

ORIGINAL RESEARCH ARTICLE

Digital storytelling: a tool for promoting historical understanding among college students

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As an engaging learning strategy, digital storytelling provides students opportunities for developing competencies as they immerse themselves in a meaningful learning experience. The study presented in this article explored the potential of digital storytelling as an instrument for the promotion of historical understanding. Thirty first-year teacher education students, who were divided into eight groups, participated in a digital storytelling project that required them to produce their own digital stories. The project was designed as an 8-week activity, which consisted of activities that guided them throughout the pre-production, production, and post-production phases. After the final week of the project, the students participated in focus group discussions. Aside from the focus group responses, data were also obtained from their reflection journal entries and digital stories. The qualitative data were subjected to thematic network analysis, surfacing six organising themes, namely historical significance, historical imagination, perspective taking, continuity, historical emphasis, and values and traits identification. These findings suggest specific courses of action for integrating technology in a history classroom.

Keywords: digital storytelling; history education; historical understanding; Philippine history; thematic network analysis

Introduction

The full implementation of the new general education curriculum (GEC) in 2018 represents a paradigm shift in Philippine higher education. Through the outcome-oriented GEC, higher education institutions are expected to develop undergraduate students holistically. By putting greater emphasis on addressing the demands of 21st-century learning, the new GEC exposes students to learn opportunities that would harness their intellectual competencies, personal and civic responsibilities and practical skills (Commission on Higher Education [CHED] 2013).

Among the identified competencies-based outcomes is the application of information technology to facilitate effective communication, learning and research (CHED 2013). This then allows for learning opportunities that engage students in a meaningful learning experience. Meaningful technology integration pertains to the successful implementation of authentic tasks aimed at purposeful construction of meanings

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through their active engagement in the curriculum's components (Jonassen, Peck, and Wilson 1999). In the eight-core courses offered in the GEC, students' use of technology is regarded as either a learned outcome or an opportunity to learn.

In the context of history education, the potential of digital storytelling in pursuing the practice of documenting history and promoting historical understanding among students is yet to be fully explored. A literature search suggests that such potential has not been rigorously investigated. One of the very few studies that focused on how digital storytelling facilitates historical understanding reported some reflections on elementary students' use of iPad applications in the critical analysis of treaties as a fundamental aspect of Canadian history (Hildebrandt *et al.* 2016). In another study involving college students, Coleborne and Bliss (2011) found that the creation of 'digital histories' through Windows Movie Maker could be a venue for constructing historical knowledge and appreciating the learning of history.

The teaching of history thus calls for a more meaningful learning experience that can be derived from the students' critical analysis of historical texts and use of prior content knowledge and shared experiences (Russell and Pellegrino 2008). In this regard, this study advances the idea that integrating digital storytelling in learning about history leads to the demonstration of historical understanding. This qualitative study explored how digital storytelling can be a tool for shaping historical understanding among college students. In particular, it sought to address the following objectives:

- (1) To understand how students examine and analyse the sources of historical information.
- (2) To describe their experiences in understanding history through their participation in the digital storytelling project.
- (3) To explore how students demonstrate historical understanding in the context of creating a digital story on a particular topic in Philippine history.

Literature review

Digital storytelling

An emerging technology-based pedagogical approach that fosters meaningful learning experience is digital storytelling. As a relatively novel educational practice, digital storytelling weaves together the traditional art of storytelling and multimedia elements such as images, videos, sounds and texts (Barber 2016; Chung 2007; Robin 2016). The use of computer-based applications makes it easier to produce stories with a maximum length of 10 min (Petrucco 2015; Robin 2016). With the availability and accessibility of various multimedia tools, the creation of digital stories offers an opportunity for students to acquire a meaningful learning experience.

Digital storytelling has significantly been applied to different educational contexts, processes and purposes to the extent that it has enabled the promotion of core skills, competencies and literacies (Niemi *et al.* 2018; Niemi and Multisilta 2016; Shelby-Caffey, Úbéda, and Jenkins 2014). Furthermore, the flexibility and convenience afforded by digital storytelling have made it a widely used and researched teaching and learning platform in disciplines such as second-language learning, teacher education, cultural heritage, humanities and science education (Abbott, Ciotto, and Riem 2017; Balaman 2018; Barber 2016; Karakoyun and Yapici 2016; Kasami 2018; Kotluk and Kocakaya 2016; Shelton, Archambault, and Hale 2017; Rizvic *et al.* 2019).

