

# Designing a Digital Story Assignment for Basic Writers Using the TPCK Framework

Shoba Bandi-Rao and Mary Sepp

*ABSTRACT: The process of digital storytelling allows basic writers to take a personal narrative and translate it into a multimodal and multidimensional experience, motivating a diverse group of writers with different learning styles to engage more creatively and meaningfully in the writing process. Digital storytelling has the capacity to contextualize learning and provide opportunities for self-directed learning. Although digital storytelling—as a tool to practice basic writing skills—is relatively new, the outcomes are encouraging for writing instructors to incorporate a digital storytelling activity as part of the curriculum. In this article, we share how we applied Mishra and Koeler’s Technology Pedagogy Concept Knowledge (TPCK) theoretical and conceptual framework to facilitate the process of integrating technology to content and pedagogy as we designed and implemented a digital storytelling assignment in our writing classes with 20-25 students. Digital storytelling is the art of expressing a compelling story through the use of digital tools such as images, recorded narrative, text, music, and video.*

*Key Words:* basic writing; digital storytelling; multimodality; self-efficacy; Technology Pedagogy Concept Knowledge (TPCK)

In the digitally charged world we live in, there is a need to move beyond “foundational literacies” (Skinner and Hagood 13) that emphasize printed text, reading comprehension, writing, grammar, vocabulary, or as Norton Grubb suggests, “linguistic capacities that are basic” (6). We can no longer assume that students learn post-secondary writing exclusively “through reading and writing” (Hobson 107). Further, a mono-modal approach to writing does not reflect our students’ discursive needs. John White and Patrick Lowenthal point out that when it comes to discursive style, “teachers in the K-12 setting and especially in the college setting simply assume that students entering the university have mastered (and are ready and willing to use)

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© Journal of Basic Writing, Vol. 33, No.1 2014

academic discourse when, in fact, these relatively specific conventions have never been fully examined or deconstructed in the K-16 classroom" (297). Struggling writers require an approach that addresses a variety of learning styles and academic discourses, or as Grubb proposes, a more constructivist or balanced instruction that includes "improvement of many dimensions of cognitive abilities" (6) and expressivist needs.

Current mobile technologies such as smartphones and tablets have already allowed students to explore multimodal literacies. For instance, students use the camera on their phones to take "photo notes" or capture pictures of slide presentations or notes written on the blackboard; use the Internet on their smartphones to research a topic or look up the meaning of a word; and watch "how to" video clips to learn everything from mastering a dance move to solving a mathematical equation. As students become more comfortable navigating through digital information, pedagogical approaches in the classroom must also connect "students to content in ways that they are accustomed to consuming information" (Dreon, Kerper, and Landis 5), with multimedia writing activities. Digital Storytelling—the art of combining traditional literacies (listening, reading, speaking, writing) and new literacies (digital images, video, music, computer graphics) all working together in interesting ways to craft a short story—is one such activity that provides students who struggle with writing alternative ways to engage in the writing process.

Digital storytelling appeals to a diverse group of students because it focuses on students presenting compelling personal narratives (Condy, Chigona, Gachago and Ivala 278), and it accommodates students with different learning styles with its multimodal approach (Robin 709). Digital storytelling enhances student confidence with mobile technology (Reyes and Clark 56) by promoting self-directed learning, providing students an opportunity to use their creativity to determine how they want to present their stories (Li 2159; Yang 210), and facilitating the transition into the academic discourse styles. As a result, digital storytelling has demonstrated the ability to motivate basic writers (Gregory and Steelman 291; Kajde 65; Sadik 490; Weis, Benmayor, O'Leary, and Eynon 164), adding a sense of achievement as students have an end product, namely the digital story, that they can share with their peers in class (Plankis and Hwang 2348).

Although digital storytelling may sound attractive to writing instructors as a way to engage students in the writing process, the thought of actually implementing the project in a class with 20-30 students can seem daunting, prompting a wide range of technological and pedagogical ques-

tions. What technologies should students use? How proficient do they need to be in using these technologies? How will they respond to the tasks? These are understandable concerns, and we had similar fears when we started our digital storytelling project. Such concerns are not uncommon. In their study, Ruth Sylvester and Wendy-Lou Greenidge discuss teachers' fears of "loss of classroom management, technical glitches, time pressure, and lack of administrative endorsement in a time of accountability" (294); they stress the importance of having a good theoretical and conceptual framework while designing the assignment to transform the digital storytelling challenge into a more manageable and a "doable" classroom activity. The use of digital technologies in education is relatively recent, so there are few theoretical and conceptual frameworks available, and they are still in the testing phase.

