attention to the learning process. Finally, students overcame their fear of technology and took pride in their progress and creative outcomes. Ultimately, digital stories foster a student-centred learning environment that engages students, enhances their perceptions, and helps them develop cultural competence. These benefits and experiences become important components of their professional work, ethical stance, and social practise.

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Conflict of Interests

The authors declare no conflict of interest in this study.

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