Historical understanding

Historical understanding pertains to 'any of the ways people use and construct meanings about the past' (Epstein and Salinas 2018, p. 62). The primary task of understanding, therefore, lies primarily on how students draw a relationship among the information received from either classroom instruction or their research. While memorisation is regarded beneficial in laying out the foundation for understanding, this quantitative view of learning should not be the end point even if going further with understanding historical events poses more challenge (Newton and Newton 1998). As students expose themselves to various sources of historical facts, they also harness skills essential to the acquisition of historical understanding (Green, Reitano, and Dixon 2010). In the literature, historical understanding has been further explored through the following concepts: historical imagination, historical significance, historical evidence and continuity.

An elucidation of the concept of historical imagination was earlier advanced by Collingwood (1946), who noted that the historian's task of reconstructing the past requires *a priori* imagination that can only be substantiated by sources. Compared to the novelist, the historian has to go beyond creating a picture of events – a picture of history that has definite time and space and should be linked to evidence. In this regard, the use of historical evidence is critical to the formation of historical imagination, which should be markedly distinguished from fanciful imagination (Lemisko 2004). Further, anyone who attempts to learn through historical imagination should undergo four levels of the imaginative process: (1) the simple effort of describing what is seen; (2) the integration of knowledge and experience in analysing and explaining what is being described; (3) the process of developing a sense of empathy towards the people involved in a historical event; and (4) the formulation of judgment aimed at achieving new historical interpretation (Fines 2002).

Applying the concept of historical imagination to a primary classroom setting, Dilek (2009) found that students relied on their prior knowledge, experiences and a variety of historical sources to illustrate their reconstruction of the past. In particular, the use of imagination skills largely contributed to shaping their historical thinking, allowing them to critically analyse historical facts embedded within historical context. Such demonstration of skills was also highlighted by Aktin (2016), who found that children were capable of veering away from whimsical imagination to demonstrate historical imagination using visual objects such as clay works. However, with limited knowledge and experience, the participants had the tendency to depart from historical reality in some instances.

As regards the concept of historical significance, its clarification has been a major task among historians. As argued by Cercadillo (2006), the varying conceptualisations of significance in the context of history education lead to confusion. She noted how the importance of the concept had been described in the following conditions: history as a relevant part of the humanities curriculum, history as a subject that contains learning contents that must be grasped by students and history as a venue for the interpretation of historical events. Considering that significance is something that can be attributed to any historical event, determining why such an event is important (i.e. due to its distinctive nature or its link to present-day events) and how it is influenced by personal viewpoints becomes a necessity (Counsell 2004; Duraisingh and Mansilla 2007).

In determining what is historically significant in college students' compositions, Vivancos and Ferrer (2018) noted how specific historical events were given more

considerable significance than the others. They found that students demonstrated bias towards landmark events in world history that served as transition periods. In the context of Canadian history, Lévesque (2005) highlighted the differences among Anglophone and Francophone students in ascribing significance to key events. The former group of students employed disciplinary criteria such as importance, profundity, quantity, durability and relevance, while the latter group utilised criteria of memory significance that included intimate interest, symbolic significance and contemporary issues.

In examining the past, the use of historical evidence becomes a necessary step towards shaping their historical understanding. Previous analyses used progression models to examine the role of evidence in generating historical knowledge. Shemilt (1987) was one of the earliest scholars to develop a hierarchy model, explaining how students proceeded from the inability to question the authenticity of sources to the ability to utilise evidence as basis for making inferences about the past. Lee and Ashby (2000) provided an analysis of students' progress in using historical accounts, which was initially characterised by a disregard of historical accounts and mere equating of such accounts to stories. Eventually, students wanted their claims to be based on truthful stories from the past. Seixas (1996) noted how epistemology could help in checking claims against available evidence; however, caution should be made when using them as these accounts may require revision of contents and reassessment of authors' perspectives.

In their exploration of European students' competence in interpreting sources, Carvalho and Barca (2012) revealed a diversity in the manner by which only a minority of secondary school students made successful attempts at dealing with evidence. Such variation can be attributed to what they considered a conceptual progression in analysing evidence and objectivity, that is, from non-recognition of differences in meaning to acknowledgement of marked divergence in sources. In the case study of Oppong (2019), the lack of evaluative skills among senior high school students demonstrated a more serious problem. The high level of dependence on history textbooks hindered them from carrying out an effective selection, contextualisation, corroboration and interpretation of evidence.

As regards making sense of continuity, students were given an opportunity to establish connection between the past and the present. Blow (2011) presented a model of progression for further understanding the concept of continuity, along-side the concepts of change and development. At the lowest level, students could possibly treat continuity as something that could remain the same. However, as they progressed in learning about historical events, students explored patterns or lines of development, allowing them to recognise the interactions that exist between continuity and change. It was then through continuity that a big historical picture could be systematically presented and that the concept of change could be evaluated (Corfield 2009). In her analysis of historians' works, Foster (2013) advanced the idea that there was a balance between continuity and change and that both could occur at any point in time.

To help students see the big picture through the concept of continuity, Valentine (2017) utilised a thought map exercise to help students in delineating periods of changes and continuity in the history of England (i.e. Tudor period). Students had a better appreciation of how significant historical events were connected across a broader timeframe. In her multi-case study of how students exhibited historical understanding, Ryter (2015) found that students displayed their ability to identify patterns

of continuity by drawing connections between the past and the present events that had strongly influenced the course of world history (e.g. World War II and Korean War).

Methodology

Participants

This qualitative study was carried out with 30 first-year teacher education students who were enrolled during the first semester of the academic year 2018–2019 in a state university in the province of Bulacan, Philippines. They were enrolled in a general education course titled 'Readings in Philippine History', which is a three-unit lecture course that ran over 18 weeks. There were a total of eight groups, each consisting of three to four students, in which the students themselves determined the group composition. None had any experience working on a digital story before this project.

Data gathering procedures

The digital storytelling project required the students to produce a digital story with a length not exceeding 10 min. Following the assessment of instruction, as suggested in the Readings in Philippine History syllabus, the project should be able to:

trace the evolution of the chosen topic through at least three periods. Group members should collaborate to produce a synthesis that examines the role of this issue in promoting/hindering nation building, and provide appropriate recommendations rooted in a historical understanding of the issue (*CHED 2017*).

The final topics focused on the following: biography of prominent Filipinos (i.e. Ferdinand Marcos, Fernando Poe, Jr., Macario Sakay and Muhammed Dipatuan Kudarat), cultural heritage (i.e. Singkaban Festival), institutional history of religious groups (i.e. Iglesia Ni Cristo) and historical places [i.e. Quingua (Plaridel) and Estacion de Guiguinto].

The project was designed as an 8-week activity, which consisted of activities that guided the students throughout the pre-production, production, and post-production phases. It should be noted that each requirement generated during the project's implementation was graded. These activities are outlined in Table 1. The first author served as the course instructor. He devoted one class hour each week to conduct lectures and workshops to acquaint the students regarding the project's key requirements.

After the final week of the project, the students were invited to take part in focus group interviews. All of them voluntarily participated. Each group was composed of 10 participants. They were then asked to respond to open-ended questions for approximately 1 h.

Data collection instruments

Data were collected from focus group interviews, reflection journals and digital stories (i.e. scripts). An interview schedule composed of 12 questions was prepared and piloted with seven teacher education students from another class who had the same experience of working on the digital storytelling project. Over the course of the project, the participants were required to write reflection entries in their notebooks, describing their experiences while working on their digital stories and the lessons they

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Week 1	Orientation on digital storytellingIdentification of possible digital storytelling topicCreation of working title for digital story
Weeks 2 and 3	 Researching/gathering of primary and secondary sources for digital storytelling Writing of digital story script Orientation on the ethical use of sources
Week 4	 Continuation of writing of digital story script Gathering of public domain images for storyboard and other media materials Orientation on the ethical use of media materials
Week 5	Submission of script for review by the instructorCreation of storyboard
Week 6	 Submission of storyboard for review Gathering and organisation of visuals, audio materials and short video clips for the digital story Recording of the voiceover narration (based on script)
Week 7	 Workshop on using Microsoft Photo Story 3 Production of digital story using Microsoft Photo Story 3
Week 8	 Evaluation and reflection on the digital storytelling project Submission of the digital story Group member evaluation

gained while working on them. At the end of the project, each group's digital stories, alongside individual reflection journals, were collected for analysis.

Analysis

The entire focus group interviews were transcribed. Together with the textual data obtained from reflection journals and the scripts of digital stories, the interview responses were read multiple times, compared thoroughly and subjected to the coding process. Specifically, in extracting and generating codes and themes, the thematic network analysis was utilised. Through this approach, coded texts were transformed into a thematic network consisting of basic, organising and global themes. According to Attride-Stirling (2001), the generation of thematic networks takes into account the systematic extraction of the following 'lowest order themes' or basic themes that are apparent in the text. When these basic themes are grouped together, they can be summarised into 'more abstract principles' known as organising themes. Clustering these organising themes generates a super-ordinate theme called global theme. Selected excerpts from which were reported in each theme were translated from Filipino into English and back-translated. Nvivo software was utilised to facilitate a more convenient analysis of the data and creation of a thematic network.

Ethical considerations

Ethical approval for the conduct of focus group interviews and collection of reflection journals was granted by the Campus Research Office. Permission was sought to record the discussions using an audio recorder. Before the collection of relevant data, a written informed consent was obtained from all the participants.

Results

The analysis of the qualitative data gathered from the analysis of focus group interviews, reflection entries and digital stories initially resulted in the identification of the most commonly occurring words, which were visualised through a word cloud (Figure 1). Such form of data visualisation helped in determining how words, phrases and sentences were used in specific contexts. Among the most frequently occurring words included in the word cloud were a combination of Filipino and English words, namely 'ngayon' (present), reference, 'mahalaga' (significant), 'ginawa' (had done), credible, sources, 'marami' (many), 'kasaysayan' (history), 'nangyari' (happened) and 'bayani' (hero). These words offered an initial viewpoint for discovering patterns and relationships that exist in the qualitative data, allowing the researchers to further explore the concept of historical understanding. For instance, exploring the words 'ngayon' (present) and 'nangyari' (happened) was a starting point for analysing the concept of continuity, while learning more about the word 'mahalaga' (significant) was beneficial in further comprehending the concepts of historical significance and historical emphasis. The words 'reference', 'credible' and 'sources' were important for exploring the concept of historical evidence. 'Bayani' (hero) was a commonly occurring word that aided in grasping the concept of values and traits identification. It should be noted that the participants responded and wrote in Filipino most of the time, and there were some instances when they would switch randomly between English and Filipino.

The words, which were initially identified through the word cloud, also served as the basis for listing 42 codes (Table 2, listed in the first column). The codes were generated based on the recurrent patterns of ideas concerning the promotion of historical understanding through digital storytelling. The codes were grouped into eight clusters (listed in the second column) to identify the emerging basic themes that were common across all the qualitative data. Eventually, the clusters with shared characteristics and issues were categorised into six organising themes (listed in the third column).



Figure 1. Word cloud of the most commonly occurring responses.

Table 2. Results of the coding for the thematic network analysis of the promotion of historical understanding through digital storytelling.

Codes	Basic themes	Organising themes	
Highlighting the most important factsImportance of reading about Philippine history	Relevance of historical inquiry		
 Learning and appreciating the historical content Discovering more in-depth historical content and its importance Deeper historical appreciation 	Historical appreciation	Historical significance	
 Reliving the moment Imagining the self as the character Imagining the same situation in the past Remembered and felt heroes' sacrifices for the country Imagining and feeling the pain, anger and fear Wanted to witness and experience what happened in the past 	Reconstruction of situations and corresponding emotions	Historical imagination	
 Learning the importance of unrecognised historical concepts Giving importance to unrecognised historical events and figures Gaining more profound knowledge about a historical concept Sense of awareness of historical places, events and figures Learning the differences of historical figures Addressing our limited knowledge of lesser-known Filipino heroes 	Recognition of the importance of lesser-known historical facts	Historical emphasis	
 Identifying the authors' biases Appreciating different viewpoints for deeper understanding Utilising variety of sites/sources Identifying similarities and differences of multiple viewpoints Supporting the claim through multiple viewpoints Setting a balance in multiple viewpoints 	Recognition of varied viewpoints	Historical	
 Finding basis through interviews with relevant people Distinguishing credible sources Studying the background of authors Utilising traditional sources like books Evaluating the credibility of sources Checking credibility of sources based on multiple perspectives Highlighting the importance of eyewitness accounts 	Establishing credibility of sources	evidence	
 Proved that history affects the present Belief in 'history repeats itself' Observed the undying Filipino customs and traditions Distinguishing the past from the present Observing coherence of historical information Sense of awareness of the present situation Understanding the socio-economic growth in the country Past served as basis for understanding the present 	Drawing con- nections between the past and the present	Continuity	
 Learning about values and traits from the past Sense of pride as a Filipino Showing concern for the preservation of historical sites Paying respect to historical figures and events 	Making sense of distinct values and traits	Values and traits identification	

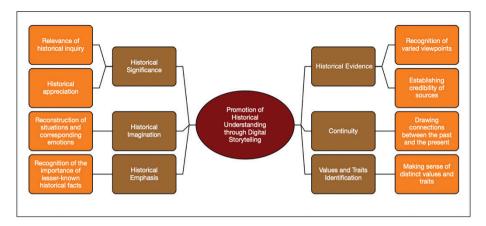


Figure 2. Thematic network of promotion of historical understanding through digital storytelling.

As shown in Figure 2, the thematic network analysis further resulted in the identification of a global theme: 'Promotion of Historical Understanding through Digital Storytelling'. As one thematic network, the global theme is composed of six organising themes and eight basic themes, reflecting the varied meanings and descriptions that the participants attached to the concept of historical understanding. The core themes on which the global theme could be anchored include the following: historical significance, historical imagination, historical evidence, continuity, historical emphasis, and values and traits identification.

Historical significance

In ascribing significance to their chosen topics, 20 participants mentioned in the focus group interview that they created the digital stories to serve as a platform for spreading awareness on historical people and events, which may have already been forgotten by most Filipinos. As two participants reasoned out:

Nowadays, many of us seem to forget about our own history. We have to study it so that we can refresh our memory of what really happened in the past. After all, we seem to remember only names and dates.

Their discovery of more in-depth historical content and its significance were reflected in this statement:

Making a digital story gave us opportunities to know more about the history of a place, to know more of its deeper background, and to know the purpose of why it was built.

For 23 focus group participants, they agreed that the digital storytelling project became influential in nourishing their appreciation of learning about history, especially for those topics that are regarded minor historical topics. As they investigated and discussed their selected topics, they learned that even lesser known events and personalities could have significant value. This was evident when two participants expressed:

With digital story making, I gained more knowledge about Plaridel (a historical town), that it is more than a place. If people see closely, they will discover that there is a meaningful story about it, that we should not just look on the present (state of the place) but explore its history and learn more.

Our topic focused on Estacion de Guiguinto (a historical landmark), a place that had long been abandoned. That is the reason why we made a study about it. Since this place had already served its purpose, it is therefore necessary to value it today.

In addition, three participants wrote in their reflection entries:

Digital storytelling has helped my mind be more open to things about my hometown (Bulacan). It also has helped me gain a better understanding of the lives of Bulakeños (people of Bulacan).

Digital storytelling has given us knowledge about Fernando Poe, Jr., about his personhood and his contributions to our country.

Digital storytelling has helped us expand our knowledge of history, particularly the facts that we never cared to learn before. We got to know a place or a person, and this activity gave answers to questions we set for our chosen topic.

The contents of the eight scripts highlighted how the participants assigned significance to specific details. As required by the course, they had to trace the evolution of their topic through at least three periods. The four groups who worked on the biography of prominent Filipinos on the historical conditions narrated the stories consisting of the following common components: (1) short life history and major accomplishments, (2) major decisions, actions and accomplishments and (3) struggles and death. For the two groups who made stories on historical sites, they highlighted the following: (1) founding details, (2) historical events that transpired and (3) present conditions. The group that focused on the history of a festival developed a script based on the following outline: (1) beginnings of the celebration, (2) how the celebration became an annual festivity in the province and (3) contribution to the preservation of cultural heritage. For the group that created a digital story on the institutional history of a religious group, the story was composed of the following elements: (1) life history of the founder, (2) founding of the religion and (3) struggles experienced by the members and present organisation of the religion.

Historical imagination

As they made sense of the past, 17 participants said that they attempted to relive the most engaging historical moments in their minds. In doing so, they engaged in creative thinking to create images of the past based on the thorough study of their reference materials. It was inevitable that they connected with the people in the past, imagining as if they were the ones experiencing a particular historical event. As stated by one focus group participant:

It seeped into my mind what was the people's experiences of the Martial Law rule of Marcos. They were probably angry at first. Or perhaps, they gained something good from it that they would later favor its implementation.

The same sentiments were manifested in the reflection entries of the two participants:

I thought about how it was like to live in the past. How would I live knowing the kind life was so difficult then? I asked myself if I could survive with that kind of life due to war and unrest.

I can't imagine how would I live in that period where poverty and hardships were prevailing. Will I survive and live despite war and chaos?

The imagination went further as six focus group participants shared that they reconstructed the emotions that may have been felt by the historical actors. They mentioned that they also felt the pain, anger and fear. One participant verbalised:

It was a fearful situation to be in the situation of Macario Sakay when he was about to be executed. In his final words, he told that he did not fear death, that he was ready to face God. I was imagining about it, and it was a fearful scenario.

Based on the two reflection entries, it was as if the participants were there at the moment when the event happened:

I actually had a chance to put myself in the shoes of those individuals who were part of a historical event that we narrated in our digital story. This was when I read the story about how a church bombing occurred while people were conducting a church service. I felt how they panicked, and the difficulty and pain they experienced.

I felt the emotions of the Filipinos who fought against the Spaniards. There were fear, tension, and restlessness. I also felt the hope that they brought with them as they fought for the freedom of our country.

Historical evidence

In using evidence for their digital storytelling project, all of the participants gave utmost importance to finding primary sources as well as secondary sources. They mentioned that they used different kinds of sources that could help them find related stories to their topic. Through the use of the Internet, books, magazines and interviews, they found what they regarded as credible sources.

In particular, 24 participants did a comparison and contrast of their sources with other primary and secondary sources. Aside from Filipino historians, among the sources of evidence they cited were government agencies such as National Historical Commission of the Philippines, National Library, National Commission

for Culture and the Arts and Provincial Government of Bulacan. As mentioned by two participants:

What we did was to obtain legitimate sources from government agencies, particularly from their websites. We also looked for sources written by famous (Filipino) historians who have already contributed a lot to the study of Philippine history.

For us, the similarities of the information served as the basis to identify the reliability of the sources. Not all that is written on the Internet is true. That is why we checked all the sources that we had.

Through a thorough examination of the different viewpoints offered in the sources, all of the participants said that they were able to find relevant and credible evidence for their chosen topics. However, only 12 of them noted that they questioned the credibility of some of the sources, raising issues such as inconsistency in historical details, author's bias and contradictory information. These issues were captured in the following verbalisations:

What I noticed about one of the sources we obtained was that it was somehow opposing the information presented in the other sources.

We encountered a question whether Macario Sakay surrendered or not. At first, we were confused of what to believe in. But afterwards, after comparing all the historical information we gathered, we figured out that he really surrendered in exchange for amnesty.

When asked about the influence of availability of multiple sources to the creation of their digital stories, all of them acknowledged the importance of drawing their analysis of the sources from multiple viewpoints. Three of them, however, admitted that it was confusing and helpful at the same time since they had to deal with conflicting perspectives from a variety of sources. As one participant mentioned:

If you have so many sources, you can get different points of view. The only problem I see with that is that for every perspective raised by each author, the way a historical information is presented changes. The more information there is, the more perspectives are provided, and the more that we are likely to change our understanding.

Continuity

The glimpse of the past through digital storytelling enabled all of the participants to understand the currently occurring periods. They acknowledged the connections that exist between the past and the present. As one participant articulated:

There is still a connection between what happened in the past and happening in the present. Comparable to the story of Sultan Kudarat, the Spaniards remained in Mindanao for ten years and expanded Christianity. Until now, Christianity can still be observed in the region.

In his reflection journal, a participant wrote this statement:

If the events of the past did not occur, we will never have the history to look back on and to study. We would still be under foreign rule if our Filipino ancestors did not bravely fight for our county. We would never have the freedom.

Further, nine participants stated that they believed in the common saying, 'history repeats itself'. They observed and ascertained that there are patterns of past events that are likely to happen again and affect Filipinos' lives in the present. Another set of nine participants observed continuity in the context of the undying Filipino traits, customs and traditions. Two participants stated:

Now, our leaders adapted Marcos' ways. The implementation of martial law (by Duterte) in Mindanao was comparable with what happened before (during Marcos era).

The traditions are still practiced by Filipinos.

One of them highlighted the 'recurrence' of history in this reflection entry:

I can say that the past and the present have similarities. The corrupt practices of politicians to prioritize their needs and wants are still there.

In their digital stories, it was evident that all groups were able to highlight the nature and extent of change. The changes they narrated were mostly described as enduring. A case in point is how the group that focused on their storytelling on the heroism of Sultan Kudarat emphasised the role that he played in maintaining peace and stability in Mindanao after defending it against the Spaniard forces. Such significant role was highlighted at the end of the story's script: 'This could explain why Mindanao is still abundantly rich in religious and cultural beliefs that have been preserved until today'. The group that made a story on Estacion de Guiguinto emphasised how the railway station experienced a radical change throughout the centuries. The script contains this statement:

What can be seen nowadays are heavily damaged walls resulting from the passing of time. Trash can be found inside and outside it. It has become a big dumping site . . . Despite the contribution of the station to our economy and our history, it was quickly forgotten and abandoned.

Historical emphasis

In choosing their topics for the storytelling project, 13 participants stated that they wanted to focus on the stories of lesser known historical events, places and persons. They believed that only few Filipinos have a detailed understanding of stories about Macario Sakay, Sultan Kudarat, Singkaban Festival, Iglesia ni Cristo, Plaridel and Estacion de Guiguinto. As verbalised by three participants:

Most of the time, we prioritize the study of the lives of heroes like Andres Bonifacio and Jose Rizal (Filipino heroes)... In our case, we realized the value of

studying the life of Macario Sakay as part of studying our history. Although he was not well-known, we had proven that he was truly a hero. In the storytelling we did, we showed that he was similar to other heroes.

Personally, I really did not know who Sultan Kudarat (a hero from Mindanao) is . . . that he is also a hero. It seems that we know more about Jose Rizal (Philippine national hero). We do not know that a certain Sultan Kudarat was one of the first Filipinos who fought against foreign invaders. It is therefore important to know what is special about this hero and what his contributions are so that even future generation of students will be aware of him.

It is important to know more about Singkaban because nowadays, people only regard it as a festive celebration without even knowing its origin. It is important for us to know more about it because Singkaban reflects the history and culture that we have in Bulacan.

Three participants also wrote in their reflection journals:

Our topic is important because few people know about indigenous warriors (heroes). People only focus about Jose Rizal and Andres Bonifacio. This topic should be studied so the next generation will be able to recognize these unremembered heroes.

It is important to learn this (history of Plaridel) because most of the youth of this generation lack a detailed knowledge of the events that transpired during the American colonization period.

Our topic is important as it will inform people why Iglesia ni Cristo is strongly built. They will be enlightened why this religion has lots of rules and restrictions. It is also important to be learned even by Catholics, Muslims, and other religious groups for them to know how to appreciate and respect Iglesia ni Cristo.

For the three groups that focused on telling stories about what they believed are little known historical places and events in the province of Bulacan (Estacion de Guiguinto, Singkaban Festival and Plaridel), their main goal was to draw greater interest about them. The group members specifically mentioned that they wanted their fellow Bulakeños to 'be proud of their history'. The group, which underscored the story on Plaridel, even proposed in their script certain recommendations for spreading awareness about the town's history, namely celebration of a provincial holiday to commemorate its historical past, creation of art exhibits and integration of this less famous topic into the teaching of elementary and secondary history subjects.

Values and traits identification

As they kept on learning about their topics through the digital storytelling project, 19 participants were able to ascertain Filipino values and traits upheld by people from the past. They specifically cited unity, resilience and patriotism as core characteristics distinct to the Filipino identity. These characteristics were highlighted in the following statements:

What I learned from creating our digital story about Sultan Kudarat was his patriotism. After initially suffering defeat in a battle against the Spanish forces, he immediately unified the people, devised a strategy, and fought for Mindanao.

It is the resilience of the members of Iglesia ni Cristo. That whatever problems thrown at them, they have always remained firm. I learned that you have to be resilient if you want to accomplish whatever you want to accomplish in the present. I realized how Filipinos remained resilient despite the hardships they experienced during periods of revolution.

Two of them emphasised such values and traits in their reflection entries:

I learned the value of unity, 'bayanihan' (sense of community), and resistance against abusive authorities.

What I learned from our topic is not just the story of fighting for our freedom, but also the story of solidarity and courage, of how these Filipinos dedicated their lives for the independence we are currently enjoying.

Of the 19 participants, 11 drew a connection between such characteristics and the struggles that historical figures endured in the past. This made the participants consider the need to preserve memories of the past, be it tangible or intangible:

The most important lesson I gained was how to look back so that we could know the importance of the present, that we should not neglect those (historical) things and places. We should value them because there were so many people who sacrificed their lives in those historical places. What we just do is that we keep on neglecting their importance.

The participants also gave attention to stories of heroism, which served as a source of inspiration and to some extent, as a source of pride. The participants from the three groups that paid attention to stories of lesser known heroes offered a concept of a hero that, according to them, should not be restricted by any commonly mentioned qualities. As shared by a participant:

Nowadays, an individual does not have to die for him to be considered a hero. You can do either small or big deeds to contribute to our nation's progress. I think you can be considered a hero as long as you do good deeds.

Discussion

This study has shown that the promotion of historical understanding could be facilitated by students' engagement in a digital storytelling project. The thematic analysis of qualitative data surfaced six major themes that were relevant in explaining the concept of historical understanding.

By integrating the storytelling component in the overall project's design, most of the participants had acquired knowledge on certain historical concepts anchored on the theme of historical significance. What was then reflected in how they examined their chosen historical event was what they regarded as important in history or its subjective significance (Cercadillo 2006). The participants' willingness to learn about their chosen topics was driven mainly by their desire to showcase 'what a Filipino is' be it in the context of a hero, a religion, a festival, a prominent personality or a historical place. Such bias resulted in the use of historical appreciation and historical inquiry, allowing most of them to assign significance even to minor historical topics

or what Counsell (2004) referred to as symbolic significance. The participants also learned to emphasise the most important details needed for their works, as reflected in the contents of their scripts. They determined the essential facts that had more significant value and were essential and necessary.

In demonstrating historical imagination through the project, some participants were able to reconstruct images, and few of them went further with their imagination as they recreated scenes filled with emotions. It was, in a way, imagining a distant past and making it an almost familiar scene. With only six participants demonstrating the reconstruction of emotional contents, there is some evidence to support the idea that students could reach a level of developing their sense of empathy (Fines 2002). What helped the participants in their demonstration of historical imagination was the use of primary and secondary sources, which led to an evidence-based approach of retelling the stories (Lemisko 2004). This finding corroborates the ideas of Atkin (2016) and Dilek (2009), who highlighted the capabilities of students to perform imagination based on historical facts.

Drawing their understanding from different sources offered opportunities for a deeper appreciation of history. The participants' examination of a variety of sources before incorporating them in their digital stories revealed that they engaged in a cognitive task, allowing them to distinguish between trustworthy information and speculative facts (Seixas 1996). In this regard, less than half of them were able to progress to a level of analysis of evidence that made them question their sources' credibility. Consistent with the findings of Carvalho and Barca (2012) and Oppong (2019), the study's result indicates that there is still much to be done as regards honing the students' evaluative skills.

In terms of understanding the concept of continuity, the participants went beyond the narration of events in a chronological sequence. What was evident in their story-telling was the way they evaluated the significance of historical changes in terms of the past–present (Blow 2011). The participants were convinced that what happened in the past could affect the contemporary world. Similar to an earlier finding by Ryter (2015), this study sets forth the idea that students had the ability to understand the concept of continuity by analysing the present in the context of the past. Moreover, the participants were able to examine the nature and extent of change, providing explanations on how such change had resulted in either negative or positive consequences (Foster 2013).

Through a thematic network analysis, two new themes emerged, namely historical emphasis, and values and traits identification. Believing the most Filipinos have a limited understanding of local history, some participants realised how embarking on a storytelling project would help in spreading awareness and generating interest to learn more about little known stories of the past. In this regard, they recognised the relevance of learning about lesser-known historical events, places and figures. It is in this context that the Local Historical Committee Network of the National Historical Commission of the Philippines (2013) proposed the integration of local historical knowledge to enhance the teaching of Philippine history. The recommendation was based on the network's observation that 'national history does not generally integrate local history, culture and arts, as reflected in school textbooks' (p. 115). In terms of learning more about the Filipino identity, the storytelling project was beneficial in allowing the participants to reflect on values and traits exemplified by historical figures. The recognition of such values in the context of the historical actors' struggles and heroism allowed the participants to share what they thought about what

constitutes a hero. The importance of learning about history can therefore be assessed as regards how it facilitates Filipino students' understanding of national identity and valuing of ancestors' sacrifices (Deligero-Badilles 2018).

Conclusions and recommendations

The present study set out to determine the manner by which college students enrolled in a Philippine history course dealt with the sources of historical information. It also explored their experiences and their demonstration of historical understanding as they engaged in the creation of digital stories.

This work has shown that digital storytelling offers an opportunity for the participants to utilise historical evidence and assess its credibility. This finding suggests that students can be critical of selecting and examining historical sources, especially when they are tasked with a project (i.e. digital storytelling) that allows them to maximise their knowledge and skills. The findings also offer insights on how engaging in digital storytelling can lead to meaningful learning experiences. In this study, such experiences are illustrated through progression in learning about their historical topics, from acquiring additional historical concepts to having the desire to stimulate awareness and interest about the topics. Through a thematic analysis of the data, this research extends our knowledge of historical understanding in the context of utilising a technology-based learning approach. Specifically, two additional themes, historical emphasis and values and traits identification, provide new insights on how historical understanding can be demonstrated by students.

These findings suggest specific courses of action for integrating technology in a history classroom, specifically in the context of creating digital stories. First, instructors can introduce technology tools that have user-friendly features to allow them to experience ease in creating their own audio-visual outputs. The emergence of mobile technologies, particularly video editing applications, can offer students a way to maximise their storytelling experience. Second, during the research phase, they can expose students to the use of open-source educational materials, giving them access to more primary and secondary sources. The National Library of the Philippines, for instance, has a digital collection of books, periodicals, government reports and other reference materials on Philippines history, in which students can navigate easily to download credible sources. Students should then be required to assess the quality of evidence they can obtain from open-source contents. Third, during the scriptwriting and storyboarding phases, they can task their students to do collaborative writing online. A good example of a digital tool that is suitable for facilitating digital writing is Google Docs. Lastly, they can require the students to upload their outputs to video sharing platforms such as Youtube and Facebook. It is recommended that guidelines on publishing videos be strictly observed to avoid copyright issues.

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