Digital Storytelling in Education

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Abstract

Digital Storytelling has become a powerful source or a tool for both students and educators. It is a good way to engage students in learning and creating. There are many studies that have been conducted on the effective usage of Digital storytelling in education. This paper presents an overview of Digital storytelling, seven elements of Digital storytelling, types of digital stories, how it can be used to support instruction and how students improve multiple literacy skills, tools that can support Digital storytelling, other important considerations that students and educators need to know before implementing Digital storytelling and the effectiveness of Digital storytelling for both students and educators. This paper also outlines some major research that has been conducted by researchers and postmodernism approach to Digital storytelling.

Introduction

Technology is becoming an integral part of the educational realm. From kindergarten and elementary schools through high school and colleges, all levels are using technology for educational purpose. New computers, software programs, and applications fulfill the needs of technology-thirsty people. In an effort to blend technology with education, digital storytelling is a way to generate interest, attention, and motivation for the "digital generation" in today's classroom. Digital storytelling has turned college and university classrooms into spaces of creative and critical multimedia productions. Digital storytelling enables teachers to provide differentiated instruction that meets the needs and interests of learners while providing a venue for them to be consistently and sufficiently challenged The Center for Digital storytelling webpage notes "Many people blame themselves for their lack of technological savvy, instead of recognizing the complexity of the tools and acknowledging that access and training are often in short supply. But new media and digital video technologies will not in and of themselves make a better world. Developing thoughtful, participatory approaches to how and why these technologies are being used is essential."

Digital stories have proven to be a powerful medium for students to use when they are representing a theoretically-informed understanding of texts and contexts in a form other than traditional writing Digital stories not only reflect each student's understanding of the subject, but

also allow collaboration, which can encourage personality development, collaborative skills, and creativity.

According to the University of Houston, considered to be the forerunner of digital storytelling, this is the practice of using computer-based tools to tell stories. As with traditional storytelling, most digital stories focus on a specific topic and contain a particular point of view. However, as the name implies, digital stories usually contain some mixture of computer-based images, text, recorded audio narration, video clips, or music. Digital stories can vary in length, but most of the stories used in education typically last between two and ten minutes. The topics that are used in digital storytelling range from personal tales to the recounting of historical events, from exploring life in one's own community to the search for life in other corners of the universe, and literally everything in between. A great way to begin learning about digital storytelling is by watching the following video introduction to digital storytelling.

The importance of digital storytelling to education is that they can present personal stories, and these can touch viewers deeply, moving them to reflect on their own experiences, treat others with greater compassion, become thoughtful, speak out about injustice, and become involved in social, civic and political life. Stories have the power to make real differences.

People all around the world draw, dance, sing and tell stories. Digital storytelling gives them the opportunity to post their thoughts and creative stories online where other people can listen, see and hear them, because everyone has different stories.

The purpose of this paper is to show how digital storytelling can be used to inspire learners and teachers to think about how they can use digital media to tell their own stories. In

my paper I will speak about what digital storytelling is, how it can be used to support instruction, and how students who learn to create their own digital stories improve multiple literacy skills. This paper will also discuss seven elements that are necessary to create effective and interesting digital stories, tools that can be used to support the educational use of digital storytelling, challenges and other important considerations that students and educators should be aware of before implementing the use of digital storytelling in the classroom,. This paper will also look at the usage of computer aided mixed media such as audio, video and images to construct and convey knowledge around a topic in the form of a story. Finally, this paper will examine the aim of the digital storytelling, the effectiveness of digital storytelling as a teaching and learning tool and the benefit of digital storytelling for learners and teachers.

What is Digital Storytelling?

Yang, in his article "Digital storytelling for enhancing student academic achievement, critical thinking, and learning motivation: A year-long experimental study shares the ideas of Porter, who writes on the Savvy Technologist webpage. Porter (2005) suggests that digital storytelling (DST) takes the ancient art of oral storytelling and engages a palette of technical tools to weave personal tales using images, graphics, music, and sound mixed together with the author's own story voice." Several studies have shown that DST goes beyond the capabilities of traditional storytelling by generating student interest, concentration, and motivation; facilitating student collaboration and organization of idea;, helping students to comprehend complex learning content; and presenting knowledge in an adaptive and meaningful manner (Robin, 2005; Robin, 2008); Sadik, 2008; Van Gils, 2008). By providing systematic instructional procedures, convenient free-use software, and objective evaluation, DST constitutes a meaningful approach for energizing instructors and motivating students.

Another way to describe DST is to say that it is the art of telling different types of stories through multimedia sources, such as images, video, audio narration, and digital graphics. DST contains particular topics. The topics for DST may be a few minutes long only.

Robin (2008) suggests that, as is the case with traditional storytelling, digital stories revolve around a chosen theme and often contain a particular viewpoint. The stories are typically just a few minutes long and have a variety of uses, including the telling of personal tales, the recounting of historical events, or as a means to inform or instruct on a particular topic.

This information leads to subsequent questions: How did DST appear? Who created it?

Despite the current emphasis on multimedia technology, digital storytelling is not a new concept. Lambert helped digital storytelling get off the ground as the co-founder of the Center for Digital Storytelling (CDS), a non-profit, community arts organization in Berkeley, California. Since the early 1990s, Lambert and the CDS have provided training and assistance to people interested in creating and sharing their personal narratives (Center for Digital Storytelling, 2005; Robin, 2006).

Elements of Digital Storytelling

Initial research of articles and websites on DST suggests seven elements of digital storytelling:

1. **Point of View**

2. **A Dramatic Question**

3. **Emotional Content**

4. **The Gift of Your Voice**

5. **The Power of Soundtrack**

6. **Economy**

7. **Pacing**

Point of view: The author's perspective about the story. It should be personal and connected. One can clearly identify what message the author is trying to tell, what makes the story interesting, and why the author chose it. The author should always keep the audience in mind.

Dramatic Question: The type of question that keeps the reader interested and creates structure of the story. The term can also be defined as the question that will be answered by the end of the story.

Emotional Content: A story that is meaningful and brings emotions. It can be a story of death illness or some sort of a serious change in personal life of storyteller. The CDS suggests that, to students, a story of friendship, peer pressure, or an important place or item can provide enough emotional content to pull someone in.

The Gift of Your Voice: The story should be understandable to the audience. It mostly concerns stories for children.

The Power of the Soundtrack: A story in which one can find music and audio narration. There are a certain criteria to use sounds in DST. First of all, both lyrics and music must match the tone.

Economy: A story that answers principles of cognitive load. The story should be short, and the images should be able to tell the story. The content must not overload the viewer with too much information.

Pacing: A very important tool in DST. The story should be in a medium pace, not very fast and not very slow.

Types of Digital Stories

Robin (2006) notes three types of DST as follow:

1. **Personal Narratives**

2. **Historical Documentaries**

3. **Stories That Inform and Instruct**

Personal Narratives

It may include an emotional story of immigrants who leave their home country in search of better living. Their struggle, conflicts, tears, emotions and clashes can be included in the story. Besides providing information about the events, it teaches other native citizen to think about the destiny and lives of foreigners. A good example of a digital story that uses personal narrative is "My Immigration Story"

[http://www.myimmigrationstory.com/]

Historical Documentaries

Although many personal narratives can include historical information, a different kind of digital story can be created from historical, archive documents. For example, and audio recording of a Theodore Roosevelt speech can illustrate pictures of that period, and both can be found on the internet.

Stories That Inform and Instruct

This type of stories relates to a particular field of study, such math, health education, and educational technology, and can be included in this type of digital story. The story should instruct the reader on how to perform particular action as well as informing about the concept.Digital_Storytelling.docx

How DST can be used to support instruction and how students who learn to create their own digital stories improve multiple literacy skills

The value and power of storytelling is universal across cultures (MacDonald, 1997), across disciplines (Brown & Duguid, 2000; Sanchez & Blayer, 2002), and over time; there is evidence that preliterate cultures relied on storytelling to educate their members and that these oral re-tellings were exceptionally accurate (Egan, 1989). In the 20th century, telling stories in the form of entertainment is something we know and understand from our earliest memories and experiences; we grow up learning from stories as a form of instruction, within our families, in our religious training, and as a part of our social community. Campbell and Moyers (1988) view stories as cultural mythology that shape our view of what is real as a part of a collective consciousness as well as our individual experience; they note that stories help form us. Others see stories as forms of discourse that give meaning to our interactions (Barthes, 1993), for it can be noted that stories "reveal something about us" (McGee, 2008. p. 3).

Digital storytelling can be a powerful tool for students to use in order to create their own stories. Teachers can give them assignments in which they can be asked to research a particular topic and present their own point of view. This type of activity can lead to an interest in digital storytelling. While creating their stories, students can be encouraged to use one of the seven elements of digital storytelling to narrate their story.

The process can capitalize on the creative talents of students as they begin to research and tell stories of their own. By learning to use the library and the Internet, they can research rich, deep content while analyzing and synthesizing a wide range of content. In addition, students who participate in the creation of digital stories may develop enhanced communications skills by learning to organize their ideas, ask questions, express opinions, and construct narratives. This process can also help students as they learn to create stories for an audience and present their ideas and knowledge in an individual and meaningful

way (Robin) 2006. In addition, after publishing their digital stories online, students can share it among their peers and other students. This process can therefore promote social learning and help students to collaborate among each other.

Student Literacies

Robin (2006) provides suggests many different types of student literacies, such as information literacy, visual literacy, technology literacy and media literacy. He further notes that Brown, Bryan and Brown (2005) have labeled these multiple skills that are aligned with technology as "Twenty-first Century Literacy," which they describe as the combination of the following:

- Digital Literacy: The ability to communicate with an ever-expanding community to discuss issues, gather information, and seek help.
- Global Literacy: - The capacity to read, interpret, respond, and contextualize messages from a global perspective.
- Technology Literacy: - The ability to use computers and other technology to improve learning, productivity, and performance.
- Visual Literacy: - The ability to understand, produce and communicate through visual images.
- Information Literacy: - The ability to find, evaluate and synthesize information.

By creating digital stories, students improve their software skills, as well as skills in using different multimedia resources, images, and video. Moreover, it will help them get acquainted more closely with technology devices, such as scanners, digital cameras, video cameras and even become familiar with nanotechnology.

Robin (2006), in his work on "The Educational Uses of Digital Storytelling"*,* talks about another researcher – saying that, Riesland (2005) notes that even as the definition of the term "Visual Literacy" is being debated by researchers and educators, there is no dispute that computer technology is at the heart of the debate. Riesland (2005) challenges the educational community to reconsider what it means to be

literate in the age of technology and argues that teachers must equip their students with skills that will enable them to understand and communicate through visual modes and thus "thrive in increasingly media-varied environments." Riesland goes on to call for a new definition of visual literacy education, one that will allow students to successfully navigate and communicate through new forms of multimedia while taking on the role of information producer rather than just being information consumers.

Robin (2008) notes in summary that when students are able to participate in the multiple steps of designing, creating, and presenting their own digital stories, they make use of a full complement of literacy skills, including the following:

- Research Skills: Documenting the story, finding and analyzing pertinent information.
- Writing Skills: Formulating a point of view and developing a script.
- Organization Skills: Managing the scope of the project, the materials used and   the time it takes to complete the task.
- Technology Skills: Learning to use a variety of tools, such as digital cameras,   scanners, microphones and multimedia authoring software.
- Presentation Skills: Deciding how to best present the story to an audience.
- Interview Skills: Finding sources to interview and determining questions to ask.
- Interpersonal Skills: Working within a group and determining individual roles   for group members.
- Problem-Solving Skills: Learning to make decisions and overcome obstacles at   all stages of the project, from inception to completion.
- Assessment Skills: Gaining expertise critiquing their own and others' work.

4. Tools that can be used to support educational use of digital storytelling

A variety of tools that can support the building of a good story, but it will depend upon the type of computer being used. Some software programs are designed for Mac computers only, and these will be

difficult to employ in PC computers. Most of the schools in the United States still use PC computers, so when choosing a program, it may be necessary to make sure that the program can be played in PC.

Some of the tools that can be used in digital storytelling are listed below:

1. **Google Maps**

2. **Wordle**

3. **Audacity**

4. **Photoshop**

5. **Mixbook**

6. **Voicethread**

7. **Movie Maker**

Silvia Rosenthal Tolisano, Instructional Technology Facilitator at a San Jose Episcopal Day School in Jacksonville, Florida has written a guide book, "How-to-Guide Digital Storytelling Tool for Educators,*'* where she broadly speaks about almost all the tools educators, as well as students, can use to create a digital story.

The full .pdf format can be viewed through the following link.

([Digital Storytelling Tools for Educators, by Silvia Rosenthal](#))

The tools discussed in this guide are by all means not the only ones available. Every day new sites, programs, and ideas appear on the web. Many bring something new and exciting to the table for enhancing and simplifying digital storytelling opportunities and capabilities (Rosenthal, 2010).

Educators must know specific criteria before recommending information to their students. The most important thing is to check will be that the tools are free to use and available for both Mac and PC users.

Rosenthal further suggests that educators are transmitters and catalysts of knowledge, and as such,

can create and tell stories to students or allow them to tell stories in order to make sense of and connect to

the world. It may be advisable for educators to create their own story first, as it will provide an

opportunity to experience the process before guiding students. Focus on the technology tools that can help

bring the story to life. The process of writing, storyboarding, and scripting is an integral and important

part in the storytelling process as well, but the underlying tools need to be examined as able to provide the

framework for the storytelling.

This paper has mentioned seven tools that can be helpful to support educational digital

storytelling. For example, in order to record a voice, make a background sound, or even import mp3

music, a current program that is helpful is the Audacity software program that can handle spoken

elements. Audacity is a simple and user friendly program. Rosenthal, (2010) in her guidebook, explains

the steps on how to use Audacity as follows:

Download the program at http://audacity.sourceforge.net/ . In order to record audio, you will need to

have a microphone attached to your computer.

Once downloaded, click on start and All Programs and choose Audacity. You will see the main screen of

Audacity. Make yourself familiar with the toolbars by clicking on buttons and see what happens.
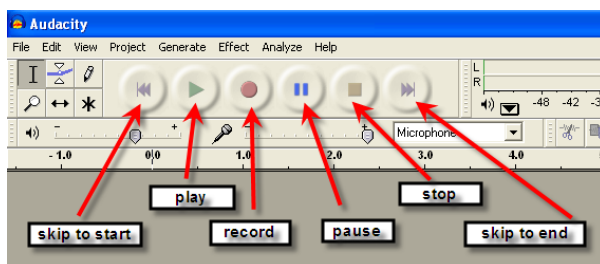
In order to start recording a track, simply click on the Record button.

The selection tool is the most important button to use. It is similar to your cursor in any Word Processor

program. You use the selection tool to highlight a part on a track to copy or delete that part. You also use

the selection tool to select a part on a track by highlighting the area and then apply effects to it. Make sure

the selection tool button is selected when choosing an insertion point on a track.
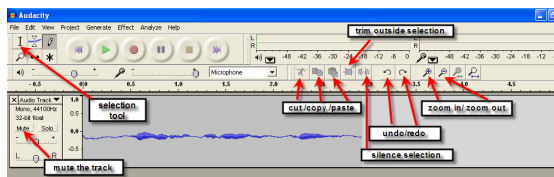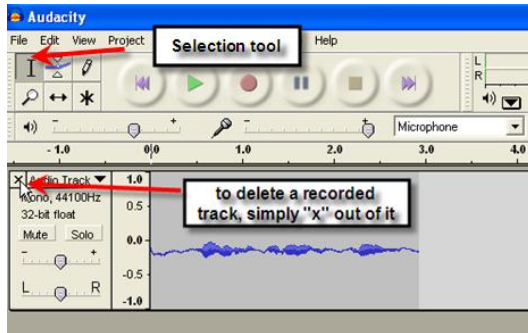
Click on the Record button created. Use the Pause button recording. Use the Stop button to start recording.

A new track will automatically pause your recording and press it again to continue to stop recording on

the track. Once you push the record button again, a new track will be created.

Create or record as many tracks or segments as you need, then start editing them individually and finally

organize them together into a final sequence. It is good practice to save your Audacity project frequently.
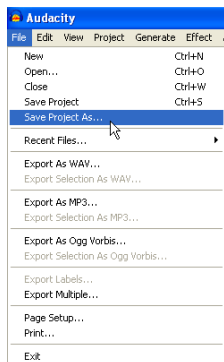
The Audacity Project file allows the user to return to Audacity and continue editing the tracks.

Audacity project files are saved as an *.aup extension and will NOT play as an uploaded file to a website,

imported into other popular programs or attached as an e-mail. Once you have completed the project, you

will export the file to a different format, such as an .mp3 or as a .wav, which can be played on an iPod or

imported into other programs.

Use the Time Shift tool button to slide a recording on a specific track to the left or to the right.

You can arrange individual tracks to start when another one ends or you can have music playing in the

background at the same time as another track. Just adjust the volume of the background track to be lower than the foreground track.

        In order to change the amplitude (the volume) at different points on a track you can use the Envelope tool.
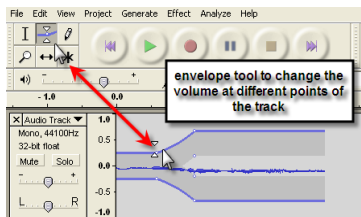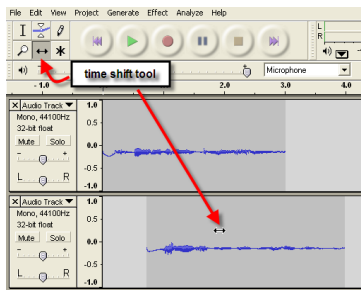
When wanting to apply an effect to a certain selection or an entire track, make sure it is selected before using the "Effect" dropdown menu. All effects will be grayed out, if nothing is selected.
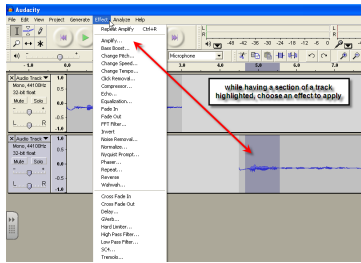
In order to delete certain section of a track, due to a mistake or to "dead" air (silence), highlight that section with the Selection tool and use the delete button on your keyboard.

In order to copy or cut a certain section of the track and then insert that part into another area or

another track, highlight the section with the Selection Tool, then use the shortcut CTRL-C to copy or

CTRL-X to cut that area. Insert the section by placing the selection bar at the desired insertion point and

using the shortcut CTRL-V to paste the section.

Tip : Using the Zoom-In button will allow you to better find the exact section of the track to be edited.

Once your tracks are edited, music is added as the background or as part of an introduction,

transition or ending and different section are organized in a desired sequence, it is time to export your

Audacity Project file as an .mp3 file.

Click File then choose "Export as MP3".
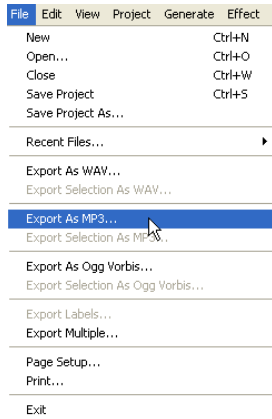
In order for you to export your Audacity project file as an MP3 file, you will also need to have installed a Lame-Encoder file to your computer. Don't worry, it is not hard and only needs to be done once. Do this by going to the LAME download page (http://lame.buanzo.com.ar/)

Under "For Audacity on Windows", left click on the link "libmp3lame-win-3.97.zip" and save the zip folder to anywhere on your computer. When you have finished downloading the ZIP folder, unzip it

and save the file **lame_enc.dll** that it contains to anywhere on your computer. Remember WHERE you saved that file. The first time you use the "Export as MP3" command, Audacity will ask you where lame_enc.dll is saved. Browse to the location and choose lame_enc.dll. Again, this will only have to be done ONCE.

Save your project file as an MP3 file and you are ready to upload these files to your website or blog, import into your iPod or use them in other programs.

In the same manner, other tools, such as Google Maps, Photoshop, Moviemaker or iMovie in Mac can be taught in the class.

Discussion of challenges and other important considerations for students and educators

before implementing DST

Challenges for students

Digital storytelling is a good way to start using technology, but it is important to keep in mind that problematic storytelling might result in ceasing to use technology at all. Below are some factors that might cause problems in digital storytelling:

1. **Copyright issues**

2. **Using irrelevant materials**

3. **Too much of information**

Copyright issues

Robin (2006) states that an important issue for students is respect for copyright and the intellectual property of others. It is tempting for students use the Internet to find images, music and other material for inclusion in their digital stories. In some classrooms, the concept of educational fair use may be openly discussed, giving students some latitude in what materials they may use, while in other classrooms, the teacher school or district may have restrictions on what type of content may be used by students.

Educators who assign students digital storytelling projects must warn them about copyright issues. Students are liable to copy and paste pictures or useful information in order to spice up (Mayer & Moreno 2006) the stories. Educators must explain them how to find the many sites where they can use the resources. Robin, (2006) states that one useful strategy is for dealing with the copyright issue is for students to create their own content. Most often this will include taking pictures with a digital camera and recording audio narration with a computer microphone. However, personally created content is not the

only source of usable materials. There are a variety of websites that allow users to use content that is in

the public domain. Sites such as the American Memory Collection from the United States Library of

Congress (http://memory.loc.gov/ammem/), the New York Public Library Picture Collection Online

(http://memory.loc.gov/ammem/), and the Free Kids Music website (http://freekidsmusic.com/music) are

good options for students.

Using irrelevant materials

Educators must explain their students that using extraneous or irrelevant material in their stories

can hurt their idea. Choosing irrelevant materials and presenting it in the class can lead other students

away from the actual topic. Mayer and Moreno (2006) use the term *weeding,* which means omitting

extraneous graphics, texts, or audio from the presentations. It will be beneficial for students to keep the

stories as simple as possible as they begin, and later on, step by step, make it complicated.

Too much information

One of the challenges that students face is when they put too much information in their stories.

Educators need to explain that keeping the topic simple will help other understand the topic. Mayer and

Moreno (2006) speak about cognitive load and explain that the human brain has limits. It cannot process

too much information, which indicates that keeping a digital story simple will help make it more

successful.

Considerations for Educators

The main concern that educators may have is if students have access to technology in order to get resources. Yuksel, Robin, and McNeil note that one of the major questions that teachers, administrators, and technology support staff ask is if the students have access to the technology they need to create digital stories. The answer needs to be yes. Simple technologies such as Microsoft Word and PowerPoint can be used to create digital stories, and Microsoft's Photo Story 3 for Windows XP is a very powerful digital storytelling authoring program, which is available for free. Apple Computer's iMovie is a good choice for Macintosh users, and more inexpensive tools are rapidly becoming available. A digital camera, a video camcorder, and a scanner are found in most schools, and students can use them to create still visual images and video clips that can be included in digital stories. Inexpensive computer microphones and digital voice recorders that can make audio narrations and interviews are also readily available in many classrooms.

Another issue is being patient. Educators should note that it may take time for students to create digital stories and the initial process may not be as they desired, so it is up to the educators to help students succeed. They must provide students with resources, and if possible, their schools must have filtering programs in order to monitor the resources that students are trying to get from the web.

Robin (2006) suggests that educators need to be aware that digital storytelling can be time consuming. It can take many hours to work on all of the digital storytelling components described in this article. Teachers who wish to incorporate digital storytelling in their classrooms should also be aware that it may take students several attempts at creating digital stories before they demonstrate technological proficiency and an understanding of their selected topic. As with all new instructional methods, students will need time to learn what is expected of them as they begin using digital storytelling. A useful option for educators is to use peer review and reflection where students and teachers together have an opportunity to discuss student work and the learning process.

Conducted Research on Digital Storytelling

The University of Houston has been conducting various types of research in the area of digital storytelling. The example of their research is highlighted in the article by Robin (2011). In his article he writes the following passage:

"Since 2005, educators and graduate students at the University of Houston's Laboratory for Innovative Technology in Education (LITE) have been conducting a series of research projects to evaluate the effectiveness of Digital Storytelling. In one case, three groups of public school teachers are being tracked following their participation in an intensive Digital Storytelling workshop offered at the University of Houston campus. Three groups, composed of elementary, middle and high school teachers, were shown examples of different types of digital stories and then learned to create stories they could use in their classrooms. The teachers are completing surveys that will measure and evaluate whether or not they have continued to use Digital Storytelling as a component of their instructional practice, the impact of such use and in cases, where there is no use of Digital Storytelling, what barriers occurred".

Dogan and Robin (2009) conducted research in K-12 Education on the "Implementation of Digital Storytelling in the Classroom by Teachers Trained in a Digital Storytelling Workshop. "In their article, the following issues were addressed: how digital storytelling was or can be used as a technology tool in the classroom, what effects on students were observed by teachers and possible problems that might arise in the implementation process.

The results of the study suggested that, even though almost all of the teachers'

perceptions about using digital stories in the classroom were very positive immediately after the

workshops, in practice more than half of the teachers in the follow-up study didn't use digital

storytelling during the implementation period at all. The results also suggests that despite the fact

that digital storytelling is a powerful tool to convey desired messages around a topic or a subject

area by the teachers, in practice it is also a very powerful tool that has positive impacts on

students and their performances. The teachers who used digital storytelling in the classroom with

their students reported and all agreed that they observed increases in certain skills such as

technical skills, presentation skills, research skills, organizational skills, and writing skills with

their students. It is noted in the literature that when students actively participate in the creation

process of digital storytelling, they most notably develop certain 21st century skills (Howell &

Howell, 2003; Jakes, 2006; Robin, 2008). Overall, digital stories were reported by teachers as

having positive effects on students' 21st century skills. Another important effect observed by

teachers was increased motivation and engagement levels in their students. Teachers believed

that creating digital stories increased their students' motivation and engagement levels. In terms

of problems faced during the implementation process, time issues were reported as the biggest

barrier by the teachers who used digital storytelling in the classroom. Another major problem

was access to technology.

Sadik (2008) conducted a research study on digital storytelling as an integrated approach

for engaged student learning. The results of the study showed that the digital story projects

implemented by Egyptian teachers supported students' understanding of specific content in an

academic course. In addition, the results illustrated that teachers are willing to use digital storytelling for teaching content and to provide more effective instruction

Heo (2009) conducted an experimental study to show the effects of digital storytelling on pre-service teachers' self-efficacy and professional dispositions. According to the study, "Knowledge and skills of personal technology can be transferred to educational technology settings with the help of digital storytelling" (p. 423).

Li (2007) investigated the use of digital storytelling to integrate multimedia technologies into higher education. In that study, participants were pre-service and in-service teachers in higher education. The results contributed to the understanding of the advantages of technology-based experiences, showing that these experiences can improve students' learning skills during the incorporating phase of technology implementation in education.

Meridian Stories webpage presents the following scholars who conducted research on digital storytelling:

Barrett, H. (2005). Researching and Evaluating Digital Storytelling as a Deep Learning Tool.

Dogan, *B* (2007). *EDUCATIONAL USES OF DIGITAL STORYTELLING*: The Challenges ofDesigning an Online Digital Storytelling Contest for K-12 Students and Teachers.

Dogan, B. & Robin, B.(2009) Implementation of Digital Storytelling in the Classroom by Teachers Trained in a Digital Storytelling Workshop. University of Houston, Educational Uses of Digital Storytelling.

Dogan, B. & Robin, B. (2009). Educational Uses of Digital Storytelling: Creating Digital

     Storytelling Contests for K-12 Students and Teachers. In I. Gibson et al. (Eds.),

     Proceedings of Society for Information Technology & Teacher Education International

     Conference 2009 (pp. 633-638). Chesapeake, VA: AACE.

Yuskel, P., Robin, B. and McNeil, S (2009). Educational Uses of Digital Storytelling Around the

World.

The effectiveness of digital storytelling as a teaching and learning tool

Digital storytelling can be effective for both teachers and students. It can be a tool for students to create different types of stories. Teachers can control and guide students how to make digital storytelling an effective way of learning. *Dreon, Kerper, and Landis (2011) state that* growing up with unprecedented access to technology has changed the way young people, "digital natives," communicate, interact, process information, and learn (Oblinger & Oblinger, 2005; Prensky, 2001a, 2001b). Thus, many new teachers entering 21st century classrooms are digital natives who are teaching digital natives (Prensky, 2001a). Lei's (2009) study of a group of digital native pre-service teachers suggests that although future teachers may hold strong positive beliefs about technology and may be proficient with a variety of software applications, they may be unable to translate this knowledge to their teaching. "Digital natives," Lei argued, "need to develop a systematic understanding of the technology, subject matter, pedagogy, and how these aspects work together" (2009, p. 93). Thus both sides should work hard in order to make digital storytelling effective.

Learning Tool

After viewing examples digital stories created by their teachers or other story developers, students may be given assignments in which they are first asked to research a topic and then choose a particular point of view , which is a dramatic question as described in the seven elements of digital storytelling. This type of activity can generate interest, attention, and motivation for the digital generation students in today's classrooms. The process can capitalize on the creative talents of students as they begin to research and tell stories of their own through learning to use the library and the internet to research rich, deep content while analyzing and synthesizing a wide range of content. In addition, students who participate in the creation of digital stories may develop enhanced communications skills by learning to organize their ideas, ask questions, express opinions, and construct narratives. It also can help students

as they learn to create stories for an audience, and present their ideas and knowledge in an individual and meaningful way (Robin, 2011).

I want to pay attention to the last sentences of Robin's 2011 article. He uses two words, "individual" and "meaningful," which indicates that digital storytelling teaches students to work individually and create something meaningful. While students can work individually, they may feel difficulty in creating meaningful story, so it depends on the instructor to guide them successfully through the process.

Teaching Tool

Digital storytelling is a strong teaching tool for the instructors as it helps them to guide the students to create an effective digital storytelling, while at the same time requires them to control copyright protection of images, graphics, and texts being used by the students. It is up to the teacher to tell the students which sites to use in order to copy images, audio narrations, and video footage.

Robin (2011) states that teacher-created digital stories may also be used to enhance current lessons within a larger unit, as a way to facilitate discussion about the topics presented a story, and as a way of making abstract or conceptual content more understandable. While many educators still lack a cohesive plan for integrating multimedia into their instruction, a growing number of teachers are interested in exploring ways to engage their students by including images, audio, and video elements in their instruction. Researchers such as Hibbing and Rankin-Erikson (2003) and Boster, Meyer, Toberto, and Inge (2002) have shown that the use of multimedia in teaching helps students retain new information as well as aids in the comprehension of difficult material. Digital storytelling can also provide educators with a powerful tool to use in their classrooms.

Burmark (2004) and Ormrod (2004) state that an engaging, multimedia-rich digital story can sever as an anticipatory set or hook to capture the attention of students and increase their interest in

exploring new ideas. A number of researchers support the use of anticipatory sets at the beginning of a

lesson to help engage students in the learning process.

Postmodernist Approach in Digital Storytelling

"One of the challenges of digital storytelling as an emerging practice is understanding it through theory. New media is both complex and diverse, and underpinning a particular theory for it may be futile. In spite of an apparent lack of digital theories, the field can be understood within the context of existing theoretical framework while stretching ideas that may better reflect the dynamism of the medium" Creeber (2009 p.11)

Two approaches exist in creating digital stories:

1. Modernist approach

2. Postmodernist approach

Generally speaking, the modernist approach suggests educators should be authoritative transmitters of unbiased knowledge, while the postmodernist approach suggests that educators are facilitators or co-constructors who help students to create, construct meaning, and knowledge. For example, if I create a movie to teach students the knowledge they need to know, I take a modernist approach because I think that there is unbiased knowledge that my students need to know. However, if I encourage my students to create movies in certain topics and I want them to learn from the process of creating the movie, then I take a postmodernist approach, which is a constructivist teaching approach that suggest learning occurs as learners are actively involved in a process of meaning and knowledge construction; this is opposed to the modernist "transmit" or "transform" view of learners as passively receivers.

In my view, the postmodernist approach offers more benefits it helps students acquire knowledge through such methods as digital storytelling. The modernist approach may appear to have some advantages, but once the topic has been presented, students return to their daily life and forget how to create stories; with a postmodernist approach, as a teacher, I can see that my

students are involved in the process and nobody is left behind. Group working facilitates learning that is retained. Students involved in creating stores will learn more about the topic.

Bignell (2000 p. 2) states that postmodernism is a "flexible" and practical concept through which practitioners can channel their theoretical tendencies while still allowing for the discussion of the distinct emergences of turning out and consuming digital content. Here, postmodernism stems from transforming the traditions of modernity into a "new modernity" or a return to the traditional that takes place as a part of the "new" version of the modern. While conceding to the practice of digital storytelling as a postmodernist endeavor, it is essential to define what is meant by postmodernism. Postmodernism is about language: how it controls us, how it determines meaning, and how we try to exert control through language.

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