



Digital Storytelling: an Influential Reading Comprehension and Creativity Tool for the 21st Century Literacy Skills

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Abstract

Digital storytelling has been proposed as an influential language learning tool that can facilitate learners' reading comprehension and creativity. There is an interplay between digital storytelling and comprehension. Likewise, there is a connection between digital storytelling and creativity. However, this chemistry that exists is far more complex than previous studies have expressed. This paper puts forth a novel model by which to honor the inter-relationship among digital storytelling, reading comprehension and creativity. The model proffers a practical aim that can allow teachers to recognize and applaud students' effort whenever they create their digital storytelling, for comprehension and creativity, among other 21st-century literacy skills, have simultaneously and ideally taken place.

Keywords

Digital storytelling, reading comprehension, creativity, 21st-century literacy skills.

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1 INTRODUCTION

Digital storytelling has been widely used to refer to products and practices involving the use of computer and narrative in the form of textual, spoken and visual content (Paull, 2002). Digital storytelling was developed as the brainchild of Dana Atchley, Joe Lambert, Nina Mullen and the Center for Digital Storytelling at the University of California at Berkeley in 1993 (Lambert, 2003). They asserted that good stories require honesty and simplicity, and does not require the skills of a great film director. The pioneering artists and the Center for Digital Storytelling began their movement with a realization that arts should not be reserved for arts practitioners alone. Arts should be accessible to all so that people's voices can be heard and appreciated through artistic expressions and creative endeavor in the form of their personal storytelling. Since the era of 1990s was endowed with the emerging technologies of digital media, they had joined hands to explore how digital media could be utilized to empower people with little or no experience to tell their stories. Since then, digital storytelling has been taught to numerous organizations, community activists, health and human services agencies, business professionals and thousands of people around the world to share their life stories and appreciate the power of their personal voice. Most importantly, digital storytelling has also been recognized as a teaching and learning tool that addresses the 21st-century literacy skills that can benefit students (Robin, 2008).

The employment trends for the 21st-century stress innovative businesses like commercials, architecture, software, research and enterprise which contribute 7.3 percent to the global economy (Mohd Azhar Abd Hamid, 2004). Thus, education has centered its emphasis on the teaching and learning of the 21st-century literacy skills or workplace skills which infuse skills of creativity, language literacy, ICT literacy, visual literacy, information, media, thinking and innovation (Siew & Najihah Mahmud, 2017). These literacies are essential for students' knowledge significance and career sustainability in the 21st century (Ministry of Higher Education Malaysia, 2011). Robin (2008) explained a few of the 21st-century literacy skills as follows:

- 1) Language literacy – the capability to communicate with a large community to gather information and discuss issues;
- 2) ICT literacy – the capability to use computers and technology to enhance learning and efficiency;
- 3) Visual literacy – the capability to comprehend, respond and communicate through visual images;
- 4) Information literacy – the capability to search for, assess and synthesize information; and
- 5) Media literacy – the capability to read, understand and respond to information available

However, although previous studies (Chan, Churchill & Chiu, 2017; Raffone, 2017) have discussed the significance of digital storytelling as the 21st century teaching and

learning tool, they fail to portray the connection that exists among digital storytelling and the 21st century literacy skills, among which are information literacy or reading comprehension and creativity.

Thus, in this paper, the role of digital storytelling in facilitating students' reading comprehension and creativity is explained but done so as to separate entities as they are found in previous studies. Then, a novel model that signifies an inter-relationship among digital storytelling (Lambert, 2003), reading creatively (Torrance, 1988) and creativity (Kaufman, 2009), though complex, is put forth as the new theoretical framework so as to make language teachers realize that whenever students are asked to create digital storytelling, their reading comprehension and creativity can be encouraged and exercised optimally and in unison.

2 LITERATURE REVIEW

2.1 Digital storytelling

Storytelling is one of the oldest forms of folk art and is valuable in learning about history, cultures and moral values (Norhayati Abd Mukti & Siew, 2004). Lambert (2003) said that storytelling is about crafting a story, which can be a desire, struggle, realization, accomplishment, inspiration and can be translated into a multimedia presentation called digital storytelling. He then developed seven elements of digital storytelling. Effective digital storytelling can be produced if the seven elements, not prescriptive but essential in pacing points, are observed. The seven principles are explained as follows.

- a. Element 1: The point of view
This is described as the main theme, issue or point of the story from the perspective of the author of the digital story. The author may ask himself what he is trying to communicate in his digital story. As every part of the story, from beginning to end, can resemble this element, the author is advised to start his story with a sentence, question or proverb that is short, sharp and connected to the theme so that the story can be remembered.
- b. Element 2: A dramatic question
It is developed to retain the audience's attention till the story comes to its end. The audience can be anyone who watches the student's digital story like his friend or his teacher. A dramatic question is developed to create either confusion, curiosity or concern about a particular issue highlighted in the digital story before its resolution. The question will be responded to as the digital story moves. In other words, when the dramatic question is answered, the story ends.
- c. Element 3: An emotional content
Emotional content is the feeling the author relates to the story. It can be a trial, failure, exhilaration or any that is related to the issue stressed in the digital story. It is personalized to be powerful to evoke attention of the audience. Emotional content can develop the emotional mind, and as suggested by Nelson, Nelson and Low (2005), the development of the emotional mind can never be undermined if educators are serious about producing university students with constructive intelligence in this 21st century.

- d. Element 4: The gift of voice
Voice can be recorded to narrate the movement of the story. However, it is not compulsory. It can merely be "a story with only textual content, images, sound effects and music that portray the unspoken words of interaction, pause and response" (Rofiza Aboo Bakar & Hairul Nizam Ismail, 2013, p. 233).
- e. Element 5: The power of soundtrack
Intended to extend the understanding of the audience towards the story, music or songs are specifically chosen to establish the mood of the story. Sohn (2011) explained that music causes the human brain to release dopamine, a chemical that makes people happy. She also wrote in her article that Valorie Salimpor, a neuroscientist at McGill University in Montreal, Canada, believed that music can make one anticipate what is going to happen next.
- f. Element 6: Economy
Economy is brevity. The story does not have overloaded data, textual contents, pictures, and special effects. Powerful communication can come with minimal information. The author of a digital story can be made to realize that his story can be effectively illustrated with a few images and video clips.
- g. Element 7: Pacing
"Pacing is considered by many to be the true secret of successful storytelling," (Lambert, 2003, p. 19). Pacing in a digital story is likened to how a human breathes. A good story breathes and moves not too quickly nor slowly; once a while it pauses and then proceeds. A good story does not annoy the audience with its fast, mechanical rhythm. It allows some room for the audience to think and internalize.

2.2 Digital storytelling facilitates students' reading comprehension

There are some studies on digital storytelling that have claimed that students can improve their language performance, particularly in reading comprehension of abstract content. Karan-Miyar (2009) asserted that by developing digital storytelling, students can be encouraged to form explanations and personal viewpoints. These could have been resulted from reading strategically. Rance-Roney (2010) confirmed this claim. In her study, she reported that by searching for factual and visual materials to develop digital stories, her in-service and pre-service teachers teaching the English language admitted that digital storytelling scaffolded their reading and that they learned more about topics of their research.

There are also studies on digital storytelling that show that it can enable students to construct their own meanings, structure themes, and be engaged in their reading of texts, as well as their learning. Di Blas, Garzotto, Paolini and Sabiescu (2009) analyzed digital stories of Italian learners between the ages of four to eighteen years old. Their digital stories were based on real-life experiences, such as going on trips, helping elderly folks, visiting museums and doing research and science experiments. The digital stories were also developed based on subjects like history and science. These learners were found to exhibit heightened engagement in their learning and they were reported to develop their digital stories in a structural view of specific themes and components.

So far, the above studies have shown that digital storytelling has been used to improve reading comprehension and understand abstract content. It can also engage students in texts that they read, as well as in their learning.

2.3 Digital storytelling facilitates students' creativity

Dupain and Maguire (2005) asserted that students could showcase their creativity by doing digital storytelling. Genreux and Thompson (2008) conducted digital storytelling with an undergraduate class in biology. Besides knowing about student reflection, which is a key activity in science-based education, they also found that students were highly creative, willing to share thoughts and feelings with their peers and highly involved in making digital stories. Jenkins and Lonsdale (2007) carried out digital storytelling with different groups of undergraduate students in student induction activity, landscape design, accountancy, and sports development. Students were reported to be independent learners and to highly reflect on their learning. Students were also reported having positive experiences and exhibit creativity. However, these researchers only briefly mentioned the aspect of creativity without elaborating on how these students had been creative or how these students could achieve creativity.

3 GUIDING THEORETICAL FRAMEWORK: THE NOVEL MODEL OF DIGITAL STORYTELLING, READING COMPREHENSION AND CREATIVITY

3.1 The model

So far, the role of digital storytelling in facilitating students' reading comprehension and creativity has been explained separately by many previous studies when they could have been merged. In this section, the writer tries to propose a model that shows the connection among digital storytelling, reading comprehension and creativity whose elements are carefully analyzed from Lambert's (2003) digital storytelling, Torrance's (1988) reading comprehension and Kaufman's (2009) creativity elements. These elements are then put together in a model to mark their inter-relationship. This is deemed important as the model allows language teachers to understand that when students are required to develop digital storytelling, much space is provided for them to explore ideas by reading extensively, imagine, visualize, embrace themselves to do trial and error, ask questions to themselves and answer them, evaluate and elaborate. All of these are the 21st-century literacy skills that are done in unison, and learning thus takes place optimally.

The model is shown in terms of the inter-relationship among the seven elements of digital storytelling, reading comprehension and creativity. The model is outlined in Table 3.1 below.

Digital storytelling elements	Reading comprehension	Creativity
The point of view	Define ideas and make relationships	Explore/prepare ideas and incubate
A dramatic question	Make predictions	Make anticipations
An emotional content	Do something with what is read	Imagine and visualize
The gift of voice	Reproduce comprehension by using imagination	Learn to insert textual content, pictures, and songs using specific software
The power of soundtrack	Elaborate comprehension with pictures, music and unique ending	Become acquainted with the innuendos of work
Economy	Go beyond what is read by inserting enthusiasm	Trial and error is exercised / Illuminate
Pacing	Evoke many ideas and questions within oneself and to the audience	Evaluate / Verify

Table 1 is the model that entails the inter-relationship among digital storytelling, reading comprehension and creativity.

4 THE DISCUSSION OF THE MODEL

A digital storytelling project emerges as an encouragement to allow readers to respond to the texts read. In developing a digital story, a reader needs to be aware of various possibilities: the information present in the texts, the missing information from the texts, the relationships among ideas and the transformation of ideas. Torrance (1988) proposed that responding to reading texts in this manner helps readers to read creatively. He further explained that when a reader reads creatively, he becomes sensitive to the possible information gaps in what he is reading. The creative reader "sees new relationships, creates new combinations, synthesizes relatively unrelated elements in coherent wholes, and redefines and ... build(s) onto what is known," (Torrance, 1988, p.48). In this case, he was implying that when someone reads creatively, the reader is

engaged in a creative process. For example, to successfully make relationships between and combinations of ideas, firstly, a reader needs to do an exploration of ideas. This is the preparation step of the creative process. Sometimes, the exploration of ideas is too overwhelming that the reader needs to relax and go about doing other activities while his mind is still actively thinking about the work he is developing. This is the incubation step of the creative process. Then, the reader might feel that some ideas fit together and can be synthesized. This is the illumination step of the creative process. Finally, he evaluates the effectiveness of ideas, and this belongs to the verification step of the creative process.

Reading creatively involves anticipating what will happen, making predictions, asking questions, finding relationships among facts, and making a conclusion. Torrance (1963) clearly mentioned that the act of anticipating and expecting belongs to the creative process and claimed that those who are involved in artistic and scientific endeavors can understand this tension very vividly. Similarly, in developing a digital story, the reader cum author is reading creatively as he needs to combine and make connections between texts he reads, pose questions, and answer those questions by evaluating carefully the details to be inserted in the subsequent slides. He also needs to insert emotional content to portray specific themes chosen and this can be strengthened through the smart use of music and pictures.

Reading creatively also involves “doing something with what is read” (Torrance, 1963, p. 5). Usually, students will struggle with reading facts that they think they will not use although the information is useful. Thus, by developing digital stories, students can reproduce what is read using their imagination, elaborate on what is read and go beyond what is read. Using imagination, elaborating and going beyond something are all creative processes (Adair, 1990). In developing a digital story, the reader cum creator needs a lot of imagination to attract the audience’s attention to watch his digital story with enthusiasm and curiosity. By doing this, he is exercising creativity for always experimenting and evaluating which theme to emphasize, which textual content, images and songs to use and whether all of them suit each other.

Digital storytelling is indeed a creative way of doing something with what is read since it involves the use of multimedia tools. With the computer and certain software, such as Windows Movie Maker or even PowerPoint, students can innovate their comprehension of articles they read into stories that are unique and interesting with the help of music, images and textual content. This may improve their construction of knowledge and cognitive processes.

5 CONCLUSION

The 21st century requires that new forms of teaching and learning or literacy skills be implemented to prepare students for career significance and sustainability. Among others, the 21st-century literacy skills emphasize creativity and language literacy. Digital storytelling can be a tool that infuses the 21st-century literacy skills which students need to embrace and perform well to sustain their significance in the workplace. Bearing this in mind, the theoretical

framework or model discussed earlier is proposed in this study. It is based on the digital storytelling elements (Lambert, 2003), reading creatively (Torrance, 1988) and creativity (Kaufman, 2009).

If digital storytelling is incorporated into the curriculum, the utmost advantage that may be experienced by students is the expansion of comprehension. When they develop their own digital stories, they are required to research a topic, choose the most significant point of view, search for suitable images to suit the topic, find appropriate songs to match with the topic, and summarize vast knowledge into a brief one yet not discarding important points so that the topic can be understood easily.

The next advantage is it can facilitate teachers to engage students in learning language creatively. To develop a digital story, ideas need to be brainstormed, chosen, incubated, illuminated and verified. Imagination and visualization need to take place so that the whole story or reality has a sequence and can easily be understood. This is not easy but perfection can be obtained through trial and error. This is what creativity is all about: not being afraid to try till success prevails.

Expanding comprehension and exercising creativity through digital storytelling is allowing engagement in learning. In fact, engagement in learning is regarded as a mediator for high learning outcomes in the 21st century. The model is believed to be able to provide the education sector with beneficial guidelines should digital storytelling be integrated into the curriculum.

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