In addition to considering the theoretical foundation for the work, it is also critical to have the support from an institution that promotes a technology-enhanced learning environment. We had the backing of the E-Learning Center at our school, which organized a weeklong workshop conducted by experts from the Center for Digital Storytelling. During this time, we trained on ways to implement digital storytelling in our classrooms. Since then, we have incorporated the digital storytelling project in our syllabus and have been making adjustments to it to suit the needs of our students. This article reflects on these ongoing efforts to develop the project for our students by exploring available frameworks for implementing digital storytelling assignments effectively into the Basic Writing classroom. In a previous study, we implemented Bernard Robin and Sara McNeil's instructional design framework, ADDIE (analyze, design, develop, implement, and evaluate), to design and evaluate a digital storytelling assignment in our writing class with ESL learners (Sepp and Bandi-Rao). In the current study, we explore the Technology Pedagogy Content Knowledge (TPCK) theoretical and conceptual framework to design the digital storytelling assignment for our Intensive Writing course.

The objective of the TPCK framework is to integrate technology with pedagogy and course content in an organic manner so that neither the teacher nor the students feel the strain of technology interfering with the teaching or the learning processes. Later in this article, we will share how we integrated multimedia technology relatively easily into the course curriculum using the TPCK framework in our basic writing class with the purpose of addressing the learning needs of a diverse group of students.

## **Digital Storytelling for Basic Writers**

Storytelling goes beyond the universal human need to communicate with others and to preserve cultural bonds with family and community (Bruner 13-14). It plays a significant role in the development of our intellect. Jerome Bruner, and Victoria Gates, Erik Jacobson, Sophie Degener and Victoria Purcell-Gates add that the process of storytelling facilitates (1) our cognitive development from concrete concepts to abstract concepts, and (2) our ability to infer from the characters, the plot, the theme, the conflict, and the setting. Thus, the relevance of storytelling—oral, visual, written, and/or digital—cannot be underestimated in the basic writing classroom, where students experience difficulty in making connections within a text. Even though digital stories begin with the traditional process of selecting and researching a topic and writing a short interesting and compelling personal narrative, they are then “combined with various types of multimedia, including computer-based graphics, recorded audio, computer-generated text, video clips, and music so that it can be played on a computer, uploaded on a web site, or burned on a DVD” (Robin 222). As Cynthia Reyes and Bill Clark note in their study, mobile technologies that students use on a daily basis can help put skilled and unskilled writers at the same starting point, creating a more equal classroom (53). Even the familiarity with some of the basic features of smart phones—use of the camera, voice recorder—allows basic writers to interact more confidently with proficient writers and learn from them.

Though the literature on digital storytelling is not extensive, studies done so far affirm that when planned carefully and adopted appropriately, digital storytelling is valuable in the basic writing classroom. Research studies suggest that students who labor with the traditional form of writing are able to express themselves through the multimodal process of digital stories in ways they previously could not. For instance, Susan Britsch discovered that “the interaction of the visual with the verbal necessarily engages a more selective and informed use of both as each supports the development of the other” (718). In another study, Yu-Feng Yang reports two major findings on adult English language learners who created hybrid text using multimodal resources. First, the students’ intent drove the use of the multimodal resources, which in turn helped students imagine and reimagine their digital stories as they crafted them (233-34). And second, this student-centered approach motivated and empowered participants to take charge of their own learning (235)—an outcome from which basic writers can benefit tremendously.

Students' self-efficacy, or students' belief in their ability to complete a task, is crucial for developing confidence and learning effectively. Ed Jones found in his study that basic writers generally tend to have low self-efficacy (210), and any move towards helping independent learning is a move in the right direction. Further evidence for self-directed learning comes from James Groom's successful digital storytelling online course DS 106 offered at the University of Mary Washington. DS 106 provides "a layered approach that supports an 'open' pedagogy with the aim of encouraging creativity and innovation through community building, collaboration and increased global communication skills" (Lockridge, Levine, and Funes 3), where teachers allow students to make decisions about the course, thereby motivating students' engagement in the process. As students exercise their creative muscle with multimodal resources, they gain room to explore aspects of writing beyond their "comfort zone" and bolster their self-efficacy.

In another study with at-risk college freshman in a basic writing class, Tracey Weis, Rina Benmayor, Cecilia O'Leary, and Bret Eynon found that digital storytelling helped motivate students at their respective institutions. Eynon, who teaches at LaGuardia Community College of the City University of New York, had his students research immigrant experiences and then create their own digital stories by examining the immigrant experience of another student at the college. Eynon found that even though his students had little time for a challenging project (most had to balance home, school, and a job), students became more motivated as they connected with the immigrant experiences of others and placed their own experiences in "a larger social and historical context" (Weis, Benmayor, O'Leary, and Eynon 164). Findings from these research studies are encouraging for classroom instructors.

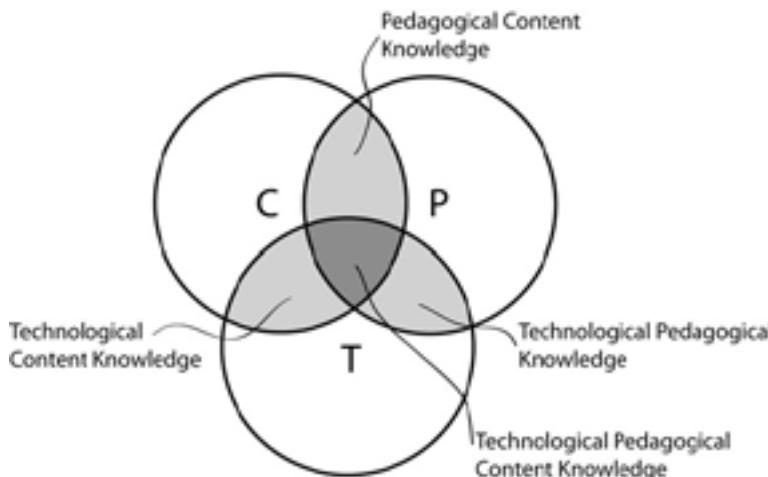
Integrating technology seamlessly with the course content can initially seem challenging for instructors. It is important to ensure that neither the instructor nor the student feel discouraged by the technology or find technology interfering with the actual purpose of the lesson. Linda Stine questions this concern in her work, "If I ask students to present their ideas in pictures and bullet points on a PowerPoint slide, will I be taking away another needed practice opportunity for expressing themselves in grammatical sentences and fluent paragraphs?" (40). An instructor should not have to have these dilemmas. A sound and well-developed framework should allow teachers to integrate technology into the writing curriculum so that basic writers master the skills of developing paragraphs and become actively engaged in the process of academic discourse. In the following section, we describe the TPCK

theoretical and conceptual framework we used to bring together content, pedagogy and technology as we designed our digital storytelling project.

### Theoretical Framework

The TPCK framework guided us in planning the digital storytelling assignment. The framework basically builds upon Lee Shulman's Pedagogical Content Knowledge (PCK) conceptual framework, proposed in 1986 and widely used in teacher education, to present "ways of representing and formulating the subject that make it comprehensible to others" (9). According to Shulman, the knowledge of the subject matter, namely the content (what) and the pedagogy for delivering the context (how), are not mutually exclusive. The ideal zone for teaching and learning is the blending of the two. Using Shulman's PCK framework, Punya Mishra and Matthew Koehler have developed the TPCK framework to help teachers design authentic lessons in which the technologies employed meld with the course content and pedagogy to effect "connections, interactions, affordances, and constraints between and among content, pedagogy, and technology" (1025). TPCK is diagrammatically represented below with the use of three circles (content, pedagogy, and technology) that overlap with each other. The area where the three circles intersect is the ideal area where critical teaching and learning takes place.

**Figure 1**



The three circles—Content, Pedagogy, and Technology—overlap to create four more kinds of interrelated knowledge (Mishra and Koehler 1025).

Looking at Figure 1, we identify four major areas of knowledge: content knowledge, pedagogical knowledge, technological knowledge, and at the intersection of the three is the technological, pedagogical, content knowledge. We will now examine each area as it relates to digital storytelling:

- *Content Knowledge* is the “knowledge about the actual subject matter that is to be learned or taught” (Mishra and Koehler 1026). It’s vital that the teacher has the mastery of the subject, including the “concepts, theories and procedures within the given field” (Mishra and Koehler 1026). For the writing instructor, these would include a thorough knowledge of writing personal narratives, developing ideas and paragraphs, drafting, editing, proofreading, and storyboarding. Samples of digital storytelling content can be accessed from resources such as the Center for Digital Storytelling website ([www.storycenter.org](http://www.storycenter.org)), Digital Archive of Literacy Narratives (<http://dalnresources.org.ohio-state.edu/contents.html>), and Computers and Composition Digital Press (<http://ccdigitalpress.org/stories/chapters/introduction/>).
- *Pedagogical Knowledge* is the “deep knowledge about the processes and practices or methods of teaching and learning and how it encompasses, among other things, overall educational purposes, values, and aims” (Mishra and Koehler 1026). Teachers should know how to organize and deliver course materials and to prepare students to participate in group activities such as sharing, discussing and writing drafts, setting up storyboards, collaborating with others, and giving and receiving constructive feedback.
- *Technological Knowledge* is the “knowledge of the standard technologies such as books, chalk and blackboard, and more advanced technologies, such as the Internet and digital video” (Mishra and Koehler 1027). Technology for a digital storytelling project can vary from simple (smart phones, PowerPoint, Photo Story 3, iMovie) to sophisticated Windows Movie Maker, Adobe Premier). Teachers should consider which technologies are needed for creating a digital story, which technologies are available easily to students, how the technologies are used, and what the limitations are. For instance, Photo Story 3, a software program for creating visual stories, is available on Windows operating system, but not on Apple computers. Other factors such as computer lab facilities and services available at the college

should be considered while planning the project.

- *Technological Pedagogical Content Knowledge* is the most exciting component, the one that makes the “whole” greater than the “sum of its parts,” or as Mishra and Koehler put it, “an emergent form of knowledge that goes beyond all three components (content, pedagogy, and technology)” (1028). As teachers examine content, pedagogy, and technology separately and in connection with each other, they find the key to successfully implement the digital storytelling project in their classrooms. It is at the intersection of the three areas where technology enables, enriches, accelerates, and enhances the delivery and development of knowledge in ways that help students with their critical thinking and learning skills. This is when students are focused completely on enriching their digital stories, using technology to mainly move their narratives further.

The TPCK framework assisted us in fitting pedagogy to technology in digital storytelling to help a diverse group of basic writers enhance their writing skills through small group discussions around photographs and storyboarding and through writing and rewriting several drafts. The framework facilitated the process of identifying technologies important for the digital storytelling project: a smartphone for taking pictures and recording narratives and software programs such as Windows Movie Maker, iMovie, and PowerPoint for creating the digital stories. Further, during the process of recording their personal narratives and listening to them, students were able to think critically and reflect upon their writing process, which led them to make meaningful edits to their narratives.

### **Crafting Digital Stories Using the TPCK Framework**

In the Spring 2014 semester, one of the authors implemented the digital storytelling assignment discussed here in her *Intensive Writing* course using the TPCK framework. This non-credit course mainly prepares students for college-level writing and the CUNY Assessment Test in Writing (aka CATW). The project had to be carefully planned and carefully integrated into the course syllabus. Since students at this level must pass the writing test in order to advance, the digital storytelling project was one small part of the course requirements. Traditional writing assignments such as essays and drafts were still the major part of the coursework. The digital storytelling project was

introduced to help enrich the writing process and remedy a disconnect often found to exist between what students know and what they write.

The instructor began the project by asking students to think about a place in New York City (building, park, street, neighborhood, public work of art) that was special to them. Students were asked to take pictures of the place with their mobile phones. The Empire State building, Battery Park, a neighborhood in Spanish Harlem, and a work of graffiti in the Bronx were some of the places students selected. Then students shared their pictures with their peers in small groups and talked about why the place was special to them. Next students were asked to write paragraphs about their special place as an in-class writing exercise. Although students have used pictures from their phones for other writing tasks before, the TPCK framework made us aware of how to take advantage of usable and convenient technology to enhance small group discussions and help students draw out details from the images and include them in their writings. The convenience of smartphone technology for capturing, storing, and sharing pictures cannot be disputed, based on their size, weight, accessibility, and availability.

In the next step of the digital storytelling process, namely storyboard-ing, students planned how their story would unfold frame by frame, much like a comic strip. Students sectioned their story into smaller meaningful parts and put them on index cards or used comic-strip-creating software programs such as Bitstrips. They sequenced the parts so that the narrative flowed coherently and logically with one dramatic moment in the narrative to not only engage the reader, but also propel the story forward. For those students who struggle to string their ideas together coherently, the storyboard provides a visual and kinesthetic way to sequence various parts of their narrative. This was an excellent activity for students to exercise their decision-making and think critically about their writing, as there were no right or wrong answers. Students were encouraged to work on the script and the storyboard simultaneously so that they could review and revise their scripts as necessary. Students familiar with technology took advantage of several mobile apps available for creating storyboards such as StoryBoard Maker, CardBoard Index Cards, and StoryBoard Quick Direct.

The use of storytelling with visuals in a college-level writing classroom is often perceived as being “subservient to language,” and images regarded “as unstructured replicas of reality” (Kress and Van Leeuwen 23). The fear is that students could spend far too much time looking at photos that are poor duplicates of reality, which, in turn, could interfere with the quality of their writing. This is true if visuals are overused or used in an unstructured

manner without relevance to the verbal language. But such fears should not undermine the richness that images bring to a basic writing classroom (George 23), particularly one with diverse students having different learning styles. Studies have shown that images help students who have grown up in an audio-visual saturated culture, as well as those who are more visually sensitive than verbally fluent, to write better. For example, Diana George finds in her study that visual images have had an important place in the writing class in helping students to pay attention to details and explore new ideas (23). We too found this attention to detail in the narratives students wrote, particularly when it came to describing physical spaces and appearances.

Overall, students wrote some excellent personal stories about their favorite places in New York City. Even though we are tempted to present excerpts from some of the best narratives, we decided to showcase samples of two particular students (whom we will refer to as Student A and Student B), primarily to reiterate how the digital storytelling experience can “move” even the most reluctant writers to write a little more on their own, which, in turn, can help the students develop more self-assurance.

First, we present short excerpts from Student A’s narrative to demonstrate how images played a significant role in helping the student draw out details in her writing. Student A came to the United States from Jamaica when she was thirteen years old. She said that she “hated” writing all through high school. In class, she was uninterested in writing. Her essays were short because she didn’t elaborate sufficiently or develop her ideas, and she struggled with development even at the sentence level. Even though Student A had created an impressive storyboard about the Whispering Gallery at Grand Central Station, her special place in New York City, she wrote her first draft with great difficulty.

### **Student A (excerpt from the first draft)<sup>1</sup>**

*It is a dome that connects the food court to the corridors. If a person stands at one corner and speaks, at another corner you can hear it. When you speak, the sound is carried through the ceiling.*

The tutor at the College Writing Center provided some feedback on the first draft and encouraged Student A to view the images and storyboard while writing. Having a smartphone on hand made it easy for the tutor to view

these images and help the student. It is at such small but significant moments when technology dovetails so nicely with teaching, allowing the tutor to ask critical questions about the images in real time and making the student feel more connected with her project. In the subsequent drafts, the student began qualifying some of the nouns/verbs in her narrative; *long hallways, opposite corner, hear the words clearly*. Soon, the student took the initiative and sought the tutor's help for appropriate vocabulary to describe the Whispering Gallery; *dining concourse, arch-shaped hall, corner arches*.

### **Student A (excerpt from the third draft)**

*The Whispering Gallery is an arch-shaped hall that connects the large dining concourse to the long hallways. If a person stands at one corner of the gallery and whispers, another standing at the opposite corner can hear the words clearly as if the speaker were next to him. When a person speaks at one of the corners, the voice is carried along the corner arches to the ceiling and to the other corners of the gallery.*

This third draft is a significant improvement over her first draft. What we think happened is that, once a few sentences started to read better (in the academic discourse), Student A must have felt a sense of accomplishment, which, in turn, motivated her to seek the help and assurance of the tutor to work on her writing.

Initially, in the first draft, unskilled writers find it difficult to narrow the focus of their story and develop their voice. They also tend to resort to *telling* the story as opposed to *showing* the story. It is at this crucial stage that students need some careful guidance from their instructors and tutors as they navigate their way through multiple drafts. By examining good sample scripts (written and/or audio), instructors can draw students' attention to various aspects of effective writing in terms of coherence, organization of ideas, sentence structures, etc. The Center for Digital Storytelling website provides a number of sample digital stories that can be used as models. Although there is no constraint on the length for a personal narrative, a digital story is generally between 250 and 300 words. As a rule of thumb, a 250-word script makes a two- to two and half-minute digital story. Economy of words is the key to digital storytelling.

When students completed their third drafts (for some students, it was

their fourth or fifth drafts), they recorded their narratives using the voice recorder app on their smartphones. This was a practice recording, not the final one. Most recordings were done in the presence of a tutor or the instructor to ensure that the students got the prosody (stress, intonation, and pronunciation) right. Unskilled readers, who are unable to chunk words meaningfully, place stress on the precise syllable of a word, or get the right intonation, need to practice reading. For such readers, we recommend that instructors and tutors show students how the words within a sentence are chunked and where they need to pause by making notations on the hardcopy of their script. For instance, a red dot was used at the end of each sentence to indicate a longer pause. We used short green vertical bars where commas were placed to indicate a shorter pause. We underlined with a pencil groups of words that needed to be read together. These notations helped all students read better. Once again, the voice recorder app on their smartphones made the recording process easy and convenient. After recording, students were then asked to listen to their own narratives at home and revisit their scripts to see if they wanted to make any more changes to it prior to the final recording.

Doing a practice recording is an additional stage we implemented in the current digital storytelling project based on the experience we have gained in the previous semester's project. The first time we had our students create digital stories, we had them record only once, after the students had completed their final scripts. However, what we discovered was that several students wanted to make changes to their scripts as they listened to their own, recorded narratives. This came as a surprise to us as we had not anticipated the value of listening to one's own narrative in the editing process. As an unanticipated consequence, we decided to do the practice recording in the future digital storytelling projects we implemented because we considered it an important step in the editing process. Neuroscience professor, Paula Tallal, uses the term "glasses for the ears" with reference to helping students with dyslexia read better. The phrase "glasses for the ears" refers to computer-generated speech that is used to train the children to discern certain consonant sounds such as /b/ and /p/ that they previously could not (Blakeslee). We think that "glasses for the ears" is an equally apt phrase to use for our basic writers who revise their writings after they have listened to their own, recorded narratives. This action appears to unlock another level in the editing process by helping basic writers see their writing in a new light or a new perspective, perhaps as an outsider.

To demonstrate this editing process, we present excerpts from Student B's narrative, another struggling writer who was painfully aware of her per-

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ceived shortcomings as a writer and extremely self-conscious while speaking and writing in class. She never volunteered to read aloud or participate in large group discussions. Student B, who came to the US from Bangladesh after completing high school there, wrote about the view of New York City from the Empire State Building.

### **Student B (excerpt from the third draft)**

*When I saw the city from the 86<sup>th</sup> floor of the Empire State building, I felt that the world is very big. Everybody is fighting their own life. I am busy with my life. My mind is thinking about all those things. I realized our life is small.*

After the student listened to her recorded narrative, she made the following edits on her own:

### **Student B (excerpt from the fourth draft)**

*When I looked below, I began to feel connected to the city in a number of ways. Standing on the 86<sup>th</sup> floor, I felt like I was flying. I began to see that the world is very big, but our lives are very short. In New York, everyone has freedom. I can become whatever I like to be.*

Student B made some important changes after listening to her narrative. The discussions and negotiations that went on between the student and the instructor during the conferencing sessions of the various drafts suddenly began to make sense to the student on a deeper level. For example, in the fourth draft, she includes a point of reflective reference: “*I began to feel connected to the city in a number of ways.*” The student’s sense of freedom comes alive in “*Standing on the 86<sup>th</sup> floor, I felt like I was flying.*” This juxtaposition of the phrases, *the world is big and our lives are short*, demonstrates stylistic sophistication. Notably, the student did not think of this phrasing while working on the previous drafts, which were mainly based on either the student reading the script aloud to herself or to the instructor, or hearing the instructor read her script aloud to her. We identify this exercise of listening

to one's recorded narrative as one of the critical learning areas where technology, content, and pedagogy intersect within the TPCK framework. This revising process probably gave Student B a certain sense of confidence in her language skills as later in the semester she slowly began to participate a little more in class discussions. She even volunteered to read aloud a paragraph from a text in class. Listening to the writer's own, recorded narrative appears to have a significant impact on the revision process. Several students expressed that they read their scripts more carefully while listening to their narratives recorded in their own voice. We don't know how to explain this aspect of "reflective editing," but we believe that it is worth exploring and researching this process further in a future study.

Once the students had revised and completed the scripts and the final recording, students gathered the following digital materials: recorded narrative; selected photographs, images, and/or video clips that coordinated with the sequence of the narrative; and background music that complemented the mood of the narrative. Students were reminded to save their digital files in an organized manner by labeling the files clearly and saving their audio, images, music, and text files in a separate folder on their flash drive. Using programs such as Windows Movie Maker (Windows), iMovie (Mac), and WeVideo (free cloud-based program), students created their digital stories. We gave our students the option of selecting a platform with which they were comfortable, a decision that sprung from our discussions about connecting technology to pedagogy and content within the TPCK framework. Although most students preferred Windows Movie Maker or iMovie, a handful of students used PowerPoint. For students who needed extensive help with technology, we coordinated with our computer lab assistants. We also paired more tech-savvy students with less tech-savvy students and had them work together. While 50% of the students completed their projects at home, others used the computer lab facilities on campus. We recommend that once students complete their digital stories, teachers copy the projects onto a flash drive prior to the day of the screening to check for any formatting discrepancies, so that these issues can be resolved before screening in the classroom.

### **Evaluating Success**

The highlight of the digital storytelling process was the screening toward the end of the semester, when students watched each other's digital stories in class and felt a sense of accomplishment. We screened about three to

four digital stories at the end of each class over a two-week period. Staggering the screenings has an added bonus of allowing extra time for students who may need that additional weekend to polish their projects. We adapted Ellen Maddlin's rubric for evaluating digital storytelling projects in the writing class (see appendix A). Prior to the actual screenings, we practiced using the rubric to evaluate three sample digital stories so students understood what each criterion meant. Students felt comfortable with this non-traditional and non-intimidating system of evaluation. After the screening of each digital story in the class, students first provided verbal comments, mostly about what they liked. Then the class took a few minutes to complete the evaluation using the rubric. Students wrote comments about what they liked in the digital story and provided a few suggestions. The instructor also completed the rubric and provided helpful feedback.

In a classroom with diverse students, we cannot assume that students give and receive constructive criticism in similar ways. Cultures differ in terms of directness and indirectness while providing feedback on a peer's work. Thus peer-evaluation for the digital storytelling project took on a life of its own as we discussed and made students aware of the cross-cultural pragmatics and ways to provide criticism in positive and constructive ways in an American classroom. In this process, students learned to be more specific while providing feedback, using phrases such as "If I were you, I would change the picture of the sunset to a sunrise as that will go better with your feeling of love for this man you met at Brighton Beach" and "I feel that a little more information about why you felt lonely that day as you walked through the park would help the audience understand the snowy image of the tree you show." Such an exercise not only helped students feel more comfortable while they provided feedback on their peers' digital stories; also, the need to be specific pushed students to learn about the finer aspects of academic discourse.

## **Recommendations**

In terms of a timeframe, we staggered the digital storytelling project over an eight-week period, so the students didn't have to feel overwhelmed or rushed, especially since many of our students hold jobs and the digital story was one of several writing assignments students completed during the semester. For teachers implementing the project for the first time, or even the second or third time, we recommend collaborating with other teachers and following the guidelines of TPCK framework as closely as possible while

planning and designing the assignment. This collaboration not only helps teachers plan, but it also eases the tension of carrying the entire burden alone. We also recommend that teachers create their own digital stories, which can serve as models to share with students. Having this first-hand experience is important to hone the sequence of the various stages of the digital storytelling process and anticipate other difficulties while integrating technology with pedagogy and content. Another suggestion for smoothing the process and reducing the burden on the classroom teachers is to tap into university resources. When working with more than twelve students in a class, it is advisable for teachers to coordinate and collaborate with writing tutors at the college writing center and lab assistants in the computer labs. Tutors/lab assistants should be provided with necessary information about the digital storytelling project so everyone is on the same page with the objectives and goals of the assignment while working with students.

## **Conclusion**

Overall our basic writers benefitted from crafting digital stories. Students expressed their satisfaction in the comment section of the course evaluations at the end of the semester. Most students specifically mentioned their positive experience with the digital storytelling project. A large part of this positive experience emerged from the nature of the personal narrative that helped a diverse group of students communicate their thoughts, feelings, cultural experiences, and stories through writing and images. The opportunity allowed students to tap into their creativity and bring it into their writings. They also had to make decisions among many choices at various stages of the project, which gave them a sense of empowerment. The multimedia resources catered to the needs of students with different learning styles, and discursive needs through the use of images, storyboards, and recorded narratives. These tasks helped students describe with details, organize and develop ideas and review their writings mindfully. Because students had a final product at the end to review, share, and save, they experienced a sense of accomplishment (Plankis and Hwang 2348). Lastly, by viewing each other's digital stories, basic writers in a diverse classroom learned from their peers' constructive criticism, which facilitated their social development (Bandi-Rao cited in Beaudoin).

We found the TPCK theoretical framework helpful in interweaving content, pedagogy and technology as we planned and designed the digital storytelling assignment for the writing course. At no point did we feel that

the objectives of the assignment were compromised because of technology. The availability, familiarity, and ease of using the digital technologies were crucial in complementing content and pedagogy within the TPCK framework. In fact, we felt that technology contributed to enhancing the writing process that students were involved in. Smartphones and tablets provided students the convenience of taking pictures, recording their narratives, and listening to them at their own convenience, anytime and anywhere. This kind of flexibility is essential for students who are working or have families. It allows them to use small chunks of time available to them—commuting to school on the subway, between classes, waiting in a line. But one particular step that we would like to highlight in this article is the sophisticated editing process that emerged from students listening to their own recorded narratives. Several students used this aural opportunity to make small but significant revisions to their narratives with little or no directive from the instructor or the tutor. Students felt motivated to improve their scripts, a self-directed learning process vital for basic writers to succeed in academia. We consider such steps of the digital storytelling process as the ideal learning area where the three circles in the TPCK framework—namely the technology, content, and pedagogy—intersect. Overall, we found that the TPCK framework served our needs well as we planned and designed the digital storytelling project for our basic writers.

Many of our basic writers struggle with traditional literacies. Digital storytelling has the capacity to help basic writers use digital literacy as a way to transition into traditional literacies and academic discourse more easily and in a way they comprehend and feel comfortable. Even going beyond basic writers, simply based on the frequency and ease with which students use PDAs for learning inside and outside of the classroom, and the general decline in reading and writing skills as noted by the National Commission on Writing in America's Schools and Colleges in 2006, it would not be hard to believe that freshman composition is poised for a change, with the real possibility of photo/video essays and digital stories becoming a regular part of most college composition course curricula as a means to engage students in their writing.

### **Acknowledgments**

The authors thank the E-Learning Center at the Borough of Manhattan Community College, CUNY for the grant received in 2013. The authors participated in the Digital Storytelling workshop conducted by the Center

for Digital Storytelling.

**Note**

1. We have obtained permission from the students to share extracts from the writing. To keep their identities anonymous, we use Subjects A and B.

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## Appendix A

### Digital Storytelling Rubric for ESL:

Adapted from Maddin's Digital Storytelling Rubric (10).

<b>Category</b>	<b>Excellent (4)</b>	<b>Good (3)</b>	<b>Satisfactory (2)</b>	<b>Poor (1)</b>	<b>Score</b>
<b>Focus</b>	There is a clear focus throughout	The focus is clear during most of the video.	The purpose of the story is clear, but the focus is lost a few times.	It is difficult to figure out the purpose of the video.	
<b>Development of the story</b>	The story is told with exactly the right amount of detail throughout.	The story seems to be missing some important details, OR it includes some unnecessary details.	The story needs more editing. It is noticeably too long or too short in more than one section.	The story needs extensive editing.	
<b>Narration – intonation, pace, and clarity</b>	The pace, intonation, and clarity of the narration fit the story.	Narration is generally engaging, but the pace may be a bit too fast or too slow for the story.	The intonation doesn't suit the story.	The narration is difficult or impossible to understand or hear.	
	The images create an atmosphere or tone that matches different parts of the story.	Images create an atmosphere or tone that matches some parts of the story.	An attempt was made to use images to match the story, but it needed more work.	The images were not appropriate for the story.	
<b>Grammar</b>	Grammar and usage were correct and contributed to clarity, style and development.	Grammar and usage were generally correct, and errors did not detract from the story.	Grammar and usage were generally correct, but errors detracted from the story.	Repeated errors in grammar and usage made the story very difficult to follow.	

Total Score: