Developing Reading Comprehension through Digital Storytelling

Rofiza Aboo Bakar[1*] and Nur Farah Nizza Jaafar[2]
[1]Academy of Language Studies, Universiti Teknologi MARA Cawangan Pulau Pinang, Malaysia
`rofiza@ppinang.uitm.edu.my`
[2]Faculty of Electrical Engineering, Universiti Teknologi Malaysia, Malaysia
`nfnizza@live.utm.my`
[*]Corresponding author

Abstract. Although Azzam was nineteen years old and a diploma student in a university, he found that comprehending expository texts in English was an obstacle. However, when offered the chance to create a digital story, Azzam became deeply engaged and he began reading more texts. He was able to create a digital story that required him to activate his background knowledge, search for additional reading materials, consider alternative interpretations, and become philosophical. In the paper, it is argued that digital storytelling is a means for Azzam to respond well to expository texts by using the cognitive, metacognitive and affective reading elements. Rosenblatt's reader-response theory (1978) was embraced as the theoretical framework. Digital storytelling is believed to have the potential to play a significant role in helping students comprehend expository texts effectively.

Keywords: affective elements; cognitive elements; digital storytelling; expository texts; metacognitive elements.

Introduction

Azzam was nineteen years old and a diploma student in the field of Mechanical Engineering in a university. Despite securing a place in the university, he admitted that reading and comprehending English expository tests was a big challenge for him. Although he scored B in his English paper for the Malaysian Certificate of Education, he only managed to get eight over twenty marks for the English reading placement test that he sat for in the university, and this made him the least competent reader in his class. For all his English papers during his diploma years, he only managed to score the C grades. Grade C is a pass but not a distinction.

He admitted that he had difficulty finding main ideas in expository texts and making inferences, and dreaded the thought of having to read. However, when given a digital storytelling assignment by the English language lecturer, he was seen to be working diligently on the assignment, and searched for many other reading texts besides reading the compulsory expository texts given to him by the lecturer. Although the compulsory texts were difficult for him, he tried to compensate by finding other easier texts. He wanted to understand more about an issue that he was trying to portray in his digital story. Why was this the case?

Guthrie et al. (2012) have made a profound statement that academic excellence lies in understanding expository texts. The university-level reading is mainly made up of expository texts (De Simone, 2007). At the university where this study was administered, the main concern is to enable students to understand expository texts by identifying main and supporting ideas, predicting, skimming, making generalization, making inferences and reading critically. Students were prepared to employ the language skills and strategies necessary to carry out their academic tasks because more than 95% of the references and texts in the Malaysian university are in English (Abdul Majid, 2007). However, reading does not only involve cognitive elements like finding main ideas, or analyzing and making inferences. Reading in the 21st century also focuses on activating prior knowledge (cognitive element), knowing reading strategies (metacognitive element) and knowing the purpose of reading (affective element) (Aboo Bakar, 2015) which may help students in improving their reading. Rosenblatt (1978, 2006) claimed that reading texts will yield different meanings to any different readers, and that readers' responses and understanding are always influenced by their selective attitude or purpose in reading. She believes that if readers are made to respond, which stems from their feelings, experiences, memories and world knowledge, they can understand their reading texts better. Researchers are thus urged by her to study the different readers' responses and their relationships with the cognitive, metacognitive and affective elements.

Besides focussing on the cognitive, metacognitive and affective elements, one's reading can be improved through the incorporation of digital storytelling (Aboo Bakar & Ahmad Zubir, 2012; Robin, 2008) which is an art of organizing ideas with the integration of the use of multimedia tools. Digital storytelling has been claimed to enhance the reading comprehension of students of various ages (Karan-Miyar, 2009; Malin, 2010; Rance-Roney, 2010). Digital storytelling, in this light, acts as a means for students to respond to and

interpret their reading texts through the use of media. Gurian et al. (2008) asserted that by doing such project and presenting it, students have the "opportunity to summarize, synthesize, and incorporate higher-level thinking skills in a format that is generally far more appealing than the standard paper-and-pencil book report of journal entry" (pg. 120) besides being able to contribute their original thoughts and being creative (Aboo Bakar et al. 2017). This study was to investigate the reading responses in form of the cognitive, metacognitive and affective reading elements that a below-average reader made and his portrayal of these responses in his digital story.

Review of Literature

Digital Storytelling.

Digital storytelling is an art of presenting main ideas in the visual form using multimedia tools like graphic, images, still photographs, audio, animation and video clips (Aboo Bakar et al., 2017). In this study, digital storytelling referred to the creation of a story containing textual contents, images and songs based on the understanding of expository texts in the multimedia form. A digital story in this study referred to the student's multimedia presentation on the topic 'plastic surgery'. The length of the digital story was of three to five minutes.

Reading Responses.

Reading responses are reactions or reflections made during or following the reading activity in order to understand what one is reading (Rosenblatt, 2006). As such, reading responses cover multiple activities, such as personal feelings, associations, experiences, images, memories, frustrations and expectations in relation to cognitive, metacognitive and affective elements. In this study, reading responses referred to Azzam's reflections made in his reading log worksheets, digital storytelling elements worksheet and digital story.

Cognitive, Metacognitive and Affective Elements in Reading.

Some cognitive elements in reading involve activating background knowledge, identifying main ideas, analyzing text structure, creating mental images and summarizing (Barry, 2002). Metacognitive elements in reading comprise of planning, monitoring and evaluating; whereas affective elements in reading include having interest in the reading task, feeling motivated and using music (Oxford, 1990).

Rosenblatt's (1978) Reader-response Theory.

In the reader-response theory, Rosenblatt (1978, 2006) stated that responses are reactions to or reflections made during or following a reading event. Every reading event involves a particular reader and a reading text which are two aspects of a total dynamic situation. Comprehension exists during the transaction between the reader and the text.

Responses can be personal life experiences, feelings, associations, images, memories, frustrations and expectations that are related to cognitive and affective elements (Rosenblatt, 2006), including metacognitive elements, as no reader approaches a reading text as an inexperienced person. Each person brings with him or her memories, attitudes, personalities, desires, hopes and experiences to any reading text. This affects the reader's reading and the responses to the reading text.

Rosenblatt (1978, 2006) explained that when a reader responds to a reading text, the comprehension or meaning is influenced by the particular reading approach or stance the reader adopts when reading. She categorized two different stances that work in a continuum: efferent and aesthetic. These stances are influenced by the cognitive and affective elements. When a reader takes the efferent stance, he or she pays more attention to the cognitive, the factual, the analytic, the logical and the referential aspects of meaning. The focus is on what the reader can do once the reading is done. For example, when reading about pandanus leaves, he can read about their benefits as containing anti-cancer substances and as a means to combat insects naturally at home. When a reader takes the aesthetic stance, he or she pays more attention to the affective, the sensuous and the emotive aspects of meaning. The focus is on the reader's lived-through experience of reading. For example, the reader can reminisce his experience at a Malay traditional wedding ceremony savouring the sweet fragrance of pandanus leaves when cut and spread into a tray. Rosenblatt (2006) added

that although many readings may fall near the extremes, many others may fall near the centre of the continuum. Reading is complex. The same text may be read either efferently or aesthetically and yield different meanings to different readers. This is an interesting phenomenon to be researched about because readers' responses and understanding are always influenced by their selective attitude and purpose which are influenced by the cognitive, metacognitive and affective elements (Rosenblatt, 2006).

Methodology

The study employed a qualitative case study research design (Merriam, 2002) utilized so as to understand the complexity and the uniqueness of the cognitive, metacognitive and affective reading responses that were portrayed in the digital story by a lowest achiever in reading. The respondent was purposely selected and based on a criterion. He was the opposite of average students (Maxwell, 2005) by being be the least proficient in the reading placement test in comparison to other twenty-seven students in his class. He was selected to be studied carefully as he was the opposite of the average readers that usually represent the average students. The respondent was a Malay aged nineteen years old. His permission to participate in the study was sought.

The placement test was an official and a standardized and criterion-referenced paper used by the whole university system meant to identify competent and less competent readers so that possible work can be done by the English language lecturers working with them to help them be better in their reading later. The total mark for the reading test was set at twenty. The mean score for this placement test was 11.33 (s.d.=2.923) for the total population taking it. It contained reading comprehension questions which tested students' literal comprehension, information retrieval, inferential comprehension and evaluation.

Block (1986) defined good or above-average readers as those whose reading comprehension test scores were at or above the mean score for the total population, and poor or below-average readers as those whose reading comprehension test scores below the mean score for the total population. In this study, the respondent scored only 8 marks.

Before the digital storytelling project, all the students were familiarized with digital storytelling and a software needed to develop a digital story called the Windows Movie Maker. The familiarization and the tutorial classes for working with Windows Movie Maker were carried in two weeks' time. Next, data were obtained in three weeks' time of the digital storytelling project through observational field notes, the respondent's documents, interview transcripts and his digital story. There were three two-hour classes in a week.

The digital story was entitled 'Plastic surgery: The reasons, the risks and a lesson learned'. The respondent and his classmates were supplied with two expository texts on plastic surgery from which they could locate ideas for their digital stories. They were also allowed to look for other reading texts to assist them in developing their digital stories.

In this study, the process of finding themes as proposed by Merriam (2002) consisted of comparing one unit of data from one method to the next data from multiple methods. Recurring regularities in the data were searched for. For instance, the respondent's entries in his reading logs were checked against the behaviours observed in class and the details told in the interviews. Then, a set of themes was inductively developed that represented the nature of reading responses as portrayed by the respondent in his digital story. These themes were also informed by the understanding of the Reader-Response Theory by Rosenblatt (2006) and the cognitive, metacognitive and affective elements in reading. The themes that were captured in this study were as follows:

a. cognitive elements of reading - activating background knowledge of famous artists and plastic surgery undertaken by them, and identifying main ideas;
b. metacognitive elements of reading – pairing appropriate images with the main ideas, and considering alternative interpretations; and
c. affective elements of reading – stating his view about plastic surgery by being philosophical.

Data Analysis and Results

Azzam's Portrayal of Cognitive Elements in Reading.

A cognitive element in reading is activating background knowledge. Azzam's portrayal of his understanding of the reading articles on plastic surgery may have been contributed by his background knowledge about famous stars who had undergone plastic surgery or news about them in the mass media. Azzam inserted

many pictures of famous artists before and after plastic surgery procedures in his digital story. It could be said that the background knowledge about these artists dominated his responses in his digital story.

In another instance, in his student journal, he related how his imagination automatically went to a Korean-pop group named 'Girls' Generation' and their fake beauty when he heard about plastic surgery, "When I heard about plastic surgery, I think about one group ... from Korea, ... the people are so beautiful, but ... that is all a fake," (Student Journal). His obsession of wanting to show that their beauty was bogus led him to show eighteen pictures of these singers before and after they underwent plastic surgery in his digital story (Digital Story: Slides 10 – 18). Azzam also took the pain to carefully show in his digital story how Michael Jackson had transformed his face from someone with a flat nose to someone with a pointed nose, and from someone who was 'black' to 'white' (Digital Story: Slides 32 – 44).

Next, finding main ideas is another cognitive element in reading. Azzam knew that the purpose of his reading eventually was to find ideas on reasons and risks of plastic surgery and drew his own conclusion. He showed the necessary main ideas that were requested from him in his digital story. Although he could identify the risks of plastic surgery from the given texts, Azzam could not identify some of the reasons why people undergo it. Because of that, he resorted to reading other internet articles which were clearer, more concise and straightforward, and whose vocabulary was easier from which he drew his own conclusion about the reasons of plastic surgery.

Also, out of his curiosity about the fake beauty of some Korean pop stars, he read about these stars and the cosmetic plastic surgery they underwent in the internet articles (Interview Transcript). Thus, he drew an inference that the reason these artists underwent plastic surgery was because "... they should look pretty to impress their fans and it is their source of income" (Digital Story, Slide 21). However, this response could be accepted because Azzam's response to the reason people undergo plastic surgery is "to look pretty", and it is equivalent to the main ideas in the articles, i.e. "feeling insecure" and "morbid perfectionism".

Azzam's Portrayal of Metacognitive Elements in Reading.

One metacognitive element in reading is pairing appropriate images with the main ideas. Azzam was quite careful in choosing representational photos to be paired with his textual content although the photos of celebrities before and after undergoing plastic surgery dominated his digital story. He told the researcher, *"I imagined what I wanted to put and searched for them through the internet,"* (Interview Transcript, 2013).

In his earlier part of his digital story, Azzam used a Korean pop group photos to show how cosmetic plastic surgery had enhanced these stars' looks for the purpose of impressing their fans and increasing their sources of income (Digital Story, Slides 10 – 18). In his later part of his digital story, Azzam used some other celebrities' photos to illustrate the risks of plastic surgery if it went wrong like a bad nose job and an eye-droop (Digital Story, Slides 24 – 27). These images indicated that they were used for representational function.

Considering alternative interpretations is another metacognitive element uniquely practised by Azzam and not by other students. After reading the texts on plastic surgery, he reflected on them and referred to some significant words and lyrics in some songs that could provide alternative interpretations to the reading texts. Then, he intelligently put these songs to accompany his digital story since these lyrics helped to carry alternative interpretations about plastic surgery. From the evidence gathered, he seemed to convey that plastic surgery was grim, horrifying and futile, and that one did not need to change his appearance. It seemed that he was very careful with his selection of songs. He stressed, "My song selection, I think it's appropriate for my digital story," (Class Observation, July 25, 2013). This proved to be true. For example, in his introductory slides in the digital story, he used a song entitled 'Blue' sung by Eiffel Tower because the lyrics goes as "Yo, listen up, here's a story about a little guy that lives in a blue world ," to attract the audience's attention to take note of what he was about to present in his digital story. Indeed three of his introductory slides contained the symbol 'A' and phrase 'A to the power of three entertainment' written in blue colour to signify his real name initial (Digital Story, Slides 2 – 4). Blue and other dark colours were chosen to be inserted in his introductory slides to show how grim and horrifying plastic surgery was. Then, in his storyboard he also stated that he wanted to use Adelle's song entitled 'Set Fire to the Rain' to indicate how futile plastic surgery was (Storyboard, August 2, 2013). In a class observation, he explained "I want to use Adell's song 'Set Fire to the Rain'. Rain is wet, fire is hot. How can you set fire to the rain? It's useless setting fire to the rain. So, I think the song suits that plastic surgery isn't worth doing," (Class Observation, July 19, 2013). In his digital story he inserted this song to accompany slides 6 to 8. Next, he used a song entitled 'Be Yourself' by Audio Slave to accompany a segment of Michael Jackson's face transformation in his digital story (Digital Story, Slides 32 – 44). The lyrics "Someone falls to pieces, spinning in the silence,

to finally drift away, to be yourself is all that you can do" suited his strong feeling against Michael Jackson's face transformation. He commented, "The title is 'Be Yourself' by Audio Slave. We just need to be ourselves. We don't have to change our appearance," (Class Observation, July 25, 2013).

Azzam's Portrayal of Affective Elements in Reading.

Azzam stated his view about plastic surgery by being philosophical. He believed that plastic surgery was unpleasant, useless and that natural beauty was the best. This may have been influenced by his background knowledge about the Korean and Hollywood stars, particularly the Girls' Generation group and Michael Jackson. Through the introduction and the songs used in his digital story, his message about plastic surgery was that it was depressing. His introductory slides were filled with dark colours like blue, grey and black which depicted a gloomy atmosphere (Digital Story, Slides 2 – 4). This gloomy atmosphere was associated to the depressing plastic surgery. In fact, one of the songs used in his digital story was 'Set Fire to the Rain' by Adelle. Azzam told the researchers in a class observation that he purposely chose the song as to indicate how useless it is to light fire in the wet rain; similarly, plastic surgery was also "... useless ... and ... isn't worth doing," (Class Observation, July 19, 2013). Then, he also used the song 'Be Yourself' by Audio Slave to show that "We just need to be ourselves. We don't have to change our appearance," (Class Observation, July 25, 2013) because he believed that plastic surgery "is not natural" (Student Journal, July 4, 2013). His belief was again emphasized in his digital story when he wrote "For me, I choose natural beauty than plastic surgery because everybody in this world are (is) unique. We have our own natural beauty and we should realize it" (Digital Story, Slide 39).

Discussion and Conclusion

This study indicated that through digital storytelling, the least competent reader had portrayed the utilizing of cognitive elements in reading, such as activating background knowledge and identifying main ideas as suggested by Barry (2002). Although he did face difficulty in understanding the compulsory expository texts, activating his background knowledge about a topic and resorting to finding other reading texts that were clearer, more concise and straightforward, and whose vocabulary was easier could ease his comprehension. Inevitably, relevant information from the easier texts could be extracted and alternative yet logical answers were then provided. This finding supported Van den Broek & Kremer's (2000) explanation that below-average readers find 'user-friendly' (p. 14) texts to reduce the demands on their cognitive capacities as these texts are not distracting. This finding also further supports Rosenblatt's theory (1978) that when the reader adopts the efferent stance and wants to make meaning of his reading, he pays more attention to facts or cognitive elements in reading.

   Next, this study showed that the least competent reader had been able to pair appropriate images with main ideas which suggests that the element of evaluating, a metacognitive element of reading, as suggested by Oxford (1990) has been utilized. Also, the least competent reader had displayed very well the element of considering alternative interpretations through the usage of songs and their lyrics, another metacognitive element proposed by Oxford (1990). This finding could enrich Rosenblatt's (1978) theory in the aspect of metacognitive element, since she focuses more on the cognitive and affective elements in reading although she proposes that the metacognitive element be researched about.

   Finally, the study indicated that the least competent reader had successfully displayed his view about plastic surgery by being philosophical. He was unsupportive towards plastic surgery and this may have been influenced by the given title of the digital story and the knowledge about some plastic surgery victims' misfortune after undergoing the procedure. Through his selection of songs, images and colours, he shared with the audience his feelings about plastic surgery in a philosophical way. This supports Rosenblatt's (1978) theory that the affective, sensuous and emotive aspects of meaning can further enhance the understanding or comprehension of reading texts.

   Since the development of digital storytelling can enable even the least competent reader to respond to reading articles in relation to the cognitive, metacognitive and affective elements, the findings of the study seem to suggest that digital storytelling can be administered in the English reading class to help enhance students' reading comprehension. The least competent reader has shown that through the development of digital storytelling that can allow him to incorporate images, songs and words, his interest in knowing further about a topic could be sparked and which results in him understanding expository texts better.

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