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Digital Stories: A 21st-Century Communication Tool for the English Language Classroom

Swimming in a sea of electronic products and gadgets, today's students live what Swenson et al. (2006) might summarize as digital-media-saturated lives. Students' knowledge and application of technology are producing literacy skills for a 21st-century digital age. At a variety of educational institutions, digital media production functions as a mechanism for learning, expression, and building community and identity. From my perspective as a teacher, digital technology—when used appropriately and meaningfully—produces the successful learner outcomes identified by Sadik (2008), who writes about meaningful integration of technology and its impact on engaged student learning.

One example of digital media production is digital storytelling. The digital story is a short personal narrative involving images (stills, video, graphics), a narrated voiceover, and a recorded audio sound track (see Kajder 2004; Lambert 2010;

McGeoch 2010; Ohler 2008; Robin 2008). Originating in 1994 at the Center for Digital Storytelling in Berkeley, California, digital storytelling evolved around co-founder Lambert's thoughts about telling stories and sharing feelings in conjunction with his seven steps of the digital story (2010). This article explores a digital media production experience with a class of English language students who created digital stories for final projects and offers practical suggestions for teachers who might be interested in testing the waters of digital storytelling.

Background

A few years ago, I attended a university conference that focused on the use of technology in education. Faculty from various departments spoke about the use of digital media production for end-of-semester projects. These digital media productions were presented in digital story format. Since today's millennium student relates best to a wired world,

I decided that these end-of-term projects would be a perfect mechanism to motivate and engage students, and to create a sense of community in the English language classroom. In addition, with scaffolding and guidance, the four-skill competencies could be accessed as component parts of the media production: reading, writing, and speaking for the narrative text voiceover; listening and speaking for the practice of pronunciation, intonation, and stress; and listening for grammatical accuracy.

A teacher task first

Before bringing the digital story project into the classroom, I needed to have a better understanding of the production process and the possible frustration that students might experience while working on this project. So I created my first media production, a digital story about a cultural experience in Korea (see Appendix 1, no. 2). The multimodalities of my media production consisted of three component layers: (1) a narrative voiceover, (2) still images (my photographs), and (3) an audio sound track. Once I selected the still photographs, I used storyboards to coordinate each photograph with its particular narrative text for the voiceover.

Following the storyboards helped me plan and organize the visual story, which clearly showed the interaction of images and script, and at the same time clarify order. I recorded the voiceover, fine-tuned the production, and then recorded the final layer of audio sound track. From beginning to end, my digital story took eight hours of production time. Recording the voiceover was the most frustrating aspect of the digital media production. For the first voiceover, I recorded on two different days and discovered that my voice sounded like two different people, so I had to record again and again on the same day for consistency of tone, intonation, and stress. However, I was able to take my frustration and turn it into advice for students to take the time necessary to produce a clear and consistent narrative voiceover.

When my digital story was completed, I shifted focus to creating a scheduled timeline (see Figure 1) to guide students through the production process; I also designed detailed assessment rubrics to evaluate the multimo-

dalities of production. I created a variety of rubrics focused on academic skills, linguistic abilities, and technical creativity to assess student performance and effort. These rubrics proved to be overly ambitious, and there was not adequate time for this kind of detailed feedback, so I designed an abbreviated version (see Appendix 2) that worked well for the allotted class time. At this point, I was ready to take the digital story project into the classroom.

Into the classroom

The digital story project took flight with a class of 15 high-intermediate/low-advanced English language learners who were enrolled in a university-level, integrated skills, English for Academic Purposes program. Representing a diverse population of cultures, the majority of students came from Saudi Arabia, China, and Korea.

The purpose of the digital story project is four-fold: (1) to improve four-skill competencies; (2) to experience collaboration; (3) to expand computer literacy; and (4) to build self-confidence. Regarding topic selection, most students chose cultural themes—for example, a memorable experience, cultural heritage, or family. With regard to the project timeline in Figure 1, the digital story project as we conducted it encompassed a 12-week semester. During this time, I set individual deadlines for completion of the narrative text and the selection of images and sound track; otherwise, the students completed the tasks independently over the course of the semester. I recommend that teachers check every few weeks to see how the students are progressing, especially around task deadlines.

After the narrative text is completed, the writing process continues with the students participating in a series of peer edits that in our case consumed about two hours of class time. For the first and second drafts, paired students share their comments and suggestions for each other's narrative text, targeting language use and grammar correction. For the third draft, because I had a relatively small class, I was able to help with editing and revising the written text, and from this draft, the students prepared a fourth and final draft for the voiceover production, eliminating the need for the rubric category of language use

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Preparation for the Digital Storytelling Project

Phase 1: Introduction to digital storytelling
- Teacher shares her digital story.
- Students experience storycenter.org.
- Students participate in a mini-digital-story project for experience with software.

Phase 2: Teacher presents digital storytelling project guidelines and requirements
- Handouts: Schedule/timeline; rubrics for assessment; storyboards
- Materials needed: Thumb drive (at least 2GB); university source for memory storage (student files), if available
- Explanations of the project

Phase 3: Production

Pre-Production
> Week 1 – Present digital storytelling project idea
> Week 2 – Introduce digital story background and show examples
> Week 3 – Software demonstration and mini-digital-story task
> Week 4 – Students begin writing narrative and selecting photos*
> Week 5 – Students continue writing and selecting*
> Week 6 – Students continue writing; peer editing*
> Week 7 – Students complete storyboards; more peer editing*

Production
> Week 8 – Students upload images and crop if necessary*
> Weeks 9 and 10 – Students record narrative voiceovers*
> Week 11 – Students fine-tune digital stories*
> Week 12 – Students present digital stories

Post-Production
> Week 12 – Wrap-up and class feedback

Note: Tasks marked with an asterisk (*) can be done outside class.

Figure 1. Digital storytelling project schedule and timeline

and grammar. Including revisions, students in my class probably spent about four to six hours outside class writing the narrative text.

Considering the 12-week term and the additional curriculum course load required for the semester, I had students keep the digital stories to about four minutes. Based on my own digital story experience, I limited the still photographs to a maximum of 17 images and the narrative voiceover text to about 600 words; the sound track was optional. For these three components, the time students spend outside class might be roughly estimated as follows: one to two hours selecting and preparing the images; one hour preparing the sound track; and two to three hours work-

ing on and recording the narrative voiceover. Certainly, the teacher has the option of allotting additional in-class time for any of the steps involved.

When the project is completed—again, the project typically takes a minimum of eight hours to produce—the digital story production can be stored on thumb drives (i.e., flash drives or memory sticks) and DVDs.

The end point of the project in our class was to embed the digital story into an end-of-semester oral presentation consisting of an introduction, a main body (during which the digital story was shown), a conclusion, and a question-and-answer segment.

The process begins

In our case, the process began with a 20-minute, how-to demonstration on Apple's iMovie software given by the manager of our technology department, who was excited about the project. While a demonstration is not necessary, students should familiarize themselves with the software program they are going to use. My own digital story was produced entirely on GarageBand software; however, Apple users have iMovie, and PC users have Windows Movie Maker and Photo Story. In addition, websites such as VoiceThread (multimedia productions), Audacity (audio), and Animoto can also be used. As a basic introduction to digital story production, Animoto, a web application, provides the user with a simple approach to producing videos with photographs, video clips, and music, supplied by the website.

Whether or not there is a software demonstration, students can watch digital stories as examples. After I shared my digital story on Korea, the students watched several digital stories from the *New York Times* online series titled "One in 8 Million," which documents the daily lives of some people who live in Manhattan (see Appendix 1, no. 1). These black-and-white vignettes combine still photography and a voiceover to create an artistic approach to telling stories. We looked at additional examples of digital stories from the Center for Digital Storytelling; other valuable Internet resources are available for further exploration (see Appendix 1). Even though students watch examples of digital stories and are given an extensive list of website resources to assist in the process, it is a good idea to spend time as a class discussing the examples—what students liked and disliked, techniques they noticed (relating to narrative, photography, sound, language use, etc.), techniques they are interested in trying themselves, questions they have, and so forth.

I told the students in advance to select several personal photographs and write a few sentences about the pictures, and after watching the digital stories, they were given time to produce a mini–digital story. This task can be done with the assistance of a technical staff person, the teacher, or students in the class who are already familiar with the software. By the end of class, all students will have created a mini–digital story while using the software technology on their own or with assistance; moreover, this class assignment provides the teacher with an opportunity to observe the extent of each student's computer literacy.

Figure 2 provides criteria that can be used as assessment or for guidance. It is suggested that students receive these criteria when the project is assigned.

Collaboration

If you would like to encourage collaboration in your class, one option is to place students in collaborative pairs—the idea being that a student with technology experience would be paired with a student who lacks it—with the hope that the resulting social interaction will be what Warschauer (1997, 471) calls "an environment to learn language, learn about language, and learn 'through' language." It is possible, though, that in some pairs, social and cultural norms might clash, causing conflict that can erode the collaborative ideal. Another option, and what we did in our class, is for each student to produce his or her own digital story and in that way move at his or her own pace. Nonetheless, successful collaboration did occur when tech-savvy students willingly assisted others with various aspects of production and when students peer-edited their narrative texts in preparation for the voiceover recording.

Decisions, frustrations, and rewards

Most of the students made decisions on topic selection and still images by the third week of the production period. However, a few students struggled with indecision or wrong choices, so it took them more time to decide, delaying the production process. Overall, frustrations were mostly in reaction to unfamiliarity with the technology, and consequently student collaboration became a powerful solution. In the end, upon completion of the final presentations, which included the digital stories, students clearly showed a sense of pride, reaping the rewards of a job well done.

In particular, a very shy and reserved student from Korea, who had to be called on to participate in class, produced a digital story

Storyboard/Planning
Writing Process – There is evidence that a lot of time and effort was devoted to drafting, reviewing, and editing.
Written Narrative – Content is in the student's own words and is grammatically accurate.
Vocabulary – There is a sophisticated variety of vocabulary.
Coordination of Narrative and Images – The storyboard reflects outstanding planning and pairing of the written content and visual images.
Citing Resources – All sources are properly cited.

Narrative Voiceover and Additional Audio
Narrative Pacing – The pace (rhythm and voice punctuation) fits the story line and totally engages the audience.
Pronunciation – All words are pronounced correctly, with the stress placed on the appropriate syllable.
Intonation – The voice stirs an emotional response that matches the story line.
Audio Layer/Sound Track – The sound track and additional audio successfully link the narrative and visual images.

Presentation of the Story
Oral Presentation – The presentation is well rehearsed, and there is a smooth delivery that holds the audience's attention.
Depth of Content – There is clear evidence that higher critical-thinking skills are used.
Organization – The content has a clear logical structure and flow.
Duration – The story lasts between 3 and 5 minutes.

Overall Multimedia Project Assessment
Collaboration – The student has met and discussed with others regularly, and has contributed his or her fair share of the work.
Concept – The presentation reflects a clear idea of what the student is trying to achieve.
Creativity – The story contains creative details and description with a lot of imagination.
Use of Equipment – Multimedia resources (recording equipment, computer software, etc.) are used to communicate the story successfully.
Technical – The project runs smoothly with no avoidable technical problems.

Figure 2. Suggested criteria for assessment and guidance

focusing on her one-year cultural experience in the United States: friends, events, dining out, shopping, studying, and teaching English at her church. She had no difficulty selecting her topic and still images; however, she had never created a digital story and consequently was intimidated by the software. A student from Taiwan, who had experience with technology, was willing to collaborate, and as a result their shared efforts, all spoken in English, helped her produce a beautifully executed digital media production. While captivating her classmates with her final presentation, she was cognizant that her digital story was the catalyst for her achievement. Culminating

in the improvement of skill competencies, expansion of computer literacy, development of self-confidence, and enlightenment from collaboration, this one student's achievement justified the time and effort invested in the project.

Feedback and assessment

After each final presentation, classmates asked questions to complete missing information, generated more ideas for discussion, and questioned particular elements involved in the creative process. I requested that each presenter address what he or she learned from the digital story experience. Then, the

students and I completed assessment forms for student feedback (see Appendix 2). For a more detailed assessment, teachers can also use the criteria presented in Figure 2.

Issues and challenges

The first challenge was time. Creating digital stories can be time-consuming, especially for those teachers and students who have never before used digital production software. Limiting the length of the stories—again, we set the limit at about four minutes—alleviates this concern. The second challenge was the copyright issue and the need to respect intellectual property rights. In reference to these challenges, the students were required to cite sources for graphics, photographs, music, and any text that was not of their own making; as a result, the rigors of citation wound up serving as a catalyst for students to create their own content.

An additional issue concerned those students who were intimidated by new technology and might have preferred a more traditional approach to English language teaching. Technology should not overwhelm the process of language learning and teaching, but it should function as a springboard for language production and a pathway for engagement and developing community. For these students, the project could have started with a simplified effort, consisting of one or two photographs with minimal narrative text for voiceover and no audio sound track; subsequently, students could have gradually built up their competency with technology to a more involved project, one step at a time.

Finally, for those teaching situations with limited resources, some of the digital story production can be done in the classroom. Not all students have to be in the computer lab at the same time; students can move on to computers when they are ready for that step in the process. If students do not own or have access to a digital camera, images and clip art can be obtained from the Internet. If obtaining images from the Internet is not possible, students can use photographs and illustrations from various print sources as their still images and coordinate them with a simple voiceover recording, using a website such as www.vocaroo.com (see Appendix 1).

Benefits

The production of digital stories capitalizes on the creative talents of students, and consequently they take great pride in the finished product and in seeing their efforts projected on a screen in front of their peers, while engaging the entire class. In addition, student collaboration of digital production or peer editing of narrative text reveals moments of engagement, leadership, and students taking control. Furthermore, digital media production provides a meaningful vehicle for assessment.

Overall, digital storytelling is a beneficial and valuable mechanism for improving the four-skill areas of English language competency. Moreover, with regard to technology use in today's classroom, Brown, Bryan, and Brown (2005) state that a strong foundation of different types of literacies affects student learning: digital, global, visual, information, and most notably, technology.

Conclusion

Having been through the process, I strongly believe that the digital story is a perfect mechanism for all skill areas of language production with higher-level English language learners—it is also engaging, motivating, and creative. The benefits of digital media production outweigh the issues and challenges. Teachers should consider that in today's classroom, the integration of technology, pedagogy, and content leads to "a deeper understanding of the different and more powerful roles that digital media can play in both teaching and learning" (Robin 2008, 227). Research and my class's experience show that computer-assisted instruction and 21st-century communicative tools do play such roles and have a positive effect on student learning outcomes.

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Appendix 1 — Online Digital Storytelling Projects and Resources

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Resources for Digital Storytelling Projects

1. *New York Times*, "One in 8 Million":
   www.nytimes.com/packages/html/nyregion/1-in-8-million/index.html?scp=1-spot&sq=one%20in%208%20million&st=cse

2. Kathy Brenner's 2009 digital story:
   http://blip.tv/celopboston-university/korean-buddhist-temples-by-kathy-brenner-3437457

3. Center for Digital Storytelling:
   www.storycenter.org

4. University of Houston's College of Education's website on digital storytelling:
   http://digitalstorytelling.coe.uh.edu

5. Tech and Learning: Ideas and Tools for Ed Tech Leaders:
   www.techlearning.com/Default.aspx?tabid=67&entryid=5129

6. Audacity program for recording and editing sounds:
   http://audacity.sourceforge.net

7. Art, Storytelling, Technology and Education: Resources for Educators, Parents, Innovators:
   www.jasonohler.com/storytelling/index.cfm

8. VoiceThread: Share and discuss documents, presentations, images, audio files, and videos:
   www.voicethread.com

9. Vocaroo: Online Voice Recorder:
   www.vocaroo.com

10. Using Google Apps for Digital Storytelling Projects:
    www.youtube.com/watch?v=uXCmk4aib3E

End-of-Semester Digital Storytelling Project: Final Presentation Feedback

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Digital Story Evaluation Sheet

Use these ratings and rubrics to evaluate a digital storytelling project.

E = Excellent, VG = Very Good, G = Good, F = Fair

Digital Media Components		E	VG	G	F
Narrative	Depth of content				
Still photographs	Image coordination				
Audio sound track	Appropriateness				
Voiceover	Pronunciation and clarity				

Digital Media Production		E	VG	G	F
Creativity	Design				
Flow of narrative	Coordination of stills and narrative				
Organization	Continuity				
Technical success and use of equipment and software	Level of professionalism				

Final Presentation		E	VG	G	F
Presence	Style				
Preparation	Organization				
Eye contact	Body language				

Digital Story Presentation Feedback Sheet

Grade your peers on their presentation skills: Assign a number from 1 to 10, with 10 being the best score.

Eye contact	
Body language	
Voice projection (volume)	

Quality of topic	
Preparation	
Organization	
Use of notes	

Digital Story (Main body)

Slides/visuals	
Voiceover/pronunciation	
Technical skills	
Overall creativity	

Presentation Segments

Introduction	
Conclusion	
Handling of Q & A	

Additional Comments: