

**IMPROVING TEACHING AND LEARNING PRACTICES THROUGH THE USE
OF DIGITAL STORYTELLING**
(PEER REVIEWED)

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ABSTRACT

This study investigates how digital storytelling can be used to help enhance TESL students' classroom presentations in a Language Arts class. In this study, we use the contexts of digital story portfolios to show how digital storytelling can benefit the students. Furthermore, the study describes how the integration of modern technology in storytelling impacts students' thinking skills in expressing themselves. Seventeen students were involved in this study. Data consists of reflections on the students' perception of using digital storytelling and these are triangulated with the researchers' observations during a 15-week study using a qualitative approach. This study enabled them to reflect on their work critically and to have a new perspective on engaging their audience's attention during teaching and learning process, especially when they have to prepare themselves for school-based orientation and practicum to teach Language Arts in English to children in the primary schools. This paper was presented at the Asia TEFL- MELTA International Conference held at the Borneo Convention Centre Kuching, Sarawak from 28-30, August 2014. This paper has also been peer-reviewed.

KEYWORDS: Digital Storytelling, Language Arts, Thinking Skill

INTRODUCTION

In the Malaysian primary schools nowadays, Language Arts plays a major role in ESL classes. Thus, using stories to teach students is a major focus for the TESL undergraduates who are taking the Language Arts Course in Teacher Education Institutes in the country.

One of the requirements of the Language Arts Course is for the students to present interesting stories for young learners during their class presentations. As a teacher trainer for ESL classes I found that many TESL students would search the web to retrieve suitable storytelling materials. Students seemed to have taken it for granted that these materials should be good enough for classroom presentations. However, one of the main concerns for teacher trainers has always been teaching strategies and effective learning. Thus, it is the teacher's responsibility to ensure that modern day 21st century technology-savvy students need to be engaged innovatively (Brink, 1993).

Another concern is that students would frequently scoured the internet for examples and references, during lessons. What they had done was merely taking what is already available on the Internet and rehashing the same version for classroom use. These presentations often times lacked creativity and originality. By doing so, students have stopped short of being critical of the work process, preventing them from exploring and creating their own materials. This gives an impression that there seems to be a high degree of dependency on

existing materials created by others. These students also sometimes find that they seem to present the same stories as other groups, thus creating overlapping materials.

When the students were evaluated during their presentations, there seemed to be an apparent lack of enthusiastic participation from the audience. Students were observed to be bored, restless or appeared unenthusiastic, especially when their peers from other groups were presenting. The possibility of obtaining good virtual stories online does not seem to have enhanced the students' thinking skills creatively. Virtual stories, although colourful and vibrant, do not seem to engage the technology savvy-audience and through this classroom observation, it seems to bring boredom to the teaching sessions very quickly (ultimately). However, these concerns could offer me, as a teacher trainer an opportunity to try to devise innovative and effective learning strategies to improve the quality of educational experience for the students.

Therefore, I initiated an action research study with this group of students. The Language Arts class comprised 17 students who are enrolled in the TESL programme in the teacher's training institute. I introduced digital storytelling to them as an innovative learning strategy. As an educational technology tool, digital storytelling makes use of almost all of the skills 21st century students are expected to have (Jakes, 2006). By taking this approach, I hope to empower the students to meet the requirements of this technological age.

It is also my belief that by creating and using digital storytelling, the students would be able to collaborate among themselves to produce original works. They will also be able to have a new perspective on engaging their audience's attention. Furthermore, they will have the opportunity to reflect critically on their own work, especially when they know that they have to prepare themselves for school-based orientation and practicum to teach Language Arts in English to children in the primary schools. Also, by explaining a present practice, the benefits of developing digital stories can be seen through the perception of the students. Teaching practices can be monitored and transformed in terms of evaluating the past and with the intention of creating something better in the future. (Whitehead, 1998).

As a preliminary step, I handed out open-ended survey questionnaires to the students after their initial class presentations. The students were asked to write their thoughts down pertaining to the questions given:

1. What do you think of your graphic presentation?
2. What do you think of your speaking presentation?
3. How do you think you can improve on your storytelling presentation?
4. Have you ever heard of digital storytelling?

Based on the analysis of the preliminary survey questionnaire, some issues of concern were identified through these questions. From the feedback, 76.5% of the students found the graphic presentation of the stories colourful and attractive enough for young learners. However, 83% perceived that they needed to improve in their oral skills. This issue was perceived to be a lack of knowledge from the students' perception of learning as 82.35% have never heard of digital storytelling. Would the introduction of digital storytelling benefit

the students themselves and allow them to look at learning from a different perspective? Also, the issue of engaging the audience has been noted by at least 23.5% of the students as they reasoned that the graphics of their story presentations taken from the web had no fun elements in them as well as not challenging enough for them to be creative.

Therefore, there seems to be a need to focus the study on these two issues:

1. What are the benefits of using digital stories as perceived by the students?
2. What are the effects of digital storytelling on students' creative thinking skills?

LITERATURE REVIEW

Robin (2006) defined traditional storytelling as the recounting of historical events, telling of personal tales or as a means to inform on a particular theme or topic. Similarly, digital storytelling also has a chosen theme or a specific viewpoint. However, technology literacy is involved in digital storytelling. Researchers defined digital storytelling as a form of multimedia consisting of images and segments of video with background music and a voice-over narrative (Botturi, Bramani and Corbino, 2012; Hull and Nelson, 2005; Robin, 2006; Burmark, 2004). In other words, it is a process of creating an original story using various multimedia components, such as images, video, music and a narration which is usually the creator's own voice. Hall (2012) stated in his study that this new and emerging storytelling technology is opening up new possibilities to enhance creativity and creative education.

Furthermore, teacher-created stories have been used as induction sets in order to engage students in the learning process (Burmark, 2004; Ormrod, 2004) and to connect existing knowledge to new material (Ausubel, 1978), thus providing teachers with a dynamic tool for classroom use. Moreover, students could be taught and guided to create their versions of digital stories. Also, in the process of discovery, students may benefit from several types of literacy (Robin, 2008) such as digital literacy, global literacy, technology literacy, visual literacy and information literacy as proposed by Brown, Bryan and Brown (2005).

Subsequently, students may need to learn and utilize movie-making software in order to create their digital stories. Students may utilize free software such as 'Movie Maker'; which is a simple, non-linear editing software, as well as mobile phones. These allow the user to create and edit videos and its features include timeline, narration, effects, and audio track. These help students to increase various literacy skills to create an original and entertaining presentation. Dogan & Robin (2008), Howell and Howell (2003), Jakes (2006) and Robin (2008) summarized that these are 21st century skills and they include other complementary skills such as research skills, writing skills, organization skills, technology skills, presentation skills, interview skills, interpersonal skills, problem solving skills and assessment skills.

However, thinking skills was not one of the skills mentioned. In a survey, researchers such as Yuksel, Robin and McNeil (2011) had identified that

students creative thinking skills improved with the use of digital storytelling. Besides, teachers agreed that digital storytelling can help their students learn problem-solving skills too (Farmer,2004).

Hence, in this action research, the focus is on student-created digital stories of which the technology literacy involved were the use of the free software “Movie Maker” as well as individual mobile phones.

METHODOLOGY

Cycle 1

In this study, there are 2 stages of process i.e. cycle 1 and cycle 2 (McNiff, 2002) of the students’ work throughout the whole semester using the five disciplined and systematic steps in a research cycle of Whitehead and McNiff’s (2006) model (Fig. 1).

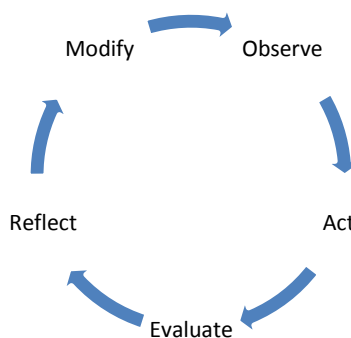


Figure 1: McNiff & Whitehead’s Action-Reflection Cycle (2006)

This means that an area of concern will be identified through observation of the students’ work. Then on reviewing and reflecting on the students’ reflections, a new possible way can be put into action. The success of the action can be evaluated through the interpretation of students’ reflections of what is happening. A new plan to modify and improve the action will complete the cycle. Cycle 2 begins when the modified action is reassessed and moved into a new and improved direction (Fig.1).

I started after the initial analysis of my survey was documented. The class proceeded to the next step of storytelling by recording their voices for the dialogue. However, they would still be able to use graphics from their favourite story telling sites. The students made up four groups altogether. This time suggestions were given to some of the groups to cut out the faces of the figures in the story and personalised the figures with photographs of their own faces. Two groups took up these suggestions while the other two proceeded with the original graphics from the web. During their presentation, the students’ attitudes and reactions were observed and documented. After the presentation, the groups which presented the cut-out faces submitted their reflections.

Based on these observations and reflections, all the groups were asked to modify their existing materials, which was to create an original work. Hence, the students were given a free hand to create their own story. They were asked to use their mobile phones to record the pictures and voices of the characters to make the story come alive. During this period, they were introduced to the software, 'movie maker' which they caught on with great enthusiasm. The students were given two hours in the classroom to do these recordings until they were satisfied with their story. Two groups took longer time and completed their work after class, as they wanted to paint their creations.

Throughout the study, the students were observed on their working attitude, their reactions to their own creations in their own group and as audience during their presentations. These observations were guided by questions such as 'What problems are the students facing as they prepare and record their story? Are the students having auditory or content problems? Are they having problems using the software or recording their voices and pictures? What are their perceptions concerning their own creations and their friends?' These observations were helpful when it was used to triangulate with other data later on in the study. These actions completed Cycle 1 of the study.

Cycle 2

Cycle 2 started with students' presentation of their original creations. Observation of the whole class was recorded as the students presented. After their presentations, the students were asked to write their reflections. Collecting data from these two sources allowed for triangulation of the findings in this study. Data triangulation will help minimise the likelihood of error in the findings when similar results are recorded from two or more of these sources.

Then, the students were asked to carry out a digital storytelling session to young learners in an actual classroom situation in a kindergarten when they conducted a community service programme there. They decided to choose the best digital story amongst them and proceeded to entertain twelve young children aged 4 to 6 years old. Back in the classroom, the students evaluated their project and shared their opinion on how they should improve their story to cater to students of specific age group. Students' recommendations and suggestions were noted down and recorded. These feedbacks may be useful to improve work carried out in the future by the next cohort. These actions completed Cycle 2 of the research.

After having completed Cycle 2, the portfolio of the students was endorsed by the Head of Department of Language Studies to participate in an 'Innovation for Teaching & Learning' competition using the digital storytelling strategy and the resulting students' portfolio. This was a state-wide competition for teacher training institutes in Sabah. Subsequently, the students' entry, 'Digital Storytelling Innovation', was declared the winning innovation.

Thus, the participation in a state-level innovation competition and the subsequent winning validated the study in introducing digital storytelling strategy to the Language Arts course. This recognition had also helped change the landscape of storytelling in the students' perception.

FINDINGS & DISCUSSIONS

1. Benefits of using digital stories

In cycle 1, students' reflections and my observations were analysed to provide the following feedbacks on the benefits of using digital stories.

i. Highly entertaining in the audio and visual aspects

The positive feedback was that students had used sounds creatively, be it varying their own voices, tone and intonation or incorporating background sounds.

Two students responded that "*imperfect parts*" could be "*visually edited*" as they "*can change to a better pitch*". With the use of technology, students were able to change the pitch of their natural voice to sound better.

Four students reflected that digital storytelling was "*more interesting and attractive*" than "*the traditional way of storytelling*". Three students found that the use of '*animated videos*' better and they felt '*awesome*' because their own creation was '*authentic*'. Storytelling through digital medium was also cited as "*not boring anymore*" (R16) and in fact one student reported that there was an element of "*comedy effect*" which made it more enjoyable.

In addition, one group also thought that it was a tool that would be interesting for teachers and students alike and remarked that digital storytelling was "*a good technique that we can bring to school and expose to the teachers. Students will be attracted by this kind of video as they like animated things more than static things*".

ii. Confidence in speaking

From the students' reflections, they thought that their speaking skills had improved with the use of various voices to match the characters in their stories, e.g. "*I think my speaking skill has improved*". They felt that they had also gained more "*confidence in speaking English*" and this enabled them to "*tell the story smoothly*". This could be attributed to the ample time to practice and rehearse their speech delivery behind the scene because two of the students shared that the recordings "*made our voice private*"

Furthermore, five students felt that as they were able to "*prepare the script in advance*", and they were able to "*avoid any wrong pronunciation and so forth*". All these led to the students becoming "*aware of our language and pronunciation and thus, improved our speaking skills*".

When I triangulated my students' reflections with my own observation,

'All the groups practiced their vocal, diction, pronunciation, intonation and expression until they were fully satisfied before they recorded the story. There was clarity from the audio and diction was good. Each dialogue was expressively spoken with good pronunciation and intonation. I observed that there was tremendous improvement made in the spoken language with minimal grammatical errors.'

I am convinced that if given opportunities to practise speech delivery, students can build their confidence in speaking.

iii. Engaging students and audience

Another encouraging feedback was the total involvement from students producing the digital storytelling, as well as the audience watching the presentation of the storytelling product.

Students' commitment and dedication in ensuring the complete production of a good digital story were reflected by 2 groups of students when they commented that the effort put in may be "tiring" but "it was worth it". Other group thought that the making of digital story was "fun" despite the difficulty in getting it done.

Subsequently, from my observation, students were fully immersed in their work from the conceptualization of the story to its final recording.

Observation 1:

'As the students were given a free hand to create their own story in groups, I found that they were fully focused in preparing the storyboards and figurines to be recorded.'

Observation 2:

'As the students prepared for their presentations, I discovered that each group took the trouble to record the voices for each of the characters a few times. This action went on until they were finally satisfied with their pronunciation, expression, diction and intonation. Moreover, the students were fully engrossed in their own work that they did not stop until their final recordings were done.'

Through this dedication, the students succeeded in captivating the attention of their peers and this led to audience involvement. It was evident during the presentation when there were "moments of silence" and "moments of laughter" bursting out. Digital storytelling, therefore, serves as a powerful tool in engaging both the students (Barrett, 2006) and their target audience.

iv. It is an effective and efficient teaching and learning tool

Consequently, from the perspective of the students in the role of teachers delivering a story, they remarked that digital storytelling made an "effective and efficient" teaching and learning tool in lesson delivery. The students revealed that the story which contained "audio and pictures as well as animations, was easier to understand". For instance, one student reflected that she "can involve

pupils in the making of digital storytelling... by using students' drawings or voice" besides encouraging them *"to give and contribute ideas especially in the making of their own story"*. This concurred with Malita and Martin's (2010) in which they described students being actively engaged in the exchanging of ideas, asking and receiving feedbacks from their peers.

A final aspect noted on the efficiency of digital story was that it could be *"used many times"* and also *"over the years with good quality"* besides being *"played repeatedly"* so that the *"students can understand fully"*.

In summary, I found that apart from gaining digital, technology, information and visual literacy, the benefits of developing digital stories also include the enhancement of students' speaking skills. Students were encouraged to check their pronunciation, tone, intonation and expression in a non-threatening environment amongst their own peers. Furthermore, the engaging atmosphere, the elements of fun and the effectiveness of digital stories as a learning tool, were also identified when each group captivated the intended audience attention which gave rise to full classroom participation. This therefore shows the efficiency of digital storytelling in engaging classroom participation.

2. Effects on students' thinking skills

As my analyses continued into Cycle 2 where the students did a community project and selected the best digital story from cycle 1, to be presented to young learners in a kindergarten, the analyses yielded the following discoveries.

I discovered that the effects of digital storytelling may help improve students' thinking skills. As students were able to view each group's digital presentation, they were able to compare and contrast the quality of work to their own first attempt and think more critically. While one student opined that her digital story was her "best", four students said that theirs were "good" and another three students said that their stories were "well done". One student was more critical and thought that his group's digital story was *"not as good as the other three groups"*. Three other students also thought that their *"work could be improved"* although the specific areas of improvement were unclear. However, four important effects on students thinking skills were revealed during my analyses.

i. Oral Speaking skills

Firstly, in the aspect of oral speaking skills, the students became more aware of the need to improve on their speaking skills. Flaws in pronunciation, intonation, tone and pace were amongst the feedback gathered. The students came to realize that they needed to improve their language and pronunciation, and they knew that they had to practise more in order to yield the desired results. One student responded that their group's *"speaking part was organized"* and for the recording session, they had *"put in much practice as to avoid any wrong pronunciation."* Subsequently, another student reflected that in her group, *"...we*

rehearsed our dialogues while producing the story – it makes us become aware of our languages and pronunciation and thus, improved our speaking skills.”

Through all these reflections, I realised that it is students' mind set change that spurred them to be more diligent and independent in their oral practice to minimize spoken errors. The results were clear as the students put forth their thoughts and acted on it accordingly. Improvement in the spoken language during their preparations was also evident through my observation. However some feedback showed that the oral was “*not clear*” and they attributed this to the quality of the electronic gadgets and software and background noises. One student thought that the problem could be “*caused by the quality of recorder*” and their team members’ “*lack of experiences in adjusting the sound quality via software*”. Another student discovered that “*some background noises when I tried to record the voice*” had hampered his effort. This clearly revealed to me that students were able to assess the problem and identify the possible sources of the technical complications.

ii. Collaborative Impact

Another important effect of students thinking skills is the collaborative impact found when students work together. Collectively as a group, my students were able to share their successes, frustrations, disappointments, criticise their own work and advocate improvements for future use.

For instance, during my classroom observation, the different strengths of each group began to emerge. Each individual in the groups (G1, G2, G3, & G4) had his or her own talent and creativity which were put to good use in the process of creating the stories. They utilised their individual and group strengths and talents in areas that they could do well and the overall digital story matched their expertise. Group 1 and 2 used colour pencils to colour their storyboards. Group 1 based their story on the nursery rhyme, ‘Humpty Dumpty’ as a guide and used a mixture of multimedia creatively. However, Group 2 created a conventional ‘family based’ story, using only drawings and stick figures. Group 3 created an ‘Angry Bird’ story. This group could draw very well and painted their storyboards and figurines with vivid colours. The figures and backdrop were painstakingly drawn and coloured. Group 4 used the cartoon ‘Ultra man’ to guide them in creating their story. This group was made up of two males and two female students while the other groups were all female students. Their creation was a mixture of multimedia and sounds. Their story seemed to be very fast moving.

Positive collaborations such as learning to ask others for help, working together exploring new ideas, becoming more reflective about presenting differently, and learning from what other groups had done, serve to promote a better understanding of the diversity of students in the language classrooms (Mills and Ballantyne,2010; Ward and McCotter,2004).

Thus, I can assume that digital storytelling provided the opportunity for students to use their individual natural talents and strengths, collaboratively.

Elements of students' creative thinking skills were clearly evident both in the stories created; and when the students play their roles as 'teacher' presenting their digital story to their peers as young learners 'observer' (the other groups).

iii. Visual and Technical aspect

Students also became aware that there was also a lack of quality in the graphics and the problem was attributed to unclear pictures. Two students reflected that the blur pictures caused "*the audience having to sit nearer to the screen for a better view*". Another two students agreed that "*the graphic being too bright and it affects the audience*." Furthermore, one student also cited "*unattractive graphics and the lack of use of colours*" while still another discovered that although many pictures were inserted in the video, they were, unfortunately "*repetitive*".

As students compare with each other the quality of their work, I realised that some poor visual and technical aspect of their work, may also be attributed to the use of low quality gadgets or the "*lack of proper tools*" such as an LCD screen. I also found that students faced technical difficulties similar to Sadik's findings (2008). The students realized that in order to carry out a good presentation of digital story, the technical aspects need to be addressed first such as having better or higher quality recording and editing tools and also an LCD projector screen for video clarity.

iv. Materials selection

Finally, the students also noted that that the story they had created for the primary school children, were too difficult for young learners from the kindergarten. Perhaps, these critical evaluations derived from their work could be best summarized by one student's keen observation. She stated that, "*Digital storytelling cannot stand by itself if there's no proper planning of the video and its execution*." Students' immediate identification of the mismatch in the level of learning materials and the young audience's knowledge indicated their awareness of the need for the proper planning of digital storytelling from its inception to execution.

Thus, to conclude; my findings on the effects of digital storytelling on thinking skills in both cycles clearly show students' awareness and ability to identify the weaknesses in the areas of visual skills, presentation skills and technology skills. The findings also show that students were able to give practical recommendations for the future improvement of their work. They had not merely become the creators (Ohler, 2005) and teachers of digital stories, but also became thinkers (Kajder, 2004) as they adopted the role of an evaluator and assessor. The display of detailed and critical evaluation of the quality of their work and peers' suggests a 'paradigm shift' in students' thinking skills i.e. they are now confident to create digital stories and use them in their future language classroom.

IMPLICATIONS & CONCLUSION

With reference to improving teaching and learning practices, our findings from this study confirmed the significance of the benefits of using digital storytelling in the classroom. Although digital storytelling can be a powerful tool to convey messages around a topic or subject area by students or teachers generally, we believe it can also give remarkable positive impacts to students and their performance. Students need not have to be good at drawing as they can even use stick figures to get their story across. Thus, they will feel encouraged to be creative. They will also possess a sense of pride and 'ownership' in their creative achievement and this may motivate them in their classroom learning. Moreover, teachers can really engage their students' attention and have them work on a topic easily, in a fun and non-threatening environment. Thus, our findings support the idea that digital storytelling effectively captivates and motivates students (Banaszewski, 2005).

Furthermore, in the process of creating the digital stories, it increases certain skills such as technical skills, presentation skills, organizational skills, thinking skills and oral skills. I observed these skills being put to practice in the study and they most certainly develop certain 21st century skills (Howell & Howell, 2003; Jakes, 2006; Robin, 2008). In utilizing skills such as these, it may help to initiate a platform for future teachers to improve their teaching and learning practices in their language classroom.

However, I do acknowledge that there may be some limitations in using digital storytelling in the classroom. As digital storytelling may still be a relatively new educational technology tool, teachers and students may need to be exposed to the methodology of using digital stories effectively in the classroom. Also, I must admit that access to good technical and instructional support for students is needed for the successful integration of technology into the classroom (Bhatt, 2005). In other words, they need to be properly trained in using the strategy. During the process of the study, I found time limit to be an issue, as students and likewise teachers, may need time to prepare and practice in the classroom if they are to use digital storytelling successfully. There has also to be constant follow-up in improving the strategy after each cycle. Keeping these in mind, I believe that there may be far more benefits to gain for teachers' teaching practices in the classroom when they familiarize themselves in confidently using these 21st century skills.

My study also suggests that digital storytelling may have a far broader implication in classroom teaching as it may have a broad range of application beyond the Language Arts classroom such as collaborative cross-curriculum. Digital stories can be applied to essay writings, or even other subjects such as social studies, science, history, geography and others.

In conclusion, this study adopted the action research methodology to identify and evaluate areas of concerns by documenting the cycles of process of my students' work. More specifically, it sets out to investigate how the development of digital storytelling would unravel the thinking skills and creativity of the students as well as how modern technology in storytelling would impact students' enthusiasm for learning. Participants who were TESL students of a teacher training institute form the primary data. Analysis of the cycles of work processes and the students' portfolios reveal that this study achieves its primary

goal of establishing that there is a significant change in students' concerns with regards to using digital storytelling in classroom teaching.

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