

Digital Storytelling in Primary-Grade Classrooms

by

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ABSTRACT

As digital media practices become readily available in today's classrooms, literacy and literacy instruction are changing in profound ways (Alvermann, 2010). Professional organizations emphasize the importance of integrating new literacies (New London Group, 1996) practices into language-arts instruction (IRA, 2009; NCTE, 2005). As a result, teachers search for effective ways to incorporate the new literacies in an effort to engage students.

Therefore, this study was designed to investigate the potential of digital storytelling as participatory media for writing instruction. This case study was conducted during the fall semester of 2012 in one first-grade classroom and one second-grade classroom in the Southwestern United States. The study addressed ten interrelated research questions relating to how primary-grade students performed in relation to the Common Core writing standards, how they were motivated, how they formed a meta-language to talk about their writing, how they developed identities as writers, and how they were influenced by their teachers' philosophies and instructional approaches.

Twenty-two first-grade students and 24 second-grade students used the MovieMaker software to create digital stories of personal narratives. Data included field notes, interviews with teachers and students, teacher journals, my own journal, artifacts of teachers' lesson plans, photographs, students' writing samples, and their digital stories. Qualitative data were analyzed by thematic analysis (Patton, 1990) and discourse analysis (Gee, 2011). Writing samples were scored by rubrics based on the Common Core State Standards.

The study demonstrated how digital storytelling can be used to; (a) guide teachers in implementing new literacies in primary grades; (b) illustrate digital storytelling as writing; (c) develop students' meta-language to talk about writing; (d) impact students' perceptions as writers; (e) meet Common Core State Standards for writing; (f) improve students' skills as writers; (g) build students' identities as writers; (h) impact academic writing; (i) engage students in the writing process; and (j) illustrate the differences in writing competencies between first- and second-grade students. The study provides suggestions for teachers interested in incorporating digital storytelling in primary-grade classrooms.

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Chapter 1

INTRODUCTION

As an elementary teacher at the commencement of the twenty-first century, I have relentlessly questioned how to best prepare my students for a world that is rapidly changing through new digital technologies known as “the new literacies” (Gee, 2003; Lankshear & Knobel, 2003). In a generation with immediate access to digital media devices, such as smart phones, iPods, and tablet computers, students are creating, authoring, and interacting in new ways. New definitions of what it means to be literate are being developed and include the notion of new literacies.

Due to their inherent characteristic of change, there is no precise definition of what the “new literacies” are (Leu, 2000, 2002; Reinking, 1998; Street, 2003). Leu, Kinzer, Coiro, and Cammack (2004) conceptualized new literacies as “the skills, strategies, and dispositions necessary to successfully use and adapt to the rapidly changing information and communication technologies and context that continuously emerge in our world and influence all areas of our personal and professional lives” (p. 1572). Myers (2006) described new literacies as “evolving social practices that coalesce new digital tools along with the old symbolic tools to achieve key motivating purposes for engagement in the literacy practices” (p. 62). New literacies include not only technical tools, but also a mindset that emphasizes cultural and social relations that stem from valuing participation, collaboration, dispersion, and distributed expertise of literacy practices (Lankshear & Knobel, 2006).

In tension with these new views of literacy and these new literacies practices, I had been unwillingly guided in my teaching by the *No Child Left Behind Act* (U.S.

Department of Education, 2001). I began and have continued my teaching career (over the past five years) in an atmosphere driven by test scores and teacher accountability. Literacy education in K-12 classrooms focused on high-stakes literacy assessments, and on instruction centered on meeting the state and national standards that these assessments test (Lipman, 2004; Nichols & Berliner, 2007; Watanabe, 2007).

Feeling the pressures of the accountability movement and the lack of creativity in my own classroom, I explored alternative ways to engage and motivate my students. I was cognizant of the need to prepare my students with the foundations of print literacies, as well as the emerging new digital literacies that would define their futures. Inspired by what I had recently learned in a graduate course in which I had incorporated Do-It-Yourself (DIY) media practices in my language-arts instruction, I embarked on a year-long project incorporating DIY media practices with a group of fifth- and sixth-grade students during an after-school program (Foley & Guzzetti, 2012). The students read books, conducted research on the Internet, engaged in interactive online activities, and produced impressive multimedia projects to address assignments from their social studies and language arts teachers. My students in the after-school program used iMovie, a digital program for producing multimedia videos (<http://www.apple.com/ilife/imovie/>).

Through my reflections on the successes of this project, I recognized that integrating new digital technologies had provided a foundation for my students' motivation and engagement. They increased their academic skills, gaining new vocabulary and conceptual knowledge in social studies and enhancing their knowledge of the writing process in language arts. As my students were learning new digital skills and abilities, they were also socially constructing this content knowledge through

collaborations and interactions with their peers. They shared their skills with new participatory digital media or those online tools that allow for creation of new digital media (Jenkins, 2006) with each other and helped one another learn.

Throughout this after-school program, my students showed continued engagement in the writing process and increased confidence in working with technology (Foley & Guzzetti, 2012). They developed their sequencing skills, strategic thinking skills, and problem-solving skills as a result of their engagement with these new digital media. My students' literacy skills improved, including their abilities to locate and use information online, write for a specific audience, reflect on their thinking, edit their work, and transpose written to oral text. Individuals learned aspects of the writing process, such as prewriting, drafting, revising, and publishing. They clarified and determined significance of information read online, selected information with a particular audience in mind, and navigated new technologies. These newly learned skills and abilities addressed multiple writing standards for fifth and sixth grade, including various performance objectives of the writing process, writing components, and writing applications.

Encouraged by these insights, I continued reading the professional literature that could inform my classroom teaching and my own teacher research. These resources included professional books, such as *Using Technology in K-8 Classrooms* (Anderson & Speck, 2001), *The Digital Writing Workshop* (Hicks, 2009), *New Literacies Practices: Designing Literacy Learning* (Hagood, 2009), and *DIY Media in the Classroom* (Guzzetti, Elliot, & Welsch, 2010). These books gave me insight on the importance of new literacies practices and how to implement new digital literacies practices into my own teaching.

Motivated by these respected works of research, and by my observations and experiences teaching in the after-school program, I gradually changed the way I viewed and taught literacy in my own classroom. I evolved from viewing literacy as a thing I possessed and was responsible for sharing with my students to an understanding that literacy is a socially-constructed practice (Street, 1995). Because of this shift in my epistemology, I changed my pedagogy. In doing so, I allowed students more opportunities to engage with one another and share their understandings of language and literacy.

Through my exposure with digital media in my graduate program, I gained skills with and built my confidence in my own use of the new literacies. I learned how to use different software on the Mac computer, including, the GarageBand software (<http://www.apple.com/ilife/garageband/>) that allows for the creation of new music and podcasts (audio or video recordings saved in MP3 format) and the iMovie software (<http://www.apple.com/ilife/imovie/>) that allows for the creation of videos and digital stories. As a result, I implemented these new literacies practices that facilitated creating and not just consuming new media into my own classroom.

To help me share my new literate skills and abilities with my first-grade students, I applied for and received a five hundred dollar grant from the Chandler, Arizona Education Association, an organization established to advocate for educators in the Chandler public schools. With this grant, I was able to purchase iPods for my classroom. Students engaged with one another in various literacy activities using the iPods. Using these new technologies, my students audio-recorded readings of their favorite books, wrote notes describing exciting events in their lives, and played word games. Students

also created digital stories, short narrative stories told in the first person and presented as a video (Davis, 2004; Dreon, Kerper, & Landis, 2011; Kajder, 2004; Robin, 2006) by using iMovie and shared their stories with parents, family members, and classmates during an invitational presentation at the school.

To further encourage and support my students, I also developed a classroom website. The website included photographs and videos of my students, podcast recordings of my students' favorite books, and links to educational websites, such as raz-kids.com, spellingcity.com, and abcya.com, websites that help students gain practice with their literacy skills. Students accessed the website from school and home to play games, listen to stories, and practice their literacy skills. Parents accessed the website as well to stay connected with their child's education, view their child's work, and use the resources on the websites to support their child's literacy development.

Incorporating these new digital literacies did not come without skepticism from my fellow teachers and from my administrators, however. Some teachers' hesitations to follow my example were based on the notion that these new literacies practices were not grounded in the K-12 curriculum and therefore were not worthwhile in an educational setting. Many of my fellow teachers tended to view the practices of the new literacies as an additional curricular area, rather than a vehicle through which curricular content could be taught and learned. Hagood, Provost, Skinner, & Egelson (2008) noted similar resistance from teachers while attempting to implement new digital literacies in middle-school classrooms. During their research, teachers voiced concerns about new literacies practices. These concerns included the issue of lack of resources, such as teachers' perceived lack of time and their own lack of prior knowledge of new digital practices.

Teachers in Hagood's middle-school project, as in my elementary school, lacked the training and the technology resources to implement these new digital literacies.

Despite these concerns, students and teachers alike need to develop the new literate skills and abilities fostered by the new literacies practices as these capabilities will be increasingly needed in the 21st century (Leu, Mallette, Karchmer, & Kara-Soteriou, 2005). It is important to understand and foster contemporary skills of reading, writing, and communication that these new literacies demand for full participation in a global society and global economy (Leu et al., 2004). These new literate skills and abilities fostered by the new literacies include multitasking, making intertextual ties, designing texts, learning new digital languages, and writing in hybrid forms by creating texts that use both digital and print texts (Guzzetti, Elliot, & Welsch, 2010). Leu, et al. (2005) argued that the continuing emergence of digital media practices is more than a technology issue, it is also an important literacy issue. Therefore, it is essential to consider how to integrate these new literacies practices and their accompanying skills and abilities into the current language-arts curriculum.

In an effort to address the hesitations teachers express about implementing new digital literacies and their skepticism about the curricular benefits of the new literacies practices, I continued to feel compelled to explore ways in which new literacies could be incorporated in the elementary classroom. I was particularly concerned with addressing the new Common Core State Standards for writing through new digital media (http://www.corestandards.org/assets/CCSSI_ELA%20Standards.pdf). I was concerned with these standards because my school district, like many other districts across the

nation, had recently adopted these standards and teachers were directed to incorporate instruction that addressed these standards.

Hence, the purpose of my study was to explore a framework for conceptualizing and integrating the new literacies practice of digital storytelling as participatory media for teaching and learning in language arts. The study aimed to investigate how digital storytelling could support the new Common Core State Standards for English-language arts in primary-grade classrooms. In doing so, the study explored how young children developed their identities as writers and authors and how they learned to write by using new participatory media of digital storytelling.

Overview of the Issues

Teachers and students in today's classrooms are faced with new challenges and opportunities as new technologies provide avenues for changing and enhancing literacy instruction. It is clear that the expansion and accessibility of new literacies practices have drastically affected schools and the daily lives of both teachers and students (Leu, 2002; Labbo, 1996; Sylvester & Greenidge, 2009; Valmont & Wepner, 2000). Literacy instruction continues to transform as new technologies demand new literacy skills. What it means to be literate has broadened to not only include traditional literacies, such as reading and writing printed texts, but also to reflect the communication needs of students living and learning in a digital world (Alvermann, 2001; Sylvester & Greenidge, 2009).

As students and teachers turn to the Internet and digital media, notions of what counts as text and what are essential literacy practices are being redefined. These shifts in thinking about and practices of literacy have been noted by many researchers (e.g., Alvermann, 2008; Coiro et al., 2008; Lankshear & Knobel, 2003; Leu, 2007; McKenna,

2006). As a result, literacy instruction is changing (Beach & O'Brien, 2008; Callow, 2008; Grisham & Wolsey, 2009; Leu et al., 2008; Merchant, 2008). This recent research points to the fact that traditional definitions of reading, writing, and communication, and traditional definitions of best practice instruction, derived from a long tradition of book and other print media, are insufficient in the 21st century.

The New Literacies

The new literacies are constantly evolving as new technologies create possibilities for increased communication and consumption of information (Coiro, 2003; International Reading Association, 2002; Kinzer & Leander, 2003; Leu et al., 2004). As a result, the International Reading Association (2002) issued a position statement recognizing that current reading and writing instruction is influenced by profound changes due to the new literacies. For example, the traditional literacies of paper, pencil, and print texts were a regular part of many high-school graduates' early education. These skills are now required to interact with various forms and forums of the new literacies, including word processors, e-mail, chat rooms, Web logs (blogs), multi-modal texts, and presentation software. Because of the swift and ongoing changes in technology, it is likely that students who are just entering elementary school will face even more profound changes as they progress through an ever-evolving literacy landscape (International Reading Association, 2002; Labbo & Reinking, 1999; Leu et al., 2004).

New Digital Divides

The original idea of a "digital divide" referred to the discrepancy in access to technology resources among socioeconomic groups (Rogers, 2001). Recent studies indicate that while children from all income levels have significantly increased their

Internet use, low-income children still lag behind others in both home and school access (Corporation for Public Broadcasting, 2003). Failure to recognize the value of Internet access and the new literate skills and abilities such access allows has been referred to as the civil rights issue of the new millennium (Carvin, 2009).

Hobbs (2006) identified another type of digital divide that has surfaced between teachers of different disciplines. Although science and mathematics teachers tend to be open to incorporating instructional technologies and new literacies, reading and language arts teachers tend to prefer traditional print texts and more traditional literacies. Literacy educators may be reluctant to embrace technology and new literacies for various reasons. They may view technology as a threat to the tradition of print, view written expression of e-mail or online discussions as informal or suspicious, or they may associate technology with popular culture, therefore viewing new digital literacies as inappropriate for school (Hobbs, 2006).

Statement of the Problem

In 2002, the National Commission on Writing in America's Schools and Colleges released a report, *The Neglected "R,"* designed to focus national attention on teaching writing. This commission was established by the College Board, an organization of more than 4,300 colleges, and created in large part because of a growing concern that students' writing in the United States "is not what it should be" (National Commission on Writing, 2003, p. 7). This concern was well founded given results from the National Assessment of Educational Progress (NAEP) indicating that three of every four students in the 4th, 8th, and 12th grades demonstrated only partial mastery of the writing skills and knowledge needed at their respective grade levels (Greenwald, Persky, Ambell, & Mazzeo, 1999).

The 2007 report from the NAEP indicated only slight increases in the writing skills of 8th and 12th graders at the *Basic* achievement level, and no improvements at or above the *Proficient* level. Furthermore, almost one in every five first-year college students required a remedial writing class, and more than one half of new college students were unable to write a paper relatively free of errors (Intersegmental Committee of the Academic Senates, 2002).

These findings illustrated the need for instruction to improve the writing skills of America's students. It is important to improve students' writing skills not only at the secondary level, but with younger students as well, especially primary-grade children who experience difficulty learning to write (Harris, Graham, & Mason, 2006). This focus on young children is important for two reasons. First, providing effective writing instruction to these children from the start should help ameliorate their writing problems (Graham & Harris, 2003). Second, waiting until later grades to address literacy problems that have their origin in the primary grades has not been particularly successful (Slavin, Madden, & Karweit, 1989).

Views of Writing

Throughout history, educators have held many different views on writing. Over time, these views have shifted from an emphasis on writing as a product to an emphasis on the process of writing. Applebee (1986) illustrated that historically writing instruction had been largely "prescriptive and product centered," stressing correct usage and mechanics while emphasizing "the traditional modes of discourse (narration, description, exposition, persuasion, and sometimes poetry)" (p.95). The last few decades, however, have seen "a groundswell of support for 'process approaches' to learning to write" (p. 95).

Today, the five-step approach to the writing process (prewriting, drafting, revising, editing, and publishing) is widely accepted, along with related activities, including, brainstorming, collaborating, goal setting, inquiry activities, and the study of models (Graham & Perin, 2006).

A more complex view of writing is evolving as new technologies develop in the 21st century, however. With the development of new digital literacies, students are writing in new ways for new reasons (Hagood, 2009). New views of writing are being established that extend beyond basic print to include multimodal activities, as well as visual, aural, spatial, and gestural (Heath & Street, 2008; Kress, 2000). Zammit and Downes (2002) argued that literacy “needs to be recognized as a social activity embedded within larger practices and changing technologies,” (p. 24) rather than viewed as just a set of cognitive abilities or skills, such as alphabetic script on paper. The idea that writing tasks can be accomplished on multiple platforms, including digital environments, complicates the teaching of writing (Yancey, 2008).

As writing continues to evolve, teachers need to develop practices that work when it comes to teaching writing. Teachers need to help students learn to be smart digital writers. Digital writing consists of compositions created with, and oftentimes for, a computer or other device that is connected to the Internet (Hicks, 2009). This is a broad definition that includes everything from creating online comics (Bitz, 2007); modding or creating video games (Pepler & Kafai, 2007); writing FanFiction (Black, 2005); composing blogs (Witte, 2007); editing and authoring self publications of zines online (Guzzetti & Gamboa, 2004); writing online journals (Guzzetti & Gamboa, 2005); participating and creating in online social networks of virtual worlds (Boellstorff, 2007);

to appropriating and renovating characters presented in movies and television in writing (Skinner, 2007).

Categorizing digital writing is not so important, as nearly all writing is digital in some way. Thus, when teachers ask students to be writers, they are inherently asking them to be digital writers. Therefore, current pedagogy needs to acknowledge this shift and adopt a perspective that honors and integrates digital writing in primary classrooms.

Digital Storytelling

Digital storytelling is the art of combining narrative with digital media, such as images, sound, and video to create a short story (Robin, 2006). Digital stories are more than just a simple slideshow of photos set to music. They interweave different media to support the art of telling a tale (Dreon, Kerper, & Landis, 2011). Most digital stories focus on a specific topic and contain a particular point of view. Digital stories can vary in length, but most last between two to ten minutes.

In 1994, Joe Lambert and Dana Atchley established the Center for Digital Storytelling at the University of California at Berkeley as a community art center for new media based on the notion that everyone has a story to tell. Lambert (2002) constructed a model for creating effective digital stories by combining seven elements. These elements included point of view, dramatic question, emotional content, economy, pacing, the gift of voice, and soundtrack. In a digital story, the author is able to communicate with the audience through different points of view. The dramatic question relates to the plot and sets the tension of the story by identifying issues to be resolved. The plot continues throughout the story and holds the viewers' attention. The plot or dramatic question distinguishes a digital story from a picture slideshow. Effective digital stories contain

emotional content that engages the audience through common emotions and themes such as love, pain, or humor. Economy refers to the balance between the auditory and visual tracks of meaning. The author needs to be conscious about economizing the language in relation to the narration. Pacing involves establishing and monitoring the rhythm to sustain the audience's attention. Voice helps the audience make meaning of images by varying the inflection, pitch, and timbre of the author's voice. Finally, the soundtrack sets the mood for the story by using music to enhance the experience for the audience.

Successful writers plan, write, revise, and publish their work (Calkins, 1985). When creating digital stories in a classroom setting, students must go through an extensive process to plan, write, revise, and publish their writing. Students must exchange ideas, background knowledge, and establish a purpose for their story. Students then go through a process of composing a story by traditional methods either by using pencil and paper or the word-processing functions of a computer. This composition later becomes the digitalized voice-over narration using a software program like Movie Maker (http://www.soft82.com/download/Windows/Windows_Movie_Maker) for PC computers or iMovie for Mac computers. Students also select images or photographs as part of the digital storytelling process. These images can be inserted to compliment the narration or may be used at the beginning of the process to stimulate writing the digital story. Then, the story is recorded. Music can be added to enhance the story. Once the stories are created, they can be saved and stored online for instant viewing.

The majority of the research on digital storytelling has been with middle- or high-school students (Davis, 2004; Dreon, Kerper, & Landis, 2011; Kajder, 2004; Robin, 2008). Davis explained that research is needed on digital storytelling practices with

elementary students (A. Davis, personal communication, May 20, 2012). Digital storytelling has the potential to help primary-grade students develop their writing skills and meet grade-level standards for writing.

Students' Identities as Writers

Digital storytelling can help to develop students' identities as writers (Davis, 2004). Often, struggling writers perceive themselves as bad writers (Sylvester & Greenidge, 2009). Giving students a clear and meaningful purpose for their writing, as well as allowing them to write for a larger audience often motivates students to write and produce quality work (Sylvester & Greenidge, 2009). Gee (2003) delineated identity expression as varying based on the context. Students can socially-construct their identities as writers based on their experiences in the classroom. Digital media can motivate students to engage in writing activities thereby influencing their identities as writers (Banaszewski, 2002).

Davis (2004) described how digital storytelling could be used to cultivate identity formation among middle-school students. In his research, digital storytelling allowed adolescents much freedom in authorship. By controlling both the images and sounds, youth were able to use digital storytelling as a creative means to express themselves and aid in developing their identities as writers (Davis, 2004).

Purpose of the Study

The purpose of this study was to identify and describe the ways in which integrating digital storytelling might support the development of young students' identities as writers within primary-grade classrooms. This study aimed to identify and describe what could be learned about the writing processes of young children by

incorporating digital storytelling in language-arts instruction. In doing so, this study explored how digital storytelling helped teachers to address Common Core State Standards for writing for primary-grade students. This study also sought to illustrate how technology and writing could be integrated into the curriculum. This study was also undertaken to potentially serve as support for teachers in establishing a curriculum for literacy instruction in the primary-grade classroom that incorporates the new literacies of participatory digital media.

Rationale for the Study

To make literacy education meaningful to today's learners, researchers and educators have recognized the need to incorporate the new literacies and multimodal technologies both within and outside of the classroom (Hobbs, 2006). Leu et al. (2004) emphasized the importance of socially-constructed learning within the new literacies and the need for teachers to orchestrate learning environments in which students can work collaboratively while participating in complex contexts. Building on the concept of a traditional writing workshop (Calkins, 1994; Atwell, 1998; Burke, 2003; Fletcher & Portalupi, 1998; Ray, 2001; Kittle, 2008), in which writing is focused on students' choice, active revision, publication beyond classroom walls, and a broad vision of assessment that includes both process and product, this study considered integrating technology into the traditional writers' workshop.

This study also invited teachers to question what happened in the writing process when digital writing tools and processes were introduced. This inquiry explored the consequences for how teachers teach, the tasks teachers ask students to engage in, and the tools that teachers ask students to use. In doing so, this study aimed to address the

concerns and issues raised by teachers about incorporating new literacies practices, particularly those concerns regarding the relationship between the new literacies and curriculum and the demands of high-stakes testing.

Research Questions

Current literacy instruction is profoundly influenced by change due to the arrival of the new literacies (International Reading Association, 2002). Yet, there are relatively few instances in which teachers have effectively implemented new literacies practices with primary students (Guzzetti, Elliott & Welsch, 2010). Researchers and literacy experts agree that motivation is a key component in engaging students in writing and concur that technology has the potential for motivating students (Flippo, 2001; Gambrell, 2006).

Hence, the following 10 interrelated questions guided this study:

How might teachers' views of writing and the writing process influence students' development of their identities as writers and students' views of writing? How might students consider digital storytelling as writing? How might students develop a meta-language to talk about writing and about themselves as writers? How might digital storytelling influence primary-grade students' perceptions of themselves as writers? How can digital storytelling be used to meet the Common Core State Standards for writing a personal narrative in primary-grade classrooms? How might digital storytelling help to develop young students' skills as writers? How might students' identities that developed as writers transfer from digital storytelling to other writing? How might students equate digital storytelling writing with other academic writing? What can be learned about young students' engagement in the writing process by incorporating new participatory

media of digital storytelling in a primary-grade classroom? What differences in writing competencies might exist between first- and second-grade students in writing skills and abilities with digital storytelling?

Significance of the Study

This study sought to provide valuable insights for educators who wished to incorporate the practices of the new literacies into their literacy instruction with primary-grade students. The rapid growth of technology has continued to affect how teachers and students view and learn literacy (Guzzetti, Elliot, & Welsch, 2010; Hagood, Alvermann, & Heron-Hruby, 2010; Hagood, 2009). Traditional definitions of literacy instruction will be inadequate if educators want to provide students with the futures they deserve (Leu, 2002). Traditional elements of literacy will continue to be essential within new literacies practices, however.

The ability to compose text will take on a new significance in the new millennium as written text can be easily stored, organized, and published online to generate new knowledge. In a networked learning environment that permeates students' daily lives, the ability to compose texts online will become increasingly important by writing and archiving texts online so students can access information quickly and efficiently. Writing as a practice of the new literacies using digital and hybrid forms does not replace but enhances and extends established literacy practices (Street, 2003). When incorporated effectively, new technologies have the potential to extend teaching and learning literacy skills in ways not available from traditional print sources (Valmont & Wepner, 2000).

Teachers and researchers recognize the need to respond to the changing nature of the new literacies to make education more responsive to today's learners (Hagood, Alvermann, & Heron-Hruby, 2010; Hobbs, 2006). Many researchers have responded to this call, conducting studies with the new literacies practice of digital storytelling with middle- and high-school students (e.g., Dreon, Kerper, & Landis, 2011; Robin, 2006; Davis, 2004; Kajder, 2004). Few studies have been conducted on the implication of digital storytelling with primary-grade students in classrooms, however (A. Davis, Personal Communication, May 20, 2012), and, to date, no studies have been conducted specifically on digital storytelling as an educational resource to teach writing as outlined in the Common Core State Standards.

Integrating digital storytelling in a primary-grade classroom can provide students with the opportunity to engage with new literacies while also incorporating the valued traditional literacy practices inherent in the writing process. Therefore, it was anticipated that this study would contribute to the professional literature on primary-grade students' literacy learning, particularly as it relates to integrating traditional and new literacies within the context of primary-grade classrooms. This study was also conceived as an extension to extant research on participatory media or those media that create a participatory culture through a do-it-yourself ethos (Jenkins, 2009; Guzzetti, Elliot, & Welsch, 2010) by focusing on the under-researched topic of digital storytelling with primary-grade students in writing instruction.

Chapter 2

REVIEW OF THE LITERATURE

New Literacies

Literacy instruction is changing in profound ways as new technologies provide opportunities to enhance and extend current literacy practices. The integration of technology over the past few decades has significantly affected schools and the daily lives of both teachers and students (Labbo, 1996; Reinking, 1998; Leu, 2002; Valmont & Wepner, 2000). Common Core State Standards (<http://www.corestandards.org/the-standards>) now include the use of new technologies and new literate practices.

Notions of literacy and what it means to be literate have evolved in recent years, as well. Early definitions of literacy encompassed decoding and encoding, mastering the alphabetic principle, effectively communicating through visual, oral, or written texts, learning grammar and sentences structure, comprehension, and becoming an expressive, persuasive, or informational writer (Moje, 2002). Current views of literacy, however, build on the traditional literacies of paper, pencil, and literature, as well as incorporate the ideas of new digital literacies that today's students encounter and interact with on a daily basis.

Literacy researchers have described or characterized the new literacies (e.g., Street, 1995; New London Group, 1996). Moje and Sutherland (2003) explained the new literacies as “the practice of navigating many different symbol systems and discourse communities to make meaning from and with written text” (p. 152). Myers (2006) described new literacies as, “evolving social practices that coalesce new digital tools along with the old symbolic tools to achieve key motivating purposes for engagement in

the literacy practices” (p. 62). Lankshear and Knobel (2006) illustrated that new literacies include technical tools, as well as a new mindset that focuses on cultural and social relations that stem from valuing participation, collaboration, dispersion, and distributed expertise of literacy practices.

Leu (2002) addressed the importance of recognizing the constant changes that take place within the literacy classroom:

The essence of both reading and reading instruction has always been change. Reading a book changes us forever; we return from the worlds we inhabit during our reading journeys with new insights about ourselves and our surroundings. Teaching a child to read is also a transforming experience it opens new windows to the world, creating a life-time of opportunities for that child. Change has always defined our work as literacy educators. By teaching a child to read, we change the world (p. 310).

With the initiation of the new literacies, today’s reading and writing instruction are influenced by change in even more important ways (International Reading Association, 2002). Print books are beginning to take a “back seat” to multimedia in students’ academic lives (Gutensburg, 2006). Many students are immersed in media-centered environments that are different from the classrooms of the past (Hagood, 2009; Leu, 2000). As a result, new digital media are challenging the constraints of text-based media and traditional literacy skills.

Although a precise definition of the “new literacies” may not be possible due to their inherent characteristic of change, educators and researchers agree that today’s students need and deserve the skills, strategies, and insights to successfully participate in

an ever-changing global environment (International Reading Association, 2002; Leu, 2000, 2002; Reinking, 1998; Street, 2003). Leu, Kinzer, Coiro, and Cammack (2004) argued for new theoretical perspectives and frameworks to help researchers and educators understand the new literacies and to direct a future research agenda. They also suggest that because of the changing nature of the new literacies, such theoretical perspectives must “emerge from the new literacies engendered by the requirements and possibilities of new technologies” (p. 1572).

Central Principles of New Literacies

An abundance of new literacies have continued to emerge in the twenty-first century. Leu et al. (2004) proposed that the new literacies centered on the Internet and other information and communication technologies (ICTs) are the most essential for schools to consider as they seek to prepare their students for the twenty-first century. While an inclusive theory of new literacies is not clearly defined, Leu et al. (2004, p. 1589) illustrated ten principles on which this emerging theory should be built.

1. The Internet and other ICTs are central technologies for literacy within a global community in an information age.
2. The Internet and other ICTs require new literacies to fully access their potential.
3. New literacies are deictic.
4. The relationship between literacy and technology is transactional.
5. New literacies are multiple in nature.
6. Critical literacies are central to the new literacies.
7. New forms of strategic knowledge are central to the new literacies.

8. Speed counts in important ways within the new literacies.
9. Learning often is socially constructed within the new literacies.
10. Teachers become more important, though their role changes, within new literacies classrooms.

These principles can be used as a guide when seeking to understand the evolving changes in the nature of literacy and literacy instruction and learning.

New Literacy Studies

Stories have been used in many ways to transmit knowledge and culture, maintain power structures, and provide a voice among the generations and the ways in which they have been shared through new literate practices have expanded in the new millennium. Reproducing the values of a society, stories are embedded in literacy practices and continue to play a key role in the education process (Abrahmson, 1998; Davis, 2004). Changes in society and advancements in cultural communication tools have changed the method in which stories are told today. These changes include globalization, a competitive knowledge-based economy, and the proliferation of digital communication technologies (Cope & Kalantzis, 2000; Leu, Kinzer, Coiro, & Commack, 2004; New London Group, 1996). Continuous social, economic, cultural, and technological shifts pose a challenge to educators who constantly seek to define what it means to be literate in today's society.

Although traditional notions of literacy have remained intact for centuries, many researchers and educators agree on the need for a new concept of literacy (Kalantzis, Cope, & Fehring, 2002; Leu et al., 2004; New London Group, 1996). Leu et al. (2004) explained that the traditional definitions of literacy, with respect to reading and writing,

continue to thrive. With the ever-evolving technology, however, new notions of what it means to be literate have been explored. According to Kalantzis, Cope, and Fehring (2002), to be fully literate in today's society, students must acquire the skills needed to communicate with digital media technologies and must be able to adapt to the increasing cultural and linguistic diversity of our world. Recognizing the need for innovative literacy pedagogies, the New London Group (1996) cautioned that educators should take into account the diverse nature of students by developing curricula that will "mesh with different subjectivities, and with their attendant language, discourses, and registers, and use these as a resource for learning" (p. 70). With these evolving notions of literacies and what it means to be literate, researchers and educators are offered a variety of approaches to meet the needs of 21st century students.

Storytelling

Throughout the ages, a steadfast element of human experience has been storytelling. A powerful storyteller connects the reality of everyday life to the listener's imagination. As the teller weaves a tale of splendor or demise, the listener is guided into a world filled with sight and sound; both teller and listener become performers, and both become transformed. Daley (2003) noted that "...the art of storytelling, always performative, has been a major way of transmitting culture and values throughout human history" (p. 36). Daley's use of the word "performative" reflects the notion that it is the storyteller's responsibility to enchant, entertain, and engage the listener while transmitting knowledge (O'Flaherty, 1988). Throughout history, such knowledge has been transmitted through song, dance, poetry, and narrative.

In current times, articulating stories through the use of digital communication tools has gained popularity. With the rapid development of multimedia and hypermedia technologies, new avenues for telling stories have been made available on the computer. This new practice of telling stories has fueled the literacy revolution by creating new ways of making meaning.

Desktop publishing, audio recording, photography, the Internet, and digital videos are a few examples of the tools used to create and disseminate stories. Through these persistent advancements in technologies, ongoing changes continue to affect the manner in which stories are crafted and shared and, in turn, who can gain access to the roles of teller and listener. As history has shown, the act of telling stories to inform, inspire, instruct, and influence will likely remain a steadfast, integral part of the human experiences as well as the teaching and learning process.

Storytelling, Learning, and Literacy

Storytelling has proven to be a powerful device for promoting learning and literacy (Davis, 2004). Schank (1990) regarded that humans are wired for story and that all they know is embodied in story. White (1991) illustrated that through the process of fashioning human experience into narrative, humans are able to address the challenge of translating knowing into telling. Van Manen (1991) associated storytelling with theorizing while Noddings and Witherell (1991) considered that stories make the abstract tangible.

Postman (1989) connected the practice of storytelling to higher education, proposing that without stories as organizing frameworks, students would be unable to make sense of the volumes of information they interact with as part of their coursework.

More current analysis by Berg (2004) illustrated that literature in psychology and education reveals connections between storytelling, narrative construction, and learning. Berg (2004) stated, "...it is through narrative that individuals construct versions of themselves in the world- it supplies a way for cultures to provide models of identity" (p. 4). Similarly, Egan (1989) stated that the process of encoding knowledge into story form makes the knowledge more memorable.

This concept of knowledge coding was important to psychologist Jerome Bruner who explored the role of narrative in relation to cognitive theory. Bruner (1990) argued that narrative is one of the primary devices for creating and analyzing cultural meaning. Asserting that cultural context encourages children to become narrators, he noted that children are quick to understand the importance of creating and telling the right story in order to sustain a desired goal.

Other research has extended these ideas. Abrahmson (1998) illustrated that educators throughout history have incorporated the seemingly natural way to learn by employing various storytelling strategies into their instruction. Role playing, oral history activities, cooperative games, puppetry, and virtual reality experiences are a few learning activities that incorporate the process of storytelling. These examples establish the importance of storytelling to not only the transmission of culture but also to the act of learning itself.

Digital Storytelling

Introduction to Digital Storytelling

The rapid development of multimedia and hypermedia technologies has provided new avenues for creating stories on the computer. Multimedia systems, images, sound,

and animation can be brought together with text to create a story. This media practice is called digital storytelling. Davis (2004) described a digital story as a form of short narrative, usually a personal narrative, told in the first person, and presented as a short movie displayed on a computer monitor, television, or projected onto a screen. Digital stories have been created to share personal stories, autobiographies, personal histories, or to create original stories giving the author a sense of the power of personal voice.

While straightforward in theory, Farmer (2004) argued that digital storytelling is not as simple as it may first sound. She asserts that, "For students to succeed in this endeavour [sic], they must know their facts, make decisions about the key elements, and shape those within the parameters of telling a story. Such work involves high-level information literacy, critical thinking and creativity; the result is an original and authentic product of the child's knowledge and imagination" (p. 156-157).

Digital Storytelling in the Elementary Grades

Lagunas and Guzzetti (2011) conducted teacher research in a teacher-researcher-university-researcher partnership with Lagunas' first-grade students in a middle-class suburban school. This study investigated how digital storytelling impacted students' writing skills. The authors gathered data on 23 students in the form of field notes, observations, informal interviews, and documents, including DVDs and a writing rubric. Findings illustrated that digital storytelling assisted students in advancing their writing skills and abilities, as well as helped them create intertextual ties, design text, and learn to write in hybrid forms. The authors concluded that additional studies are needed to investigate how digital storytelling impacts primary-grade students' writing abilities.

Similarly, Sylvester, & Greenidge (2009) investigated how digital storytelling could motivate fourth-grade struggling writers and scaffold their understanding of conventional writing. They reported that creating a movie gave students a reason for writing and made them more conscious of their audience. They also noted that this approach helped students to “discover voice, confidence, and structure in their writing” (p. 284). They also illustrated that “since the narrator’s voice is what makes the story interesting, it should be recorded as a performance, allowing the audience to hear the personal emotion inflected in the voice” (p. 289).

Digital stories can be used in educational settings to teach more than just personal narrative. Writing teachers can use digital storytelling to teach narrative parts, imagery, and other literary devices. For example, Banaszewski (2002) described a digital storytelling project he completed with fourth and fifth graders in Lexington, Massachusetts. Students incorporated new media practices into their writing to create a meaningful story with personal connections. Students worked as peer coaches to teach each other different technology and literacy skills, as well as to evaluate their peers’ stories. Banaszewski stressed that the technology was always viewed as secondary to the storytelling process. This study demonstrated how digital media could be instrumental to students struggling to find voice, confidence, and structure in their writing.

The practice of creating digital stories typically involves fostering students’ identities as writer and storytelling. In a recent study by Vasudevan, Schultz, and Bateman (2010), digital storytelling was shown to help students see themselves as literate. Digital storytelling also increased students’ participation and engagement within the classroom. This study took place in a fifth-grade classroom located in a multiracial

and multinational urban public school. The authors worked closely as researchers and practitioners and collaborated with the classroom teacher to introduce students to diverse visual and aural resources with which to compose a range of texts. The researchers found that students' engagement improved as the classroom teacher worked to bridge home and classroom literacy practices. Findings also highlighted one student's transformation from being disengaged in school tasks to being engaged in writing a digital story.

In a study by Czarnecki (2009) a second-grade teacher guided her students through the process of creating a digital story by meeting an hour and a half each week for four weeks. Students went through a step-by-step process to compose, illustrate, and narrate their stories. Digital storytelling helped to build conceptual skills, like understanding a narrative and using inductive reasoning to solve problems. Composing digital stories also required the authors to build technology skills through the use of software and other tools.

Sadik (2008) conducted a study in Egypt involving two Basic Education schools with students ages 6-15 years. During his study, students visited the school's computer lab, complete with a Media Specialist, 24 PC computers, Internet connection, a digital camera, a scanner, and a color inkjet printer, two to three times per week. Data collection included observations, interviews, and an assessment rubric. Teachers saw digital storytelling as a valuable tool that could be used to increase students' understanding of curriculum.

Digital Storytelling with Adolescents and Adults

Digital storytelling has been considered to be an evolving art form (Ohler, 2006). It began as a way to share personal narratives and has quickly evolved into a useful teaching tool. For example, Davis (2004) conducted a study incorporating digital storytelling with students during an after-school program in an effort to examine how self-narratives could serve as a developmental tool. His study involved five African-American boys ages 12-14 in a low-income urban middle school. The purpose of this study was to identify and illustrate the ways that digital stories served as developmental resources for their authors. Davis (2004) found that the practice of digital storytelling allowed middle-school students opportunities to make use of the complex technical tools to tell a story, construct their identity as authors, and gave students a sense of ownership in their personal stories.

Davis and Weinshenker (2012) conducted a follow-up study to Davis's (2004) study. Five years after Davis's original study, the authors conducted interviews with two of the students from the former study to see how digital stories impacted their lives and life trajectories. Findings illustrated that both boys acknowledged the benefit of using digital stories in authoring their identities. The boys stated that through the digital storytelling project, they were able to articulate their interests and passions in life, and they have since followed those passions toward careers in filmmaking and aviation.

Digital storytelling can also be used to evoke students' stories, extend their literacy skills, and provide a multimedia environment that allows them to work as directors, artists, programmers, screenwriters, and designers. Kajder (2004) conducted a study with 37 culturally diverse, socioeconomically challenged suburban students in a

high school outside Washington, DC. The purpose of this study was to expand students' literacy skills, excite students' reading, incite students' writing, and lead them through the process of creating a finished digital story. Through the digital storytelling project, Kajder found that students' gained confidence in their writing skills and developed new understandings of literacy.

Digital storytelling has also offered older students opportunities to develop their identity as learners and producers of digital media. For example, DeGennaro (2008) conducted a study on students' identity formation through a storytelling workshop in a low-socioeconomic community. Once a week for 15 weeks, seven seniors, ranging from 17 to 18 years of age, met at a community technology center to work on student-generated digital stories. A varied collection of sources were gathered during this 15-week-long case study. Each two-hour after-school session was video and audio taped for a total of 30 hours. Field notes of the sessions were also recorded and students' artifacts were collected. These artifacts included students' folders, original stories, storyboards, images, sounds, and students' final digital movies. Interviews were also conducted asking students open-ended questions about their stories. Findings revealed how the process of creating a digital story impacted the students' identity and agency. Students were given opportunities to tell their stories, have a voice, and potentially impact others with their productions.

Dreon, Kerper, and Landis (2011) highlighted one teacher's journey to incorporate digital storytelling practices in his middle-school classroom. Tyler, the primary participant, took various university courses from the authors to learn digital storytelling techniques and how to implement them in his teaching. Through the

university courses, Tyler created multiple digital stories that could be used with his middle-school students. Tyler also created digital stories addressing challenging mathematics concepts. Tyler's students' participation and understanding of content knowledge improved as a result of using digital videos in a middle-school mathematics class.

Behmer, Schmidt, and Schmidt (2006) conducted action research investigating the effects of digital storytelling with middle-school students in rural Iowa. The study included 70 students in three seventh-grade language-arts classrooms. Students participated in the study for seventy-two minutes each day during a six-week term. Data for this study were gathered from multiple sources, including personal observations of classroom activities during different stages of the project, interviews with students, students' written self-evaluation and learning logs, informal conversations with the teacher and students, the teacher's daily journal, an interview with the teacher, and final project rubrics. Students crossed the boundary from learner to contributor, making the digital storytelling project more authentic for students. The results of this study indicate that digital storytelling could improve students' literacy skills, as well as motivate learners to tell compelling stories to others.

Dogan (2007) studied how teachers implemented a project in their classrooms after attending a summer digital storytelling workshop held at the University of Houston. He was interested in the effects a digital storytelling project had on students and the potential problems that could arise from the incorporation of digital storytelling. Dogan used both qualitative and quantitative research methods by conducting interviews, and observations, and by collecting questionnaires. He concluded that although nearly all of

the teacher-participants were enthusiastic to try digital storytelling with their students, at the conclusion of their workshop, few teachers actually did. He found that having enough time ranked as one of the main reasons why teachers did not lead projects with their students. He also stated that access to technology was the second most cited reason for not implementing the project. The teachers that did incorporate digital storytelling noted that students' technical skills, presentations skills, research skills, organization skills, and writing skills improved, as well as students motivation and engagement. Dogan concluded that digital storytelling positively impacted students' 21st century skills, and called for more studies to be led investigating the educational benefits of digital storytelling.

Skouge and Rao (2009) demonstrated how the composition of digital stories could become an empowering experience for disabled students, as well as a valuable learning tool for special education students. Their study was conducted on the Pacific Islands of Hawaii and included students in grades 4-12, as well as university students. Findings from their study explained how digital stories could be used to provide authentic accounts of life in a variety of communities across the Pacific.

Hull and Katz (2006) conducted a multi-year digital storytelling project examining adolescents' and adults' creation of multimodal texts. Their comparative case study illustrated how a young adult and an adolescent authored their lives through short narratives at a community and technology center. These cases illustrated how digital storytelling, in combination with supportive social relationships and opportunities for participation in a community-based organization, provided powerful means and motivation for forming and giving voice to agentive selves. The two participants built a

strong sense of self and rearticulated their sense of identity. The researchers suggested that future research should be conducted to determine where digital storytelling fits in a standards-based educational classroom.

Brzoska's (2009) dissertation focused on the use of digital storytelling as a strategy for facilitating students' acquisition of new literacy skills. Qualitative methods were used to collect and analyze a variety of data sources, including interviews with six faculty members and 23 students, student-produced digital stories, and notes from 21 class observations. Results showed digital storytelling fostered higher-order thinking skills and developed students' authorial voice in writing. Brzoska suggested that future research be conducted on the effect digital storytelling has on students' acquisition of literacy skills, identifying common themes and challenges that might arise.

Digital Storytelling in Content Areas

The uses of digital storytelling for learning have varied among its users. Some educators have used digital storytelling in an effort to motivate students to write in content areas (Burn & Reed, 1999). This practice of the new literacies has been successful for struggling writers, especially students with disabilities. Michalski, Hodges, and Banister (2005) conducted a study with seventh- and eighth-grade students with cognitive delays at a low-income urban junior-high school. Students participated in a self-contained classroom for language arts and social studies. The class sizes ranged from four to ten students in a class. Because writing for students with disabilities can be laborious and frustrating, the purpose of this study was to explore alternatives that might alleviate some of the stressors, while stimulating students to edit and revise. The researchers found that by incorporating digital storytelling practices into writing

instruction with students with special needs, students improved their writing skills, sequencing skills, vocabulary, and even raised the quality of their spoken language. Among the educational benefits, students also showed increased motivation and engagement in their writing assignments.

Reading or content-area teachers can use digital storytelling to support students' understanding of content knowledge. In a study by Levin (2003), high-school students in San Francisco strengthened their knowledge of the Holocaust through incorporating digital storytelling in their social studies course. Students researched the Holocaust and interviewed Holocaust survivors to gain information. Students then created digital stories to share what they learned about the Holocaust. Findings from the study showed that students deepened their understanding of the Holocaust, and saw their work as having a direct impact for others outside the classroom.

Educators in other content areas have seen the benefits of incorporating digital stories, as well. Art educators have viewed digital storytelling as an effective way of bringing art into the digital era. For example, Chung (2007) conducted a study with seven pre-service and in-service teachers from the University of Houston. These teachers spent 48 hours creating digital stories to share important art lessons with students ranging from grades kindergarten to twelfth grade. The participants used various software programs, such as Adobe Premier, Microsoft Photo 3, Windows MovieMaker, and iMovie to create their digital stories. Through this study, students' attitudes towards school changed as their learning became real to them. Students developed a personal connection with the assignment and reported improved attitudes toward schooling as a result of digital storytelling. Digital storytelling offered art educators another avenue to implement an

innovative and relevant art program for the technology-savvy digital generation. Robin (2005) argued that educators at all levels and in most subjects can use digital storytelling in many ways to support students' learning by encouraging them to organize and express their ideas and knowledge in an individual and meaningful way.

Participatory Culture

According to a recent study from the Pew Internet & American Life project (Lenhardt, 2012), more than one in four teens that use the Internet records and uploads video to the Web. In most cases, these teens are actively involved in what is called participatory media or participatory cultures. Participatory media or Do- It-Yourself (DIY) media is defined as “those tools and practices that facilitate creating new media texts” (Guzzetti, Elliott, & Welsch, 2010) in the tradition of participatory culture (Jenkins, 2009). Participatory media or DIY media practices include blogs, wikis, tagging and social bookmarking, music-photo-video sharing, podcasts, video comments and videoblogs (Rheingold, 2008). Jenkins (2009) defined participatory culture as:

a culture with relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing one's creations, and some type of informal mentorship whereby what is known by the most experienced is passed along to novices. A participatory culture is also one in which members believe their contributions matter, and feel some degree of social connection with one another. Participatory culture shifts the focus of literacy from one of individual expression to community involvement (p. 3).

Potential benefits from involvement in participatory culture or participatory media include opportunities for peer-to-peer learning, a new attitude toward intellectual

property, the diversification of cultural expression, the development of skills valued in the modern workplace, and a more empowered conception of citizenship (Jenkins, 2009). Many of today's youth will acquire these skills and competencies on their own through interaction with new media. For those without access, educators need to work to ensure every young person has access to the skills and experiences needed to become full participants in the global economy.

Participatory Media and Education

With the rapid advancements in technology and the increasing access to new forms of media, students are exposed to digital literacies at an escalating rate (Coiro, Knobel, Lankshear, & Leu, 2008). While there is agreement that a new set of 21st-century skills involving technologies is important, there is little consensus about precisely what knowledge and abilities are necessary for children. Reviewing the literature on participatory media practices illustrates the extent to which today's youth are engaging with technology. Rideout, Vandewater, and Wartella (2003) found that, "Children six and under are spending about two hours a day with screen media (1:58), about the same amount of time that they spend playing outside (2:01), and three times as much time as they spend reading or being read to (39 minutes)" (p. 4). With digital media interaction on the rise, researchers are looking at the effects digital media has on students and their literacy practices.

In the past, traditional forms of literacy have dominated educational settings, but those practices are changing. Youth today engage in a plethora of participatory media practices, such as creating online comics (Bitz, 2007), modding or modifying and creating video games (Peppler & Kafai, 2007), and writing FanFiction (Black, 2005)

outside of school, and often bring these practices into the classroom. Ünlüsoy, de Haan, Leseman, and Kruistum (2010) illustrated that girls and boys are engaging in digital practices at an equal rate, although girls are more likely than boys to keep more traditional literacy practices. Teachers need to embrace these participatory media practices and incorporate them into the classroom to engage students and improve students' literacy skills.

Recent studies have shown that through new literacies practices, students were able to produce, consume, and distribute information easily. As a result, students saw themselves as literate in many ways (Van Der Meij & Boersma, 2002; Thorvaldsen, Egeberg, Pettersen, & Vavik, 2001; Jacobs, 2006; Vasinda & McLeod, 2001; Journell, 2007; Merchant, 2003; Ba, Tally, & Tsikalas, 2002). These studies demonstrated that students are not engaging in traditional literacy practices to the extent they were a decade ago.

Rather, participatory media practices have been consuming the lives of youth today and increasing their repertoire of literate skills and abilities. Ba, Tally, and Tsikalas (2002) found that the more time young people spend engaging in participatory media practices, the more literacy and technology skills they gained. Students were shown to gain more literacy skills at home through Do-It-Yourself or DIY media practices than they were at school.

Other researchers have provided additional evidence that incorporating participatory media resulted in students gaining new literate skills and abilities. For example, Burnett, Dickinson, Myers, and Merchant, (2006) conducted a study examining the literacy practices of elementary students in North England. Participants included

students from a third- and fourth-grade classroom in a rural school and students in a fifth-grade classroom in an urban school. Interviews, observational data, and children's digital texts were collected for analysis. Results of the study demonstrated that participatory media could be used to promote new literacies practices in the classroom through the production of new kinds of texts.

Participatory media can enhance students' understanding of topics and engage them in the learning process. Stoerge (2008) used virtual worlds with elementary students to build literacy skills. Students showed evidence of learning through seeing, knowing, and doing within visually rich and mentally engaging spaces. Rather than simply reading about events, digital media practices engaged students in the learning process, giving them experiences that would help build problem-solving skills. Scheibe (2004) found that participatory media practices can be used in K-12 classrooms to promote critical thinking, communication, and technology skills among students. Digital literacies lessons evoked students' active participation, especially students who were nontraditional learners. Students allowed to interact with digital media in the classroom gained literacy and technology skills needed to succeed in the workforce in the 21st century.

A case study conducted by Lam (2009) found that students are motivated to learn online. Lam's study included Chinese immigrants, all of whom attended a Midwestern high school. She focused on two key informants and their involvement in an online affinity space. Data consisted of observations, interviews, screen recordings, and think-aloud demonstrations by the youth of how they participated in online communities. Lam found that youth who are engaged in online discussion groups and Fanfiction writing improved their language and literacy skills in their native language.

Blogging is another participatory media practice that engages students and motivates them to write (Sawmiller, 2010; Deoksoon, 2011). A recent study by Sawmiller (2010) found that, “Blogging can give the ‘silent student’ a voice by allowing them the opportunity to write on topics of interest” (p. 46). He also found that students’ engagement in the writing process improved since students’ work is available immediately for their peers to review or for others on the World Wide Web to comment and post feedback. Each of these factors motivated students to learn. A study conducted by Deoksoon (2011) looked at podcasting and blogging in a TESOL classroom. Participants’ attitudes and self-assessment improved by using podcasting and blogging in a TESOL classroom. Similarly, Ellison and Wu (2008) investigated the impact blogging had on students’ attitudes toward writing and their comprehension. They found that when students engaged in blogging activities in the classroom their attitudes towards writing improved. Hsu and Wang (2011) examined college students’ blogging practices and the impact it had on their academic abilities. Students who used blogs were more engaged in their writing and their blogging was positively correlated with a higher retention rate.

Many other participatory media practices have been found to impact students’ attitudes and performances. Instant messaging, iMovie, and chat rooms have all been shown to improve students’ attitudes and achievement in school (Lewis & Fabos, 2005; Yerrick & Ross, 2001; & Yardi, 2008). For example, Aharony (2009) conducted a study using wikis as an instructional tool in classrooms. Collaboration among students improved as a result of writing on a class wiki. Gunter and Kenny (2008) conducted a study using Digital Booktalk, a Web portal that uses video trailers and associated activities in an attempt to effectively engage reluctant readers, with school-age

participants. Their study demonstrated that this web portal was a successful motivator for students to read and complete books and increase their personal understandings of the relevance of reading and writing.

Technology as an Influence on Literacy Achievement

Researchers have also investigated how technology influences students' literacy achievement. Russell and Plati (2002) investigated the effects of computer and portable writing devices on students' writing abilities. They conclude that by providing students with the option of composing responses using the writing tools with which they were accustomed to working with, their writing scores on state assessments improved.

Incorporating laptop computers in classrooms has resulted in an overwhelming increase in students' reading and writing achievement (Barone & Wright, 2008; Goldberg, Russel, & Cook, 2003; Gulek & Demirtas, 2005; Suhr, Hernandez, Grimes, & Warschauer, 2010). Suhr et al. (2010) found that students using laptop computers outperformed students using traditional writing strategies and literacy response and analysis. In another study by Gulek and Demirtas (2005), students showed an improvement in all academic areas by using laptop computers. Goldberg, Russel, and Cook (2003) found that "students writing on computers produced written work that was of greater length and higher quality than students writing with paper and pencil" (p. 4). A study by Barone and Wright (2008) highlighted the effects of personal laptop computers on students' learning and motivation. These researchers illustrated how students could expand their digital media skills by creating music, voice recordings, and podcasts. Students also used blogs and instant messaging to share ideas and collaborate with their

peers. They concluded that through the incorporation of laptop computers, students were motivated to learn.

Harris and Kington (2004) reported a case study of ten-year-olds in electronic mail (e-mail) contact with employees at a mobile phone factory 30 miles away from the school. 'Epals', the mobile phone employees, learned about children's interests, and in turn offered students insights into the world of employment. Teachers involved in the project commented that they found out more about their pupils when reading the e-mail messages they exchanged. A more formal evaluation showed gains in pupils' motivation and social skills.

McKeon's (1999) study of 23 children's e-mail interactions with pre-service teachers looked at the balance between purely social exchanges and topic-focused exchanges (in this case book-talk). Roughly half of the exchanges of these 9- and 10-year-olds fell into each category, leading McKeon to conclude that "classroom e-mail partnerships may provide students with a new way to learn about themselves as they select information that defines who they are and send it via email to another" (McKeon, 1999, p. 703). From this study, it seemed that e-communication can provide useful opportunities for exploring identity and relationships while providing a discursive form which depends on purposeful communication with audiences beyond the confines of the classroom.

New literacies have been evolving through various forms. E-mail (Merchant, 2003) and instant messaging (Jacobs, 2006) are examples of new forms of text that students produce. Jacobs (2006) concluded that producing text in these new ways leads to advancement in literacy development. Students read and wrote daily,

thought critically to produce text for the appropriate audience, and gained experience with word choice to communicate clearly with others.

Identity Theory

Defining Identity

Researchers have studied identity from multiple diverse theoretical perspectives, including consciousness, modernist, postmodern, psychological, and sociocultural theories. Consciousness theory (Dennet, 1991) posits that how we think about the world is who we are. A view of the modernist perspective (Kellner, 1995) posits that individuals have one core, consistent, true inner self.

It is difficult to think of identity in singular terms, however, as we experience different versions of our identities in different contexts (Gee, 2001). For example, in virtual worlds, there are selves presented in the real world and possibly different selves depicted on screen through avatars (Turkle, 2005; Waggoner, 2009). Sometimes, these real and virtual selves have parallel, mutually constituting identities (Boellstorff, 2008; Donath, 1999), but at other times, these identities are distinct from each other and are possibly conflicting (Baym, 2010; Nakamura, 2003). The postmodern perspective (Gergen, 1991; Levine, 2005) addressed this concern by arguing that there is no absolute self. Gergen (1991) claimed there are different versions of selves expressed at different times and in different places.

The modernist notions of the self have been largely influenced by the postmodern perspectives on identity by challenging the master narratives of self and arguing that we take on different identities in different situations. Yet, the postmodern perspective does not answer the question of whether we are somewhat different or completely different in

various contexts. This perspective is also limited because it does not support any notion of consistency of identities (Gergen, 1991).

Traditional psychological perspectives (Erikson, 1986; Marcia, 1966) view identity development as a normative process that can be achieved for psychological well-being. An example of this is Erikson's psychological stage model (1968) that describes adolescents as having an unidentified or non-salient identity. It is through the experience of a crisis that makes adolescents challenge their identity and finally resolve it through self-exploration.

Many psychological perspectives generalize the ways individuals deal with crisis in terms of their membership in particular social groups of race, ethnicity, and gender (Cross, 1971; Phinney, 1990). Yet, membership in these social categories should not be viewed as traits within these members, but as repertoires of practice an individual experiences over time in their cultural communities (Gutierrez & Rogoff, 2003). Youth face ongoing challenges that help to construct their identities in moment-to-moment interactions throughout life and not in one particular stage with one endpoint of development.

A sociocultural perspective on identity posits that there are different versions of the self-performed, enacted, and lived in these moment-to-moment interactions. "Identities are lived in and through activity and so must be conceptualized as they develop in social practice" (Holland, Lachicotte, Skinner, & Cain, 1998, p. 5). Digital storytelling is one such practice for youth to construct identities as they tell their personal stories (Davis, 2004). Children and adolescents often create digital stories about their lives and provide narrative descriptions of themselves as they tell their stories.

There has been a long established tradition of studying identity through narratives (Davis, 2004; Holstein & Gubrium, 1999; Ochs & Capps, 1996; Rymes, 2001; Sfard & Prusak, 2005). Recently, researchers have argued that identity is not only understood through the expression of the narrative, but that identity is the narrative (Sfard & Prusak, 2005). Yet, words alone cannot communicate everything about identity. Words do not represent the array of lived experiences in practice (Wenger, 1998). Narratives include much more than words. “Narratives are not usually monomodal, but rather they integrate two or more communicative modes. Visual representation, gesture, facial expression, and physical activity, for example, can be combined with talk, song, or writing to convey a tale” (Ochs & Capps, 1996, p. 20).

Davis (2012) agreed, claiming that the multimodal format of digital stories provides a “much richer symbolic palette than does written text alone” (p. 49). Davis’s earlier study aimed at looking at the influence of digital storytelling on middle-school students’ perceptions of themselves as writers. Digital storytelling had the potential to help expand students’ identities so they saw themselves as authors (Davis, 2004).

With the current decline in students’ writing abilities (National Commission on Writing, 2003) and the disconnect students feel between their in-school and out-of-school literacy practices (Considine, Horton, & Moorman, 2009), an investigation on students’ perceptions of themselves as writers is imperative. Often, struggling writers perceive themselves as poor writers (Sylvester & Greenidge, 2009). Giving students a clear and meaningful purpose for their writing, as well as allowing them to write for a larger audience often motivates students to write and produce quality work (Sylvester &

Greenidge, 2009). Digital media can motivate students to engage in writing activities thereby influencing their identities as writers (Banaszewski, 2002).

Writing Theory

Writing theory can be intricate and complex. The development of writing is more challenging still. Graham and Perin (2006) contended that a clear theory explaining how writing develops does not currently exist. They also illuminated that many explorations of writing today employ adult models and may not accurately represent writing development among younger students. The history of writing instruction has closely followed the development of learning theory and literary theory. Current instructional practices may reflect this evolution, shifting the focus from one theory to another even in a single assignment or lesson plan (Martindale, 2008).

Over the years, a variety of learning theories have developed. Of these theories, four emerge as most relevant in the literature on writing instruction. These theories include formalism, constructivism, social constructivism, and dialogism. In addition, much of the research in the past two decades on writing instruction features these theories in a focus on writing strategy instruction. These are described below:

Writing as Formalism

Formalism is an approach that provides a basic set of rules about writing to be taught to students in some particular sequence (Giroux, 1978). The formalist approach focuses on the words, syntax, organization, and coherence as the major components of the writing process. In this framework, assessment is based on whether the rules have been mastered properly or not. Aside from whether or not students use and incorporated the rules, how students made sense of instruction was not considered. Either students

could display the ability to use rules correctly, or they could not. The reasons for whether or not students could internalize the rules are not discussed in the literature.

This formalistic view still exists in some state writing assessments as a trait-based scoring rubric. It is specifically identifiable in a trait called conventions (Smagorinsky, 2006). Conventions include explicit grammar, spelling, and punctuation rules. Traits can be weighted differently in an analytics trait scoring system. Some schools consider conventions rudimentary, and therefore weigh these aspects of writing more heavily than other traits.

Writing as Constructivism

The theoretical definition of writing shifted to that of a situated cognitive process in the late 1960's through the early 1980's (Nystrand, Greene, & Wiemelt, 1993). Language production was more a model of constructed meaning, where the text became a mental representation of the writer's purpose. In this view, writing was still rule-governed, although it became strategic and personal. Moffett (1968), Britton, Burgess, Martin, McLeod, and Rosen (1975) and Emig (1971) were pioneers of cognitive-constructivism in writing instruction. Emig (1971) argued that writing should be more process-oriented, as opposed to product-directed. In later work, Emig (1983) illustrated that writing characterized a unique mode of learning, as writers originated unique verbal constructs and graphically recorded them. Even when writing instruction became more personalized and process-oriented, the process of instruction did not focus on how students used and incorporated instruction in their own writing.

Today's inquiry-based writing approach encompasses some of these tenets of cognitive constructivism. Students are being asked to verify or show their work to teachers in different subject-area classrooms to monitor the writing for an adherence to the rules of writing. Process-directed strategies designed to help students represent their ideas in writing have been rooted in constructivism.

In contrast, literacy researchers have considered literacy as a social process. Shaughnessy (1977) was one of the first to call writing a "social act" (p. 83). This description was shared by others at the time. For example, Heath (1983) conducted a longitudinal ethnographic study of students from three different communities of mixed race and social class in the 1960's and 1970's. This study was among the first to suggest that different communities socialized their children in different ways long before children enter school. Heath further noted that middle-class White students were more likely to be successful than students from communities of color or a lower economic class. Although Heath directly related success in writing practice to race and class, she did not focus on how students made sense of the writing instruction given to them in school.

Critical challenges to thinking of writing, the social context of writing, and the writing environment came into the discussion of writing theory in the final two decades of the last century (Dyson & Freedman, 1991). Britton and Applebee argued for the significance of understanding the relationship of students' context to their educational settings. Although the professional conversation around writing began to examine the meaning of writing for the students and the possible hidden meanings of the context for each student, writing education still largely focused on skills-improvement as opposed to assessing how students managed instruction.

Writing as Social Constructivism

Social constructivists extended the developing ideas of writing as a personal process by arguing that written text should be viewed as discourse conventions of social and cognitive processes (Vygotsky, 1978; Palincsar, 1998). Both the writer and the reader were defined as members of a community engaged in discourse. The environment or context of the writer could shape the discourse. For example, the writer's family, school, community, or individual interests could influence the discourse.

The theory that writers produced text not merely in isolation, but as a part of a community, led to the term "discourse communities". The term was first used by sociolinguist Martin Nystrand in 1982 and further developed by the American linguist John Swales. Swales (1990) outlined six defining characteristics of a complete discourse community. The first characteristic was a broadly agreed upon set of common public goals. The second was mechanisms of intercommunication among its members. The third were participatory mechanisms primarily to provide information and feedback. A fourth characteristic was one or more genres in the communicative furtherance of its aims. The fifth and six characteristics were some specific lexis, and a threshold level of members with a suitable degree of relevant content and discourse expertise.

Writers were allowed to participate in a discourse community where basic conventions were understood. Participants had to understand and adhere to the rules and practices of the discourse community. In addition, a writer must possess some understanding of the cultural and social values underlying the community. Authorship in a discourse community in the classroom was a desired goal as students could work together building on knowledge of the broader community.

Writing as Dialogism

The idea of a discourse community is extended in the dialogic theory of writing seen in today's schools. In this view, writing is seen as a dialogue between a writer and a reader. In *On Writing* (2000), author Stephen King expressed this concept in terms of a shared moment in time. He described, to the very detail, a scene involving a white rabbit in a cage. King asserted that the reader derived a mental picture as the writer had described the scene. King called this dialogue between the reader and the writer "a meeting of the minds" (p. 98). According to the proponents of dialogism, utterances were a social phenomenon and once spoken or written, a potential relationship had been created (Nystrand, Greene, & Wiemelt, 1993).

Halliday (1978) took this understanding further to assert that text was encoded within sentences rather than comprised of them. He also emphasized that conversation was fluid and not completely dependent upon the context. Context spoke to the intent of the writing while the audience was mutual. We see the influence of dialogism in rubrics of writing that attempt to evaluate the degree to which students consider their audiences. Dialogism expressed the importance of that consideration, suggesting that writing itself created the relationship.

Research on Writing

Research suggests that many students have specific strategic deficits in the area of idea generation, text organization, and metacognitive control. Most remedial writing programs have focused on mechanical or transcription skills, however, because of educators' tendency to focus on the writing product rather than the cognitive activities that underlie the production of text (Walmsley, 1984). The focus on product over process

does not allow students to experience the writing process in its entirety and may not provide students with the opportunities needed to become confident writers. The following is a summary of the research on writing process and its effect on students' writing.

Process Writing

In the history of language arts instruction, there have been extensive approaches and strategies involving the teaching of writing. Although many innovative approaches have been developed, teaching writing remains one of the most complicated tasks engaged in by both teachers and learners (Silva & Matsuda, 2001). As a result, process-oriented approaches have flourished over the past four decades. In the 1960's, the National Council of Teachers of English commissioned a study to explore what was known about the teaching of composition. The now famous report entitled, *Research in Written Composition* by Braddock, Lloyd-Jones, and Schoer (1963), commonly known as *The Braddock Report*, was released.

Inspired by this report, Rohman (1965) designed a model attempting to shift the emphasis on writing instruction from product to process. Rohman's model presented process writing as prewriting, writing, and rewriting. Prewriting was the one of the most valuable perspective to come out of this model. Prewriting was seen as the thinking period in which the writer "assimilated his subjects to himself as required for successful writing" (Rohman, 1965, p. 106). While there are many different perspectives on the process approach to writing, the product versus process debate has been examined by a significant number of respected researchers (Emig, 1971; Graves, 1983; Rohman, 1965).

While it remains true that writing is a complex process, it has been recognized that process approaches to teaching writing may improve students' attitudes toward writing and eventually allow them to experience the satisfaction of planning their pieces, drafting, and then seeing their work published (Matsuda, 2003). After the domination of the product-centered pedagogy in the early 1960's, a process-centered pedagogy began to gain popularity in the late 1960's and early 1970's. The traditional perspective of writing evaluation placed a large emphasis on the final product, while the process approach shifted the focus on the writer and the process the writer went through in writing. In this approach, the writer was encouraged to generate ideas through a cycle of writing activities consisting of planning, drafting, revising, and editing (Ferris & Hedgcock, 1998; Snow, 2002; Tribble, 1996).

Emig's (1971) landmark work titled *The Composing Practices of Twelfth Graders* has often been cited as the beginning of the shift from a focus on the writing product to a focus on the process of writing in the United States. In this study, Emig used a case study methodology to observe her eight 12th graders as they wrote. Using a think-aloud protocol (where an individual verbalizes his or her thinking on a particular topic), students were asked to describe how they planned what to write, what they were thinking when they paused, and how and when they reread, revised, and edited. Emig determined that the writing process was considerably more complex than previously realized. In her students' case, writing was not linear, it was recursive, where the writer writes, then plans or revises, and then writes again. Therefore, the focus of writing shifted from product to process, and from ends to means (Emig, 1971). Emig identified five stages of the composing process as follows:

1. Prewriting (generating ideas, mental rehearsal for writing)
2. Drafting (writing in progress)
3. Revising (re-see ideas)
4. Editing (cosmetics/error detection)
5. Publicating (public sharing of product)

Emig (1971) noted that writers could move back and forth among these stages as they recognize a need to rework their written thoughts.

Expanding on these notions, Graves (1975) conducted a five-month study exploring the writing process of seven-year-old students in formal and informal writing environments. He observed 53 writing episodes, all including prewriting, composing, and post-writing. He gathered data, including writing samples, interviews, and observations. First, Graves examined writing samples of 94 students to find out what thematic choices they made about their writing, the frequency of their writing, and the genres of their writing. Second, he observed 14 children while they were writing and noted their behaviors. Next, Graves interviewed nine boys and eight girls about their view of writing and what they thought made a good writer. Finally, he carried out a case study of six boys and two girls who were purported to be representations of seven-year old children.

Graves's study led to many different conclusions. First, he found that informal environments encouraged students to write. Next, he found that children do not need motivation or supervision when they write in the informal environment. Another finding was that girls liked to write more than boys in the formal environment. A fourth finding was that students produced longer writing when the topic was unassigned than when it

was assigned. Finally, the writing level of the children was the best predictor of writing process behavior.

In a similar study, Elbow (1973) viewed the process of writing as a series of problem-solving steps writers go through to discover what he or she knows and feels about a subject. Elbow also advocated for a strategy called free writing. In this strategy, the students would write any ideas that came to them, not focusing on editing until later on in the writing process. Many other researchers (Bridwell, 1980; Calkins, 1986; Flower & Hayes, 1981; Graves, 1983; Matsuhashi, 1981; Perl, 1979; Sommers, 1980) have explored how writers write, looking most specifically at how students plan, draft, and revise their work.

Perl (1979) also investigated the writing process by studying five unskilled college writers, asking them to write in both the extensive and reflective modes. Perl's study illustrated that writing is a complex process. While the participants spent very little time in the prewriting phase, they continuously went back and forth in checking their writing and revising what they wrote. Perl documented that even unskilled writers employed constant and stable composing strategies while writing.

In a similar study, Pianko (1979) conducted a study of 17 college freshman and their writing practices. Pianko studied the differences in writing practices between students in three categories: class status, age, and gender. Painko concluded that all participants spent very little time prewriting. Although students paused regularly during their writing to determine what should come next, students had difficulties envisioning the final product of their writing.

As a result of this research on process approaches to writing, researchers and educators have agreed that writing is a recursive practice. Sommers (1980) found that basic writers typically solved problems by rewriting without analyzing the problems in their text. As unskilled writers revised their work, it was usually for the purpose of correcting errors not for the purpose of reflecting on their writing.

Raimes (1985) also found that experienced writers also consult their own background knowledge, let their ideas incubate, and plan and revise what they write. An essential feature of an experienced writer was being able to consider the purpose and the audience for writing. The whole writing process as Raimes explained it is recursive. “Writers inevitable discover new ideas as they write and then change their plans and goals accordingly” (Raimes, 1985, p. 230).

Summary: Digital Storytelling and Process Writing

Digital storytelling offers many opportunities for students to expand their writing skills. Working through the writing process, students may develop their writing skills and abilities while focusing on the purpose for their writing and their audience. The participatory media of digital storytelling may assist students in developing their identities and skills as writers.

Chapter 3

METHODOLOGY

Rationale for Qualitative Methodology

For this study, I conducted a qualitative inquiry of primary students' writing practices and identities through the participatory media practice of digital storytelling. This research was guided by the following research questions: How might teachers' views of writing and the writing process influence students' development of their identities as writers and students' views of writing? How might students consider digital storytelling as writing? How might students develop a meta-language to talk about writing and about themselves as writers? How might digital storytelling influence primary-grade students' perceptions of themselves as writers? How can digital storytelling be used to meet the Common Core State Standards for writing a personal narrative in primary-grade classrooms? How might digital storytelling help to develop young students' skills as writers? How might students' identities that developed as writers transfer from digital storytelling to other writing? How might students equate digital storytelling writing with other academic writing? What can be learned about young students' engagement in the writing process by incorporating new participatory media of digital storytelling in a primary-grade classroom? What differences in writing competencies might exist between first- and second-grade students in writing skills and abilities with digital storytelling? Qualitative methods were appropriate to answer these queries to provide rich contextual descriptions of young children developing their writing skills and abilities and to provide insights into the nuances that influenced their writing development.

A qualitative approach was chosen to provide an expressive, narrative description of a social or human experience within a natural setting (Creswell, 1998). Qualitative research extends from the belief that people and events cannot be completely understood if they are removed from the environmental circumstances in which they naturally transpire (Schram, 2006). A qualitative researcher studies issues in relation to their circumstances in a local setting for a continuous amount of time (Miles & Huberman, 1994). This study addressed human and social issues within the natural setting of two primary-grade classrooms.

The practices of the new literacies (Gee, 2003) create many challenges for today's teachers and researchers. Today's teachers are challenged to find appropriate ways to incorporate new literacies into their instruction while educational researchers struggle to choose the best research designs to make sense of these new media practices (Coiro, Knobel, Lankshear, & Leu, 2008). The task is further complicated by a political climate consumed with high-stakes testing that places much emphasis on scientifically-based studies and empirical data (Slavin, 2002). Hence, qualitative research can best address the nuances of researching the implementation of the new literacies in classrooms due to the ability of the researcher to describe contextual conditions and to answer how and why questions regarding the ways in which new literacy practices are enacted in classroom settings.

Despite potential criticism, many literacy researchers continue to choose a qualitative stance when examining academic settings (Hinchman, 2005). A qualitative stance allows the researcher opportunities to illuminate what is happening in the classroom and allows the researcher flexibility to understand what is going on (Miles &

Huberman, 1994). Qualitative researchers are concerned with process rather than specific outcomes or products.

This qualitative study is interpretive in nature as I sought to understand interactions, experiences, and meaning constructed by primary-grade students as they engaged with participatory media practices within the writing process. A researcher of interpretive study is concerned with identifying how participants make meaning within a particular situation and presenting descriptive findings (Merriam, 2002). Stake (2010) defined interpretive study as investigations into the processes of “how things work” (p. 13).

Case Study Methods

A case study is an exploration of a bounded system through detailed, in-depth data collection involving multiple sources of information (Merriam, 2002). The system, or individual case, can be bounded by time and place (Creswell, 1998) or by time and activity (Stake, 2000). A case study is unique in its ability to reveal information about a particular phenomenon (Merriam, 1998). In this study, digital storytelling was examined within the boundaries of two primary-grade classrooms during one semester of the academic year.

Case-study research can be described as instrumental, intrinsic, or collective (Stake, 2000). An instrumental case study is used to gain insight and understanding of a particular situation or to redraw a generalization. An intrinsic case study is undertaken when the researcher has an intrinsic interest in the subject and thus the results may have limited transferability. The collective case study holds even less intrinsic interest as the

researcher investigates a phenomenon, condition, or population in a collection of several cases which may or may not display common characteristics.

Most studies do not fit neatly into one category. This study primarily involved an instrumental case study approach in which the case of implementing digital storytelling in primary-grade classrooms was examined in depth to provide insight and to facilitate understanding of the general use of participatory media within the writing process. In addition, the research approach was exploratory (Yin, 2003), seeking to provide an in-depth account of primary students' interactions with digital stories during the writing process.

Stake (2000) stated that within the qualitative case study, the “search for particularity competes with the search for generalizability” (p. 437). Most academic researchers support the study of individual cases with clear expectations and limitations of generalizability to other cases, while some qualitative methodologists continue to criticize case study approaches for their lack of generalizability (Denzin, 1989; Herriott & Firestone, 1983; Yin, 2003). Smith (1981), however, illustrated that case study research presents results that are logically generalizable to like settings and contexts.

Merriam (1998, 2002) explained that much can be learned from a particular case. Readers can learn vicariously from one encounter with the case through the researcher's narrative description (Stake, 2000). The vivid descriptions in an exploratory case study can create a framework for future studies seeking to establish transferability or generalizability (Erickson, 1986). These insights help structure and inform future research thus playing an important role in advancing the knowledge base in the field of education (Merriam, 1998). By examining the interactions, experiences, and processes

within the two classrooms, an understanding was developed that could potentially affect and improve future classroom practices.

School Site

The elementary school chosen as the site of this study was located in a suburban town in the Southwestern United States. The school was one of 29 K-6 buildings in the district, serving a total of 1,048 students. White students comprised 70% of the student body, Asian students comprised 15%, Hispanic students comprised 10%, and African-American students comprised 5%. This school serviced students from middle- to upper-middle class families.

The school was considered a large school with just over 1,000 students enrolled. The building housed 43 K-6 classrooms with four to eight classes per grade level. In addition, the school had a computer lab with 30 desktop computers. Most teachers signed up to use the computer lab on a weekly basis; it was the classroom teacher's responsibility to design lessons and facilitate instruction in the lab. All computers were networked with high-speed Internet access and the Movie Maker software to facilitate digital story making. In addition to the computer lab, each classroom contained three to four computers for students' use.

Teacher Participants

A purposive sample of teachers was chosen for this study. Miss Damon, the first grade teacher involved in this study, was chosen for her interest in incorporating digital media practices within her primary-grade classroom. Miss Damon had eight years professional experience teaching kindergarten and first grade. She completed her Master of Arts in Elementary Education from Northern Arizona University. She also held a

Structured English Immersion, Reading, and Early Childhood Special Needs

endorsement. Miss Damon was also trained in various literacy programs including, *Write From the Beginning* (Buckner, 2000) and *The Daily Five* (Boushey & Moser, 2006). Both programs were designed to improve students' reading and writing abilities while fostering a love for learning.

Miss Damon acknowledged the importance of digital media practices in students' lives, but she struggled with the logistics of implementing them with primary-grade students. She regrettably admitted that she did not take her students to the computer lab on a regular basis. She did use technology in her lessons, however. She reported using the document camera on a regular basis and creating PowerPoint presentations to use in her instruction. In addition, she showed short educational video clips to her students to enhance her lessons.

Mrs. Murphy, the second grade teacher involved in this study, was recommended by a colleague and was chosen for her outstanding teaching credentials, as well as her willingness to undertake instructional endeavors involving the new literacies and participatory media practices. Mrs. Murphy had 13 years professional experience teaching second, third, and fourth grade. She completed her Master of Education in Curriculum and Instruction from Northern Arizona University in 2002. She assumed many past and present leadership positions within the school district, including her current role as science cadre leader for her school. Mrs. Murphy was also working on her National Board Certification.

Mrs. Murphy recognized the importance of new literacies practices, but struggled to implement them into her classroom. Although she had four computers available to students in her classroom, they were rarely used for academic purposes. Her students visited the school's computer lab once a month to create projects using software including Microsoft PowerPoint and Microsoft Word. Mrs. Murphy acknowledged, however, that with increasing pressures to perform on standardized tests, less time was available for "creative" technology projects and more computer time was spent preparing for high-stakes assessments.

These teachers were selected based on their desire to further expand their knowledge of participatory media practices and to learn ways to effectively implement them into the rapidly evolving literacy curriculum. Both teachers were familiar with the basic functions of the MovieMaker software for PC computers although they had never incorporated digital storytelling into their classrooms. Mrs. Murphy and Miss Damon both welcomed the challenge and were excited to participate in this study.

I took several steps to acquaint the teachers with the digital storytelling process. During the summer, prior to the start of the digital storytelling unit in the fall, I met with both of these teachers to discuss the digital storytelling project. During the first meeting, I gave the teachers information on digital storytelling, shared my experiences in creating digital stories, and gave them resources. These materials included a book (Miller, 2010), journal articles (Kajder, Bull, & Albaugh, 2005; Karchmer-Klein & Shinas, 2012) and a manual on using MovieMaker to create a digital story (<https://teachertech2.wikispaces.com/file/view/Example+Digital+Storytelling+Lesson+Plan.pdf>).

During the second meeting, I showed the teachers the MovieMaker software used for the PC computer to create digital stories. I also modeled for them how to create a digital story. The teachers asked questions, took notes, and developed basic skills in navigating the software by practicing importing photographs and selecting transitions between the pictures. These two meetings constituted the only formal training the teachers received regarding digital storytelling.

Student Participants

I chose first- and second-grade participants for my study due to the minimal research on digital media practices with emergent writers. I wanted to capture students' interactions with digital media as they first began learning to write. I wanted to see the effects of digital storytelling without the confounding influence of experienced writers. I chose one first- and one second-grade classroom because I was interested in the difference between the two grades. In first grade, students are just beginning to develop language and writing skills. I wanted to see if and how the multimodal aspects of digital stories impacted their writing development. In second grade, students have a basic understanding of writing and language. I was interested in how these novice writers manipulated the language and writing skills they possessed while interacting with multimodal literacies. I also sought to expand on prior research involving digital storytelling with first-grade students (Lagunas & Guzzetti, 2011).

The first-grade classroom included 22 students, 10 males and 12 females. Of the 22 students, 19 (86%) were White, 2 (9%) were Asian, and one (5%) was Hispanic. The second-grade classroom included 24 students, 12 males and 12 females. Of the 24 students, 17 (71%) were White, 4 (17%) were Hispanic, and 2 (8%) were Asian, and one (4%) was African American.

All 46 students were given the option to participate, and parental consent was obtained prior to the start of the study for 46 of the students. Parents were informed of the rights of human subjects, including confidentiality and anonymity in reporting students' results and their students' right to withdraw from the study at any time through a letter that was sent home during the second week of school. I received both ASU's IRB and the school district's approval before I implemented the study. All participants were assured privacy and confidentiality through the use of pseudonyms in any written reports.

Data Collection

The purpose of this study was to identify and describe what could be learned about young students' engagement in the writing process and students' identities as writers by incorporating digital storytelling in a primary-grade classroom. Miles and Huberman (1994) explained qualitative data as "the source of well-grounded, rich descriptions and explanations of processes in identifiable local context" (p. 1). Creswell (1998) proposed that the essence of qualitative research was extensive collection of data, typically from multiple sources of information including observations, interviews, documents, and audio-visual materials. Creswell (1998) identified new forms of information, such as e-mail and computer software, as viable sources of data.

Since this study involved multiple contexts, including two primary-grade classrooms, and multiple participants (46 students), a wide range of data were available for the purpose of providing in-depth descriptions. Data sources for this study included observations recorded in field notes, audio-recorded interviews, and documents, including photographs, samples of students' writing, the teachers' journals, my journal, rubric scores, and DVDs of students' digital stories. Data were collected in each classroom during the one-hour writing block each day during the school day over the course of one academic semester for a total of 72 clock hours in each classroom.

Over the course of the semester, students wrote a personal narrative for their digital story as outlined in the Common Core State Standards. As part of the assignment, students worked through the writing process, including prewriting, drafting, revising, editing, and publishing, to compose a personal narrative. The unit began by having a brainstorming session with the class. Students shared their ideas for a personal narrative and the teacher created a list of students' responses. Once students selected a topic, they wrote drafts of their stories and collected pictures or took photographs to illustrate their writing. Students had multiple opportunities to revise their writing. Students also had opportunities for peer editing, as well as conferences with the teacher. When students were finished writing, they imported their photographs onto the classroom computer. Students then took their written story and created a digital story using the MovieMaker software on the computer. Students audio record their stories, added a title, and created transitions between the photographs. Once all students had published their digital stories, the class shared their stories with their classmates and families during a special presentation night.

Observations and Field Notes

Direct and focused observations were an essential component of this study. Adler and Adler (1994) described observation as, “the fundamental base of all research methods” (p. 389). I conducted daily observations during the one-hour writing session in each of the two primary classrooms. I focused my attention on the students’ writing processes, as well as the feedback the teachers provided to the students regarding their writing. I gathered data in the form of field notes during each session. I took notes on students’ writing processes and interactions with digital media, as well as their interactions with classmates that centered on writing. Bogdan and Biklen (1998) referred to such written descriptions, or field notes, as “the written account of what the researcher, hears, sees, experiences, and thinks in the course of collecting and reflecting on the data in a qualitative study” (pp. 107-108). I then separated anecdotal record from my questions and comments using a field note form designed for this purpose. My observations recorded in field notes were used as the primary data source in this study.

Interviews

Informal interviews were conducted with students as they worked through the writing process and engaged with the participatory media. I used a digital voice recorder to capture the interactions and conversations with the students. These interviews were recorded in field notes, as well.

Semi-structured interviews were conducted with a purposive sample of students representing a range of abilities with writing. These interviews were conducted before, during, and after the intervention to learn how individuals perceived themselves as

writers and as technology users and to assess any changes in students' attitudes toward writing and their perceived abilities and identities as writers.

Using this form of interviewing, I was able to guide the discussion, exploring specific issues, and responding to the situation at hand. This type of data collection also allowed the interviewee to fully explain his or her point of view. The primary topics included students' views on writing, technology, and their understanding of the writing process. An example of the semi-structured interview questions included, "Tell me about your writing.", "How much do you enjoy writing?", "What is difficult for you when you write?", "What have you learned about writing this year?", and "What do you write on the computer, if anything?"

These interviews took place in the hallway outside the classroom, were conducted outside of the writing time, and lasted for approximately 20 minutes each. Interviews were audio recorded to ensure accuracy in transcription and analysis and were later transcribed to written record. In addition, these interviews were captured in field notes as a back-up to the audio recordings. A copy of the semi-structured interview questions for the students is included in Appendix A.

I also focused on students' meta-awareness of story design. In a short interview session looking at classmates' writing samples, I asked questions to determine if the students had developed a tool or mindset for analyzing writing. When looking at their classmates writing, I asked students questions like, "What might the writer's purpose have been?", "What could the writer have done differently?", and "What do you think of this story?"

I also conducted semi-structured interviews with the two participating teachers. Each interview took place during the teachers' preparation period and lasted approximately 30 minutes. These interviews focused on the teachers' philosophy of teaching writing, their attitudes toward and practices in incorporating new digital media, and their reasons for participating in this study. Sample questions included, "What are your views on how students learn to write?", "What are your thoughts on the sociocultural view of writing?", "What strategies do you incorporate when teaching writing?", "Do you have units on writing personal narratives aside from the digital storytelling?", "What writing skills, if any, did the students develop as a result of producing their digital stories?", "What challenges or obstacles have you encountered throughout this process?", "How have your views of writing changed as a result of implementing digital stories in your classroom?" and "How was digital storytelling used to meet the Common Core State Standard for writing a personal narrative?" A full list of interview questions is presented in Appendix B.

Documents

Documents and artifacts were collected throughout the study, including examples of students' writing for their digital stories and other class assignments in various stages of the writing process, photographs of students interacting with participatory media, DVDs of students' digital stories, teachers' lesson plans, and the teachers' handouts. These documents were used to provide a complete picture of students' developing writing process skills and abilities and their developing identities as writers through the course of the semester. I also focused on all aspects of the writing process, particularly the revision process. I collected writing samples of students' digital stories and various writing

assignments to document how students revised their writing. I was also interested in the revisions that were prompted once students read and record their stories on the computer. Multiple copies of students' drafts were collected and compared to illustrate the changes among them.

A writing rubric was also collected to assess the students' digital stories. The teachers facilitated the students' co-creation of a rubric to guide their writing. This rubric was based on the school district's emphasized Six Traits of Writing (Ideas, Organization, Voice, Word Choice, Sentence Fluency, and Conventions). This rubric was used to help the teacher determine if the students met the Common Core State Standards (<http://www.azed.gov/standards-practices/>) for writing.

The Common Core writing standards for first grade included: ELA-Literacy.W.1.3: Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure. ELA-Literacy.W.1.5: With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

The Common Core writing standards for second grade included: ELA-Literacy.W.2.3: Write narratives in which they recount a well elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure. ELA-Literacy.W.2.5: With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

I also invited the teachers to gather their thoughts and views of the students' digital storytelling and their writing by keeping a journal. These journals were used to guide and reflect on their teaching and their students' learning, articulate their feelings about and perceptions of the participatory media practice of digital storytelling, and record their questions regarding the students' writing process and the digital media.

I provided the format for the journals for the teachers, including entry pages with topics of focus. These topics of focus included a summary of the lesson focus for the day, as well as the teachers' observations of the writing session. I also included a space for the teachers to document any struggles that developed that day, as well as any successes that were present. The teachers were guided by the journal's format to note suggestions for future lessons and any questions that may have occurred to them about the students' writing and their interactions with digital storytelling that day. A copy of the teachers' journal format is included in Appendix C.

I also maintained a researcher journal. In this journal, I kept track of my thoughts and feelings about the progress of the students and the study throughout the semester. I reflected on the inquiry process, as well as my role as the researcher. I also included challenges for me such as the difficulties of being an observer and not an instructor.

Teachers were also asked to complete an open-ended Demographic Questionnaire. The items assessed their academic backgrounds, education, teaching experience, and comfort level with technology. This questionnaire is included in Appendix D.

Interviews were conducted with the students in an effort to answer the research questions, How might digital storytelling influence primary-grade students' perceptions of themselves as writers? How do students think about digital storytelling as writing? How do students equate digital storytelling writing with other academic writing? How do students develop a meta-language to talk about writing and themselves as writers? Through these interviews, data were collected regarding students' thoughts on writing, digital storytelling, and how they view themselves as writers. Informal interviews and short interview sessions looking at writing samples were the primary form of data to look at how students changed their views of themselves as writers. In addition to these interviews, I also collected writing samples and observation field notes to look for instances on how students view writing and themselves as writers.

Writing samples, rubric scores, and observations were used to answer the research questions, How can digital storytelling be used to meet the Common Core State Standards for writing a personal narrative in primary-grade classrooms? How might digital storytelling help to develop young students' skills as writers? What can be learned about young students' engagement in the writing process from incorporating new participatory media of digital storytelling in a primary-grade classroom? How do students' identities that developed as writers transfer from digital storytelling to other writing? Writing samples, observations, and short interviews were collected to show changes in the students' writing throughout the semester. The rubric was used to determine if the students met the standards for writing a personal narrative. Observations and interviews were used to collect data on students' engagement in the writing process throughout the digital storytelling project.

Informal interviews with the two teachers and observation field notes of their instructional practices and interactions with students centered on writing were used to answer the research question, How might the teachers' views of writing and the writing process influence students' development of their identities as writers and their views of writing? Interviews and field notes provided data regarding teachers' views on writing. These data were collected to determine how the teacher's focus during writing instruction impacts their students' perceptions of writing, the writing process, and themselves as writers.

Data Analysis

Qualitative Data Analysis

I used a thematic analysis to analyze the qualitative data of interviews, observations, and documents (Patton, 1990; Riessman, 2008), as well as discourse analysis (Gee, 2011) of students' interviews to analyze changes in students' identities as writers. Discourse analysis is the study of language at use in the world (Gee, 2011). In the language-rich environment of the classroom, much of the language takes shape in the form of talk about knowledge, ideas, and texts. Analyzing the nature, content, and purposes of the students' language is one way to study educational discourse within school settings. I studied students' verbal and written language throughout the semester looking closely at their words they used, the meanings behind those words, and questioned the assumptions and inferences of the students. I looked for statements regarding students' views on writing, their views of themselves as writers, as well as their views of others as writers.

Data analysis began during the data collection process and was ongoing throughout the data collection. This simultaneous collection and analysis allowed me to identify emerging themes and investigate them further. Merriam (1998) identified early, concurrent analysis as reliable by providing the researcher with a focus for further examination.

The qualitative data were read and reread several times. Annotations were made by writing key words in the margins of field notes and transcripts. These annotations signified common patterns and topics of focus. These annotations then became the basis for codes and subcodes.

I also recorded important findings or quotes from the students on Post-it notes. These Post-it notes could be easily arranged to group examples for each major finding. I moved the Post-it notes aside after I had addressed each topic in my writing.

This process was continued with each form of data. Codes and subcodes were combined to form larger more meaningful themes. Copies of the coded data set were used for manipulation, organization, and ease of comparisons across codes, forming larger categories from codes and identification of themes from the categories. Common themes were identified and compared across data sources to reveal patterns and confirm findings. A search for and an analysis of discrepant cases (Erickson, 1997) was also conducted. I combed the data for negative cases or those cases that did not fit with the themes or assertions that the other data revealed. These findings were written in a narrative interpretation that described the themes that were uncovered, as well as the meaning gained from the analysis (Merriam, 1998; Riessman, 2008).

I constructed vignettes for a purposeful sample of students from each classroom. These students were chosen based on their interview responses and represent a range of writing abilities. The vignettes describe how the students moved through the stages of the digital storytelling and writing processes and how they perceived of themselves as writers and storytellers.

Analysis of documents. I kept observational field notes for each classroom in two separate Word documents on my computer. These documents included bold headings titled, Time, Observations, Questions, Key Words, and Codes. During each session I made note of the time during the start of the session, during any transitions between activities, and at the end of the session. I also recorded in field notes as many observations as possible to accurately capture the environment. I included quotes from the students, directions from the teacher, and conversations among the students. I also included nonverbal events such as students playing with objects in their desk or resting their heads with their eyes closed. At the end of each session, I reviewed my notes adding personal reflections and insights as well as additional comments about the day's events. I then read and reread the notes annotating key words in the margins and developed codes and subcodes based on the data. The field notes clearly supplemented other data sources as I reread them numerous times while exploring emerging themes and categories.

Analysis of audio recordings. A digital-voice recorder was used to capture the sounds and voices throughout the various stages of the writing process. Formal and informal student and teacher interviews were recorded. Following each recording session or interview, I transcribed the data and saved them in a Word document on my computer. This made it convenient to access and review throughout the semester.

Analysis of digital photographs. Throughout the study, I took approximately 100 photographs capturing images during the various stages of the writing process as well as students interacting with the digital media. Photographs taken with my iPhone were automatically transferred to my laptop computer where they were stored. The digital photographs captured images of the students' writing, images of the students at various stages of the writing process including the drafting, editing, and publishing stages, as well as images of teacher/student conferences. While exploring emerging themes related to students' interactions with digital media and their writing development, a thorough review of the photographs proved to be helpful as they validated or supplemented my field notes.

Quantitative Data Analysis

In analyzing the students' personal narratives for their digital stories using the rubric, I used an independent panel of judges to conduct an inter-rater reliability. Two current primary teachers at the school were asked to independently rate the students' writing. These teachers were not associated with the study in any way. A session was conducted where the judges scored a random sample of writing pieces and rated them on a 1-3 scale. This continued until the judges and I have reached a 90% agreement in an analysis of discordance. Low, average, and high scores were computed for each standard for each student. I also looked for trends among students' writing and among their drafts.

I analyzed the writing rubric by calculating both individual and group mean scores. I constructed percentages and frequencies for each item on the rubric. These scores indicated individuals' and whole-class performance achievement related to writing standards.

To determine which students and how many achieved the Common Core State Standards for writing a narrative, I assessed both the first- and second-grade students' final digital stories at the end of the semester according to the four elements of each Common Core State Standard for writing a personal narrative. I recorded the students' scores in a matrix, including their pseudonyms and the four elements of the writing standard for each grade level. Inter-coder agreement was established through an analysis-of-discordance in which each of two coders (myself and a language arts teacher not associated with the study) independently coded and discussed the six focal students' stories until initially achieving 92% agreement and finally reaching 100% agreement, resolving discrepancies through discussion. This level of agreement exceeded the acceptable level of 80% agreement between coders (Miles & Huberman, 1994).

Summary Overview of Data Collection and Analysis Methods

An overview of these data collection and analysis methods is presented in Table 1. Table 1 lists the research questions and the specific data collected that address those questions. Table 1 also provides an overview of the data analysis procedures.

Table 1

Research Questions, Data Collection, and Data Analysis

Research Questions	Data Collection	Data Analysis
<p>Research Question 1: How might the teachers' views of writing and the writing process influence students' development of their identities as writers and their views of writing?</p>	<ul style="list-style-type: none"> • Observational field notes • Transcribed audio recordings of interviews with teachers • Documents of students' writing samples • Documents of teachers' journals • Documents of researcher's journal 	<ul style="list-style-type: none"> • Review field notes and look for emerging trends and patterns. Establish codes and categories • Transcribe and review audio recordings of teachers' interviews • Review documents of students' writing • Review documents of teachers' journals. Look for instances of teachers' developing views. • Review documents of researcher's journal
<p>Research Question 2: How might students consider digital storytelling as writing?</p>	<ul style="list-style-type: none"> • Observational field notes • Transcribed audio recordings of interviews with students 	<ul style="list-style-type: none"> • Review field notes and look for emerging trends and patterns. Establish codes and categories • Transcribe and review audio recordings of students' interviews
<p>Research Question 3: How might students develop a meta-language to talk about writing and themselves as writers?</p>	<ul style="list-style-type: none"> • Observational field notes • Transcribed audio recordings of interviews with students and teachers • Digital photographs of students' interaction with writing and digital media • Documents of students' writing samples 	<ul style="list-style-type: none"> • Review field notes and look for emerging trends and patterns. Establish codes and categories • Transcribe and review audio recordings of students' and teachers' interviews. Look for actions verbs for discourse analysis • Review digital photographs. Look for instances of students developing a meta-language. Store photographs on computer for easy access. • Review documents of students' writing
<p>Research Question 4: How might digital storytelling influence primary-grade students' perceptions of themselves as writers?</p>	<ul style="list-style-type: none"> • Observational field notes • Transcribed audio recordings of interviews with students • Artifacts of students' digital stories 	<ul style="list-style-type: none"> • Review field notes and look for emerging trends and patterns. Establish codes and categories • Transcribe and review audio recordings of

		<p>students' interviews. Analyze students' language looking at their words and the meanings behind their words.</p> <ul style="list-style-type: none"> • Review artifacts of digital stories
<p>Research Question 5: How can digital storytelling be used to meet the Common Core State Standards for writing a personal narrative in primary-grade classrooms?</p>	<ul style="list-style-type: none"> • Observational field notes • Documents of students' writing samples • Artifacts of students' digital stories • Rubric scores • Documents of teachers' journals 	<ul style="list-style-type: none"> • Review field notes and look for emerging trends and patterns. Establish codes and categories • Review documents of students' writing samples. Look for instances of students achieving the state standards. • Review artifacts of students' digital stories. Look for instances of students achieving the state standards • Analyze documents of students' writing and determine a rubric score. • Review documents of teachers' journals
<p>Research Question 6: How might digital storytelling help to develop young students' skills as writers?</p>	<ul style="list-style-type: none"> • Observational field notes • Transcribed audio recordings of interviews with students and teachers • Documents of students' writing samples • Artifacts of students' digital stories • Rubric scores 	<ul style="list-style-type: none"> • Review field notes and look for emerging trends and patterns. Establish codes and categories • Transcribe and review audio recordings of students' and teachers' interviews. • Review documents of writing samples and digital stories. Look for instances of students developing writing skills. • Review artifacts of students' digital stories. Look for instances in which students develop skills as writers • Analyze documents of students' writing and determine a rubric score. Compare scores with previous writing assignments.
<p>Research Question 7: How might students' identities that developed as writers transfer from digital</p>	<ul style="list-style-type: none"> • Observational field notes • Transcribed audio recording of interviews with teachers • Documents of students' writing 	<ul style="list-style-type: none"> • Review field notes and look for emerging trends and patterns. Establish codes and categories

storytelling to other writing?	<p>samples</p> <ul style="list-style-type: none"> Documents of teachers' journals 	<ul style="list-style-type: none"> Transcribe and review audio recordings of teachers' interviews Review documents of students' writing. Look for instances regarding students' identity as writers. Look for trends and emerging categories. Review documents of teachers' journals.
<p>Research Question 8: How do students equate digital storytelling writing with other academic writing?</p>	<ul style="list-style-type: none"> Observational field notes Transcribed audio recordings of interviews with students 	<ul style="list-style-type: none"> Review field notes and look for emerging trends and patterns. Establish codes and categories Transcribe and review audio recordings of students' interviews
<p>Research Question 9: What can be learned about young students' engagement in the writing process from incorporating new participatory media of digital storytelling in primary-grade classrooms?</p>	<ul style="list-style-type: none"> Observational field notes Transcribed audio recordings of interviews with students Documents of students' writing samples Digital photographs of students' interaction with writing and digital media 	<ul style="list-style-type: none"> Review field notes and look for emerging trends and patterns. Establish codes and categories Transcribe and review audio recordings of students' interviews Review documents of students' writing. Look for instances regarding students' engagement in the writing process. Review digital photographs. Look for ways photographs illustrate students' engagement in the writing process. Store photographs on computer for future reference.
<p>Research Question 10: What differences in writing competencies might exist between first- and second-grade students in writing skills and abilities with digital storytelling?</p>	<ul style="list-style-type: none"> Observational field notes Documents of teachers' lesson plans Documents of students' writing samples Rubric scores 	<ul style="list-style-type: none"> Review field notes and look for emerging trends and patterns. Establish codes and categories Review documents of teachers' lesson plans Review documents of students' writing samples. Look for differences in students' writing. Analyze students' writing and determine a rubric score. Compare scores with previous writing assignments.

Establishing Trustworthiness

Trustworthiness and authenticity are terms used by naturalistic inquirers to replace the traditional positivist criteria of internal and external validity (Lincoln & Guba, 1985; Denzin & Lincoln, 2000; Mishler, 2000). Lincoln and Guba (1985) refer to a study's integrity by its credibility, transferability, dependability, and confirmability. To establish credibility, the naturalistic or qualitative researcher must employ various techniques, such as prolonged engagement in the field, rich description of the events, and triangulation of data (Creswell, 1998; Miles & Huberman, 1994; Reissman, 2008). Rich descriptions are used to ensure transferability of findings. The naturalistic researcher strives to establish confirmability through a thorough examination of the data. In this study, trustworthiness was established through member checks with the teachers, triangulation of data through multiple sources, prolonged engagement through the entire digital storytelling unit, and rich description of contexts and findings.

Member Checks

I conducted various member checks throughout this course of this study. Member checks have been considered “the most critical technique for establishing credibility” (p. 314) in qualitative studies (Lincoln & Guba, 1985). I met once a week with the two participating teachers. These meetings occurred during the teachers' planning periods or free time and focused on teachers' lessons, as well as discussions on the progress of the study and the digital stories. These meetings also gave the teachers opportunities to ask questions or seek clarification regarding research on digital storytelling, as well as offer their perceptions of coding categories and emerging trends from my data. Lincoln and

Guba (1985) explained that credibility is added to the study when participants are given opportunities to share their views and interpretations of the findings.

Member checks were conducted in other ways, as well. I also gave the teachers a copy of their transcribed interviews and asked them to clarify any missing or unclear information. For example, I was unfamiliar with the literacy program Miss Damon, the first-grade teacher, referenced in her interview. During a member check, I asked her to clarify and provide additional information on the literacy program from the transcribed interview. Miss Damon shared information on the program and explained that she had received training and was responsible with assisting the other teachers in her school. In addition, I asked the teachers to check to be sure the interviews accurately reflected their thoughts and feelings and what they meant to say. For example, during various interviews Mrs. Murphy, the second-grade teacher, expressed her beliefs on the writing process. She articulated that writing should be a silent and solitary act. Miss Damon, the first-grade teacher, articulated that her philosophy on teaching included the notion that students learn through social interaction. I shared these statements with the teachers to ensure I had accurately captured their teaching philosophies. Member checks were also conducted before submitting the final report so the teachers could comment on them, and change or modify anything if needed. For example, during a member check, Miss Damon clarified that Isabel was not an English Language Learner.

Triangulation

Triangulation is commonly referred to as the process of using multiple sources or methods to clarify meaning or identify different views of a phenomenon (Smith & Deemer, 2000). Stake (2010) explained that to establish triangulation, the researcher

needs to “look again and again, several times” (p. 123). The qualitative researcher strives to tell the same tale from different perspectives and multiple points of view. This study involved numerous students’ input and multiple sources of data described above. These data helped ensure triangulation and trustworthiness in the study.

Prolonged Engagement

Lincoln and Guba (1985) explained that to build trust with participants, gain an understanding of the environment, and determine what is relevant to the purpose of the study, the qualitative researcher must spend a substantial amount of time in the field. I spent one hour each day, five days a week, for 17 weeks observing the writing process in each of the two classrooms throughout the entire course of the teachers’ writing instruction and their digital storytelling units. Through regular engagement in the classrooms, I built trust and rapport with the students and teachers. Although there is not a specific length of time required for every study, the assumption is that the inquirer will spend “enough time on site to experience the full variety of characteristics associated with the object of study” (Williams, 1986, p. 91). This includes not simply lengthy engagement, but intensive engagement by the inquirer to gain more than a surface understanding of the issues.

Rich, Thick Description

Qualitative data are presented in the form of words to provide the reader with a vivid and meaningful depiction of the study (Miles & Huberman, 1994). Rich, descriptive narratives in which the participants and settings are brought to life help the reader make decisions regarding the study’s transferability (Lincoln & Guba, 1985; Merriam, 2002; Reissman, 2008). In this study, rich descriptions illustrate data collection and analysis

procedures. By providing a comprehensive account of the context of the study along with a complete description of the procedures and findings, I seek to facilitate the transfer of information to other like settings and situations. In addition, I strove to provide authentic examples, vibrant images, and precise representations of the findings to bring this study to life.

I constructed vignettes as one way to report the findings of this study. Vignettes are stories that provide concrete illustrations of participants and their behaviors (Hazel, 1995). By using vignettes, I report findings on particular students of interest who represented a range of writing abilities and facility with digital storytelling, as well as represent the broader themes found in the study.

Summary

A qualitative case study approach was used to explore, identify, and describe the ways in which digital storytelling can be used to promote primary-grade students' writing skills and identities as writers. With a considerable emphasis on a natural setting and boundaries within the primary-grade classroom, this study lent itself to a qualitative case study design. The qualitative methods outlined in this study included descriptive data collection, thematic data analysis, and a focus on the writing processes of emergent literacy learners.

Chapter 4

FINDINGS

As digital media practices become readily available in today's classrooms, literacy and literacy instruction are changing in profound ways (Alvermann, 2010). Professional organizations emphasize the importance of integrating new literacies (New London Group, 1996) practices into language-arts instruction (IRA, 2009; NCTE, 2005). As a result, teachers search for effective ways to incorporate the new literacies in an effort to engage students.

This case study was conducted during the fall semester of 2012, between August 13 and December 13, in one first-grade classroom and one second-grade classroom in a suburban elementary school in the Southwestern United States. This study addressed the implementation of the new literacies practice of digital storytelling as participatory media for teaching and learning in language arts. Throughout the study, 22 first-grade students and 24 second-grade students wrote one personal narrative about a topic of interest to them. They gathered or took photographs to stimulate their writing. Students used the MovieMaker software (<http://windows.microsoft.com/en-US/windows-live/movie-maker-get-started>) on the school's PC computers to create digital stories of personal narratives. Students imported the photographs, selected fonts and background colors for their titles, and audio-recorded their narrations. Upon completion of their digital stories, students shared their videos with their classmates and families.

Although all of the 46 students engaged in the writing assignment and created a digital story, I focused on three focal students from each classroom. I selected these six students as they represented a range of writing abilities (advanced writers to struggling

writers), interest levels (high to low interest in writing), and personalities (outgoing to socially difficult). Each participant was unique in his or her writing skills and prior knowledge with technology. Biographical information for each child was attained through interviews and conversations with the teacher and the students. To protect identities, pseudonyms were assigned to all students and teachers in the study.

A descriptive case study design (Yin, 2003) was used to provide opportunities to examine the interactions, experiences, and processes within the two classrooms. I conducted repetitive and ongoing review of multiple sources of triangulated data. These data included my field notes, interviews with teachers and students, the teachers' journals, my own journal, artifacts of teachers' lesson plans and students' assignments, and examples of students' writing. I sought to establish patterns or themes to answer the 10 research questions that guided this study:

1. How might teachers' views of writing and the writing process influence students' development of their identities as writers and students' views of writing?
2. How might students consider digital storytelling as writing?
3. How might students develop a meta-language to talk about writing and about themselves as writers?
4. How might digital storytelling influence primary-grade students' perceptions of themselves as writers?
5. How can digital storytelling be used to meet the Common Core State Standards for writing a personal narrative in primary-grade classrooms?

6. How might digital storytelling help to develop young students' skills as writers?
7. How might students' identities that developed as writers transfer from digital storytelling to other writing?
8. How might students equate digital storytelling writing with other academic writing?
9. What can be learned about young students' engagement in the writing process by incorporating new participatory media of digital storytelling in a primary-grade classroom?
10. What differences in writing competencies might exist between first- and second-grade students in writing skills and abilities with digital storytelling?

Aiming for thick description (Geertz, 1973) of the context, I begin this chapter with a site description of the school district and the first- and second-grade classrooms, along with characterizations of the teachers and students involved in this study. Emerging patterns and themes related to digital storytelling and my research questions are discussed and supported by examples of the students' writing and their verbal comments about their writing, as well as their written reflections. I also followed my purposive sample of focal students that represented a range of writing abilities, interest levels, and personality types of students in each classroom (e.g., struggling writers, reluctant revisers, motivated writers, advanced writers, unmotivated writers, and socially difficult) in addressing the research questions.

These focal students are described in vignettes below. Students' writing is presented in italicized text and students' comments about their writing are presented in quotation marks. To preserve the unique voices and authentic language of the children, students' writing has been left unaltered and uncorrected. To preserve confidentiality, pseudonyms are used for students' and teachers' names.

Site Descriptions

The School District

The school district chosen for this study was located in a suburb of a large city in the Southwestern United States in the state of Arizona. Encompassing 80 square miles and serving 38,000 students in grades K-12, the district was one of the largest and fastest growing in the state. Serving mostly middle-class families, the school district included 29 elementary schools, seven junior high schools, four high schools and two alternative schools. Six of the elementary schools were classified as Title 1 schools. Title 1 is a Federal program that provides financial assistance to local educational agencies and schools with high numbers or high percentages of children from low-income families to help ensure that all children meet challenging state academic standards

(<http://www2.ed.gov/programs/titleiparta/index.html>).

The district boasted of students' high test scores in reading, writing, and mathematics, as well as their participation in extra-curricular activities. The district's focus on high academic achievement was evidenced by students' average test scores that were above the state and national averages. In addition, the district dropout rates (.9%) were well below the state (3.68%) average (<http://www.azed.gov/research->

[evaluation/dropout-rate-study-report/](#)). The district was proud of their average graduation rate of 91% and highlighted that their graduates earned approximately 56 million dollars in scholarship offers. Overall, the district was labeled a Grade “A” District by the State Department of Education with 18 of the 29 elementary schools earning a Grade “A” distinction as well (<http://www.azed.gov/research-evaluation/a-f-accountability/>).

School Site Description

The elementary school chosen as the site of this study was located in a suburban town. The school was one of 29 K-6 buildings in the district, serving a total of 1,048 students. Constructed in 2003, the school was named after a Native American tribe that originated in the area. The school was proud to celebrate the ethnic diversity and cultural richness of the community. White students comprised 70% of the student body, Asian students comprised 15%, Hispanic students comprised 10%, and African-American students comprised 5%. This school serviced students from middle- to upper-middle class families.

The school was considered a large school with just over 1,000 students enrolled. The building housed 43 K-6 classrooms with four to eight classes per grade level. There were five first-grade classrooms and five second-grade classrooms. The school had a robust library filled with books and computers along with a small theater for performances and presentations. In addition, the school had a computer lab with 30 desktop computers. Most teachers signed up to use the computer lab on a weekly basis, however, it was the classroom teacher’s responsibility to design lessons and facilitate instruction in the lab. All of the computers were networked with high-speed Internet

access and the MovieMaker software to facilitate digital story making. In addition to the computer lab, each classroom contained three to four computers for students' use.

The school was named a National Center for Educational Achievement 2011 Higher Performing School with an outstanding general education program and gifted program for students in grades 2-6. The school also housed two self-contained programs for students in special education. Special education is instruction that is specially designed to meet the unique needs of a child with a disability. A self-contained classroom supports the integration of people with disabilities in the least restrictive environment by ensuring equal opportunity and access to excellence in education (<http://www2.ed.gov/about/offices/list/osers/index.html>).

In addition, the school has a variety of resource options to best meet the needs of individual students. Ninety-five percent of students met or exceeded the reading standards and eighty-eight percent of students met or exceeded the mathematics standards on the Arizona Instrument to Measure Standards (AIMS) assessment. AIMS is a standards-based assessment which measures students' proficiency of the Arizona Academic Content Standards in Writing, Reading, Mathematics, and Science and is required by state and federal law (<http://www.azed.gov/standards-development-assessment/>).

The school's principal believed that instruction in literacy and mathematics along with character development were important in developing strong, successful students. As a parent herself, she had empathy for the community and encouraged parents' involvement. The school's principal promised to provide a positive learning environment for all students. Viewing literacy at the heart of education, she valued new strategies and

approaches to motivate emergent literacy learners. She allowed teachers autonomy in their classroom to develop their own instructional approaches and formats. She was excited about the digital storytelling unit and often inquired on the progress and impact on the students' literacy development.

Description of the First-Grade Classroom

Miss Damon's Classroom. Miss Damon's first-grade classroom was decorated in the theme of a café. Colorful paper awnings were hung from each window. A bulletin board was displayed outside the classroom listing each student's name on a paper coffee mug. A sign was displayed before a visitor entered stating, "In this room...you will be given expectations, knowledge, and hands-on ways to LEARN. But mostly, you'll be given a loving environment to SUCCEED in!"

Inside the classroom, the walls were covered with brightly colored bulletin boards. These boards displayed various thinking maps, such as semantic maps or Venn Diagrams that students used to outline their thinking during writing. The boards also displayed the teacher's favorite books and the steps to use when selecting an appropriate book. Students could often be heard singing songs to help them remember the spelling of tricky sight words, such as "they" or "of". Laughter often filled the air as students collaborated and learned together.

Miss Damon and her students were welcoming, always greeting visitors with a smile. Miss Damon worked hard to create a learning environment in which students felt comfortable taking risks and making mistakes. When a child would respond with an incorrect answer, other classmates would mimic the teacher by remarking, "That's okay. It's all about the learning!" When classmates would respond with correct answers,

classmates would shout, “Their brain is getting smarter!” Students were typically encouraging and kind to one another and celebrated in each other’s successes.

Students’ desks were arranged in small learning groups of four or five students. There was a large colorful carpet in the front of the room for students to sit on while the teacher conducted mini lessons throughout the school day. Three computers for students were located in the back of the classroom. A small classroom library consisting of trade books, children’s literature, picture books, and comic books was positioned in the corner along with cozy chairs for the students to sit in while they were reading. Numerous educational games and resources were arranged throughout the classroom as well, such as dictionaries, thesauruses, abacuses, and counting beans.



Figure 1. Miss Damon’s classroom

Writing time in Miss Damon's classroom was structured, organized, and fast paced. Miss Damon started each writing assignment by modeling a new skill the students would be working on. She walked students through the various steps of writing, such as brainstorming, drafting, editing, revising, and publishing, while allowing students to offer ideas and suggestions regarding the topics of their writing. Students were then given opportunities to practice their new skills while receiving assistance from other classmates and the teacher.

The students in Miss Damon's class were also involved in creating various writing rubrics based on the purpose of their writing assignment. For example, one rubric was created to focus students' attention on the conventions of writing, such as starting with a capital letter, using lowercase letters throughout the writing, and ending with a punctuation mark, while another rubric was created to focus students' attention on the content of their writing, such as starting with an descriptive topic sentence and using detail words. Students used these rubrics to guide their writing. They could refer back to their rubric during the revising and editing stages of the writing process to check to see if they included the necessary components of the assignment.

Teacher Description: First Grade

Miss Damon. Miss Damon was a veteran teacher with eight years of experience teaching kindergarten and first grade. She worked many hours preparing her lessons and it was evident in her demeanor and her language in talking the students and parents that she loved teaching. Miss Damon was a patient teacher, never raising her voice or talking down to the students. She seemed to genuinely care about the students and their progress as she would constantly talk about how to best help each student progress academically.

Miss Damon spent time getting to know each student individually. She would ask students about their interests and regularly converse with parents both verbally and through electronic mail. It was important to her to know the students both academically and socially so she could best meet their needs.

Miss Damon was a reflective teacher, constantly ruminating on her teaching and her students' learning. She would modify lessons when needed and develop new lessons to reteach skills the students did not understand. She typically engaged the students in each lesson, often including photographs, short video clips, or picture books to motivate students. Miss Damon also provided opportunities for students to reflect on their learning. Students reflected both verbally and through writing, listing what they thought they had done well and what they could improve on for the next writing assignment. She believed that through reflection, students could build on their strengths and set goals for improvement.

Miss Damon held a social constructivist view (Vygotsky, 1998; Palincsar, 1998) of teaching and learning evidenced in how she talked about learning and how she taught writing. She believed it was important for teachers and students to work together to build on and refine students' prior knowledge. During an interview, Miss Damon stated, "These students come with so many experiences and understandings that it is important for me, as the teacher, to honor those and build on those experiences." Students were allowed opportunities to share ideas and write together.

The class acted as a community of learners as they shared ideas, set goals, and learned collaboratively. Miss Damon acted as part that community of learners, rather than the leader of the community (Lammers, Curwood, & Magnifico, 2012). Students engaged

in whole-class brainstorming sessions to develop their ideas for a writing assignment and met in self-reflection groups to discuss their writing and classmates' writing. Students also participated in daily circle time in which they were given opportunities to share their stories or writing. Students were often allowed to offered ideas for class writing projects. Miss Damon acknowledged all ideas and allowed students choice for their own writing topics.

Miss Damon also used relational or complimentary language when referring to her students. She often made reference to a child's peer as his "friend" or "neighbor". She gave students many compliments, often making statements like, "You are so smart!" or "Wow! You guys are so good! Kiss your brain. Your brain is so smart!"

In addition, Miss Damon used advance vocabulary when dialoguing with her students. She used words such as, "narrate", "deduce", "infer", "slumber", and "plunge" in various conversations with students. She stated that although not all of the students would understand the words she was using, being introduced to a broader vocabulary was beneficial to their literacy development.

Throughout the semester, Miss Damon's understandings of literacy continued to evolve and expand. As she explored more with digital media in her personal and professional lives, Miss Damon developed a more sophisticated notion of what literacy was and how students enact literacy in their daily lives. She saw the importance of engaging students in new literacies practices and inquired about grants available to receive funding for technology and media in her classroom.

Description of the First-Grade Students

Students in Miss Damon's Class. Miss Damon's class included 22 students, 10 males and 12 females ranging in ages from 5 to 7 years old. Of the 22 students, 19 (86%) were White, 2 (9%) were Asian, and one (5%) was Hispanic. Students came from mostly middle- to upper middle-class families with professional parents, such as doctors, dentists, and business owners.

Students in Miss Damon's classroom were energetic and happy as they were often smiling and laughing. The students seemed to enjoy school as they willingly and frequently participated in class discussions and activities. The students knew the expectations and rules along with the consequences if they misbehaved. The students would refer to the class rules when another student was misbehaving. Students often collaborated and shared ideas during classroom activities. If one student needed help, he or she would quickly turn to a classmate for assistance. These students had many experiences outside of the classroom and were excited to share those ideas and understandings with their classmates. Students were often found chatting with one another about their weekend outings and would quickly raise their hands to share their thoughts during class discussions.

Students in Miss Damon's classroom had exposure to computers in their homes. The majority of individuals used a computer at home for activities, such as playing games, reading books, or watching videos. Two students had their own laptop computers or iPads. These children were from upper-class families and tended to have exposure to computers in their homes.

Students in Miss Damon's classroom were friendly and welcoming toward me from the beginning of the semester. They often asked me to sit with them and were always willing to speak with me and share their writing. Students greeted me by my name and often gave me a hug when I entered the classroom and said goodbye when I exited.

Biographies of First-Grade Focal Students

Michele: The Advanced and Motivated Writer. Michele was an intelligent seven-year-old Caucasian girl with blonde hair and blue eyes who enjoyed play-dates, spending time at home reading, or playing outside. The only child in her family, she was friendly, outgoing, and amiable toward her peers. Miss Damon reported that Michele worked very hard in school and put forth her best effort. Michele was on grade level in all subject areas. Her reading fluency and vocabulary seemed to improve daily. Michele was able to use various reading strategies, such as rereading or looking for context clues when reading to aid with her comprehension, accuracy, fluency, and vocabulary.

Her teachers and classmates considered Michele an advanced writer. She enjoyed writing in class, especially when it was a self-selected prompt. She often asked or chose to write during free time in class. She liked to be challenged and be given extra assignments. She enjoyed writing her own stories, often trying to imitate the format or rhythm of familiar children's books, such as Mo Willems's *Elephant and Piggie* series (Willems, 2010).

At home, Michele had access to her mother's computer and often played educational games. Michele was excited to use the computer at school, and she inquired about the digital storytelling project often. Overall, Michele was a kind and happy child.

John: The Socially Difficult and Resistant Reviser. John was a six-year-old Caucasian boy with shaggy blonde hair, brown eyes, and a strong personality. He was big for his age, much larger than the other student in his class. The youngest child in his family, he liked things a particular way and did not like to be told what to do. John was often stubborn, sometimes shutting down, talking sparsely, or even refusing to talk at all. He had difficulties getting along socially with his peers and with adults, but learned coping strategies to deal with his frustrations, such as walking away or moving to a quiet spot in the classroom.

John was actively involved in class discussions, offering his ideas and opinions. He often challenged the teacher, disagreeing with her on many occasions. For instance, during a whole-class writing lesson, Miss Damon was modeling for the students how to make their sentences more interesting by adding detail words. John continuously shouted out that he liked the sentences without the detail words better.

John's favorite subject in school was mathematics. He liked mathematics because there was always a firm right or wrong answer. He enjoyed playing math games and solving various word problems and equations. John could often be found teaching his classmates other ways to solve problems.

During writing time, John had many great ideas, but struggled to articulate them in a clear manner. When asked about his writing, John did not want to revise or rewrite and often did not want to talk about his writing. He was excited to use the computer to create his digital story, however, and often asked when he would get to hear his voice on the computer.

Isabel: The Immature Writer. Isabel was a five-year-old Asian/American girl who loved to tell stories. She had beautiful bright eyes and dark brown hair. Her giddy laugh and friendly smile were infectious. One of four children, Isabel was friendly and very social. She enjoyed fashion and clothes and often played princesses and make-believe games on the playground.

Isabel was below grade level in all academic areas. Smaller than the other students in size, Isabel liked the attention from the other students regarding her petite stature. She was immature socially and academically. Isabel did not like to work independently and would often call out for assistance from the teacher or other classmates. Although she made improvements in her reading development throughout the semester, she struggled to decode words and often made mistakes that affected her comprehension. Her goal was to improve her accuracy and reading fluency.

Isabel struggled with her writing skills, as well. Although she seemed to enjoy writing assignments, as she loved to tell stories and share about her life, she reported not liking to write. Although she gained many writing skills, she was inconsistent in using them. For example, Isabel knew all of her letter sounds and many digraphs and blends, but she would struggle to “stretch out” the sounds when writing unfamiliar words. She often asked for assistance with spelling or conventions because it was easier than trying it alone. Isabel preferred one-on-one situations where she was receiving assistance from the teacher or another adult.

Overall, Isabel was a happy child and hard-working student. Her parents were involved in her education, often e-mailing the teacher regarding their daughter's progress. Isabel was excited to create her digital story because she wanted to share her photographs with her classmates.

Description of the Second-Grade Classroom

Mrs. Murphy's Classroom. In Mrs. Murphy's second-grade classroom, students' desks were arranged in clusters of four to six students. Two large white boards were displayed in front of the room. The teacher's desk was positioned in the upper right-hand corner of the classroom. Her desk was filled with lesson plans, books, and copies of students' work. She also had a PC computer to use for academic purposes, such as taking daily attendance and keeping track of students' assignments in an electronic grade book, and for electronic communication with other members of the school, as well as parents. Four computers were located at the back of the classroom for students to use during their daily literacy activities. Students would access academic websites, such as Starfall (www.starfall.com) or Raz-kids (www.raz-kids.com) to practice their literacy skills, such as reading fluency and comprehension. Computers in the classroom were only used for students' reading and writing purposes.



Figure 2. Mrs. Murphy's classroom

The back corner of the classroom was designated for whole-class instruction. The students would sit on the carpet in front of the teacher. Mrs. Murphy was often seated next to an easel that she used to display various academic charts, such as semantic maps, overviews of the relationship among terms or concepts, or Venn diagrams, overviews of how concepts interrelate, or charts on the different vowel combinations. Many books, educational games, and academic resources, such as dictionaries and thesauruses were arranged throughout the classroom for students to use. The classroom appeared to be student-centered and focused on student achievement with samples of students' work displayed on the walls along with motivational posters and bulletin boards outlining the

different genres of literature, such as fiction, nonfiction, biography, poetry, fantasy, and science fiction.

Writing time in Mrs. Murphy's classroom was relaxed and slow paced. Mrs. Murphy would start each whole-group writing lesson by explaining the focus skill, such as word choice or writing interesting topic sentences. She would then explain the daily assignment to the students who were seated on the carpet in front of her. She would state examples and non-examples of what was expected of the students' writing. Students were then sent back to their seats to quietly work on the assignment. As a result of both the teacher's desire for a polished product and the relaxed schedule and pacing of the day, students wrote several drafts before completing a final draft. The teacher seldom gave feedback to the students and when she did so, the comments mainly addressed the students' spelling and handwriting.

Teacher Description: Second Grade

Mrs. Murphy. Mrs. Murphy was a veteran teacher with 13 years of experience teaching in the elementary grades. This was only her first year of teaching second grade, however. She was a dedicated teacher who was diligently working on her National Board Certification. Mrs. Murphy was very soft spoken, but expected ideal behavior from her students.

Mrs. Murphy held a formalistic view of writing (Giroux, 1978, Smagorinsky, 2006). She believed there was a basic set of rules about writing that should be taught in a particular sequence. Words, syntax, and organization were important along with coherence to the major components of the writing process, such as prewriting, drafting, editing, revising, and publishing (Emig, 1971). Students in Mrs. Murphy's class were

expected to follow her rules and structure for writing. Students would begin the writing process by brainstorming ideas on a semantic map, a circle map where the topic was written in the inner circle and ideas about the topic were listed in the outer circle. Then, students would transition their ideas onto a flow map, a graphic that included space for their topic sentences, ideas for three paragraphs, and supporting details for each paragraph. Students were not allowed to write sentences or include adjectives during the prewriting activities. These tasks were reserved for the drafting stage of the writing process. Mrs. Murphy believed the drafting and publishing stages were the most enjoyable, as she preceded them with, “Now we get to the fun part of the writing process.” The drafting stage took the longest as each student was allowed to work at his or her own pace. Little time was given for the editing and revising stages with the exception of one or two teacher conferences per student. Often, the writing process seemed to be linear progression instead of a recursive process as students were told when they could move to the next step.

Mrs. Murphy also stressed the importance of a quiet work time in which students could think and write in peace. She made numerous comments stating that, “writing time was a quiet time.” Mrs. Murphy viewed talking as a distraction and interruption and insisted on silent writing. Students were given privacy folders to put up around their writing so they would not bother or be bothered by their classmates.

Mrs. Murphy appeared to subscribe to the transmission model of learning (Pratt, 1998). She viewed the students as empty vessels waiting to be filled with knowledge and saw her role as a teacher to provide her students with direct instruction. During an interview, Mrs. Murphy stated, “Students learn more the more they are taught. I have to

explicitly teach them skills because they don't really figure it out on their own." Her teacher-centered classroom followed a model of evaluation-based literacies and one-way literacy knowledge stemming from the teacher to the student. Because of these beliefs, she spent a large portion of the writing time talking and instructing students on their writing skills.

Mrs. Murphy believed it was important to give students many opportunities to practice writing. Students started each day writing in their daily journals. Writing was also incorporated into social studies instruction. For example, students wrote various expository texts during a social studies unit on the Presidents. During these writing assignments, students were allowed to work at their own pace without interruption from the teacher.

The majority of classroom writing was done independently. Writing time was characterized by students quietly writing at their own seats. Mrs. Murphy often remarked that she had intended for her students to "work collaboratively on assignments, but it just never worked out." Mrs. Murphy claimed she wanted students to collaborate and work together on their writing assignments, but that rarely happened. She attributed this discrepancy to her formalistic views of writing and her need for quiet writing time. Mrs. Murphy gave students opportunities at the end of the day to share their writing aloud with their classmates, however. Many students raised their hands, volunteering to read their writing, and eager to receive feedback from their peers on their writing.

Description of the Second-Grade Students

Students in Mrs. Murphy's Classroom. Mrs. Murphy's class included 24 second-grade students, 12 males and 12 females ranging in ages from 6 to 8 years old. Of the 24 students, 17 (71%) were White, 4 (17%) were Hispanic, 2 (8%) were Asian, and 1 (4%) was African American. Students came from mostly middle- to upper middle-class families with professional parents, such as doctors, dentists, and business owners.

Students in Mrs. Murphy's class were well behaved and knew the classroom rules and expectations. Students transitioned between subjects quietly, trying hard to not disturb their classmates. Students also respected their teacher's authority as they typically did not talk back to her or challenge her rules.

The majority of students in Mrs. Murphy's classroom were on or above grade level in reading and writing. The students that struggled seemed to have difficulties developing their ideas. Organizing their writing was a major issue for most students in this classroom, as well. Students used various thinking maps, such as semantic maps (graphic overviews of the relationship among terms or concepts), flow maps (graphics that included space for their topic sentences, ideas for three paragraphs, and supporting details for each paragraph), or Venn Diagrams (graphic overviews of how concepts interrelate) to outline their thinking during writing and to help organize their thoughts).

These strategies did not seem to help some students when writing, however, as they still struggled as indicated by their numerous questions and comments. Students would make statements like, "I have my ideas on my flow map, but I don't know what to do next." Or, when asked about referring to their flow map for assistance with their writing, students would state, "That doesn't help me."

Like the students in Miss Damon's classrooms, the students in Mrs. Murphy's classroom also had exposure to computers in their homes. Most of these children had used the computer at home to play games, such as video games or educational learning games. Two of these students had their own personal iPads. No individuals had prior experience with digital storytelling prior to this unit, however.

Students in Mrs. Murphy's class initially seemed indifferent to my presence in the classroom. Because the teacher did not reference me by my name, many students did not know my name for the first few months and rarely noticed I was in their classroom. As the semester continued, and my presence during their writing time increased, students slowly became more comfortable with me, often asking my name and asking to show me their writing. By the end of the semester, all of the students knew my name and would greet me with a smile or hug when I entered the classroom. In addition, all students were open to sharing their writing with me and willing to answer my questions about their writing. Below is a description of the focal students in Mrs. Murphy's class:

Biographies of Second-Grade Focal Students

Hunter: The High Achieving but Unmotivated Writer. Hunter was an outgoing seven-year-old Hispanic boy with light brown hair and dark brown eyes. He lived with his mother, father, and three siblings. Hunter participated in many sports and was the star athlete on his baseball and football teams. Being a social child, he was well liked among his classmates and teachers. Because of his high test scores, Hunter was labeled an advanced student by his teacher, but he was often unmotivated by writing assignments and activities. He was often found playing with toys in his desk or coloring

instead of working on writing assignments or listening to the teacher. When Hunter was motivated, he worked hard and tried his best, however.

Because of his large family, Hunter had to share a computer with his siblings. When he did use the computer it was to play games or watch YouTube video clips. Hunter was excited to write his personal narrative because he wanted to share his story about his brother's birthday party.

Sam: The Average Student but Reluctant Writer. Sam was an active eight-year old Hispanic boy with curly, brown hair. A child of divorced parents, Sam spent most of his time with his mother and two brothers. Being the youngest child, Sam often mirrored the language and behaviors of his older brothers. These behaviors often got him into trouble both at home and in school. Sam was quick to form judgments about school assignments, often claiming they were, "boring and stupid". Sam was disinterested in most academic writing and would often ask to read instead of write. Sam stated, "I like reading much better than writing. Reading is so much more fun and a lot less work." Sam was on grade level in reading and writing, but often received below average grades on writing assignments due to his lack of interest and drive. Motivation played a large role in his ability to complete his work. His teacher noted, "He isn't often motivated, but when he is, he is unstoppable."

Out of school, Sam enjoyed playing on a flag football team. He liked the interaction and friendly competition. At home, Sam enjoyed playing computer and video games. He spent most afternoons enthralled with various games such as Minecraft (<https://minecraft.net>) and Tekkit Classic (<http://www.technicpack.net/tekkit/>). Sam also enjoyed spending time with his mother. He often told stories of going to the park or a

museum with his mother and brothers. Sam was excited to record his voice on the computer for his digital story.

Mark: The Low Achieving but Motivated Writer. Mark was a seven-year-old Caucasian boy with brown hair and brown eyes. He enjoyed school, although he reported not having many friends. Mark preferred reading books instead of playing with the other students. He had a close bond with his parents and his older brother. He often spoke of his family, sharing stories about their vacations and family outings. Mark also loved video games, animals, and Pokémon. Mark was below grade level in all academic areas, although he was working hard to improve his skills.

Mark was an uneasy student, always worrying about things. He often reported not feeling well and would ask to go to the nurse's office. Typically not open to trying new ideas or tasks, Mark, however, was excited to create his digital story. He thought that sharing his story with his classmates might help him gain new friends.

Research Questions and Findings

With these focal students, their peers, and their teachers in mind within these contexts, I address each one of my ten research questions below. In doing so, I draw on my triangulated data and my own reflections. Since some of these questions are interrelated, there is some overlap or reinforcement in my findings.

Research Question 1. How might teachers' views of writing and the writing process influence students' development of their identities as writers and students' views of writing?

Miss Damon's Students. The first-grade teacher, Miss Damon, held a social constructivist view of writing (Vygotsky, 1978) and her belief that students construct meaning through social interactions impacted her students' writing development and their perceptions of themselves as writers. Students had many opportunities to work together, sharing ideas and offering support to their peers, as well as to their teacher. During one interactive writing session on the topic of pets, Miss Damon said, "We all have ideas so whisper to your friend what you could write about." Students began sharing ideas with their classmates. Then, students came together again and shared their ideas aloud with the whole class.

Miss Damon: "What are some things your dogs can do?"

Student: "lick"

Student: "chase"

Student: "jump like a whale"

Student: "my dogs likes to shake"

Student: "bark"

Student: "my dog can sit, I mean jump through a hoop"

Student: "my dog can high five"

Miss Damon: "Wow, those as great ideas! That helped me think of ideas for my circle map. Leah can do some of those things too."

Miss Damon explained that their ideas were helpful and that she could use their ideas to guide her own writing about her dog. Miss Damon wrote, *Leah can jump high*, an idea offered by one of the students. Through numerous opportunities like this to share their thoughts, students experienced success in generating or brainstorming ideas, the first stage of the digital storytelling process. In another example, while students were sharing what they wrote during a prewriting activity, Miss Damon asked Michele what ideas she wrote about her pet for the helping word, “likes”. Michele responded that her guinea pig likes eating lettuce. The following instructional conversation transpired:

Miss Damon: “So give us one describing word for lettuce.”

Michele: “I don’t know.”

Miss Damon: “Who can help her?”

Annette: “Um... Um...”

Tricia: “It eats fast with its little teeth.”

Michele: “Yes, that’s actually true!”

Miss Damon: “Okay, so listen, Guinea likes eating lettuce? Or Guinea likes eating lettuce with her little teeth? Which gives more details?”

The students all agreed that the second example gave more detail and therefore was the better sentence. Giving students the environment in which interaction and collaboration were encouraged helped them to write more productively. Through this interaction and similar interactions, individuals were able to assist their classmates while building their identities as writers. Through social interactions with peers centered on writing, these students tended to see themselves as capable writers with numerous ideas.

Because the students were so young, Miss Damon found it necessary to explicitly teach writing skills to her students. These skills included how to properly form letters, how to structure a sentence, and the importance of subject and verb agreement. Although she recognized the importance of teaching specific skills, she also believed it was necessary for students to become responsible learners. Because of this belief, students were expected to make their own decisions regarding their writing whenever possible. For example, when Miss Damon noticed a mistake in a child's writing, she would say, "How are you going to fix that?" giving the student time to think and make his or her own decision regarding the mistake, drawing on students' prior knowledge. During a teacher conference with Chris, Miss Damon mentioned, "You have one thing to fix. Reread what you have written. Can you find it?" Chris quickly reread his writing and noticed he needed to capitalize the beginning of his sentence.

Through these teacher-student interactions, students became responsible writers, making corrections themselves. Miss Damon saw her role as the teacher to guide her students through their own understandings. She was not going to do for them what they could do for themselves. "Try your best. I am here to help you, but I want you to try your best. If you don't know how to spell a word, then stretch it, underline it, and I will help you when we teacher conference." Miss Damon's gradual release of responsibility helped guide students toward becoming independent writers.

Miss Damon, with her social constructivist views, also assisted the students in co-constructing rubrics for their digital stories. Together, Miss Damon and her students created a writing rubric for the children to follow when writing their personal narratives, as well as a narration rubric for the students to follow when reading their scripts. The

writing rubric outlined various writing components that the students needed to include in their personal narratives. These components included staying on topic; including details and descriptions; and using transition words. The narration rubric included items, such as, “I read clearly (no mumbling), I read with expression, I read at a normal pace, not too fast, and not too slow.” Hence, there were two rubrics: One for the written piece and one for the verbal piece. Students followed the writing rubric when writing their story and the narration rubric when reading their stories. Students followed these rubrics when writing or reading to ensure they were including the necessary components to make their stories the best they possibly could.

The teacher’s views of learning as a social constructivist activity in which learning is accomplished and represented through language (Vygotsky, 1978) resulted in teacher-student collaboration. Miss Damon believed that involving students in creating the rubric aided in their understandings and feelings of ownership in their writing. Miss Damon told the students, “You will know what I am looking for as a teacher, a listener, and a reader.” Miss Damon’s views made the writing assignments authentic for the students. She reminded the students, “You are not just writing for me, you are writing for others to see.”

Students developed their identities as thoughtful writers when they referenced these rubrics. In one instance, Alice stated, “The rubrics help me as a writer because I know what to put in my writing. I can go back and check my writing. I want to make sure I have everything my teacher and my reader is looking for.” This remark showed that Alice identified herself as a writer and that she was thoughtful in her writing by editing and revising.

Believing that students learned most from interaction, Miss Damon consistently provided written and verbal feedback regarding the students' writing. She often wrote small notes to the students in their journals or on Post-it notes on their writing assignments. Her feedback included prompts such as, "Tell me more" or "What happened next?" as well as, "What are you missing?" and "Remember to use finger spaces." Students reflected on this feedback, often making corrections or adding details to their writing. This self-reflection and editing was evidenced in a remark Will made after reading a comment from his teacher in his writing journal. Will stated, "What does mine say? Oh, finger spaces. Yea, I need to work on that." In another instance, Miss Damon and Alice converse on her paragraph about Goofy's Kitchen. Alice wrote,

Hay Have you been to Disney land before?! Well I have. First, I went to gofes kichen. He had grate food. You will know it's goofes kichen because what hes waring. He is waring a hat and a tie.

Miss Damon asked her, "Why does Goofy wearing a hat and tie make you know you are at a kitchen?" Alice responded, "It doesn't." Miss Damon prompted her, "What else is he wearing that shows you are in a kitchen?" Alice answered, "I don't know. He is wearing a chef coat." Miss Damon replied, "Yes!" Alice smiled and said, "Oh! I will change that part."

Through this interaction and others like it, students were able to modify their writing and improve their writing skills based on their teacher's feedback. Students needed the support of their teacher to pose a question, make a suggestion, or provide a response in context and at the point of need. This type of interactive teaching was prevalent in Miss Damon's classroom during the digital storytelling activities. Miss

Damon tried to provide feedback and assistance during a natural point of learning in the writing process. She challenged and empowered students to improve their writing through her supportive and precise feedback. Atwell (1998) illustrated the importance of the teacher's feedback:

Young writers want to be listened to. They also want honest, adult responses.

They need teachers who will guide them to the meanings they don't know yet by showing them how to build on what they do know and can do. Student writers need response while the words are churning out, in the midst of the messy, tentative act of drafting meaning. And they need to be able to anticipate and predict how their teacher will approach them (p. 218).

Miss Damon acknowledged by her practice that the teacher's response was important to students' growth as writers. She focused on providing feedback to improve students' overall writing skills, not getting distracted by the conventions of their writing. Miss Damon acknowledged that conventions were important, but she believed those skills would develop with time and experience. Miss Damon's focus helped students to move through the writing process in a natural progression as they built on their existing skills. The teacher's feedback helped students develop their identities as writers and realize that writers seek feedback and in turn revise their writing.

Miss Damon's relaxed personality and views of errors as learning opportunities created a climate in which students were not afraid to take risks or make mistakes. On numerous occasions, students stated they had made an error in their writing. Miss Damon was quick to respond, telling the students, "That's what erasers are for!" As a result, students saw mistakes not as failures, but as learning experiences. Miss Damon also

pointed out her own writing mistakes to show students that mistakes were a natural part of the learning process. Consequently, students realized that all writers make errors and the important step was to revise and correct those mistakes. Students realized that by making mistakes and correcting their writing, they were following the same steps accomplished authors took, and therefore, they saw themselves as authors.

Mrs. Murphy's Students. The second-grade teacher's view of writing and the writing process clearly influenced students' development of their identities as writers and their view of the writing process. Mrs. Murphy's formalistic view of writing and her idea of students as empty vessels impacted her students' perceptions of themselves as writers. Students saw their teacher as the all-knowing corrector of their writing. For example, during one recording session in the computer lab, I asked Tommy about a paragraph in his writing that did not make sense. His partner, Jacob, read it and responded, "It does sound a little funny. Did Mrs. Murphy read it?" After Tommy replied that his teacher had read his paragraph and approved him to begin recording, Jacob said, "Well if Mrs. Murphy read it and said it was okay, then he doesn't have to fix it." Although Jacob agreed that Tommy's writing did not make sense, both boys were satisfied with the writing because their teacher had approved it.

The students saw their teacher as having all of the power to make decisions regarding their writing and themselves as uncertain writers, dependent novices lacking the ability to determine if their own stories conveyed what they wished to share with others. Mrs. Murphy's focus on conventions and format led students, and especially Tommy, to perceive these aspects as the most important qualities of writing. Students were hesitant to make decisions regarding their writing until their teacher had offered

feedback. This process made students dependent on their teacher as they sought her approval regarding the quality of their writing.

The students' understanding of writing and the writing process was shaped by their teacher's formalistic views in other ways, as well. At the beginning of the year, students were often found chatting with their neighbors regarding their writing assignments. Students were excited to share their experiences and ideas with their classmates. As the semester progressed, however, and Mrs. Jones continued to tell students that, "writing time is a quiet time", students began to work silently and independently and displayed less overt enthusiasm. Students began to think of writing as a solitary process accomplished in silence and isolation.

In addition, students quickly learned there were rules to writing that must be followed. These rules mostly included conventions, such as neat handwriting, correct spelling, and punctuation marks along with the importance of adding details and descriptive language. During an interview with Mark, he shared his emerging ideas about what makes a story "good".

Researcher: "What makes a well-written story?"

Mark: "Good detail, good ideas, good pictures, good entry, good handwriting, good illustrating, good authoring"

Researcher: "What makes you want to keep reading?"

Mark: "If it keeps my interest and makes me want to keep reading. I like action and jokes sometimes. Maybe good handwriting and ideas."

Researcher: "What sorts of details do you remember best after you read a story?"

Mark: "Good pictures, good handwriting"

Researcher: “No, what details do you remember?”

Mark: “Oh, good... good... good jokes”

Researcher: “When writers tell stories about their own lives, what details do they choose to include and what kinds of things do they leave out?”

Mark: “Some people forget to include the main thing they are actually talking about. They want to leave out the bad ideas like a bad picture or bad handwriting.”

Researcher: “Those aren’t ideas or details. Handwriting is not an idea or detail.”

Mark: “Oh, well then I don’t know.”

This interaction shows Mark’s unclear understandings of writing and the writing process. Most of his responses were generic and vaguely addressed the interview question. Mark stressed the importance of handwriting, ideas, pictures, or details, all components of writing that his teacher had conveyed were important. When challenged to articulate different ideas, Mark was unable to respond with an appropriate answer, often stating, “I don’t know.”

Mrs. Murphy’s concern with writing rules and the stages of writing often impacted her interactions with her students. For example, during a pre-writing activity, Mrs. Murphy demonstrated how to take her ideas from a semantic map and transfer them to a flow map. She continued to stress that this was a pre-writing activity and therefore the students would be writing only ideas, not sentences on their flow map. Mark raised his hand to ask a question, “For my sentences...” Mrs. Murphy cut him off to say, “We are not writing sentences.” Mark continued with, “Okay, so for my short sentences...” The teacher cut him off again, restating, “No, we are not writing sentences.” In one last

effort to ask his question, Mark asked, “Okay, so my short ideas...” Mrs. Murphy interrupted one last time by telling him, “We are writing the big ideas. We will fill in the details later.” Mrs. Murphy was so concerned with the pre-writing stage and following the steps of a flow map that she failed to answer her student’s question. After this transaction, Mark gave up trying to ask his question and sat with his head on his desk.

Through these interactions, Mark began to form an understanding of the writing process as a linear progression in which steps must be followed in a certain order. These interactions also began to shape his identity as a writer. Mark often commented that he was frustrated in trying to follow the specific steps for each assignment. In his frustration, Mark would clench his fists or sit with his head on his desk. He often did not finish his writing assignments because of his perceived need to follow a sequential order in the writing process.

Although Mrs. Murphy held a formalistic view of writing, and conveyed to her students that writing was best done independently and silently, the digital aspect of the students’ digital stories created an environment that fostered interaction and collaboration. As evidenced in my field notes, students were given opportunities to work together on the computers while importing their photographs, audio-recording their scripts, and selecting their font and colors for their title. Students provided feedback regarding their classmates’ stories and narrations. During one recording session, Cameron was practicing reading his script aloud. He read, “As I looked out our balcony, I could see amazing water slides and a humongous lazy river. I couldn’t wait to explore the five-star amenities at the Disney Hotel. Our hotel was so big so we went to the beach.” Mason stated, “That doesn’t make sense. Why does your hotel being big make you go to the

beach?” Cameron thought for a second and responded, “Oh, no. That’s not what I meant to say.” He quickly erased his writing and rewrote his paragraph. “I couldn’t wait to explore the five-star amenities at the Disney Hotel. My favorite activity was the beach. It had beautiful white sand and crystal clear water.”

During another recording session, Shane and Valerie reflected on Shane’s audio recording. Shane stated, “Oh, I waited.” [meaning he paused too much during his recording]. Valerie responded, “You couldn’t hear him. Practice reading fluently and with expression.” Valerie then modeled how to read fluently by giving him suggestions for his vocal expression. Valerie also directed Shane to add an exclamation point to a sentence she thought should be read with excitement.

These instances illustrated that the digital storytelling processes naturally created opportunities for students to collaborate and assist one another. A learning environment that values students’ participation and peer collaboration is essential in developing successful digital storytellers (Robin, 2005). Students realized that they were writing for an authentic audience of their peers and saw each other as collaborative resources for drafting, editing, and reading their stories.

Teachers’ Evolving Views

Each of these teachers made different decisions about how to organize writing in their classrooms. Miss Damon, the first-grade teacher, established writing time in her classroom as a social practice. Students were given opportunities to express their thoughts and build on their ideas with the assistance of their classmates. Assignments were collaborative as students interacted with one another to complete their writing. As evidenced in my field notes, Miss Damon co-constructed a rubric with her students to

guide their writing for their digital stories. During an interview, Miss Damon described her teaching philosophy and elaborated on her belief that writing is a social activity:

Students have unique knowledge and experience that they bring to the classroom. This is their schema. It's important to work to build on students' understandings and students' schema in each lesson. This is accomplished by allowing students opportunities to share their experiences and understandings with their classmates. It's really neat to see the students making connections with their peers' experiences.

By contrast, Mrs. Murphy, the second-grade teacher, established writing time in her classroom as a solitary act. She believed that, "writing time should be a quiet time". Students typically could be found writing individually at their own desks. As evidenced in my field notes on September 5, 2012, students often used cardboard partitions when writing to shield their work from their neighbors' view and to limit students' off-task behaviors, such as talking to their classmates or looking around the room. Mrs. Murphy would often instruct the students to put up their privacy folders, as "It may help remind you to work quietly".

As the semester progressed, however, Mrs. Murphy's views on writing began to evolve. She realized that to successfully implement new literacies practices, such as digital storytelling, into her classroom, students needed opportunities to collaborate and engage with their classmates. Mrs. Murphy was stimulated by the digital storytelling process to change her views regarding how she structured writing in her classroom. She began to see literacy as a social practice and gradually released control, allowing her students opportunities to write collaboratively and work together with their classmates to

develop their storylines and refine their writing. In her journal on November 16, 2012, Mrs. Murphy reflected on her evolving views of writing:

I used to think that if students were talking, they were off task. Personally, I need it quiet for me to write. I thought that if students were talking they were distracting their classmates. I now see that writing can be social. I was amazed to see students on task as they were working together on their digital stories. They were talking, but they were talking about their writing. They were also making good choices in the partners they were selecting. They weren't just selecting their friends as partners. They were picking classmates they knew could help them. I know I need to give students time to collaborate and share their writing and I am working to allow more time for this.

Mrs. Murphy continued to reflect on her evolving views in her journal entry on November 27, 2012. She wrote:

I am reminded how motivation factors into engagement level and therefore student achievement. A project can be difficult and lengthy but if [students] are excited about it then it is a much more worthwhile project. Digital storytelling was definitely engaging. So my philosophy has changed to consider students interests at a higher level when teaching something. Writing is a social activity and students can greatly benefit from social interaction.

Hence, Mrs. Murphy's journal entries illustrated how her views of writing evolved throughout the semester to a social constructivist (Vygotsky, 1978) view of teaching and learning literacy with an emphasis on shared experiences through discussion.

These changes were also evidenced in my journal throughout the semester. As Mrs. Murphy gradually release control in her classroom, she began to allow students opportunities to collaborate with one another. In a journal entry on November 15, 2012, I noted:

After speaking with Mrs. Murphy, I am surprised to hear her make comments on her role as a teacher. This semester she has been formalistic in her teaching, following a transmission model of teaching and learning. Today, however, she mentioned stepping back and giving the students more opportunities to collaborate and learn from one another. She commented on how impressed she was with the students as they practiced reading their scripts. She noted that the students were making good choices with the partners they were selecting. [Mrs. Murphy] stated that students were not simply selecting their friends to be their partners, students were selecting partners they knew could help them improve their stories. She was impressed with their decisions and happy to see they were on task. I am excited to see how these new understandings impact her teaching.

This journal entry illustrated how Mrs. Murphy's behavior and beliefs began to evolve throughout the semester. Another of my journal entries confirmed this change. On December 3, 2012 I noted:

[Mrs. Murphy] spent less time talking during writing time. She allowed students to talk and share their ideas about their writing instead of instructing them to work quietly. Students seemed engaged and excited to share their writing as they were smiling and their conversations are all about their personal narratives.

These journal entries illuminate the diverse ways Mrs. Murphy expanded her notions of literacy and literacy instruction. As she gradually released control in her classroom, students seized opportunities to work collaboratively and cooperatively.

Research Question Two: How might students consider digital storytelling as writing?

Field notes of my observations along with students' interviews illustrated the many ways in which students considered digital storytelling as writing. Students were first introduced to digital storytelling at the beginning of the school year. In both classes, students viewed examples of digital stories from students in a first-grade classroom from another elementary school in the district and reflected on their various components, such as the title, photographs, and voice narration. Comments the students made about these digital stories included, "That was so cool!", "I loved how he added the music!", "She used detail words.", and "I can't wait to write my personal narrative!" Students often referenced the digital stories as "movies" and were most interested in the digital aspects of the stories, such as the voice recordings and transitions between the photographs. As the students began to create and then reflect on their digital stories, they began to see the "movies" as writing. Michele, a focal student in Miss Damon's classroom, explained her thoughts during an interview:

"It was writing because I thought of lots of good words. It's similar because we first thought about our ideas, wrote them down, and then reread it and fixed up our mistakes. Then, we published our writing on the computer."

The published writing Michele was referring to was her digital story. Michele understood that her writing was published in the form of a “movie” which she shared with her classmates and family. In a similar way, Valerie described her understanding of the digital stories:

We started with a picture in our heads to help us write. We started with the first paragraph and wrote it with exciting words. We went through the writing process, we first thought of our ideas, we brainstormed, we wrote it, then we edited and had a teacher conference. Then we did our final copy. What was really cool was that we got to publish it on the computer. That was the best part.

Like Michele and Valerie, all of the students stated that their digital stories were writing. Their explanations included statements like Marks’s comment, “I started with an idea and then I wrote it down.” Alice remarked, “The digital stories are like writing because they give information about our lives. The only difference is we are reading them to our audience.” Jane noted:

You have to tell someone about your life and that is the same as writing. You can write it down rather than just saying it. You can turn your writing into a movie so people can see pictures of you as well.

Mason echoed these comments stating, “It’s important and it took a long time to write. I included details and my story was really good.” The students understood that their writing communicated their ideas to an intended audience for the purpose of sharing their experiences by using a variety of texts to interact with the reader.

In addition to the traditional literacy skills of composing words and sentences, students also developed multimodal literacies as they created their personal narratives. Students were not only reading and writing print, but also composing visual and auditory “texts.” Students gained new literacies skills by selected appropriate fonts, colors, and transitions to make their stories complete. The students were strategic in their use of these multimodal literacies. For example, the students needed to consider how their fonts conveyed the tone of their writing, which colors worked best together, and what transitions would affect the readers’ comprehension.

These important considerations made the digital stories more than a simple writing assignment as students began to see writing as multimodal and developed their multimodal writing abilities. For example, Larissa strategically selected the colors teal and copper for her title to match the colors of the Arizona Rattlers football team, the topic of her digital story. For the paragraph on Stryker D. Rattler, the team’s mascot, Larissa chose a zigzag transition to look like the rattler’s fangs. In another example, Maggie selected pink for her title page because pink was her favorite color and her story title was, “All About Maggie”. In addition, she carefully selected transitions between each paragraph. She chose one transition that looked “soft and fluffy like snow” before her paragraph on snowboarding, and a heart graphic as a transition before the paragraph about her family. Maggie thought these transitions would help the visual flow between the paragraphs and as a result help the audience feel the “full effect” of her story, as she put it. Mark chose a green background with blue letters for his title, “California”. He thought the contrast between the green and blue helped the blue letters “pop” off the page.

John, a first-grade focal student, was strategic in his use of transitions, as well. The following link presents John's complete digital story (<http://www.youtube.com/watch?v=U42WBAYAysz0>). His story, *My Trip to Hawaii*, chronicles his family's vacation to Hawaii. His digital story illustrated his strategic use of color and transitions. John selected green for his title page, since Hawaii was "very green" and it is his favorite color. He was strategic in his use of transitions, as well. John selected a graphic that made his photograph appear to "shatter". He commented that the shattering of the photograph reminded him of water splashing in the ocean in Hawaii. John also selected a wave transition into his photograph of the Maui Ocean Center. In addition, John selected a transition that spun before his photograph of the Fishpipe, a rotating barrel water ride. The multimodal elements in his personal narrative illustrated John's strategic decisions in selecting colors and transitions for his digital story.

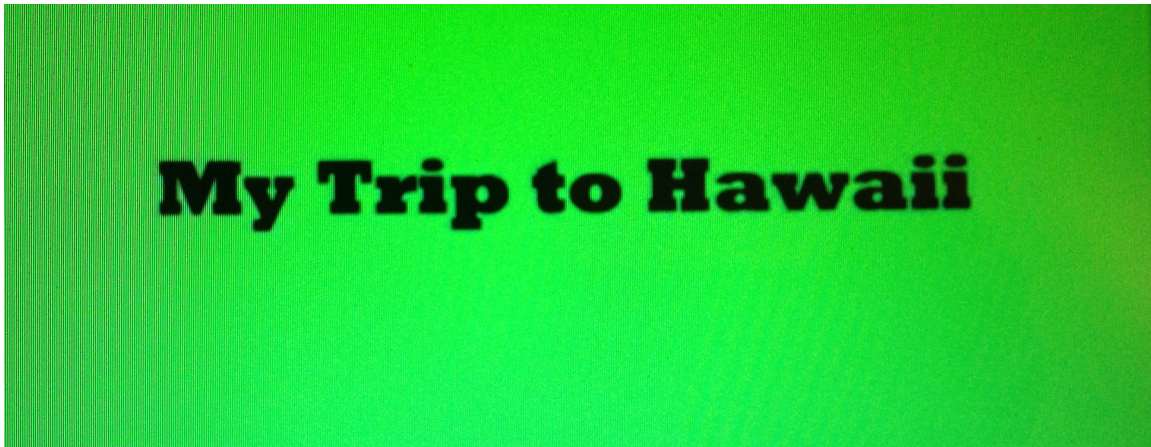


Figure 3. John's title page

Students were strategic in their choice of fonts, as well by choosing those that complemented their stories' themes. For example, Tricia decided on a cursive font called "Curlz MT" for her digital story. She liked the Curlz font because it looked "girlie", like her pet fish, Dorothy. Tricia equated Dorothy as looking "girlie" because she was a magenta fish with pink and purple rocks in her bowl.



Figure 4. Tricia's "girlie" title page

The ability to select a font that conveyed meaning and contributed to the message of the narrative was also evidenced by Valerie's statement:

I like the font I selected for many reasons. Mostly, it looks sloppy and my story is about when I broke my arm. It looks sloppy, like I wrote it with my broken arm. I think my audience will think that's funny.

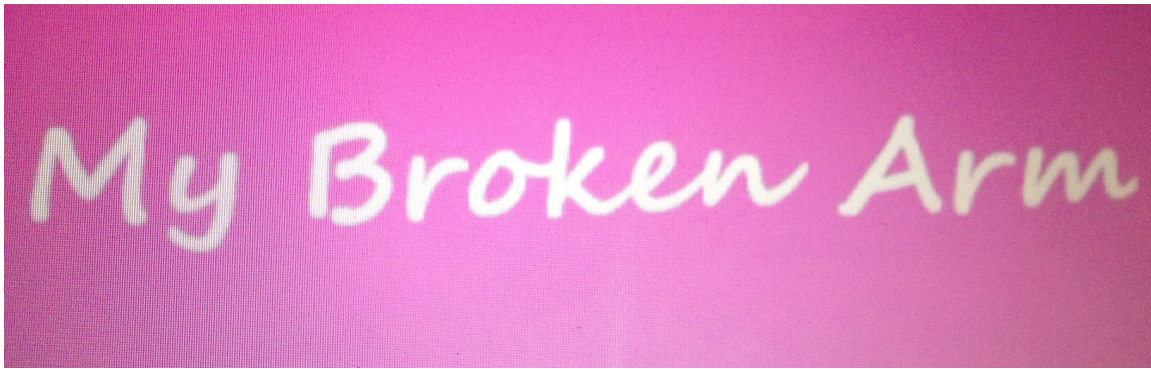


Figure 5. Valerie’s “sloppy” title page

In other instances, the students’ decisions on font and color made viewing more difficult for the audience, however. One example of this was Chrissy’s red letters with a purple background for her story on hot air balloons. The color combinations made it difficult to read her title, but she chose to keep it anyway because they were her favorite colors. In another instance, Hattie chose a cursive font for her title page, a font some of her first-grade classmates could not read.

In these ways, the students’ viewed their digital stories as more than a simple writing assignment. They were multimodal representations combining print literacy and new literacies, expanding their definitions of what counts as writing. During an interview, Hunter shared his thoughts on his digital story. He explained, “I learned a lot from this project. I learned that writing doesn’t have to be boring. I learned that writing is everywhere.”

Hunter’s comment that writing, or yet literacy, “is everywhere” illustrated the impact that multimodal literacies had on his learning. Hunter’s new ideas of writing demonstrated how digital storytelling was used as a multimodal bridge as students orchestrated visuals and print text on screen and in narration while composing their digital stories. For students like Hunter, writing was more than simply putting words on

paper. Writing was about the many ways in which language, images, culture, and technology interacted.

Through the digital storytelling process, students became active designers of meaning. This process created an embodied link from print to lived experiences. In profound ways, individuals developed new experiences in which to see writing, seeing writing “everywhere”.

Research Question Three: How might students develop a meta-language to talk about writing and themselves as writers?

To learn more about how these young students developed a meta-language to talk about writing and themselves as writers, I reviewed a plethora of data sources, including field notes, transcripts of students’ and teachers’ interviews, digital photographs, and students’ writing samples. The following section provides a description of students’ use of language to talk about writing.

In the beginning of the semester, students at both grade levels in both classes lacked a meta-language to talk about writing. Students indicated their desire to become “good” writers, but could not clearly articulate what that meant. For example, the following conversation transpired between Miss Damon and her first-grade student, Tricia.

Tricia: I want to have a good story.

Miss Damon: What makes a “good” story?

Tricia: If it has good things in it that make you smile.

Miss Damon: What types of “good” things?

Tricia: I don't know, good things like happy things, like things that are good for kids.

In this conversation, Tricia struggled to express her understandings of writing and what it meant to write a "good" story. Tricia tried to communicate her understanding of audience and the importance of holding the reader's attention, and provoking her readers' emotional responses, but she lacked the language to express her ideas. Below, I describe the three ways in which students developed a meta-language to talk about their writing (through teacher scaffolding, teacher-student collaboration, and peer collaboration) and I provide examples of the metacognitive language they used to discuss their writing processes and products.

Developing a Meta-Language through Teacher Scaffolding

Mason, a second-grade student, tried to express his understandings of a "good" story. The teacher led him into expressing those understandings by posing leading questions and by supplying the necessary vocabulary he needed to articulate his ideas.

The following conversation between Mrs. Murphy and Mason transpired:

Mason: A good story has all the stuff in it like the playground.

Mrs. Murphy: A story can't be good if it doesn't talk about a playground?

Mason: No, but it includes a lot of things like slides.

Mrs. Murphy: I don't understand.

Mason: You know, it has all the important stuff, like the slides and swings that tell you it is fun.

Mrs. Murphy: Oh, so a good story includes details about the topic. So if it's a story about the playground, it needs to include details about the slides and play equipment?

Mason: Yea, good stories talk about details.

Like Tricia, Mason struggled to express his ideas about a “good” story. He lacked the language to clearly state his ideas about his understandings of writing. With his teacher’s prompting through leading questions and supplying the needed terminology, Mason was able to express his ideas about the importance of including details in writing stories.

Developing a Meta-Language through Teacher-Student Collaboration

A deepening of understandings about what constituted a “good” piece of writing emerged as a re-occurring theme throughout the semester. Students’ notions of “good writing” progressed from a focus on writing conventions to an understanding that writing was complex and multifaceted. In the beginning of the semester, students shared their ideas of “good” writing. Alice noted the author used, “good handwriting” while her classmate, John, noticed the author used capital and lower case letters in the correct places. Like Alice and John, Isabel held simplistic notions of what constituted “good” writing, stating that, “pretty pictures make a good story.”

As students progressed through the semester, however, they had many opportunities to talk about and share their own stories. They used these opportunities to develop their ideas about writing. For example, instead of being given a rubric to use when evaluating their writing, the first-grade students participated in co-creating a writing rubric with their teacher. The following is an excerpt from my field notes:

Miss Damon: We are going to create a writing rubric to use when we write our personal narratives. Let's call it "Five-Star Writing." We want to try to earn five stars for our writing. Have you ever heard of a five-star restaurant or a five-star hotel?

Ally: It's a really good place.

Miss Damon: Yes! Everyone wants to go to a five-star restaurant or a five-star hotel. They are the coolest restaurants and hotels. We want our writing to be five-star writing. We want everyone to want to read our stories. You want to try to earn five stars. What are some things you think you need to do to have a five-star story?

Isabel: add details

Miss Damon: What kinds of details?

Clare: good

Miss Damon: Good details, exciting details. What else?

John: Good punctuation?

Miss Damon: Punctuation is important, but think about the content of the story. What would make the story interesting for your reader?

John: It needs to have information.

Miss Damon: Good. And what else?

Chrissy: One topic

Miss Damon: You got it! Your writing needs to be on one topic. Those are all important.

Isabel: I know another one! You need pretty pictures!"

Miss Damon: The pictures are important, too. You need to include detailed pictures that match your writing.

Miss Damon reinforced these students' ideas by writing their thoughts on chart paper. She then assisted the students in taking their ideas and turning them into sentences to describe their writing. For example, Miss Damon stated:

You all mentioned great ideas. Now, let's turn those ideas into sentences we can follow for our rubric. Isabel suggested we add details, Michele stated we need to include information, and Chrissy noted we should stay on one topic. We can turn these ideas into a sentence. What about saying, to earn five stars, I will write about one topic using exciting details, transitions, and lots of information? If we did all those things would we have a great story people would want to read?

The students all agreed that Miss Damon's sentence captured their ideas for a five-star story. This process continued as they worked through the rubric identifying what a four-star story would include down to a one-star story.

The completed "Five-Star Writing Rubric" included the following items:

Five Stars: I can write about one topic using exciting details, transitions, and lots of information. All of my sentences make sense. My pictures match with my best details.

Four Stars: I can write about one topic using some details, a transition, and some information. My pictures match with most details.

Three Stars: I can write about one topic using one detail and some information.

My picture matches with some details.

Two Stars: I can write about a topic, but sometimes my sentences don't make sense. I use one detail, or a transition. I don't add very much information. My picture is not detailed.

One Star: I can write about a topic, but my sentences don't make sense. I don't write with details. I don't add much information. My picture is not detailed.

Students used this rubric to talk about their writing and how they could improve their stories. As students' understandings of writing developed, so did their language to discuss their writing. For example, Miss Damon, the first-grade teacher, shared a three-star paragraph with the students, prompting students to use the jointly developed rubric in a language that demonstrated their understandings of writing.

Miss Damon: This is an example of a three-star paragraph: *This is my dog, Leah. She has brown, tan, and white fur. Leah is two years old. She loves to play. She can jump and run.* What do you notice about this paragraph?

Chelsea: Describing words! There are a ton of them!

Miss Damon: You are right. I am writing about one topic and I included details. Now look at an example of a four-star paragraph: *This is my dog, Leah. She is a Cairn Terrier. She has brown, tan, and white fur. Leah is two years old and she loves to play. She can jump high and run quickly.* What makes this paragraph a four-star paragraph?

Isabel: There is an "and"

Miss Damon: High five! I didn't know if anyone would catch that! I connected two sentences with the word "and".

Eric: There were describing words, too, like Cairn Terrier and run quickly.

Miss Damon: Very good!

In ways like these, students' understandings of writing developed. They were able to talk about writing by using a new meta-language that they developed. They were able to express their understandings of topic, details, and connecting two ideas by using a connecting word, such as "and".

The second-grade students developed notions of what constituted "good writing" as well. Through conversations centered on their personal narratives, students had opportunities to develop their ideas about writing. Students benefited from conferences with their teacher in which they could brainstorm ideas, talk through their thinking, and receive feedback regarding their writing. During one teacher conference, Tommy and Jacob shared their stories with Mrs. Murphy. Tommy read:

The day had finally come when it was time to take my cast off. We had to go to the hospital to get my cast off. When we got to the hospital we went in a room to get my cast off.

Jacob critiqued Tommy's paragraph, noting that he repeatedly used the phrase, "get my cast off". The following conversation transpired:

Mrs. Murphy: Yes, you are using the same words over and over.

Tommy: What other word can I use?

Mrs. Murphy: Remove means the same as take off.

Jacob: Yea, say that!

Tommy: I couldn't wait to go to the hospital so the doctor could remove it?

Jacob: Oh, that's better.

Mrs. Murphy: That's revising your word choice. One of the six traits of writing.

Tommy: Oh yea, word choice!

Through conversations like this one with his teacher, Tommy was able to refine his language about word choice. In another example, Shane was sharing his story about going to the ASU football game with his teacher. The following conversation emerged:

Mrs. Murphy: What do you think of your story?

Shane: It is good because I used my best handwriting. I might have missed some punctuation marks, but I tried really hard.

Mrs. Murphy: What else do you think of your story? What besides your handwriting is good?

Shane: I don't know.

Mrs. Murphy: Look at your story. What things did you add to make the story enjoyable for your reader?

Shane: Ummm. I used good describing words.

Mrs. Murphy: You sure did! I see the words rumbling, confetti, fireworks, and swarm. What else did you do well?

Shane: I used transition words.

Mrs. Murphy: Transition words will help your reader follow your story in sequence. I see you used first, next, then, and finally. Those are great transition words.

Through his teacher conference, Shane was able to refine his language to determine what constituted “good” writing. Shane worked with his teacher to craft a language to convey meaning regarding his story. In addition, he developed a more complex understanding of writing. His notions of good writing progressed from his initial

statements about handwriting and punctuation marks, to more complex notions of adding details and transition words to engage his audience.

Developing a Meta-Language through Peer Collaboration

Another way that students developed a meta-language to talk about writing and themselves as writers was through collaboration with their classmates. What students learned about literacy and meta-language was influenced by the interaction of a multitude of complex individual and social factors within instructional activities in the classroom. These activities included partner brainstorming, independent writing, class discussions and sharing periods, and peer-editing conferences.

As the semester progressed, students in both classes continued to work on their digital stories, talking with their classmates and sharing their ideas. Through these social interactions, students developed a way to talk about writing and about themselves as writers. Students began to build confidence in talking about their writing and, in turn, gained confidence in talking about their peers' writing. For example, at the beginning of the semester, students in Mrs. Murphy's class did not want to share their ideas or writing. During brainstorming sessions, her students, Monica and Sarah, refused to share their ideas with their classmates. Monica reported feeling "embarrassed" about her ideas, and Sarah was fearful her classmates would laugh at her.

After many opportunities to work together and share their ideas, students began to build a trust with one another, and in turn, gained confidence to share their writing.

During a self-reflection later in the semester, Monica noted:

I love sharing my stories with my classmates because they give me lots of support and ideas. They tell me what they liked and what I could add so my story

would be better. It makes me feel good to have my friends tell me they like my stories.

Like Monica, Sarah's mindset changed as she gained confidence in her writing abilities as well. Sarah commented, "I know so much more about writing now. I am able to talk with my friends about my stories and about their stories, too!" Similarly, Mark, a focal student known for his high motivation but low writing ability, gained confidence in his writing as well. He remarked, "My story has good details, I can read it, it has good pictures, and it explains a lot." Mark also stated, "I am having fun writing because I am writing about myself and letting everyone know I have a pool so they can come over to my house." Mark developed confidence in his writing, acknowledging that his writing held personal and shared meaning and that his classmates could learn more about him through his stories.

As students progressed through the writing process, they conversed with each other about various elements of writing. For example, after a writing session focusing on adding interesting opening sentences and stimulating detail words, John, a focal student in Miss Damon's class known for his social difficulties and resistance to revise, shared his personal narrative with his peers. John wrote:

Today was the best day because I'm in Hawaii! I have 13 days here. The first day in Hawaii I went snorkling. I saw a white electric eel. My sister and my dad saw a pufirfish. I did not get to see the pufirfish. I saw lots of uhnu-uhnu-nuca-nuca-poo-hahas. An uhnu-uhnu-nuca-nuca-poo-haha is a fish that lives in the oceans around the Hawaiian islands. It is a small frendly fish that has 3 colers.

John's classmates used their developing knowledge of writing to comment on his story. Julie stated that he wrote, "detailed sentences", while Annette noted that he used, "detail words". Alice commented on John's opening sentence stating that, "it was interesting and made me want to hear more." These comments revealed how students developed their understandings of writing and the various writing components that authors include in their stories, such as details and intriguing topic sentences.

In another instance, students in Mrs. Murphy's second-grade class engaged in a peer-editing session. During this session, Mark, a focal student known for his high motivation but low writing skills, and Hunter, a focal student known for his advanced writing skills but low motivation, read each other's personal narratives. The feedback the boys proposed illustrated their developing meta-language to discuss writing. Hunter noted that Mark's story about his family vacation was interesting because it made him want to keep reading. This comment affirmed Mark's abilities as a writer. Hunter also suggested that Mark needed to work on his spelling, as well as staying on topic, noting, "There were a couple parts I was a little confused on." Hunter's comments were directive, leading Mark to improve his skills as a writer. Mark nodded his head yes, as if to agree with Hunter's statements.

Mark then gave feedback to Hunter on his story about his birthday party. Mark stated, "I didn't see any mistakes, but you might want to add a little more pizazz. Like 2% more pizazz to make it as good as it can be, man." Mark's comment was directive, suggesting that Hunter add more pizazz to his writing. Mark understood the importance of gaining the readers' attention and drawing them into the storyline. He thought that Hunter could improve his writing by engaging the audience in the story. To do this,

Hunter needed to add “2% more pizzazz”. Mark’s suggestion to Hunter displayed his understanding of audience and the meta-language he developed to talk about writing.

Throughout the semester, students also developed a shared language to talk about the author’s purpose for writing, what they thought the author did well, as well as what they would have changed if they were the authors. For example, when asked about her classmate’s purpose for writing during an interview, Jane stated, “He wrote this story because he loves his dog and wants other people to know about his dog.” Like Jane, Mark also developed the language to comment on his classmate’s purpose for writing. During his interview, Mark noted, “He is from Korea and he wanted to give information about Korea and his culture. Then other people would know where he is from and what his home is like.”

Individuals in both classes developed a common language to discuss the author’s purpose for writing various types of stories. Alice, a first-grade student, classified her classmate, John’s, story about Hawaii as a story to inform since he gave information about the various sights, wildlife, and museums in Hawaii. Isabel, a first-grade focal student known for her struggles with writing, identified Michele’s story as a story to persuade because she tried to convince her audience how delicious caramel apples were. Michele, another focal student known for her high motivation and advanced writing skills, noted that Julie’s story was, “really funny, awesome, and creative. Her purpose was to entertain the audience and her readers.” Similarly, Jacob, a second-grade student, classified his classmate’s descriptive story about her dance classes, costumes, and recitals as a story to entertain, while Mason described Tommy’s purpose for writing a story about his broken arm to share an important experience in his life.

Students in both classes also commented on what the author did well. John noted that Julie, “used details and clear sentences.” Jacob commented that Jane, “used unique beginning sentences and lots of transition words.” Alice observed John’s story and remarked how he “gave clear details of the places he went.” Like the other students, Hunter acknowledged the specific components of the writing standards Hannah evidenced in her story, exclaiming, “She had good opening sentence and closing sentences. She had great details in the middle. She had descriptive words of where she was and what she was doing.”

Students also reflected on what they would have done differently if they were the authors of the story. Aiden stated that if he were the author, he would have been more specific and given the amount of rides he went on, while Michele indicated that she would have, “added a few more jokes.” Ally stated she would have, “added more details from the pictures” to make the story more interesting. Mark declared, “I would have used better word choice if it were my story.” By these remarks, individuals demonstrated how they had developed a common language to discuss writing strategies.

After the digital stories were created, students shared their stories with their classmates during a joint viewing and commentary session in their classrooms. These screenings provided another social opportunity for students to provide feedback regarding each other’s digital stories. As a class, students drew on their developing knowledge of details, word choice, and sentence fluency and also on their implicit knowledge of what works as a multimodal message. These were highly energized events, with students actively watching, reflecting, and critiquing. Both Mrs. Murphy and Miss Damon supported conversations to focus attention on both writing concepts and design elements.

Students began to make comments and offer feedback regarding their classmates' stories.

For example, Hunter commented on his classmate's story:

She had good opening sentences and closing sentences. She had great details in the middle. She had descriptive words of where she was and what she was doing.

She got all the sentences with a lot of descriptive words.

In another instance, Ally suggested that Eric "flip flop" two of his pictures so they coordinated with his paragraphs. Like Hunter and Ally, Valerie advised Monica to select a more readable font color, noting that her orange letters on a pink background was difficult to see. Most of the conversations during these sessions revolved around the design concepts, noting the photograph that captured the concept or the color and sparkle of the font that emphasized and complemented the "girlie" theme the author was trying to create. Peer feedback was typically given to inform, affirm, or direct. Students were constructive in their criticisms of their classmates' writing, and individuals were typically receptive to their peer's feedback and modified their writing accordingly.

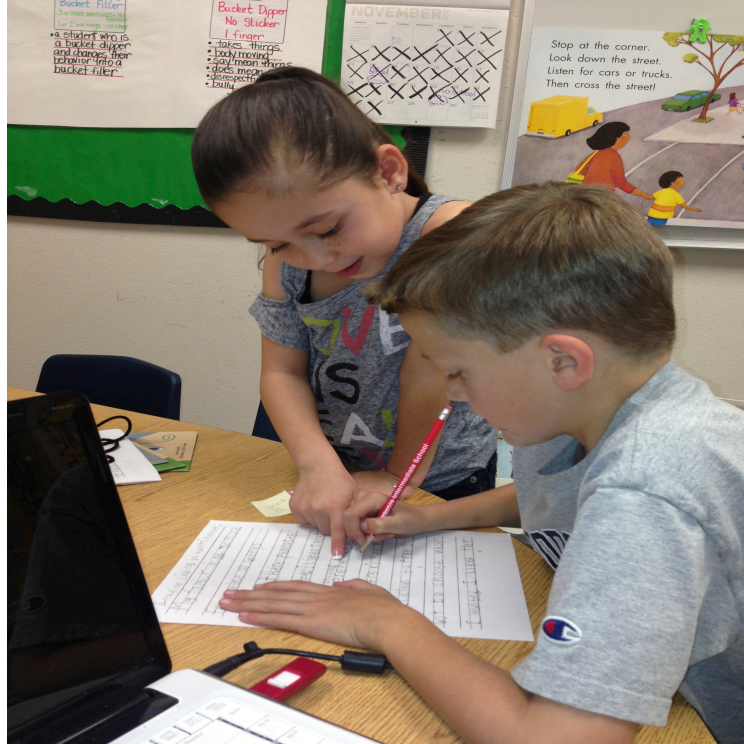


Figure 6. Second-grade students giving peer feedback

Developing a Meta-Language through Teacher Instruction

After extensive practice reading the scripts, students developed a meta-language to talk about their narrations, as well due to their teachers' input. Mrs. Murphy and Miss Damon both remarked on the students' improvements in their oral reading skills. The teachers also noted how much more in depth they focused on reading skills throughout the semester and what they did differently in instruction as a result of the digital storytelling process. Miss Damon reflected in an interview:

I wouldn't have gone as deep with some of the concepts and skills. I think this is important to note. If I didn't incorporate the digital aspect, I would not have went into voice and expression nearly as much as I did.

As a result of this extensive teaching, students developed a common language to discuss their voice narrations. Students made comments regarding their reading fluency, pace, intonation, rhythm, and expression. This awareness was evident in the students' comments during their recording sessions. As Shane practiced reading his script, the following conversation transpired between Valerie and Shane, two second-grade students:

Valerie: Keep going. Practice again.

(Shane practiced reading again)

Valerie: That was good, but I think you need to read it more louder and with more fluency.

(Shane practiced again, this time using a silly voice)

Valerie: No, read it like you talk. Read it normal. Like this. (She modeled how to read clearly)

Shane: I have to practice again? Okay, fine.

Valerie: Make your voice sound like you are excited! Maybe if we add an exclamation point here you will know to read this sentence excited.

Shane: Okay, let me practice again.

Valerie: That was good. I think you are ready to record.

Through this conversation and conversations like these, students also developed a language to talk about their scripts. Students collaborated and worked together to improve their oral narrations by using their newly developed language. This meta-language was also evident in Jane's comment to Larissa regarding her oral reading fluency, "You are reading a little too slow. Pick up the pace!" Students developed a

meta-language to articulate their thoughts regarding pace, fluency, and expression.

Students were also able to comment on their classmates' reading fluency, as well.

Impact of Developing a Meta-Language

Developing a language to talk about their writing contributed to students' feelings of self-efficacy. Bandura (1997) explained that people engage in tasks in which they feel competent and confident and avoid those in which they do not. This sense of self efficacy was evident with both the first- and second-grade students in this study. As students developed a language to talk about their writing and writing skills, their feelings of self-efficacy improved as well. For example, the first-grade students shared their ideas during a self-reflection session. Justin noted, "Writing my story was so exciting! I like writing now!" Ally agreed with Justin, noting, "Writing is so fun. If I learn better in first grade, I will be better in bigger grades, too!" Ally realized that by practicing her writing she was improving her skills. Annette described her experience, "At first I needed help with my describing words. I worked hard and my story was exciting. I really grew in my writing." Michele remarked, "I felt excited and creative!" As the first-grade students developed a language to talk about their writing, their feelings of self-efficacy improved as well.

The second-grade students reported feelings of success and improved confidence in their writing abilities. Jacob explained his feelings:

I am proud of my writing because I don't usually write that good. I used descriptive sentences and I was good at explaining. Creating my digital story gave me a chance to feel good at something. I want to continue working on writing better.

Jacob's classmates shared similar feelings of empowerment. Sam, a focal student, stated, "My favorite part was reading my digital story and sharing it with my family. They were so proud of me and that made me feel good. I can't wait to work on my next story." Sam's comment illustrated his feelings of success and confidence in his writing. Because of those feelings, he was eager to begin his next writing assignment. Maggie remarked, "I liked recording because it gave me opportunities to read with expression, something I am really good at." Maggie acknowledged her strengths in reading with expression and her feelings of self-efficacy. Chad stated, "I was most proud of everything. It was really hard, but I stuck with it and now I have a really cool story." Mason illustrated his feelings of self-efficacy during an interview, "I always wanted to be a writer. This project helped me realize I am a writer. I wrote incredible sentences and a lot of great words."

In using the meta-language students developed, individuals reflected on their writing in an effort to improve their stories. For example, students communicated how they used their knowledge of language and writing features when writing their personal narratives. Claire, a first-grade student, stated, "I need to add more details to my story. I want my readers to be excited and interested in what I am saying." Like Claire, Hannah, a second-grade student noted, "I tried to start my story with an interesting topic sentence. I tried to explain and describe what made Sea World fun to hook my reader!" As students used their newly developed meta-language to reflect on their writing, they improved their stories.

Research Question Four: How might digital storytelling influence primary-grade students' perceptions of themselves as writers?

Through extensive review of my field notes, interviews with the students, and samples of students' digital stories, the data revealed varied ways in which digital storytelling influenced students' perceptions of themselves as writers. By progressing through the writing process and publishing their writing as a digital storytelling, students in both classes began to see themselves as writers. Michele, a first-grade focal student, noted:

Making the digital story was really fun. It was a lot of work, but it was worth it. The best part was getting to know how it feels to have good writing. That was really my first time writing a great story. It made me feel creative because I had never wrote a good story like it. Now I know great sentences and that I want other people to read my writing.

Through creating her digital story, Michele began to “feel” what it was like to be a writer. Her powerful statement reflected her feeling of success as a writer. She later shared that she wanted to be an author when she grew up. She stated, “I would be really good at it. I could write a lot of books for people to read. I could make people happy.” Michele perceived herself as a successful writer, acknowledging that other people want to read her stories. Digital storytelling provided Michele the experience and opportunity to feel successful and to develop a desire to continue writing.

Like Michele, Bryson, a second-grade student, perceived success in creating his digital story. During a reflection on the digital storytelling project, he wrote, "*I felt like a writer when I was writing.*" Unclear of what he meant by this statement, I asked him to clarify and elaborate. He commented:

"I felt like a writer when I was writing really long paragraphs. Writing long paragraphs made me feel like a writer because usually stories and paragraphs in books are long so it made me feel more like an author when I was writing more. I also felt like a writer because I was using the computer for my story and I think real writers use computers. On other writing stuff I don't use the computer and I don't write as much so usually writing isn't as cool as this was. It was really fun!"

Like, Michele and Bryson, Justin, a first-grade student, perceived success in creating his digital story, as well. After presenting his digital story to his classmates and family members, Justin stated that he loved writing because he is now "good at it". During free time, Justin often asked to write a story or a non-fiction piece about reptiles. Justin developed an understanding that he could communicate his ideas through his writing. In one instance, Justin told his teacher, "I am going to write about lizards so you can learn more about them." During another writing activity, Justin stated, "I write about snakes because I love them and know a lot about them." In another instance, he declared, "I am a really good writer now. I like to write all the time." Justin voiced positive feelings toward writing and himself as a writer. As Justin felt success in his writing abilities, he built a positive identity of himself as a writer.

Motivating Apathetic Students and Developing Their Identities as Writers

Digital storytelling helped to motivate apathetic writers and develop their identities as authors. Sam, a second-grade focal student known for his lack of motivation for writing, was disinterested in academic writing. He often stated, “I suck at writing.” and would do anything to get out of completing an assignment. For the first half of the semester, Sam managed to avoid most writing assignments. He would sit with his head on his desk instead of writing.

Realizing something needed to be done to motivate him, Mrs. Murphy introduced Sam to the school’s digital cameras. She allowed Sam to borrow a camera to take photographs of his favorite activities. Sam decided to write an “All About Me” story in which he could share with his audience the important events and aspects of his life. Sam was so motivated by his photographs that he was anxious write about them. He exclaimed, “Taking photographs is so cool! I can’t wait to write about them.” In writing his digital story, Sam wrote an average of seven sentences per paragraph. He also incorporated a variety of descriptive words and a combination of short and long sentences, writing components he perceived made him a “good” writer.

Sam demonstrated pride in his digital story. He practiced reading his script numerous times. During his presentation to his classmates, there was a malfunction in his video, making his voice inaudible. Acting quickly, Sam recited his script to the audience as his photographs appeared on the screen. Sam had practiced his story so many times that he was able to recite his story word-for-word to his audience members.

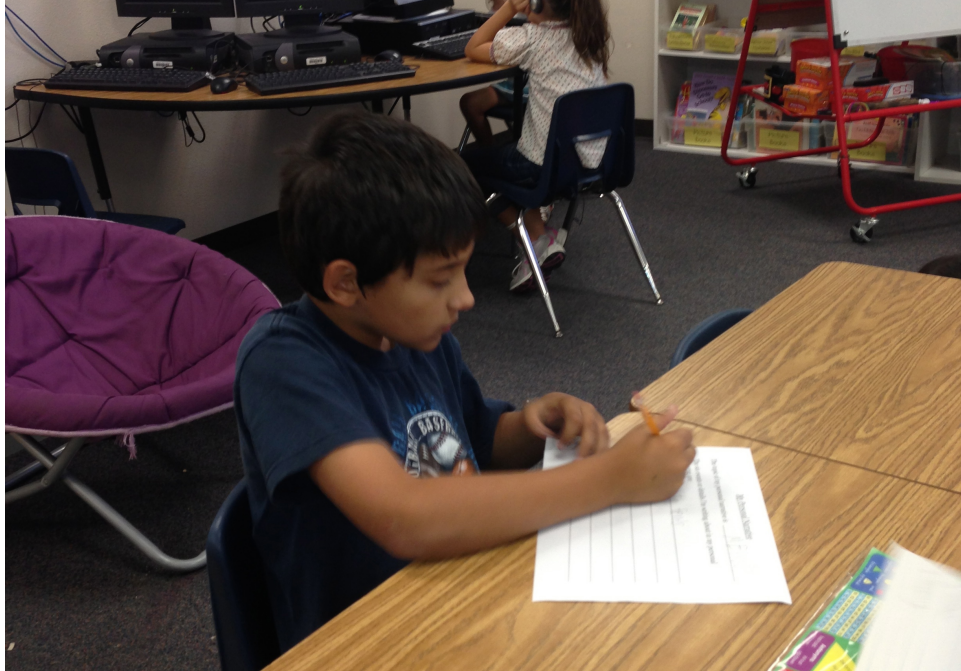


Figure 7. Sam writing his personal narrative for his digital story



Figure 8. Sam publishing his digital story on the computer

The visual aspects of Sam’s digital story motivated him to not only complete his story, but also practice his oral reading fluency so intently that he memorized his script. After the digital stories were completed, Sam reflected on himself as a writer. He noted, “Sometimes it’s hard to come up with ideas, but once I do, I am a great writer! I also learned that using pictures can help me think of ideas.”

Sam learned strategies to help him feel success as a writer. He realized that looking at photographs helped him develop his ideas, something that was a major struggle for him. Through digital storytelling, Sam developed his perception of himself as a writer.

Motivating Struggling Students and Developing Their Identities as Writers

In addition to motivating apathetic writers, digital storytelling helped struggling writers become motivated and see themselves as writers. The focus of the digital stories moved beyond the traditional emphasis on reading and writing to include multimodal aspects of writing. Students needed to incorporate visual, auditory, and sensory components in their stories as well. These multimodal features helped motivate struggling writers in various ways. Students began to realize that they could express their ideas not just through words, but also through their photographs, text, and images. Students enjoyed creating stories enhanced by multimedia. Sam noted, “I like this type of writing. What I mean is using the computer to write.” Chelsea shared his enjoyment for creating a story enhanced by multimedia. After a recording session on the computer, she exclaimed, “This was so fun! I have never wrote a story that has been put on the computer! I loved everything about it: the pictures, the colors, the transitions, and especially my voice!”

As a result of the multimodal aspects of their stories, students repositioned themselves as competent writers. This repositioning was evident in a second-grade student's, (Alexis'), writing and talk about her writing. Alexis struggled academically and often made comments that she did not like to write. A talented artist, Alexis could often be found drawing pictures instead of working on her writing assignments. Digital storytelling, however, allowed Alexis opportunities to use her creative and artistic talents in her writing. Alexis' classmates often commented on her relevant photographs and transitions. She included photographs of her hotel, various Disney characters, Shamu, and the beach, all key events in her family vacation. Her transitions complemented her photographs, including her transition of a heart shape that she placed before her photograph of herself with the Disney Princesses, and the transition graphic that she selected that looked like water spots that she placed before her photograph of Shamu, the Sea World whale.

Students frequently complimented Alexis on her digital story. Because of these compliments, Alexis began to develop positive feelings toward writing and saw herself as an author. She noted, "I never realized I was so good at illustrating *and* writing. Everyone really likes my story!" In another instance, Alexis stated, "My story I made was great because I added in digital stuff, things I am good at." In these ways, digital storytelling helped Alexis feel success in her writing and helped her to redefine herself as a competent writer.

Overall, the digital stories impacted on the students' perceptions of themselves as writers. Bryson, a second-grade student noted, "I felt like a real writer when I was writing. I was proud when I finished my digital story because it was hard to write but I

stuck with it.” Bryson’s ability to “stick with it” helped him to develop perseverance in his writing, an important skill in writing. Like Bryson, Jacob stated, “My favorite part was when I made the video because I got to have a chance to be good at something.” Digital storytelling provided students opportunities to feel success in their writing and see themselves as producers of text while expanding their definitions of what counts as text.

A Discrepant Case: Limits of Digital Storytelling

In one instance, digital storytelling did not improve a student’s perceptions of herself as a writer. This was the case with Isabel, a first-grade focal student known for her immaturity and her limited writing skills. Isabel struggled with her writing, often seeking assistance from the teacher or other classmates. Because writing was difficult for her, she often sat at her desk, choosing not to write. Isabel noted feeling overwhelmed with not only the written aspects of the digital stories, but the multimodal aspects, as well. Isabel struggled to write and publish her story.

Making decisions regarding the multimodal aspects to her story was difficult for Isabel. She did not want to make decisions by herself. Isabel solicited assistance from her peers when selecting her font style, color, and transitions, a task the majority of students found the most exciting. During the drafting stage, as well as the recording sessions, Isabel often asked, “Are we done yet?” or made comments like, “I wish this was the last thing we were doing.” After the stories were completed, Isabel stated, “I’m so glad that is done. It took forever!” During a self-reflection, Isabel noted, “I do not want to do this project again. It took too long and was too hard.”

Digital storytelling incorporated many components, some too overwhelming for a young, struggling writer. Although digital storytelling had the ability to motivate some

students with the multimodal elements, Isabel struggled to make strategic decisions regarding the visual and auditory components. These findings illustrated that digital storytelling can be time consuming and complicated and may be difficult for students that are not self-motivated or self-directed.

Research Question Five: How can digital storytelling be used to meet the Common Core State Standards for writing a personal narrative in primary-grade classrooms?

Storytelling is one of the original forms of teaching (Pederson, 1995). It is a simple yet appealing method to help students make sense of the complex and unordered world of experiences by crafting story lines (Bruner, 1990; Gils, 2005). Although storytelling is not new, the idea of digital storytelling in primary-grade classrooms is a recent consideration. Within the past decade, the advent of digital cameras, editing software, authoring tools, and electronic media have encouraged teachers to incorporate new approaches and tools to help students construct their own knowledge and ideas and share them more effectively.

How these multimedia tools can be used to meet curricular standards with elementary students has remained under researched, however (Guzzetti, Elliot, & Welsh, 2010). There is a paucity of research on how new media can assist primary grade students with academic writing. After extensive review of my observations recorded in field notes, the students' writing samples and rubric scores, DVDs of the students' digital stories, and the teachers' journals, my findings illustrate how digital storytelling could be used to address the Common Core State Standards for writing a personal narrative in a first and second-grade classroom.

Common Core State Standards for First Grade

The first Common Core State Standard digital storytelling addressed was standard CCSS.ELA-Literacy.W.1.3: “Write narratives in which they 1. recount two or more appropriately sequenced events, 2. include some details regarding what happened, 3. use temporal words to signal event order, and 4. provide some sense of closure”

(<http://www.corestandards.org/ELA-Literacy/W/1/3>). This standard was evidenced in students’ topics and their main ideas and details that developed those topics in their digital stories. Through their stories, individuals incorporated particular elements of this writing standard as illustrated below.

Sequencing. Students recounted two or more appropriately sequenced events. For example, Michele, a focal student known for her advanced writing skills, wrote about the steps she took to make caramel apples. She appropriately sequenced the events she took from purchasing the apples and caramel at the grocery store and preparing her supplies and ingredients to sharing the caramel apples with her family members. Her classmate, Isabel, also sequenced events in her digital story as she recounted the events leading up to her walking down the aisle as the flower girl in her uncle’s wedding. She described getting her hair and nails done, gathering the flowers in her flower basket, and walking down the aisle with the ring bearer.

Detail Words. Students included numerous details in their stories, as well. Julie shared information about her trip to Branson, Missouri. She included details from her visit to Grandpa’s Mansion, a tourist attraction in the state. Julie also wrote supporting details about a “pretend jail” where visitors could take photographs of themselves incarcerated and what she had learned there about Longhorn cattle. Her classmate, Justin,

provided details about the various reptiles he saw at the reptile zoo. In his story, he described a baby alligator named Bob. Justin explained that Bob had, “a rubber band on his mouth so he would not bite anyone.” Justin also described the alligator as having sharp nails and soft skin that was “squishy”. Throughout his story, Justin continued to write details about the snakes, lizards, and tortoises he saw at the reptile zoo.

Temporal Words. Individuals also used temporal words to signal the order of events. Students often started their paragraphs by using temporal words in an effort to present their stories in sequential order. For example, Kyle’s story was titled, “How to Create a Vampire”, and outlined the steps he took to represent himself through his costuming and actions as a vampire for Halloween. As Kyle recounted the steps he took, he included sequence words, such as “first”, “next”, and “finally”. In a similar way, Julie also recounted events on her vacation to Silver Dollar City in Branson, Missouri. She listed the various places she visited in Silver Dollar City in sequential order. She, too, used temporal words, such as “now” and “then” to signify the sequencing of her narrative.

Sense of Closure. Individuals also included a sense of closure to their digital stories, the final aspect of the writing standard. For example, Julie closed her story with the following paragraph:

Silvr Dolr city was owsum! You should go There. If you ever go there, you’ll have real fun! Well if you parens allow you to go. Don’t frget to go to Grandpa’s Manchen because it was my favorit part!

Her concluding sentences provided a sense of closure to her story about Silver Dollar City. She rearticulated her thoughts on Silver Dollar City and left her audience with a final memory of Grandpa's Mansion, her favorite part of her trip.

Like Julie, Ella provided her audience with a sense of closure to her story. Her closing included, *"You have to go to out of Africa because it was fun. That plase was really enformativ!"* Ella concluded her story with the idea that she learned a lot from her trip to Out of Africa, an outdoor wildlife zoo, and that others would have fun and learn a lot there, as well.

Addressing all Elements. In addition to those students who accomplished authoring stories that incorporated individual elements of this standard, more than one half of the students' digital stories met all four of the components of this Common Core State Standard. For example, Michele's entire story was presented in sequential order as she described the steps to make caramel apples. She included two or more sequenced events, offered multiple details about the caramel apple-making process, incorporated temporal words to signal the order of events, and provided a sense of closure at the end of her story. These four elements are each evidenced in her story:

Steps to Make Caramel Apples

Over fall break, I got to make caramel apples with my dad and Heather. Heather is my dads girl fren. First, I went to fry's and got 4 appls and that is all. When we were don't shopping, we drove back home and we boyald woder so we can get the wax off. Have you made crml appls be for? If you never ate one, you shood try one! They are so good. If you have, you shood tell more peepl that you see.

Second, when we got home, I got out the pan to put the wax paper on. You need wax paper so that it won't be gross under them. When I'm done, I know they are going to be awesome! So do you like the steps to mack crml appls so far? Ok, let's move on to my third pees of my wreiting of my awesome story!

Third, I poot on spray so the appls wouldn't stick, but they stickt eneeway! Heather told me when to stop speraing on the wax paper. But I put on to much in the middle. On the plate it was derdy. I had to stick my tongue out to concentrate.

Fourth, I opund the crml bag. Then, I opund all the wrapers. Next, I put the square crmls in the pot and I sterd the crml around in the pot. We put the temprtr up on high so the square crml can melt in to a sauce.

The next step I did was to flip the appls so I cod add the stics. It was so hard to get the stics in! You can't evin do it but your dad or mom cod do it. Heather used all her mit to push the stics in. Hip, hip hooray! When we wer done I dipt the appls in the pot with the melted, dlishis crmls. Heather tipt the pot over, so I can get more crml on the whole yummy apple.

Look at this appetizing dlishis goopy appl I'm holding! This is what they look like when the crml is on. I'm holding the appl so Heather can yoos the spoon to slither under the apple. Am I macking you hungery yet? I hope so.

Last, me and Heather put the appls on the plate. Now they are sticy and shiny. I smild because I'm all dun. Plus I needed to smil for the camera! I needed to hold the plat for the picher. The plate was a little hevy because the crml appls make it hevy. Now I can eat them with my dad and Heather and Heather's doder,

Maddie and me. Great! I can enjoy my sweet crml appls. Now you can go and mack yrself some goopy, sticky, crml appls!

Michele's story included all four elements of this Common Core State Standard for writing a personal narrative. She recounted events in sequential order, used temporal words, (e.g., "first", "second", "third", "fourth", "the next step", and "last"), included details (e.g., "goopy", "sticky", "sweet"), and provided a sense of closure to her story (e.g., "Now I can enjoy my sweet crml appls"). Michele's story was well organized, as each paragraph started with a topic sentence and included numerous details about the caramel-apple making process.

Chelsea's entire story titled, *Building Roxy at Build-a-Bear*, met all of the aspects of this writing standard, as well. Chelsea recounted the steps she took to build her favorite stuffed animal, Roxy. She gave explicit details about choosing her bear, stuffing her bear, fluffing and bathing her bear, as well as naming and taking her new bear home. She used temporal words, such as "next", "before", "after", "last", and "finally". She also provided a sense of closure, "I hope she has a good time with me".

Building Roxy at Build-a-Bear!

This is me next to Build-a-Bear. This is a storey abot me makeing a bear and how fun it is. I went to Build-a-Bear becuse I had to do a project and I sold the most Entertainment books in the hole school! My mommy gave me fifty dolers. I desited to spend it on a new Build-a-Bear.

I was so happy to choose my bear. It was hard to choose, but I finally decided. There were so meny choices but I choosed a dog. It was so cute and

fuzzy. The dog had brown ears and a brown spot on the right side of her tummy. The rest of her was white, except for her eyes, nose, and mouth.

The next step of making my dog was going to hear her voice because I had to choose her voice. There were a lot of choices, but I chose the one that had six sounds.

After choosing the sounds, I went to stuff my dog. The lady poot my dog on the pole and pushed a button. Then, I stuck the sound and heart in my dog. Then, I knew she was stuffed!

Before I put the heart in, I rubbed it on my side. I rubbed it on my side because then she would be by my side for ever. I got to put the heart in my dog.

After I stuffed my dog, I gave her a bath, but not a real bath...an air bath to get the stuffing off! I was excited to now that she was mine for ever.

After I gave her an air bath, I dressed my dog. It was hard to put some parts on, but I had help. My mom helped because I couldn't get the shoes on and I was getting frustrated. I picked a jean skirt with a top that had a heart with jewels and a glittery jacket.

I'm almost done, but I'm not done yet. I still need to make the birth certificate. A birth certificate is a piece of paper that says when her birthday is, what her name is (Roxy), and if she is a girl or boy. Roxy is a girl. I picked the name Roxy because I liked it after looking in a flip book.

At last, I'm done and checking out! I got a cook book that came with Roxy. There were cookie cutters shaped like a star, a gingerbread man, and a heart. It

would be cool if my grandma would like to sew an aprin for Roxy so she can cook with me.

Finally, I'm dun! Roxy's in that box redy to go home with me. I love her. She's going to be laing on my bed. I hope she has a good time with me.

Chelsea's story included all four elements of this Common Core State Standard for writing a personal narrative. She recounted events in sequential order, used temporal words, (e.g., "the next step", "after", "I'm almost dun", "at last", and "finally"), included details (e.g., "cute", "fuzzy", "brown", "jewels" and "glittery"), and provided a sense of closure to her story (e.g., "I hope she has a good time with me"). Chelsea's story was well organized, as each paragraph started with a topic sentence and included numerous details about the Build-a-Bear process.

To determine which students and how many achieved the standards for writing a narrative, I assessed both the first- and second-grade students' final digital stories at the end of the semester according to the four elements of each Common Core State Standard for writing a personal narrative. I recorded the students' scores in a matrix, including their pseudonyms and the four elements of the writing standard for each grade level. Inter-coder agreement was established through an analysis- of- discordance in which each of two coders (myself and a language arts teacher not associated with the study) independently coded and discussed the six focal students' stories until initially achieving 92% agreement and finally reaching 100% agreement, resolving discrepancies through discussion. This level of agreement exceeded the acceptable level of 80% agreement between coders (Miles & Huberman, 1994).

The two teachers each scored their students' final drafts of their personal narratives for their digital stories by using an extended rubric, including elements regarding handwriting, punctuation, and spelling. The elements that overlapped between the two rubrics (sequence, details, sense of closure) were compared by the two teachers and myself and 100% agreement was reached, as well.

Careful examination of students' digital stories revealed the following components of these standards that had been met at the end of the unit on digital storytelling. Table 2 outlines the first-grade students who met particular elements of this Common Core Standard adopted by the state in their digital story.

Table 2

CCSS.ELA-Literacy.W.1.3: First-Grade Students Meeting the Writing Standard

Pseudonym	1. Two + Sequenced Events	2. Details	3. Temporal Words	4. Sense of Closure
Ian	X	X	X	
Justin	X	X		X
Chris	X	X	X	X
Isabel	X	X		X
Chrissy	X	X	X	
John	X	X	X	X
Alice	X	X	X	X
Annette	X	X		X
Kyle	X	X		X
Clare	X	X	X	X
Ella	X	X	X	X
Aiden	X	X	X	X
Hattie	X	X		X
Ally	X	X	X	X
Michele	X	X	X	X
Julie	X	X	X	X
Tricia	X	X	X	X

Billy	X	X	X	
Chelsea	X	X	X	X
Richard	X	X	X	X
Eric	X	X	X	
Dylan	X	X	X	

Twelve out of twenty-two students or 59% of the first graders met all of the elements in the Common Core State Standard for writing a personal narrative in their digital stories. All twenty-two students met at least three of the four elements in the standard. Two of the three focal students, John and Michele, met all four of the elements.

When looking at the elements individually, all of the first-grade students met the first and second element of the standard as they all recounted two or more appropriately sequenced events and included some details regarding what happened. Seventeen out of the twenty-two or 77% of the students used temporal words to signal the order of events and seventeen out of the twenty-two or 77% of the students provided a sense of closure to their narratives. Based on these results, Miss Damon commented that students needed more direction in using temporal words and providing a sense of closure to their stories. In her journal, Miss Damon reflected on her students' closing statements and her need to modify her instruction to help students improve their sense of closure in their writing.

She noted:

One of my students, a great student, wrote a great story about her trip to Mexico and then her last paragraph is about going home and playing kick ball with her neighbors. I'm like, "Does that have anything to do with Mexico?" Her sentences were amazing! Her descriptions were beautiful. But her conclusion was

completely off topic! I need to spend more time elaborating on and giving students opportunities to practice writing appropriate closing statements.

Common Core State Standards for Second Grade

The second-grade students' digital stories addressed similar standards, as well. The second-grade Common Core State Standard for writing a personal narrative was CCSS.ELA-Literacy.W.2.3: "Write narratives in which they 1. recount a well elaborated event or short sequence of events, 2. include details to describe actions, thoughts, and feelings, 3. use temporal words to signal event order, and 4. provide a sense of closure" (<http://www.corestandards.org/ELA-Literacy/W/2/3>). The second-grade standard differs from the first-grade standard in that students are expected to compose a more fully elaborated event, as well as include details that describe their actions, thoughts, and feelings throughout their narratives.

Sequencing. Like their first-grade counterparts, the second-grade students wrote personal narratives about important events in their lives for their digital story. Individuals addressed components of this writing standard. Individuals addressed sequencing in their digital stories by recounting a sequence of events in their personal narratives. For example, Monica communicated a series of events during her sixth birthday party. She recounted events in order by describing the friends that came to her party, the games they played, the food she ate, and the presents she received. Monica's classmate, Valerie, also recounted events in her personal narrative. Valerie wrote about the time she broke her arm. She described the events in sequential order from breaking her arm to getting her cast removed.

Detail Words. Students also provided details to describe actions, thoughts, and feelings in their personal narratives, an additional component of this Common Core State Standard. Valerie’s story was well elaborated as she wrote details describing falling off the monkey bars, going to the hospital, getting her cast, and finally, getting her cast removed. Lane provided details of his trip to New York. He shared his experience taking a ferry to see the Statue of Liberty and shared facts he learned about the statue. Some facts he included were:

The Statue of Liberty has broken chains on the back of it’s foot to show freedom.

People are rebuilding the inside of the Statue of Liberty. France gave the statue of Liberty to us as a gift many years ago.

He described the Twin Towers memorial and the survivor tree, as well as his feelings about the memorial. He wrote, *“The memorial was beautiful and a little sad.”* Lane also detailed his visit to see his extended family in the suburbs. He included details about his feelings noting, *“I had a great time visiting my Grandparents. I wish I saw them more often.”* Like Lane, Bryan wrote supporting details about his puppy, Buster. Bryan shared Busters age, described what he looked like, what games they played together, and what tricks he could do. Bryan provided numerous details about his puppy, his feelings toward Buster, and his thoughts about taking care of a puppy, details that addressed the writing standard.

Temporal Words. There was also evidence of second graders using temporal words to organize their stories. For example, Daisy used temporal words in her narrative about her trip to Disney Land. She used the words “first”, “next”, and “after” to begin her paragraphs. These temporal words provided readers a sense of progression as she told her

story. Mark also used temporal words to sequence his story. Mark used “first”, “then”, and “finally” in ordering the events in writing his personal narrative about his trip to California.

Sense of Closure. Finally, individuals provided a sense of closure to their writing. After Jane shared information about her dance classes, she closed her story by noting, *“Dancing is the best time of my life!”* This sentence provided a closure to her narrative about dance. Larissa concluded her story by commenting, *“I can’t wait to go to a Rattlers game again!”* This sentence described her future interest in and intentions toward attending football games.

Addressing All Elements. Eight or 33% of the second-grade students’ writing met all of the Common Core State Standards. For example, Annie’s entire story met all of the Common Core State Standard for writing a personal narrative. She recounted a well-elaborated event or short sequence of events, included details to describe actions, thoughts, and feelings, used temporal words to signal the order of events, and provided a sense of closure. Annie wrote:

I had an amazing day on family vacation! First, I stayed at a beautiful hotel in California! It was really fun at the hotel. I liked the nice clean windows. I watched t.v. and a lot of movies! I liked to play at the hotel. The hotel had lots of color in it. Also the hotel was very clean. I had a great time with my family, it was very fun.

The next day we went to Universal Studios. When I got to Universal Studios I had a huge smile on my face. The first thing we did was go on some rides. Then we went to look at the animals. We ate there too. Then we watched 3D movies. I

mad some friends. I had a fun time with my family. The trees, zoos, and shows were colorful. I had a lot of fun.

Later that day, I got a picture with Sponge bob. I was very excited. I waved at him a lot. He was very funny. I had a great time with sponge bob square pants. We had so much fun!

I had an amazing day eating lunch with the princesses. I was so excited when we went to have lunch at ariels grotto. When I walked in the door I could see so many princesses. There were bright colers and food evry were. My favorite princess to visit was aurora. I like aurora because she is really nice. I loved eating at ariells grotto.

Next, we went to Sea World. Then we went on a few rides. We did a lot of stuff. We also ate there. Then we wached two 3D movies. We tried new things too. I really enjoyed the rides and animals. I had so much fun at Sea World.

The last day of our vacation we went to the beach. When I got to the beach I put my feet in the water. Then I built a sand castle. I really liked to lay on the beach towel. I also really enjoyed going to the beach. I could see the waves come to shore. Being at the beach under the warm sun made me feel good. I had lots of fun with my family.

Annie’s digital story included all four elements of this Common Core State Standard for writing a personal narrative. She recounted a well-elaborated sequence of events, included details to describe actions, thoughts, and feelings (e.g., “colorful”, “amazing”, “new”, “warm”, “bright”, and “clean”), used temporal words (e.g., “first”, “The next day”, “Later”, “Next”, and “The last day”), and provided a sense of closure to

her story (e.g., “I had lots of fun with my family.”). Annie’s story was well organized, as each paragraph started with a topic sentence and included numerous details about her family vacation.

Like Annie, Jacobs’s story met all aspects of this Common Core State Standard for writing a personal narrative for second grade. Jacob’s story read:

When I was six years old I went on a great snowboarding trip with my family and Sunrise. The first thing we did was buy the equipment. Me my brother and my dad went snowboarding so we got 3 snowboards. My other brother went skiing with my mom and my sister. Then I tried to pick a snowboard. I really liked the snowboard with the people on it. Then they had to measure us. I fit in my snowboard. My dad had a really long snowboard. Then after we measured everyone we were ready to go snowboarding and skiing.

After we bought all the equipment my mom and dad put me in snow school. I went snowboarding with my practice teacher Luigi. First we went up the bunny hill. The bunny hill is where I practest half of the day. I had to go on the ski lift. When I got up I started skipping. Skipping is where you dig snow and push it back out. After I skipped I started going fast. When I went fast it was really hard. Then after I passed the red flag I started going on the big kid hills. It was a really long way up on the ski lift. That’s when I got a little scared. It was a really long way down! We finally made it to the top. It was time to head down. While I was going I jumped some ramps. When I jumped one ramp I tried to grind, but I fell. When I went down that hill I was done pracsing. I had a great day learning on the bunny hill with Luigi.

After I practiced I ate lunch with Luigi and my brother. I had chocolate milk and pizza and French fries on the side. While I was eating lunch I watched football. After I was done we practiced doing my moves like skipping and jumping ramps to make sure I was good. My teacher would call a move and I would do it. If I messed up he would help me get it right. I learned a lot with Luigi.

The most exciting part of the day has finally come. I was going to snowboard down the mountain. I carefully rode the ski lift. As I was going up the ski lift I saw some amazing people grinding. I thought I could do that too. Then I finally got up to the top of the Rabbit hill. When I went down the hill, I saw an easy little ramp with a grinding spot behind it. I jumped the ramp and I grinded. I had an amazing time going down the Rabbit hill.

After I went down the Rabbit hill the most amazing thing happened, We went on the highest mountain! There was a really long line but finally it was our turn. When I first tried to get on the lift, I mist so my mom helped me up. When I was on the ski lift I looked on the right and there were no people then I looked on the left of the ski lift and there was a bunch of people. I was a big line of people side by side. I thought it was a team but it wasn't it was a family. I loved the cool breeze and that my snowboard was hanging at the edge. Then I finally reached the top. I had a great time riding the ski lift.

When I started snowboarding down the mountain I saw my brother and his friend Mich getting ready. We all went down together. I was ahead until I went to wrong saw. My mom's friend Jill helped me. We all started going again and Jill took the lead. We were going so fast that I started holding my mom's hand. We I

let go of her I started going even faster. I tried to stop so my mom could catch up to me. When I finnely got down I went and saw Jill. I had a great time snowboarding. I wish I could do it again!

Jacobs’s digital story included all four elements of this Common Core State Standard for writing a personal narrative. He recounted a well-elaborated sequence of events, included details to describe actions, thoughts, and feelings (e.g., “long”, “scared”, “exsited”, “cool breeze”, “fast”, and “eazy”), used temporal words (e.g., “first”, “Then”, “After”, and “finally”), and provided a sense of closure to his story (e.g., “I wish I could do it again!”). Jacob’s story was well organized, as each paragraph started with a topic sentence and included numerous details about his family vacation.

Table 3 shows the second-grade students who met each of the elements in the Common Core State Standard.

Table 3

CCSS.ELA-Literacy.W.2.3: Second-Grade Students Meeting the Writing Standard

Pseudonym	1. Well Elaborated Sequence of Events	2. Describe Actions, Thoughts, and Feelings	3. Temporal Words	4. Sense of Closure
Chad	X	X	X	X
Sarah	X	X		X
Sam	X	X		X
Jacob	X	X	X	X
Mark	X	X		X
Larissa	X	X	X	X
Annie	X	X	X	X
Daisy	X	X		X
Hunter	X	X		X
Valerie	X	X	X	X
Monica	X	X	X	

Bryson	X	X		X
Cameron	X	X		
Tommy	X	X	X	X
Karen	X	X		
Hannah	X	X		X
Alexis	X	X		X
Lane	X	X		
Mason	X	X		X
Bryan	X	X		X
Hasita	X	X	X	X
Jane	X	X	X	X
Shane	X	X		X
Maggie	X	X	X	

Eight of the twenty-four students or 33% (one third) met all of the elements of the Common Core State Standard for writing a personal narrative in writing their digital stories. Twenty-one students or 88% met three of the four elements in the standard. Looking specifically at the elements of the writing standard, all students met the first two elements as they all included a well elaborated sequence of events and used details to describe actions, thoughts, and feelings.

Additional Standards

Digital storytelling helped students to meet a second Common Core State Standard that applied to both grade levels. This standard was CCSS.ELA-Literacy.W.1.6 and CCSS.ELA-Literacy.W.2.6: “With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers” (<http://www.corestandards.org/ELA-Literacy/W/2/6>). To address this standard, the first- and second-grade students used the MovieMaker (<http://windows.microsoft.com/en-US/windows7/products/features/movie-maker>) software on the school’s PC computers to

create their digital stories. With support from their teachers, individuals imported their photographs onto the computer, dragged and dropped them into the correct order in the MovieMaker software, and recorded voice narrations of their scripts. With guidance from their teachers, students then edited the length of their photographs to match the length of their audio clips. Finally, students created a title page in which they selected their font color and style for their title, as well as the background color and transitions between the slides.

Students collaborated with their classmates by soliciting their opinions and feedback regarding their font and color choices, and by making suggestions and critiques to their peers when necessary. For example, Tommy and Jacob, both second graders, discussed their font and color choices in the computer lab:

Mrs. Murphy: You need to add your title. What is your title? My broken arm?

Tommy: No, when I broke my arm.

[Tommy types his title into the computer]

Jacob: You should make it green because you had a green cast.

Tommy: I wish I could make it green.

Mrs. Murphy: You can make it green if you want.

Tommy: Yea! That's so cool!

[Tommy changes the background color to green]

Tommy: I will make my font... red!

Jacob: Now it looks like Christmas.

Tommy: Let's change it.

Mrs. Murphy: You can pick this green color. It's more of a neon green. Is that

better?

Tommy: No. Let's do a blue background with the green font.

Jacob: That looks good.

Together, Tommy and Jacob selected the font and background colors for Tommy's title page. Tommy welcomed Jacob's suggestions and critiques regarding his initial choice of red and green. He agreed that red and green resembled the colors of Christmas and modified his colors to blue and green.

The first graders also assisted one another with the multimodal selections for their digital stories. For example, Alice, Chrissy, and John, a focal student known for his social difficulties and his reluctance to revise, were discussing Alice's font and background color selections in the computer lab:

Alice: I want light blue. That looks like the Disney color.

Chrissy: Hey, it does!

Researcher: What color do you want for your letters?

Alice: [Turning toward her peers] What do you think? Black?

John: Yea, black is good. It will show the writing the best.

Chrissy: That looks neat!

Alice was receptive to her classmates' suggestions regarding her font and background colors. Chrissy's reassurance that the light blue resembled the colors of Disneyland boosted Alice's confidence in her selection. She then turned to her partners for reassurance on her choice of black for the font color. John encouraged her decision, commenting that the black would stand out best against the light blue background making

it, “show the writing the best.” In these ways, students collaborated to produce their digital stories.

Digital storytelling was used to meet additional standards as well. These standards related to students’ reading fluency. Both standards were the same for first and second grade. Standard [CCSS.ELA-Literacy.RF.1.4a](http://www.corestandards.org/ELA-Literacy/RF/1.4a) and RF.2.4a stated that students would, “read grade-level text with purpose and understanding” (<http://www.corestandards.org/ELA-Literacy/RF/2>) and standard CCSS.ELA-Literacy.RF.1.4b and CCSS.ELA-Literacy.RF.2.4b stated that students would, “read grade-level text orally with 1. accuracy, 2. appropriate rate, and 3. expression on successive readings” (<http://www.corestandards.org/ELA-Literacy/RF/2>). Students addressed these standards by practicing oral narrations of their story scripts to the point of becoming fluent and expressive readers. As students would practice reading their scripts, they would reference their oral reading fluency to determine if their reading was fluent.

The oral reading fluency rubric included components of fluent reading, including, “When I read, I used a normal talking voice. I read loud enough for the audience to hear me, but I did not scream.”, “I read clearly.”, “I read with expression! If there was a period (.), I read normally. If there was an exclamation point (!), I read with enthusiasm. If there was a question mark (?), I asked it like a question.”, and “I read with a good pace (not too fast and not too slow)”. [See Appendix F for the complete Oral Reading Fluency Rubric]. For example, after practicing her script, Alice commented, “I sound like I’m mumbling.” She determined she needed to practice reading more clearly so her audience could hear her. In another instance, while John, a focal student known for his social difficulties and his reluctance to revise, was reading his script Alice told him he was reading, “a little too

slow.” John objected at first, but then realized he needed to practice reading at a more natural pace.

Evidence of students’ facility with reading fluency was also evidenced during their recording sessions with their teachers. For example, during a recording session with Mrs. Murphy and Valerie, Valerie demonstrated her understanding of fluency:

Mrs. Murphy: Read fluently. Do you know what that means?

Valerie: Yes, it means read like you talk, with expression, and keep going, don’t pause.

Mrs. Murphy: You are right. Let’s hear you read.

Valerie demonstrated her understanding of the construct of fluency by defining the term and by providing the characteristic of a fluent reader. She also demonstrated her ability to read fluently by reading at an appropriate pace with appropriate intonation and inflection in her voice. Her oral reading expression conveyed the correct tone and mood of her digital story.

Research Question Six: How might digital storytelling help to develop young students’ skills as writers?

An extensive review of my field notes, students’ and teachers’ interviews, the students’ writing samples and digital stories, and rubric scores illustrated how young students developed their skills as writers. Below, I describe how individuals selected appropriate words, wrote for an authentic audience, used captivating opening sentences, reflected on their writing, and made connections to their classmates’ writing. These elements that were present in their digital stories provided evidence of their developing skills and abilities as authors.

Word Choice

By creating their digital stories, both the first- and second-grade students developed skills as writers. One instance of this was individuals' awareness of their word choice in their writing. Similar descriptive words immersed in many of the students' stories. These included adjectives, such as "spectacular", "super", "amazing", and "incredible". By listening to audio-recorded readings of their scripts, students were able to hear their stories and modify their writing. For example, while Valerie was listening to her audio recording of her script she noticed that she used the word "super" numerous times in her personal narrative. She decided it would be best to revise her word choice by selecting different words to convey the same meaning. She revised her writing by using the words "really" and "extremely" in place of "super". In another example, Jacob realized he used the words "amazing" six times in his story. He decided it would be more interesting for his audience if he replaced the word with "great" and "exciting".

Audience

Creating their digital stories gave students a reason for writing and made them more conscious of their audience, one that reached beyond themselves and their teacher, and motivated them to write more clearly and with more detail. For example, toward the beginning of the semester, John, a first-grade focal student, was writing about his favorite sport. John did not include spaces between his words, thereby making his writing unreadable. When questioned about his writing, John became resistant and refused to revise his writing. The following interview was typical of John's responses to revising his writing:

Researcher: It is hard for me to read your writing because you don't have finger spaces. I can't tell where one word stops and a new word begins.

John: Well I can tell. I can read it.

Researcher: But don't you write so others can read it, too?

John: I can read it.

Researcher: That's great. Can you read it to me then?

(John continued writing and ignored me from that point. He would not read his writing nor did he begin using finger spaces.)

In-situ interviews like this one illustrated John's lack of attention to his audience. It did not seem to bother him that his audience could not read his writing as long as he knew what it said. He was also unwilling to read his writing aloud to his audience.

Throughout the digital storytelling project, however, John became more aware of his audience and tailored his writing to meet his audiences' needs. When asked who his audience was, John replied, "My audience is my friends, my family, my teacher, and you!" John clearly understood who he was writing for and that he needed to tailor his writing to meet his audiences' needs as well as his own. For example, during a drafting session for his personal narrative while John was writing about his trip to Hawaii the following in-situ interview occurred:

John wrote: *The next day, I went to a musem called Pearl Harbor. I got to see lots of stuff. It was fun.*

Researcher: What did you see at Pearl Harbor? You said you got to see lots of stuff and it was fun. What did you see? I am very interested!

John: Oh, I got to see lots of things. My favorite was the submarine that doesn't go in the water anymore. It doesn't work.

Researcher: That's very interesting. You should add that!

John: Okay. Want to know what else I saw?

Researcher: I do! Write about that, too.

John: Okay.

John continued to write: *I got to go on a submarine that was not on water and does not work. I also got to go in a battleship that had real torpedoes and guns that didn't work. It was on water.*

Researcher: That is so much information for your audience! I can picture the museum because of your description.

John: You can? I did a good job!

This in-situ interview illustrated that composing for real audiences and purposes affected John's impulse to write and create a detailed story. He improved his writing skills as he included details to describe what happened, a component of the Common Core State Standard for writing a personal narrative. John was proud of his work as he commented, "I did a good job!" He improved his writing skills as he gained an awareness of his audience.

Writing for an audience was evidenced in the second-grade classroom, as well. In one case, Larissa was writing her personal narrative about her first football game by describing the time she went to see the Arizona Rattler's play. During one paragraph, Larissa described the cheerleaders:

When I got back to my seat I saw cheerleaders dancing around. There were a lot of cameras taking there picture. I loved watching the cheerleaders.

Jane, her classmate, began asking her questions about her paragraph:

Jane: Where were the cheerleaders dancing? That's confusing.

Larissa: They were dancing on the field.

Jane: Oh, well add that. If you say that it will make more sense.

Larissa: Is anything else confusing to you?

Jane: Let's see... Yea, after you said, "I loved watching the cheerleaders" you should add [the word] "because" and tell why you liked watching them.

Larissa: That's a good idea. I will add that too.

Jane: Good job. Now your story is good.

This directive conversation between classmates demonstrated Larissa's attention to audience that was prompted by Jane's substantive and affirmative feedback. Larissa was prompted by a fellow student to improve her writing to make it comprehensible and interesting for her audience. Through peer collaboration and feedback like this, Larissa, too, gained writing skills as a result of creating her digital story.

Opening Sentences

During the process of digital storytelling, second-grade students began to write creative opening sentences and coach each other in how to do so. As students audio-recorded their scripts on the computer, they took turns practicing reading their scripts, focusing on fluency and expression. After listening to their classmates practice reading their scripts, students gave feedback to each other regarding their personal narratives. During one practice session, Sarah read, "It was so fun going to Monica's house."

Hunter, a focal student, advised Sarah to revise her opening sentence to something more interesting. He suggested saying, “Walking in the house, I saw Morgan waiting for me with a big smile.” Hunter explained that his sentence was much more descriptive and interesting to him as a reader. Sarah took his advice and revised her writing to reflect his suggestion.

Even reluctant writers learned to coach and provide peer feedback. During another practice session, Sam, a focal student known for his reluctance to write, heard Hasita reading her script, “As I stepped out of the cabin, I could feel the wind on my face and hear lots of birds singing”. He commented on her descriptive and unique opening sentence, exclaiming, “Wow, you are a good writer!” Hasita offered to assist Sam in writing an interesting opening sentence that would grab his readers’ attention. Together, the two created an opening sentence for Sam’s personal narrative. Sam wrote, “*The Planetarium is the best place ever!*” Hasita commented that his sentence made her want to read more because she wanted to know more about the Planetarium and why it was “the best place ever”. In ways like these, peer collaboration and feedback supported students in creating appropriate opening sentences.

First-Grade Focal Students’ Writing Performance

Michele. At the beginning of the semester, Michele, a focal student known for her motivation and advanced writing skills, wrote stories that lacked three of the four relevant elements of the Common Core State Standard of providing appropriate details, using temporal words, and providing closure to her story. Below is a sample of her writing from the beginning of the semester:

Brbees

This past weekend I plad with my Brbees. I wocht a littl bit of foot ball but not as much as I plad with brbees. There I made my brbees sing a byootfl sog. All her fans woted her rtgeraft and thea got it. I made my Brbee fly aoot of the sitee. I made her fly with my hans. But my Brbees husbin said, "dot go aott i'ts dajeris!" I wocht Perisesss and the ferog! But I didit finshit. So I ate diner in sted. My daddy red me a bed time stooeree and I flel asteep. In my cosee bed uder my fusee fuse blacit. I hady good ish and bad ish dereems.

As her story illustrates, Michele had achieved only one out of the four elements of the writing standard (e.g., include some details regarding what happened). Her thoughts were random and unrelated. She began her story by writing about her Barbie dolls and then wrote about watching football, making her writing disjointed. She continued by describing her Barbie dolls and then transitioned to watching a movie and eating dinner. She finished her story about her Barbie dolls by describing her bedtime routine. She did not provide relevant details on the main topic, she did not stay focused on one topic, and her closing sentence did not related to her main topic.

By contrast, at the conclusion of the digital storytelling unit at the end of the semester, Michele typically wrote stories that included all of the required elements of the Common Core State Standard for writing for first grade:

Snowman

Once I made a snowman. His name was Frostee the Snowman. I made Frostee out of snow. I started with a snow bole and then I rolled it on the ground and it got bigger as I went. Then, I did the same things that go on Frostee. The stuff that I need for Frostee is an orange carrot and some coals for the buttons. And a scarf for the neck and a magic hat so my snowman can come alive. Then we can do fun things together.

As her story illustrates, Michele met all four elements of the writing standard. She improved her writing abilities as she refined her skills to stay on one topic, her snowman, “Frostee”. She also included relevant details about the main topic, including words such as “bigger”, “orange”, and “fun”. Michele used temporal words, such as “Once”, “I started”, and “Then” and provided a sense of closure by stating, “Then we can do fun things together!”

By doing so, Michele demonstrated that she had improved her writing skills in three of the four components (recount two or more appropriately sequenced events, use temporal words, and provide a sense of closure) of the writing standard. She demonstrated appropriate writing skills and abilities for first graders by including relevant details, using temporal words, and providing a sense of closure.

John. John, a focal student known for being socially difficult and resistant to revise his writing, improved in all four components of the writing standard. The following was his writing sample from the beginning of the year:

In October my gramu is cuming for halloeen. She wonts to see my going chicortreeting. I am going to be Drth Vadre. My birthday is cumin. My birthday is on August 20 six.

As this writing sample demonstrates, John had not achieved any of the elements of the writing standard. He began his story on the topic of Halloween, but suddenly switched to the topic of his birthday thereby making his thoughts random and unrelated. John did not provide relevant details on the main topic, use temporal words, or provide a sense of closure to his writing.

By contrast, at the conclusion of the digital storytelling unit at the end of the semester, John typically wrote stories that included all of the required elements of the Common Core State Standard for writing for first grade:

creating fly guy

This weekend I made a pumpkin cherocter named fly guy. He came from the book Fly Guy. I picked this character because the fly guy books are funny. First, I went to a pumpkin patch. My pumpkin wasnt hard to finde. It was an oval and orange pumpkin. Then I pot the pumpkin in the wheel barrel. Next, I drove to michaels to get the styrfoam eyes. When we came home my mom broce the stick. Then she stucke the stick in to the pumpkin and then she put the styrfoam on the stick. Then, she hammered the stic. Last, the wengs were dun and the arms and legs were dun too. Then, it was time to go to skool. My favorite part was when I got to pick my pumpkin.

As this story illustrates, by the end of the semester, John had met all four elements of the writing standard. He improved his writing abilities as he refined his skills to stay on one topic, the topic of his Fly Guy pumpkin. He also included relevant details about the main topic, including words such as “funny”, “oval”, “orange”, and “favorite”. John used temporal words, such as “This weekend”, “First”, “Then”, and “Last” and provided a sense of closure by stating, “My favorite part was when I got to pick my pumpkin.” By doing so, John demonstrated that he had improved his writing skills in all four components (recount two or more appropriately sequenced events, provide relevant details, use temporal words, and provide a sense of closure) of the writing standard. He demonstrated appropriate writing skills and abilities for first graders as evidenced in his writing samples.

Isabel. Isabel, a first-grade focal student known as a struggling writer, improved her writing, as well. The following was her writing sample from the beginning of the year. She wrote a response to the writing prompt, “I am packing for my voyage to the new world. I only have limited space on the Mayflower. I can only take what fits in my trunk. The trip will be long and treacherous. What should I take? Why?” Isabel wrote:

wut wud I bring. I can't bring my hol hos. I can bring my doll sum kellos to hats I would bring pating.

As her story demonstrates, Isabel’s writing did not achieve any of the four elements of the writing standard (e.g., recount two or more appropriately sequenced events, include relevant detail, use temporal words, and provide a sense of closure). Her thoughts were incomplete and her writing was unreadable. She did not provide details on

the main topic or justify her decisions on what she would pack, she did not use temporal words, and she did not provide a sense of closure.

By contrast, at the conclusion of the digital storytelling unit at the end of the semester, Isabel typically wrote stories that included three of the four required elements of the Common Core State Standard for writing for first grade:

First, we pack up then we driv to go camping. Next, we got the caping fir going because it wus getin drck. After that we made smors. This is how you mack smors. You need a gramcrackr, a marshmello, then a chocolet. You stacked thum. The smoors tastid desgusting!

After that, Annika and me played pyret. Then we all played dont eat pete, exep for my dad. Afr playing dont eat pete, I cotent slep bckus my dad wus snoring!

As this story illustrates, by the end of the semester, Isabel's writing had improved. Although she still made multiple spelling errors, she did achieve all four elements of the writing standard. She improved her writing abilities as she refined her skills to stay on one topic, the topic of camping. She also included relevant details about the main topic, including words such as "dark" and "desgusting". Isabel used temporal words, such as "First", "Next", "After that", and "Then" and provided a sense of closure to her story by ending with her and her family going to sleep. She demonstrated appropriate writing skills and abilities for first graders by recounting two or more appropriately sequenced events, including relevant details, using temporal words, and providing a sense of closure.

Second-Grade Focal Students' Writing Performance

Hunter. At the beginning of the semester, Hunter, a second-grade focal student known as high achieving but unmotivated, wrote stories that lacked elements of the Common Core State Standards, such as recounting a well-elaborated sequence of events, using temporal words, and providing a sense of closure. Below is a sample of his writing from the beginning of the semester:

My Bruthrs Birthday

It was my bruthers birthday and he coud not what to open prents! When it was peresint time we wint to the living room and my dad got me and him a baseball bags. And we cudein't bleve it we got baseball bags. We got a trampoleen too with a red cuver and a net when I get home I can't what intell I get to jump on my flamleys trampooleen. When my dad was clenning the pool he thot that he cuden mack a red mark when you can jump the hiiste so he ask me if I can jump in the middle so he can pant the spot.

As his story illustrates, Hunter had achieved only one of the four elements of the writing standard (e.g., provide description of actions, thoughts, and feelings). He started his story on the topic of his brother's birthday, but suddenly switched to discussing his gifts and his father cleaning the pool. Hunter did not recount a well-elaborated sequence of events, use temporal words, or provide a sense of closure to his writing.

By contrast, at the conclusion of the digital storytelling unit at the end of the semester, Hunter typically wrote stories that included all of the required elements of the Common Core State Standard for writing for second grade:

My football teme the 49ers are undefeded. We beat 12 temes in a row.

That's all of the temes. I can say that are teme is the best teme ever!

During the season I got 15 tuchdowns. Me and my ferend Parker are the fastast on the teme. I had 14 tuchdown's intell I got my diving cech. I dived in the in zone. So now I have 15 tuchdowns.

We got in to the finles and we played the Rangers and gess whut happind? We beat them 51 to 47. Now my teme got 1st place. I feels so good!

After we won, we had a party. We got cookies shaped like a football. They were brown and white. They were so good that I ate three! I love football.

As this story illustrates, by the end of the semester, Hunter met all four elements of the writing standard. He improved his writing abilities as he refined his skills to stay on the topic of football. He also included relevant details about the main topic, including words such as “undefeded”, “diving”, “brown”, and “good”. Hunter still did not use temporal words, but he did provided a sense of closure by reiterating his love for football (e.g., “I love football”). In doing so, Hunter improved his writing skills in two of the four components (provide relevant details and provide a sense of closure) of the writing standard. He demonstrated appropriate writing skills and abilities for second graders by recounting a well-elaborated sequence of events, including relevant details, and providing a sense of closure.

Sam. At the beginning of the semester, Sam, a second-grade focal student known as a reluctant writer, refused to write. He would not write and he typically sat with his head on his desk during writing time. Because of Sam’s resistance, there were no writing samples available for him at the beginning of the semester. After the digital storytelling

project, however, Sam discovered strategies that assisted him with writing. One strategy included starting with a photograph or image to help guide his thinking. Once Sam was motivated, he typically wrote stories achieving all four elements of the Common Core State Standard for writing a personal narrative in second grade:

Swimming

I went swimming at my Papa's house. First, Cole, nick and I did amazing tricks in the pool. Nick did an amazing back flip, it was fun to watch. He was like a Ball in mid air. Next Cole did an amazing dive. It was like a dolphin. It was relly relly cool. Then I did a cool canin Ball. I splasht my Dad, papa, Cole, and nick.

We like to race also. My brother came in 1st place nick came in 2nd place and I came in 3rd place. It was fun.

Me, Cole and nick like to night swim. We go out to swim at night. We also tell scary storys. I had the funnist time at my papas house.

As his story illustrates, by the end of the semester, Sam was able to complete a writing assignment and achieve all four elements of the writing standard. He improved his writing abilities as he learned strategies to help him generate ideas. Sam recounted a well-elaborated sequence of events as he wrote about the time he went swimming at his papa's house. He described actions, thoughts, and feeling by using the words "amazing", "fun", "cool", and "scary". Sam used temporal words to signify the order or events, such as "First", "Next", and "Then" and he provided a sense of closure to his story with his conclusion, "I had the funnist time at my papas house."

Mark. At the beginning of the semester, Mark, a second-grade focal student known for having low writing skills but high motivation, wrote stories that lacked elements of the Common Core State Standards, such as recounting a well-elaborated sequence of events, describing actions, thoughts, and feeling, and providing a sense of closure. Below is a sample of his writing from the beginning of the semester:

My noow pool

First, we ded the kun shtruchen! we dug the pool we pot in the wotr we pot in the tubs. En then we ded konkret! We also got a diveng bord!

Finle, my famle had a pool party! We divde! I swam wheth my kosen! I thank the best part whus I did the breststrok for the first time!

As his story illustrates, Mark had achieved only one out of the four elements of the writing standard (e.g., use temporal words to signify event order). Although Mark wrote on one topic, his new swimming pool, he did not provide a well-elaborated sequence of events. His writing was random and irregular. In addition, Mark did not describe actions, thought, or feelings or provide a sense of closure to his writing.

By contrast, at the conclusion of the digital storytelling unit at the end of the semester, Mark typically wrote stories that included the required elements of the Common Core State Standard for writing for second grade. Here he rewrote his story about building his swimming pool:

First, my famly started building a pool! They dug an enormous hole in the grawnd and put in the gas so the gukuze would be worm. They put the ellechrek in and put in the tubes. Then they put in the metal bars and the konkrete.

Next, it was finle time to fill the pool with water. In the morneng I put the hoos in the pool. I kep on checken evry two ours and it was stil not full yet. After 12 ours it whas full.

Finly, we had a pool party. We had lost of pepl and tuns of food! There whas a diveng bord. We had so much fun. I thank the best part was I did the breststrok for my first time!

As his narrative illustrates, by the end of the semester, Mark met all four elements of the writing standard. He improved his writing abilities as he refined his skills to elaborate on one topic. He also included relevant details about the main topic, including words such as “enormous”, “metal”, “worm”, and “fun”. Mark used temporal words to signal the order of events (e.g., “First”, “Next”, and “Finle”) and provided a sense of closure by illustrating the best part of getting a new pool (e.g., “I thank the best part was I did the breststrok for my first time!”). In doing so, Mark improved his writing skills in three of the four components (recount a well-elaborate sequence of events, describe actions, thoughts, and feelings, and provide a sense of closure) of the writing standard. He demonstrated appropriate writing skills and abilities for a second grader.

Reflection Skills

Throughout the process of creating their digital stories, students were given time to reflect on their new understandings to establish personal goals and to extend and develop their own knowledge about writing and themselves as writers. Students ruminated on their personal narratives, making comments on aspects to improve, and setting goals for themselves as writers. This process helped individuals to become reflective learners and to develop their writing skills.

Students were explicit with their reflections, commenting on specific paragraphs or aspects of their writing they wanted to improve. For example, Lane commented, “I want to continue working on my recording because I stopped too many times.” Through self-analysis and self-reflection, Lane’s understanding of fluency and expression improved as a result of his interaction with digital storytelling.

Like Lane, Hunter, a focal student previously known for being an unmotivated writer, was explicit about the skills he wanted to improve. After listening to his partner’s digital story and remarking on her exciting opening sentences, Hunter stated, “I want to rewrite some of my story. I know I can improve my opening sentences.” Hunter set goals for his writing and demonstrated his desire to improve his writing skills. Similarly, Valerie set goals for herself, as well. She stated, “I want to keep working on my topic sentences because I think they could be better.” Comments like these illustrate the objectives students set for themselves to improve their writing.

Structure and Voice

The multimodal aspects of the digital stories helped students to discover structure and voice in their writing (Banaszewski, 2002). For example, the multimodal component of photographs assisted students in structuring their writing. They began to understand that images themselves held meaning. Students realized that they did not need to state information that their audience could gather from the photographs. By interacting with visual literacies, students developed skills to structure and guide their writing and convey their messages.

The multimodal aspects of the digital stories also helped students discover voice in their writing. Both Miss Damon and Mrs. Murphy admitted that incorporating digital storytelling into their writing instruction forced them to dive deeper into skills, such as voice, that they would not have during a traditional writing assignment. The notions of voice in writing are complex and often difficult for students to understand. Writer Ralph Fletcher stated that, “writing with voice has the same quirky cadence that makes human speech so impossible to resist listening to” (1993, p. 68). Murray calls voice, “the magical heard quality of writing” (1998, p. 151). Graves maintains that, “voice is the imprint of ourselves on our writing” (1983, p. 227).

By incorporating multimodal elements and voice narration, first graders in this study captured a sense of voice in their writing. Sylvester and Greenidge (2009) also noted that digital storytelling helped elementary students to “discover voice, confidence, and structure in their writing” (p. 284). Miss Damon noted, “You could hear [Michele and Julie] in their writing. Their words, color choices, and images all conveyed a sense of themselves in their writing.” Miss Damon’s comment illustrated the impact multimodal literacies had on helping students discover voice in their writing.

Julie captured a sense of voice in her digital story. The following link presents Julie’s complete digital story (<http://www.youtube.com/watch?v=1cbC4cEi10Y>). Her story, *My Adventures in Silver Dollar City*, chronicled her family’s vacation to Branson, Missouri. In her story, Julie described her favorite attractions at a local theme park. Her digital story illustrated her strategic use of color, transitions, and word choice. Julie selected pink and white for her title page as those were her favorite color combinations as

shown in Figure 9. She also used “fun” transitions to coordinate with her “fun” photographs. In addition, Julie was strategic in her word choice. She used humorous words and phrases, such as, “Ha, ha, ha, very funny! That’s me with horns! Really someone’s holding the horn up. Those are longhorns.” and included dialogue, such as, “Have you ever been to Silver Dollar City? Well I have. These are my adventures and I am going to tell you all about it.” to incorporate a sense of voice in her writing. Through these multimodal elements, Julie discovered and incorporated a sense of voice in her writing.



Figure 9. Julie’s title page

Research Question Seven: How do students' identities that developed as writers transfer from digital storytelling to other writing?

An extensive review of my field notes, transcripts from interviews with the teachers and students, students' writing samples, and the teachers' journals revealed three ways in which individuals' identities as writers transferred from digital storytelling to other writing. Individuals' identities as authors were demonstrated through reporting their perceptions of themselves as proficient writers; through providing peer assistance with other's writing; and by engaging in other voluntary writing. Students' remarks and behaviors illustrated their confidence in their authoring abilities and their proclivity to write.

One of the primary ways in which individual students indicated that they had transferred their identities as writers to other writing was through their own reports of their new-found abilities as authors. For example, Michele, a first-grade student expressed her thoughts about her writing during a whole-class discussion with the teacher regarding their digital stories. Michele noted, "I know what good writing is now. I felt success in my writing and I know I can do more good writing." Michele's statement demonstrated her self-perceived identity as a successful writer that developed while creating her digital story. Her comment revealed her feelings of success as a writer and her confidence in undertaking other writing assignments.

Like Michele, Justin's perception of himself as an author that developed through digital storytelling transferred to other writing activities. His teacher illustrated this transfer in her journal. For example, she noted that after completing his digital story, Justin repeated 13 to 15 times that, "I like writing because I am a good writer now."

She also wrote:

His amount of growth is amazing. He is writing all the time. He will come up and have written me a card or note. He loves writing stories about animals, especially reptiles. He writes all the time. And he is doing it in different ways. After we finish an assignment he will say, “[Teacher], can I please write instead of read, because you know I am really good at writing now!”

Justin’s perception of himself as an author and his new-found skills and abilities in writing was evidenced in his writing samples. Justin used his free time to write about reptiles, a topic of personal interest to him. He wrote four informational pieces describing various snakes, lizards, and tortoises he saw in the desert. One of Justin’s stories provided information on a tortoise he saw at a reptile park. Justin wrote:

A tortis has a rielly hord sheyle on his body. The tortis has to black eyes and he woks slowly. He eats food too. The tortis eats the celery in small bits.

Another of Justin’s stories offered information on Monitor lizards. He wrote:

This tipe of lizard is a monidr. The lizard is a reptile and has scals on his body. The monitr lizard has brownish eyes. The lizard can smel with his tunig.

Justin’s view of himself as a “good” writer was supported and evidenced by his demonstrated abilities in his stories like these to focus on one topic and provide details to develop that topic which fueled his desire to write. For example, during a social studies activity on famous explorers, Justin stated, “I can’t wait to write about my explorer because I am a good writer now!” Justin’s identity as “a good writer” motivated him to engage in these other writing activities.

Like Michele and Justin, their classmate, Billy's perception of himself as an author that developed through digital storytelling transferred to other writing activities. After the completion of the digital storytelling project, Billy's teacher stated that he "loves writing now". She also commented that Billy "feels successful as a writer and is proud of his writing." She reflected on his writing progress in her journal. Miss Damon noted:

[Billy] has taken off with his writing! He is so proud of himself, adding on to a continuous journal entry each day about sharks. He is up to 5 pages now, all about facts he has learned from our science unit. In addition, he bought 2 books on sharks at the book fair, and has read them during reading time so he can write about them in writing. So exciting!!!

Individuals also demonstrated their capabilities and identities as writers by assisting their peers with the writing process. For example, a second-grade student, Valerie, identified herself as a "good" writer. In her journal, Mrs. Murphy noted that Valerie's view of herself as a competent author led her to assist her classmates with their writing. This was evidenced during a writing session in which Valerie commented to her peers who were struggling to decide on topics for their assignment. Valerie stated:

Just think of things you like. Remember how much fun we had writing our digital stories because we got to pick our own topics? Just pick something you like and write about it! You can fix up your mistakes later.

Valerie's comment illustrated her view of herself as a "good" writer and her ideas of the writing process. She scaffolded her fellow classmates into writing by coaching them and by assisting them in selecting topics. She encouraged her classmates to begin

writing by acknowledging that they would have time to edit their errors and correct their writing later, steps accomplished writers follow (Calkins, 1985).

For individuals in this study, digital storytelling had the capacity to not only motivate struggling writers, but also to reposition individuals' views of themselves as struggling writers to seeing themselves as competent writers. As a result, these students approached future writing assignments with confidence in their writing skills and assurance in their abilities to persevere. For example, Bryson, a second grader noted, "It was hard, but I stuck with it and look at the cool story I created!" Bryson's comment illustrated his tenacity and the pride he felt in his final product. Bryson had confidence in attempting other academic writing assignments, as well. During a writing assignment on America's Presidents, Bryson noted, "Writing is hard, but we have to stick with it and keep going." After creating his digital story, Bryson realized that writing was often difficult and time consuming, but if he persevered he could complete his writing.

During the digital storytelling unit, four other first-grade students and four second-grade students advanced from being struggling writers to becoming competent writers and their identities as authors transferred to other writing assignments. The following excerpts from these students' writing exemplified how individuals improved in their writing skills and identities as writers. John, a first-grade focal student, improved his writing skills throughout the semester, and in return, developed an identity as a writer. The following story is an example of his writing at the beginning of the academic year:

I lik to swimming. I am on levl for. I am stuck on the wiggle ond the butrfli to. I am coled a dolphin. I am coled a dolphin bcus when you moov to the nest levl.

John's thoughts were scattered and his sentences did not make sense. He misspelled common sight words and lacked adjectives to make his writing exciting. John, however, discovered that with practice and hard work, he could improve his writing. A paragraph from his personal narrative illustrated improvement in his writing abilities by the end of the semester:

My last day in Hawaii I got to go in the fishpipe. I got to go in side the fishpipe and my sistr got to go a lone too. Then I got to go in with my sistr. The fishpipe had woter in it and spun around. The prson told us if you put your thums up it means go fast. If you put your thums down it means go slow. If you put your hands left to rite it means stop. I had so much fun in Hawaii. I hope I get to see one of you there.

This paragraph illustrates how John's writing skills improved. His writing made sense, he stayed on one topic, and he added detail words to his story.

John's classmate, Alice, also improved her writing skills throughout the semester and in return developed an identity as a writer. In the beginning of the semester, Alice wrote a response to a teacher-directed writing prompt: "I am packing for my voyage to the new world. I only have limited space on the Mayflower. I can only take what fits in my trunk. The trip will be long and treacherous. What should I take? Why?" Alice responded:

What to pick? Maby I shod tack food and wotr. A doll and big Ducky. Colos from hede to tow. The food is for eating her. Wots is for drenck throy the sumr. Wood for sheltr. Dolls are for sleping. Clos are for waring. My 3DoDer too. My ps3 too. My Ipod of cors.

Alice's writing demonstrated evidence of experimentation with various writing styles and voice. She began with a question, "*What to pick?*" and then proceeded with ideas for items to take on her voyage. Her ideas, however, were difficult to follow and she failed to provide information to justify her response for taking each item on her voyage, a component of the writing prompt from her teacher. She misspelled common words and wrote incomplete sentences.

As Alice continued to work on her writing, testing out new writing styles and working through the writing process, she began building her skills and identity as a writer. The following paragraph demonstrated progress in her writing:

Hey, have you been to Disneyland befor? Well I have! First, I went to Goofy's Kichen. He had great food! You'll know it's Goofy's Kichen because what hes waring. He is waring a cooking hat and a shef coat. Me and my family got to take a picture with Goofy, too. Brecest at Goofy's Kichen was a grat start to our time at Disneyland.

This paragraph demonstrated how Alice's writing skills improved. Her writing still embodied her sense of voice that was evident in her writing throughout the semester; it also, however illustrated her newly-developed skills of adding relevant details to support her ideas. Alice also demonstrated improvement in using writing conventions, such as spelling and punctuation.

Like their first-grade counterparts, second-graders Mason and Mark both developed identities as writers that transferred to other writing assignments. Mason began the semester as a struggling writer. He had numerous ideas, but he did not know how to

organize his thoughts to write a clear and concise paragraph. During journal writing at the beginning of the semester, Mason wrote:

I like to play hide and seek from my friends because it is so much fun. I hide where no one can find me. But when I counted it was so hard to find them. Usually they hide in the maze. I cant find them. Me and my friends have a great time playing hide and seek. We also eat pizza and play other games too. It's a lot of fun.

Mason began his journal entry by describing a game of hide-and-seek with his friends. He struggled to stay on topic in his writing, as he included spurious details about eating pizza and playing other games with his friends. As Mason continued to practice his writing skills while writing a personal narrative he improved his writing abilities. Mason wrote in his personal narrative:

We had good food at my birthday party. We had cheese pizza from Little Cesars. We also had a Makutus cake. It was delicious vanilla cake with dark purple frosting. Every one loved the food at my birthday party!!!

This paragraph demonstrated Mason's improvement in writing by staying on topic and providing supporting details. Mason commented, "My story is awesome! I can't believe I wrote such a good story." Mason felt success as he improved his writing skills.

Mark exhibited similar growth in his writing abilities. Only having written a few sentences for each writing assignment previously in the semester, Mark was impressed with the length of his personal narrative. He stated, "I wrote so much! I just kept thinking of ideas and writing them down." He wrote an average of nine sentences per paragraph

compared to an average of four sentences per paragraph earlier in the semester. Mark wrote:

We staed at a three star hotel. The hotel whas very clean. It whas so clean thar whas 'nt even a speck of sand on the shets. We stayed on the for floor! We had to take the elevator bekus we had so meny bags. But the best part of the hotel whas the amazing pool! Thare wher lites under the pool that changed colors at nite. It whas very pretty. Even though the hotel whas fun, it whas 'nt the best part of our trip.

Mark developed his identity as an author that transferred to other writing assignments. He noted, “At first I didn’t really try my best. I just wrote a few ideas and thought I was done. Now I know I have a lot to say and if I work hard I can write a pretty good story, if I do say so myself.” Mark felt success as a writer because and realized he could write well-developed paragraphs.

Sam, a second-grade focal student who was disinterested in school activities, also developed an identity as a writer during the digital storytelling unit that transferred to his other writing. As he learned to incorporate the visual elements of digital storytelling into his other writing assignments he gained confidence in his writing and began to see himself as a writer. At first, Sam struggled to stay on topic and provide relevant details to his writing. After borrowing the school’s digital camera to take photographs for his digital story, however, Sam discovered that using pictures or illustrations helped him to stay on topic and focus his writing.

Sam used this strategy in his other academic writing, as well. For example, in her journal, his teacher, Mrs. Murphy, explained that during Sam’s daily journal writing, he

began with an illustration to guide his writing. She noted that he also used this strategy during his social studies assignments. Sam looked through books, magazines, and searched the Internet for pictures to guide his writing and to help him stay on topic. For example, Sam used a photograph of African-American children and Caucasian children playing together at school to guide his writing in a unit on Martin Luther King Jr. Using this photograph, Sam wrote about his feelings about being Hispanic in a predominantly White school. He commented, “This [picture] helps me focus on what I want to say. It helps me think of ideas too, because that is hard for me.” For Sam, pictures served as an inspiration and a focus for writing.

Billy, a first grader, also demonstrated his newly-developed identity as a writer. During the digital storytelling project, Billy struggled to articulate his ideas and stay on topic with his writing. He worked closely with his teacher, Miss Damon, to revise his writing and improve his writing skills. He was determined to finish his writing and produce his digital story. After presenting his digital story to his family and friends, Billy commented, “That was a lot of work. I tried my best though. I think my next story will be better and better.”

Since the digital storytelling project, Miss Damon commented on Billy’s continued success in writing. She noted, “He has really taken off with his writing skills. He feels confident in his abilities and is able to take risks with his writing. He knows if he makes a mistake, he can easily correct the mistake and move on.” Billy’s identity and confidence in his writing skills allowed him to be successful in other writing assignments, as well.

Like Billy, Hunter saw himself as an author. He noted, “I learned a lot, but most I learned I really like to write. I am just happy to be writing.” Through his digital story, Hunter discovered his love for writing. He enjoyed writing in school and often commented during writing time, “This is my favorite time of the day!” Hunter spent much of his free time writing stories, as well. He wanted to write stories to share his successes as an athlete. Hunter incidentally wrote various stories about his baseball team and stories about his football team winning the championship. His comments illustrated how his identity as a writer and his desire to write developed and transferred to other academic writing.

Students developed trust and respect with their classmates while creating their digital stories, as well. Students needed to work together, assisting one another with the written components, as well as the digital aspects of their stories. Classmates offered suggestions and critiques to their peers of their writing. This trust and respect also transferred to other writing assignments. For example, throughout the semester, Sam, a second-grade student, was reluctant to revise his writing. He was satisfied with his writing and did not want to change it even if it did not make sense to others. Sam expressed his disinterest in revising his writing in an interview:

Sam: I am done. I reread it and it makes sense.

Researcher: You say a lot of things are your favorite. Doesn't favorite mean one thing? You like a lot of things, but which one was your favorite?

Sam: They are all my favorite.

Researcher: Okay. Look at this part here. What does this part mean when you talk about diamonds?

Sam: Do you know what a parody is? It's like the same song, but they change the words. So instead of "Friday, Friday, Friday", it says, "Diamonds, Diamonds, Diamonds."

Researcher: The song is in the game?

Sam: No, I just know it and sing it.

Researcher: Oh, well when you put that sentence in your paragraph I think the song is in the game. Do you think you should fix that?

Sam: No, I don't want to erase it.

As the semester progressed and students worked together on their digital stories, however, Sam developed trust in his classmates and often revised his writing based on their ideas. For example, during a writing session, Mason offered a suggestion regarding Sam's story.

Mason: I think this is a great story! Maybe you could just add a few more details about your mom coming to school for Mother's day. You know, like say why you liked having her at school or something.

Sam: Yeah, that's a good idea. I will add more in about that.

As Sam built trust in his classmates, he became open to revising his writing in other situations, as well. For example, Sam was willing to consider his classmate's suggestions during journal writing. Students were given time each day to write in their journals on a topic of interest. Sam often wrote about Minecraft, (<https://minecraft.net>) his favorite computer game in which players construct a city by using various types of blocks in a three-dimensional environment. The following conversation illustrated how Sam learned to consider his peers' suggestions for revising his writing:

Bryan: You need to fix these sentences. You keep saying the same thing over and over.

Sam: What do you mean?

Bryan: You keep talking about Minecraft and the resources, but you don't tell us what it is.

Sam: Well that's because there are different resources.

Bryan: Well then say that and tell us what the resources are.

Sam: Okay.

This conversation illustrated Sam's sincerity in valuing and incorporating his classmate's opinions and suggestions, a skill that transferred from digital storytelling to other writing assignments. The power of peer feedback was an important component for Sam and his classmates. Students often received feedback from their teachers without questioning their teachers' comments. Students made the necessary corrections to their writing to satisfy their teachers. Students seemed to think more critically about their writing with peer feedback, however. Students listened and then reflected on the comments and suggestions their classmates were making regarding their writing. During one peer editing session, Mark noted, "Hunter is really good at this! He gives me good suggestions and helps me make my writing better." Another second-grade student, Larissa, commented, "I get such good ideas from everyone in my class. We all help each other to make our writing more interesting." These comments indicated that students valued feedback from their peers in improving their writing.

These types of peer feedback were typically given to inform, direct, and affirm. Peer feedback often affirmed students' writing skills and abilities and rarely demeaned

their skills or stories. Peer edits typically consisted of correcting conventions, such as spelling or punctuation errors, deletions, or additions.

Research Question Eight: How do students equate digital-storytelling writing with other academic writing?

My observational field notes and interviews with the students illustrated how they equated digital storytelling with other academic writing. Creating digital stories showed students that writing was a process that took time and energy. They learned that published writers' pieces do not appear perfect and whole on the page. Students learned there were steps they could follow, practice, and improve upon. If individuals struggled with a part of their writing, they could go back to a step and work to solve the problem. For example, Alice, a first-grade student, illustrated her understanding of the writing process during an interview. She remarked:

I think brainstorming is the most important [stage] because it's when I think of my ideas to write about. Sometimes when I skip that and just go straight to writing, I don't know what to write about and I have to go back and think of more ideas.

Her classmate, Michele, stated, "I feel like a real author when I fix up my writing. I can ask for help to make my stories better." Through creating their digital stories, both girls identified aspects of the writing process, such as brainstorming ideas and editing that were important to their writing and provided areas of focus for their future writing. Mark, a second-grade student, shared similar feelings about his writing. He noted:

At first, I did not like to revise my writing. I thought it was a waste of time. But now I think it's okay and important. We need to make our writing better so other people want to read it.

Mark's understanding of the writing process that he developed through the digital storytelling project guided his other academic writing. He discovered the importance of the writing process and revising his writing to improve his story and to engage his audience.

Digital storytelling also offered students ways to experiment and find out which writing techniques worked best for them. For example, John, a first grader, experimented with the writing process and realized he could revise his writing. John recognized that by revising his writing, he was helping to improve his story and make it more pleasing to his audience.

Students could apply these principles of experimentation to other writing projects, as well. For example, John consistently revised his writing in an effort to improve his writing skills. John revised his word choice during an exploration unit. He changed his words to be, "more descriptive and exciting" for his audience. He also revised his writing to be clear and concise. During one writing assignment, John wrote about his experience selecting a pumpkin at a local pumpkin patch. His first draft was full of off-topic descriptions of the wheelbarrow he used to gather pumpkins and the food he ate. During a peer-editing and revising session, however, John eliminated any unnecessary information to keep his writing clear and on topic.

Through the process of creating their digital stories, students learned that the writing process was not a linear progression from one step to another, but a recursive

cycle (Raimes, 1985) in which they moved back and forth through the steps as they created their writing. Individuals understood that writing takes time as each student progressed at his or her own pace. Students were conscious of this issue of pacing and supportive of their classmates who were working through the writing process at a slower rate. For example, during a writing assignment on explorers, Alice, a first-grade student, noticed that her classmate Isabel was struggling with her writing. Aware that she might be able to assist her with her writing, Alice inquired about Isabel's writing. The following conversation transpired.

Alice: What's wrong, Isabel?

Isabel: Uh, I don't know what to write about.

Alice: Okay, well I will help you. Read me what you wrote so far.

Isabel: I only have my first sentence. See it here?

Alice: That's a good start. Let's go back and brainstorm more ideas you could include in your paragraph.

Alice understood that the writing process was recursive and that Isabel needed to go back and brainstorm more ideas as supporting details before she was ready to write. Alice taught principles of the recursive nature of the writing process to Isabel by coaching her and scaffolding her writing.

Other students also saw digital storytelling as a similar process as other academic writing by identifying components of the writing process such as editing and revising. For example, when asked in an interview how digital storytelling compared to other writing, Jacob stated, "It [digital storytelling] was kind of the same [as other writing] because once you finish, you go over and over it again to make it perfect." Jacob saw the

process of revising his digital story similar to revising other academic writing. Carla noted, “It’s [digital storytelling] really the same [as other writing] because you write it and go through it to fix it up.” In ways like these, individuals made connections with the writing process between digital storytelling and other academic writing.

Other students, however, did not equate digital storytelling with other academic writing. Hunter thought digital storytelling was different as it was more engaging and “fun” than other academic writing:

I found it more fun to write for the digital story because you got to let your ideas flow and you got to add photographs to your writing. I got to say it and record it on the computer. The published story was more interesting because the audience got to hear my voice and they actually got to see where I was and they could know more about what I talked about.

Like Hunter, other students commented that digital storytelling was more engaging than other academic writing. During their research reports, Sam asked, “What are we going to do to make our research reports a little more fun? Because the digital story was so much better than this kind of writing.” Sam commented that they wished they could work more on the computers like they did with their digital stories. In these instances, students did not equate digital storytelling to other academic writing and seemed to prefer digital storytelling to other writing assignments.

Research Question Nine: What can be learned about young students' engagement in the writing process from incorporating the new participatory media of digital storytelling in a primary-grade classroom?

Observational field notes, students' interview transcripts, photographs, and students' writing samples illustrated students' engagement in the writing process while using new participatory media of digital storytelling. Jenkins (2009) explained participatory culture as a shift in the focus of literacy from one of individual expression to one that valued community involvement. Students in this study mirrored that belief as their writing moved from an individual process to a cooperative practice.

As the semester progressed, students offered feedback and assistance to one another, making the writing process a joint effort among individuals. As a result, students developed a participatory culture in their classrooms and became invested in their classmates' stories as well as their own. For example, Tommy and Jacob, both second-grade students, worked together to construct their personal narratives for their digital stories. The boys often stopped and ask each other if a particular sentence made sense or asked for assistance in selecting a "juicy" describing word. The boys were familiar with each other's stories, as they had read them multiple times during the drafting and revising stages. During one editing session, the boys made comments and suggestions to each other to improve their writing. Tommy commented on Jacob's story, "Those are the same sentences. What else can you say to make it sound different?" Jacob thought for a moment and replied, "I could take this part out and add a sentence to say I learned a lot." Tommy exclaimed, "Yea! That sounds good. Say that!" This conversation illustrated Tommy's investment in his partner's writing. Because he worked so closely with his

partner throughout the digital storytelling project, Tommy felt invested in his partner's writing and wanted to help make it an interesting story.



Figure 10. Tommy and Jacob assisting one another on the computer

Students engaged in every aspect of the writing process as they constructed their digital stories. Individuals planned and executed each component of their stories from the photographs and detail words, to the font, background color, and transitional elements. In doing so, students began to see writing as a skill they needed to practice and improve just like they had to practice their skills to become better football players and dancers.

Michele noted, “I keep practicing and practicing my writing. I know if I practice now I will be better in second grade.”

The participatory media of digital storytelling engaged students in authentic learning experiences. Students were motivated and excited to publish their stories on the computer. In order to make a successful digital story, students first needed to write their personal narrative. Making the content and topic relevant to students' lives helped to bring meaning and purpose to instruction. Most students enjoyed writing about themselves and their lives. Allowing students the opportunity to select an important topic or event in their lives to write about made the writing meaningful and engaging. Students had extensive background knowledge on their topic since it was self-selected. This allowed individuals opportunities to focus on the writing components, such as writing detailed sentences or selecting appropriate word choice because they were familiar and comfortable with the content they were writing about.

In addition, students were given opportunities to not only learn about writing, but to learn how to be a writer. For many students, this was the first real writing assignment they completed, and for others it was the longest writing they had ever produced. As students worked through the writing process they learned that writing is a process that takes time and energy. This was also the longest writing assignment in which the students had participated. This process demonstrated the steps accomplished authors go through to publish a story. In addition, individuals learned about digital media and learned how to be a media producer. They were not only motivated to produce their own digital stories, but also assisted their classmates in producing their stories, as well. Individuals assisted their peers with the digital components of their stories, such as selecting a font style, choosing their colors, and deciding on the transitions between photographs.

These experiences made writing personally meaningful, sharable, and malleable in ways that connected to and expanded on others' experiences, as well. Hunter noted:

I don't just write it and trash it three weeks later. This writing I can keep forever. I can watch it again and show it to other people. The fun part about showing it to other people is they can help you write more and share ideas if they went to the same place.

Hunter's comment demonstrated the power digital storytelling had to impact his views of and approach to writing and the writing process. Hunter began to see his writing as permanent yet changeable. He was reflective with his writing, noting that he would share his story with others in an effort to gain new ideas and strategies for writing.

Writing for an authentic audience also motivated students to edit and revise their writing. Knowing that a piece of writing could extend beyond the writer and the teacher motivated students to polish, clarify confusing parts, entertain, inform, and for some, complete a writing assignment. The following conversation between Mark and his teacher, Mrs. Murphy, illustrated Mark's desire to refine his writing:

Mrs. Murphy: Today we are going to work on polishing your writing. Where is the paragraph you are going to work on?

Mark: I already fixed it up.

Mrs. Murphy: Get it out so I can see it.

Mark: Oh, maybe I didn't yet. Why do I have to do this?

Mrs. Murphy: We need to polish your writing so it makes sense for your reader. Don't you want to have a nice polished story?

Mark: I have to polish my shoes for church. Is that the same?

Mrs. Murphy: Yes! You polish your shoes to look nice at church. You need to polish your writing so it looks nice for others to read. Remember we are sharing these stories with our families and friends at Oscar Night?

Mark: Oh, yeah. Okay! I want to have a great story for my mom to see. I also want to share my story with my friends so they know about my trip to California.

Mrs. Murphy: Great! Then we need to get to work. Get out your paper so we can begin. Reread your paragraph and see what you can fix up. Remember to think about your audience. You want a super good story to share with everyone. Think, does it make sense? Did I include juicy detail words?

By realizing he was writing for a broader audience than just his teacher, Mark developed a desire to perfect his writing by revising it. He wanted to make his story the best it could be to make his mother proud. He also wanted to be able to effectively communicate his experiences with his classmates.

In considering the revising process, Mark related polishing his shoes to polishing his writing, an analogy he thought of to articulate his discovery about the recursive nature of the writing process. He connected the need to look good at church with the need to produce a quality story that others would want to read. In this way, digital storytelling impacted Mark's understanding of the writing process as an iterative procedure (Graves, 1983).

Other students also began to understand the writing process not only through collaborative revisions, but also by writing for an authentic audience, components of the digital storytelling process. John, a first-grade focal student, determined the need to clarify confusing parts of his story. Initially reluctant to change his writing, John

discovered the importance of revising his story. During a recording session in the computer lab in which John was audio-recording his story with two of his peers present, he realized a portion of his writing was confusing and inaccurate:

Alice: Your reading is a little bit slow.

John: Well, I am trying my best.

Chrissy: Let's listen to it.

[the students listen to his recording]

Alice: You were slow.

John: Well, I wasn't that slow.

Alice: It also sounds funny because you said water two times in the same sentence.

John: No. No. No.

Researcher: Let's listen to what she is saying. Do you hear it?

John: I guess. And the water was not actually blue.

Researcher: You wrote it.

John: Well, it was greenish black. Look at the picture. I want to take that part out. I can't say blue and have everyone see that it isn't. It's a greenish black.

Researcher: What will you change it to?

John: I will write "we got to go swimming in very cold water". What do you think?

Alice: Yea, that's good.

Chrissy: That sounds good.

Writing for an extended audience ignited John's desire to clarify confusing parts of his story. He revised his writing based on his classmates' suggestions, something he was reluctant to do all semester. John realized the importance of accuracy in his writing as his audience saw his photographs along with hearing his story.

Like John, Michele and Julie, both first-grade students, wrote to entertain their audience. Both Michele and Julie's writing captured their sense of voice in their writing. Donald Graves described voice as, "the imprint of ourselves on our writing" (1983, p. 227). The girls' stories each illustrated that sense of self in the words they used and in the humor they embedded in their writing. For example, when writing about making caramel apples, Michele included phrases such as, "*Am I macking you hungery yet? I hope so!*" and "*Ok, let's move on to my third pees of my awesome story!*" When writing about her family vacation to Branson, Missouri, Julie included phrases such as, "*Ha ha ha, vary funny! That's me with horns! Rily sumones hodling the horn up. Those are longhorns.*" Both of these stories captured a sense of their authors' voices and their sense of humor.

By expanding his audience, Bryson, a second-grade student was also motivated to write. Knowing he would publish his story on the computer and share it with his family and friends, Bryson was excited to include information about his culture. He incorporated details describing the beach in Korea, Lotte World, an amusement park, a festival including traditional hat spinning, the zoo, and an animation museum he had visited. Bryson exclaimed, "I can't wait to share my digital story. I want to tell my friends about all the fun stuff in Korea."

Writing for an authentic audience also motivated others to complete their stories. For example, Sam, a second-grade focal student who was selected for typically being unmotivated by writing assignments would sit with his head on his desk and refuse to write. By expanding his audience to that of his classmates and family members, and by using technology, Sam was motivated to write and complete his digital story. When his digital story was completed, Sam stated, “I feel good about my writing. It was actually fun to write when I knew I got to use the computer to tell my story.”

In addition to being motivated by writing for an authentic audience, students were reflective in their writing and the writing process. Students’ wrote reflections on their digital stories, commenting on their thoughts and feelings about their finished products. Their reflections about their experiences demonstrated strategic thinking about their writing. They used strong action verbs when describing their writing processes, such as “I decided”, “I wanted”, and “I chose”. Hunter, a focal student, noted, “I decided to change my topic and write about all the things I love because so many things are important to me and I didn’t want to leave anything out.” Ally commented, “I wanted to make a great story I could share with my family.” Annie exclaimed, “I chose great images from my trip to show how much fun we had!” Students repeatedly used these verb phrases to articulate their thinking processes, illustrating individuals’ desires for polished final products. These reflections suggested a metacognitive awareness of the writing process and suggested strategic planning and meaning making. Students wanted to create personal narratives and worked hard to progress through the writing process to achieve their goals.

Through self-reflection and self-analysis, students were able to acknowledge their weaknesses, build on their strengths, and set goals for future writing. For example, Mark, a second-grade focal student known for his below-level writing abilities commented, “I need to work on adding juicy words, not just saying great or wonderful, but including juicy words like exciting and enjoyable!” Mark’s statement acknowledged his need to improve his word choice and select detail words to support main ideas. His classmate, Mason also commented on his weaknesses as a writer. He stated, “I have good ideas, but sometimes they just get messed up when I put them on paper.” Mason realized he needed to use the flow map, a graphic that included space for his topic sentences, ideas for three paragraphs, and supporting details for each paragraph that his teacher had provided as part of the prewriting stage to organize his thoughts. Tricia, a first-grade student, wrote her thoughts during a post-writing reflection. She wrote, “*It was fun to cunpar wut we did day to day.*” When asked about her comment, she stated, “I thought it was cool to see how we created our story. I mean, at first, I was scared to write such a big story, but we started with a few photos and then we ended up with an awesome movie.” Tricia’s comment demonstrated her realization of the progressive nature of the writing process and acknowledgement that writing is a step-by-step process in which smaller units create a whole product. She was initially apprehensive about writing her story, but by working through the writing process stage-by-stage, she gained confidence in her writing abilities and was impressed with her final product.

Research Question Ten: What differences in writing competencies might exist between first- and second-grade students in writing skills and abilities with digital storytelling?

Specific differences in writing competencies between the first- and second-grade students were illustrated in observational field notes, documents including the teachers' lesson plans, students' writing samples, and rubric scores from the beginning and end of the year and their digital stories. Overall, the second-grade students' writing demonstrated a more sophisticated mastery of writing components than the first graders demonstrated in terms of the standards although the first graders displayed a wider variety of writing styles. Below, I describe the differences between the first and second graders' writing.

Conventions and Format

The second-grade students had a more complete understanding of conventions than did the first graders as they tended to use appropriate punctuation marks and correct spelling for basic sight words throughout their stories. Their writing tended to follow a formal structure as individuals began each paragraph with an introductory sentence, included supporting details, and concluded with a final sentence summarizing the main point of their paragraph. For example, Mason's paragraph about his birthday party at Makutu's Island illustrated the formal structure of the second graders' writing:

I had an incredible 7th birth day party at Mocodos Island. My frends cousins and family were able to be there. I invided my frends from school. I was glad so many of my frends were able to come. I was also glad my cousin Jacee was There. I

enjoyed playing with him that day. My Grandparents were there also to watch the fun. We had an amazing time at Mocodos Island.

Mason's story demonstrated the formal nature of the second graders' writing. He began his paragraph with an introductory sentence (e.g., "*I had an incredible 7th birth day party at Mocodos Island*") and continued with supporting details by describing his friends and family members that were present, and detailing the fun they had at Makutu's Island. Mason completed his story with a concluding sentence reiterating the fun he had during his birthday party at Makutu's Island (e.g., "*We had an amazing time at Mocodos Island.*").

Because they had been writing in school a year longer than the first-grade students, the second graders had a stronger foundation regarding knowledge of writing and the writing process. Hence, second-grade students were able to explore and experiment with various writing elements, such as writing interesting beginning sentences. Instead of using temporal words to signal the order of events at the beginning of their paragraphs, individuals wrote stimulating beginning sentences to attract the readers' attention and motivate them to read their stories. For example, Hannah began her story about Sea World with an engaging opening sentence that seized the readers' attention, "*Rides, animals, and shows make for a funfiled day at Sea World.*" Her classmate, Daisy, drew her audience in with her opening sentence for her story about her trip to California. Daisy wrote, "*Feeling the warm sand under my feet, I knew it was going to be a good day.*"

In comparison, the first-graders were in the nascent stages of developing their writing skills, and therefore made more errors with conventions and spelling than did their second-grade counterparts. First graders were also developing their understandings of format and writing structure. As a result, first graders' writing was typically off topic or out of sequence. For example, Justin wrote a story about his baseball game. He wrote: *"I ceTh The ball. The ball is to The coch. I am baben. The uvr Tem is cechen. They are luzen. I Hit it ovr The fit. Then we hab to sop the eammey."* Justin made many convention and spelling errors like these. His writing jumped from topic to topic without transitions or signal words.

In addition, the first graders were less likely to experiment with various writing elements, such as writing engaging beginning sentences. Individuals typically began each paragraph with a temporal word to signal the order of events. For example, Michele began her paragraphs with words, such as, "First", "Second", "Third", "Fourth", "The next step", and "Last." Her classmate, Chris, began his paragraphs with, "First", "Next", "Then", "After that", and "Finally".

Humor and Dialogue

Because the first graders were still developing their skills as writers, they often modeled their own writing from their favorite authors' writing. As a result, their stories typically included more dialogue than their second-grade counterparts. For example, Alice often included dialogue in her stories, mirroring her writing after her favorite author, Mo Willems, whose characters often spoke in dialogue in his storybooks. Alice began her personal narrative by writing, *"Hey, Have you been to Disneyland befor? Well*

I have! Let me tell you about it.” She continued to include dialogue like this throughout her digital story as a way to engage her audience and keep their attention.

Because the first graders typically modeled their stories after their favorite authors, they also tended to incorporate more humor in their writing than did the second graders, as well. For example, Alice’s classmate, Chris, used humor in his story about making an ice cream sundae. He wrote:

Next, I had to put a sugar cone on top of the ice cream and I had to put whipped craem on the sids. Do you like whipped craem? I wish I cod spray it into my mouth but I can’t. I rile want to spray it in my mouth. I love whipped craem!

*Then you fill your mouth with whipped craem. My draem has come true!
That was my secont time. The first time I did it when my mom wasn’t looking and the secont time was...right now!*

Chris’s story included humor that captivated his audience. Laughter filled the room as Chris presented his amusing digital story during Oscar Night.

As the first graders developed their writing skills, their teacher, Miss Damon, encouraged them to develop their own style of writing. She allowed them opportunities to explore various texts, such as graphic novels, children’s magazines, and picture books as models of writing styles. Students were given time to practice writing in various genres during several periods throughout the school day. According to Miss Damon’s lesson plans, students spent an average of 45 minutes per week exploring and practicing writing in various genres. In comparison, the second-grade teacher, Mrs. Murphy spent an average of 20 minutes per week allowing her students opportunities to explore with text genres. Because of this, first graders had more freedom to vary their writing and had

more opportunities to include dialogue and humor in their writing styles than did the second graders.

Digital Skills

Students at both grade levels were able to successfully navigate technology. The first-grade students needed more assistance with the digital tools and elements, but they understood the concepts of creating a digital story using multimodal texts and were strategic with their decisions regarding the digital content. The first graders typically needed assistance from their teacher in controlling the mouse to start and stop the audio recording for their voice narrations and needed assistance in adding transitions.

Although students may have needed assistance in learning the digital tools, they understood the concepts behind those tools and how to use them to incorporate multimodal texts. They added transitions between their photos and narratives and were strategic in their decisions about the transitions they selected and included. They made appropriate selections of colors and fonts to complement their stories' message. For example, Aiden was strategic in selecting the background colors for his digital story. Aiden chose the colors light blue and orange for his title page to match the colors of the sunset he witnessed at the Grand Canyon. His classmate, Dylan, was strategic with the color choices for his title page, as well. He selected white letters on a light blue background because he thought it looked like snow, the topic of his digital story.

In comparison, the second-grade students needed less assistance from their teacher in using digital tools. Classmates were able to assist one another without direct support from their teacher, Mrs. Murphy. For example, after Valerie completed her digital story, she stayed in the computer lab to offer assistance to her fellow classmates

who were producing their digital stories after she had finished hers. Individuals were able to solve problems for each other when they arose. For example, during a recording session with Tommy and Jacob, the boys struggled to add audio to their videos. To solve their problem and learn more about audio recordings, they boys looked up a YouTube (www.YouTube.com) video, *How to Record Your Voice in Windows Life MovieMaker* (<http://www.youtube.com/watch?v=k8vC4gmckxo>) demonstrating how to add audio to a video by using Windows MovieMaker.

Writing Skills

The two Tables below illustrate the differences in the first- and second-graders' writing skills and abilities in their digital stories as outlined in the Common Core State Standard for writing a personal narrative. These Tables are the same Tables presented earlier in research question five. Although the second-grade standard was more sophisticated than the first-grade standard in the elements of sequenced events (recount two or more appropriately sequenced events vs. recount a well elaborated event or sequence of events) and details (include some details regarding what happened vs. use details to describe actions, thoughts, and feelings), the standard was essentially the same in focus for the two grade levels.

Table 2

CCSS.ELA-Literacy.W.1.3: First-Grade Students Meeting the Writing Standard

Pseudonym	1. Two + Sequenced Events	2. Details	3. Temporal Words	4. Sense of Closure
Ian	X	X	X	
Justin	X	X		X
Chris	X	X	X	X
Isabel	X	X		X
Chrissy	X	X	X	
John	X	X	X	X
Alice	X	X	X	X
Annette	X	X		X
Kyle	X	X		X
Clare	X	X	X	X
Ella	X	X	X	X
Aiden	X	X	X	X
Hattie	X	X		X
Ally	X	X	X	X
Michele	X	X	X	X
Julie	X	X	X	X
Tricia	X	X	X	X
Billy	X	X	X	
Chelsea	X	X	X	X
Richard	X	X	X	X
Eric	X	X	X	
Dylan	X	X	X	

X indicates meeting the standard

Table 3

CCSS.ELA-Literacy.W.2.3: Second-Grade Students Meeting the Writing Standard

Pseudonym	1. Well Elaborated Sequence of Events	2. Describe Actions, Thoughts, and Feelings	3. Temporal Words	4. Sense of Closure
Chad	X	X	X	X
Sarah	X	X		X
Sam	X	X		X
Jacob	X	X	X	X
Mark	X	X		X
Larissa	X	X	X	X
Annie	X	X	X	X
Daisy	X	X		X
Hunter	X	X		X
Valerie	X	X	X	X
Monica	X	X	X	
Bryson	X	X		X
Cameron	X	X		
Tommy	X	X	X	X
Karen	X	X		
Hannah	X	X		X
Alexis	X	X		X
Lane	X	X		
Mason	X	X		X
Bryan	X	X		X
Hasita	X	X	X	X
Jane	X	X	X	X
Shane	X	X		X
Maggie	X	X	X	

Sequencing. As can be seen in the Tables, all of the first- and second-grade students recounted a sequence of events in their personal narratives. For example, Michele, a first-grade focal student known for her motivation and advanced writing skills,

recounted the sequence of events in the caramel-apple making process. Her classmate, John, a first-grade focal student known for being socially difficult and resistant to revise, recounted the events during his family vacation to Hawaii. Isabel, a first-grade focal student known as a struggling writer, recounted the events leading up to her uncle's wedding in which she was the flower girl.

As can be seen in Table 3, the second-grade students all recounted a well-elaborated sequence of events in their digital stories, as well. For example, Hunter, a second-grade focal student known as high achieving but unmotivated, recounted important events in his life, such as winning the football championship, and attending his brother's 11th birthday party. His classmate, Sam, a second-grade focal student known for his reluctance to revise, recounted important events in his life, such as his trip to California, playing his favorite computer game, and his mother's visit to school for Mother's Day. Like Hunter and Sam, Mark, another second grader and focal student known for his high motivation but low achievement, recounted a well-elaborated sequence of events from his family vacation to California, including his visit to Disneyland, the beach, Sea World, and the San Diego Zoo.

Supporting Details. As can be seen in Tables 2 and 3, all of the first- and second-grade students included relevant details in their digital stories. For example, Michele, a focal student, included adjectives, such as "goeey", "sticky", and "sweet" when describing the caramel-apple making process, while her classmate John included details describing his trip to Hawaii. John used the descriptive phrases, "small electric eel", "friendly fish", "big white water slide", and "very cold water" to add details and description to his story on Hawaii. Isabel included descriptive detail words, too, such as

“beautiful hair”, “My color was pink with sparkles”, “itchy dress”, “tiny hat”, “warm day”, and “pretty flowers” in her story about being a flower girl in her Uncle Andy’s wedding.

The second-grade students in particular included details that described their actions, thoughts, and feelings. For example, Hunter included descriptive words in his story describing important events in his life. He used phrases, such as “the fish are so fast and some are so shy”, “colorful fish”, “loud thunder”, “The alligator chomps his teeth”, and “the big Texas donut was delicious and good” to add details to the various events in his life that were important to him, while his classmate, Sam, included the adjectives, “cool game”, “awesome place”, “crazy rides”, “fake cannons”, and “the perfect throw” in describing his story title, “*All About Me*”. Like Hunter and Sam, Mark included descriptive adjectives, such as “fabulous day”, “biggest Ferris wheel”, “spectacular day”, “huge hermit crab”, “incredible animals”, and “cute polar bears” in his digital story about his trip to California.

Temporal Words. As can be seen in Tables 2 and 3, seventeen of the 22 (77%) first graders used temporal words to signal order of events while only ten of the 24 (42%) second graders used temporal words. For example, Michele, a first-grade focal student known for her high motivation, included the temporal words “first”, “second”, “third”, “fourth”, “the next step”, and “last” to describe the caramel-apple making process in her digital story. Her classmate, John, a focal student known for being socially difficult and resistant to revise, used the words “Today”, “first”, “second”, “next”, and “last” in his digital story about his family’s vacation to Hawaii. Isabel, a first-grade focal student known as a struggling writer, did not meet the standard for using temporal words to

signal event order in her digital story. Isabel only used one temporal word (e.g., “next”) in her personal narrative, thus she did not meet this element of the standard.

Table 3 reveals that ten out of 24 (42%) second graders used temporal words, as well, but none of the second-grade focal students used temporal words in their personal narratives at the end of the semester. This difference between the two grade levels in using temporal words may have been due to the second-grade teacher’s focus on engaging beginning sentences instead of beginning each paragraph with temporal words. According to Mrs. Murphy’s lesson plans, she spent an average of 30 minutes per week focusing on engaging beginning sentences with her students. In comparison, Miss Damon did not spend any instructional time focusing on engaging beginning sentences. Rather, Miss Damon primarily focused on using temporal words to begin each paragraph.

Sense of Closure. As can be seen in the two Tables, the first and second graders were similar in their writing performance in their tendencies to provide a sense of closure to their writing. Seventeen of the 22 (77%) first graders and nineteen of the 24 (79%) second graders provided a sense of closure to their writing. Hence, the majority of the students at both grade levels were able to write stories that provided closure by the end of the semester.

These tendencies were illustrated in the focal students’ digital stories. For example, Michele provided closure to her story about making caramel apples by ending her recount of making them with the words, “*Now I can enjoy my sweet crml appls*”. Her classmate, John, concluded his story by writing, “*I had so much fun in Hawaii. I hope I get to see one of you there!*” Isabel concluded her story about the time she was a flower girl with, “*I loved getting dressed up!*” Hunter, a second grader, closed his story with “*I*

love being me!” His classmate, Sam, concluded his story titled, “*All About Me*” with the sentence, “*I hope I can go see the Planetarium 100 more times.*” Mark concluded his story on his trip to California by stating, “*I really enjoyed seeing such incredible animals at the zoo.*”

Summary

These findings illustrate the myriad ways in which digital storytelling enhanced the literacy development of primary-grade students. The processes of composing digital stories impacted the teachers’ views of writing by broadening their understandings of literacy and literacy learning. By incorporating digital media in primary-grade classrooms, students developed their identities as writers and consequently developed and used a common language to talk about writing and the writing process. Individuals developed their writing skills and abilities and achieved elements of the Common Core State Standards for writing a personal narrative. Students transferred their identities as writers to other writing assignments, and connected their stories to accomplished writers’ stories.

As evidenced with Isabel, a first-grade focal student known for her limited writing skills, digital storytelling could be an overwhelming process for some individuals. Struggling with the traditional elements of writing, the multimodal elements of digital storytelling were too difficult for one young writer. The majority of students, however, found digital storytelling to be engaging and motivating, illustrating how new media can be used in classrooms with young children to promote students’ learning of both print-based and digital literacies.

Chapter 5

DISCUSSION

This study examined how digital storytelling as participatory media could be used for teaching and learning in language arts with young children. First- and second-grade students participated in the new literacies practice of digital storytelling by creating personal narratives about an important event in their lives. A case-study design was used to examine instructional interactions, experiences, and processes within the two classrooms. The analysis focused on the ways in which digital storytelling influenced students as authors. In this chapter, I discuss conclusions from this study, particularly in relation to prior research on digital storytelling, outline the study's limitations, discuss implications for teaching, provide recommendations for future research, and offer my reflections on the research.

Conclusions

Changing Students' Views of Writing and Themselves as Authors. This study demonstrated that primary-grade children can develop sophisticated notions of writing and the writing process. Students in this study gained awareness and recognition of a variety of textual forms as literate communication. Individuals expanded their definitions of writing, and came to new understandings about the nature of written texts. The children came to see writing as hybrid and multimodal, incorporating sounds, images, and words to convey a personal message. Their selected use of multimedia represented strategic understandings of how each of these components can complement each other and together form a coherent text.

This study extends the work of Davis (2004) with middle-school students by illustrating that like their older peers, primary-grade students can develop their identities as authors through the digital storytelling process. Through the production of their digital stories, students in this study began to see themselves as writers. They related to accomplished authors they admired as they edited and revised their writing and used their favorite authors as models to follow for writing genre and style. Their identities as writers transferred to other writing activities as students demonstrated their new-found skills and abilities as authors in writing other narratives.

Evidence that students saw themselves as writers included the meta-language students developed and used to discuss writing and writing processes. Through interaction with digital and traditional literacies, students developed a common and shared language to discuss writing. Students deepened their understandings of what constituted “good” writing and they developed terminology to express their understandings of writing elements, topics, and word choice. Learning to talk the talk of a discipline has been identified as an indicator of acquiring insider knowledge and becoming a member of that discipline (Lemke, 2010).

Acquiring New Literate Tools, Skills and Abilities. Findings from this study document that even emergent literacy learners can learn to use new media as tools for and practices of the new literacies. Young children in this study developed their facilities with computer-mediated technology while learning new literate skills and abilities. They were able to navigate complex systems and select appropriate digital applications that enabled them to author their lives.

Findings from this study also illustrate that emergent writers can acquire the 21st century skills and abilities typically associated with older learners. These include collaboration, peer feedback and critique, multitasking, hybrid writing, and making intertextual ties across textual forms (Lankshear & Knobel, 2003). Since these are the new skills and abilities that will be increasingly needed to be fostered for literate practices in the new millennium (Lankshear & Knobel, 2006), this study contributes to the extant literature by advocating advancing that agenda at the earliest age of formal literacy instruction.

This study also affirms Lagunas' & Guzzetti's (2011) conclusions that digital storytelling can be used to advance primary-grade students' traditional writing skills and abilities. In the current study, first and second graders' writing skills developed through the digital storytelling process as their writing made sense, stayed on one topic, included relevant details, and provided a sense of closure. Students' word choice or vocabulary and use of transition words developed as students listened to their audio-recordings of their personal narratives and refined and revised their stories accordingly.

By doing so, individuals were able to meet specific elements of the Common Core Standards for writing through the digital storytelling process, a new finding in the literature that supports digital storytelling as a means of writing instruction for beginning writers. This is an important contribution to the professional literature as prior research on digital storytelling has typically been conducted with older students in after-school programs (e.g., Davis, 2004; Kajder, 2004; DeGennaro, 2008; Levin, 2003; Dreon, Kerper, & Landis, 2011) and not investigated with young students within classrooms as mainstream literacy instruction.

Enhancing Students' Motivation. The writing processes and intended audiences inherent in digital storytelling were demonstrated in this study as motivating forces for younger authors than those previously identified (Davis, 2003; Kajder, 2004; DeGennaro, 2008; Levin, 2003; Dreon, Kerper, & Landis, 2011). This study illustrated that extending writing beyond printed word to include self-selected digital photographs and graphics and writing for an authentic audience can motivate primary students, even reluctant revisers, to edit and revise their writing. Knowing that a piece of writing can extend beyond the writer and the teacher prompted even young students to refine their writing, clarify confusing parts, and write to entertain and/or inform.

Findings from this study demonstrated that students' awareness that their writing will be memorized in digital form and shared broadly can provide a sense of permanency and authenticity. The knowledge that their writing will be preserved and acknowledged by their peers can be a motivator for even reluctant or struggling emergent writers. Sylvester and Greenidge (2009) also concluded that digital storytelling can motivate elementary-grade students (fourth graders), even those who are struggling writers by providing an authentic purpose.

Changing Teachers' Views and Practices. This study also illustrates how the incorporation of new participatory media can restructure a teacher's views of learning and her instructional practices. The social nature of the new literacies practice of digital storytelling stimulated one second-grade teacher in this study to change her views and practices of teaching writing by shifting from a transmission model to a social constructivist view of teaching and learning. One teacher's notions of writing and writing

instruction evolved from the initial belief that writing should be a solitary act to a new understanding that valued collaboration and social learning.

By evolving to a view of literacy learning as a social activity, a second-grade teacher engaged students in writing activities characterized by a dominance of students' talk characterized by peer collaboration, feedback, and assistance. Although McCarthy, Magnifico, Woodard, & Kline (in press) have argued that technology alone does not restructure discourse writing in classrooms, findings from this study challenge that assumption. In this study, incorporating new participatory media was sufficient stimulus to restructure writing instruction for a primary-grade teacher. The process of digital storytelling that incorporated new technologies prompted this teacher to change her instructional approach to reflect a social view of literacy by incorporating students' collaboration on and talk about their writing.

Changing Curricula. While seeking answers regarding questions about digital and print-based literacies, multimodal meaning making, and students' engagement, this study illustrates how digital literacies can be integrated into the school curriculum. This study demonstrates that even young children can become actively engaged and competent literacy learners by using participatory media to represent their ideas and author their lived experiences. In a world increasingly defined by technology and its impact on personal, political, economic, and social lives, all students, including emergent literacy learners, need to have experiences in classrooms that reflect and resonate with their out-of-school literacies.

Rather than replacing one type of writing with another, Bruce (1998) suggested that writers add to their current repertoire of process and product tools. As students composed their personal narratives, it quickly became clear that new writing styles were emerging under the influence of technology. Students were experimenting with multimodal elements of their stories. They used colors, fonts, and transitions to add expression and personality to their personal narratives. Zammit and Downes (2002) argued that:

Literacy can no longer be seen as just a set of cognitive abilities or skills based on an identifiable technology, for example, alphabetic script on paper. It needs to be recognized as a social activity embedded within larger practices and changing technologies (p. 24).

Giving students an environment in which interaction and collaboration were encouraged helped them to write more productively. In addition, digital storytelling transformed the classrooms to allow students access to more diverse learning in new literacies skills. Individuals collaborated as they interacted with words, images, and audio to broaden the place of multimodality in their literacy learning (McCarthy, Magnifico, Woodard, & Kline, in press).

Compelling reports with narrative portrayals and descriptive statistics support this expanding role of technology in 21st century classrooms. A Public Broadcasting Systems (PBS) survey (2009), *Digitally Inclined*, articulated that teachers who use digital media “value it and believe that it helps them- and their students – be more effective” (p. 1) in their abilities to create more engaging and collaborative learning environments especially when “students produce content and take charge of their learning” (p. 1). According to a

recent Kaiser Family Foundation report (Kinzer, 2010), “children from 8 through 18 years of age spend 7 hours and 38 minutes each day consuming media” (p. 51).

Since the number of children who use digital media has grown significantly from 2004 to 2009, Kinzer has called for changes in schools’ practices that reflect the new literacies required in this technological world. Consistent with Kinzer’s recommendation is the current Common Core State Standards, a document created in a collaborative effort to standardize curricula through the United States. A review of the Common Core standards (www.corestandards.org) indicates that students in grades K-5 will be expected to make strategic use of digital media and use technology “thoughtfully to enhance their reading, writing, speaking, and language use” (p. 22). The Common Core State Standards curriculum also requires students in grades K-5 to use the Internet to produce and publish their writing.

In light of these recent reports and the advent of the Common Core State Standards, this study of digital storytelling in primary-grade classrooms may be used as one model for embedding new literacies practices into the literacy curriculum for primary grades. Examining students’ literacy skills through a qualitative lens demonstrated the feasibility of using digital storytelling in primary classrooms. This study describes and documents how new media can be used in classrooms with young children to promote students’ learning of both print-based and digital literacies.

Limitations

This study had several limitations related to the nature of case studies. Because this study was not an experimental study, it cannot be concluded with inferential statistical support that digital storytelling caused gains in students’ writing achievement.

Rather, this study was descriptive, documenting how individual students responded to new views of and approaches to literacy and writing. This case study also involved a limited number of participants (22 first graders and 24 second graders). The participants, however, did represent a range of students varying in gender, ability levels, ethnic backgrounds, and motivation. Therefore, the findings are logically generalizable to similar populations in like contexts and settings.

In addition, this study was limited in scope. The research spanned only a brief period (one semester) in the educational life of the students. Additional longitudinal studies conducted over an expanded period, such as those conducted over the course of the entire academic year or those focusing on individuals' progress through the three primary grades could result in more detailed information about how new media assist or limit young students in their views of and performance in literacy.

Implications for Instruction

The digital storytelling project in the first- and second-grade classrooms can serve as a window to the possibilities for transforming literacy to reflect the multimodal and technological world of the 21st century. Based on the findings of this study and the related research found in Chapter Two, there are implications for instruction that can be applied to developing programs and curriculum for emergent literacy learners. Recognizing that all schools have distinct needs and resources, teachers and administrators seeking to integrate new literacies into their current curricula are encouraged to carefully consider the following recommendations to support the implementation of new digital literacies in primary-grade classrooms.

First, the classroom environment and available technologies must be carefully considered when attempting to incorporate new literacies practices like digital storytelling. Teachers need to recognize technology, pedagogy, content, and contexts as interdependent aspects of teaching content-based curricula. In addition, teachers need to consider the number of computers and resources available to students before implementing a digital storytelling project.

Second, the classroom environment needs to support students' learning *with* digital media rather than simply focusing on learning *from* digital media. It is not sufficient for students to simply be passive consumers of new digital media. Individuals must also be interactive with and producers of digital media, making strategic decisions in their own literacy learning. To do so, students need to learn to use digital tools and develop the skills to access and incorporate new media.

Third, struggling literacy learners need multiple opportunities to engage with digital media to encourage their literacy development. Striving writers may be motivated by digital technologies because they are more facile with new literacies than with print literacies and may employ these practices to scaffold traditional literacy. Recognizing students' attraction to new technologies, creating stories of any genre through digital storytelling may be a viable solution to improving struggling writers' literacy development.

Fourth, teachers need to scaffold literacy learning with new literacies practices. Some students struggle with the technical tools of digital storytelling. Like with any assignment, teachers must provide the proper support to ensure that all students succeed. In addition, the teacher's role needs to change from that of facilitator to that of co-learner.

Together, the teacher and students can navigate through and make meaning from new literacies practices. Peer feedback and collaboration can be a useful tool in supporting struggling students, as well. Classmates can offer assistance regarding the technical tools and multimodal elements of digital media. Working together, students can develop the necessary skills to be successful literacy learners and media users.

Fifth, teachers need adequate and ongoing professional development. Within the digital storytelling project, the role of one of the teachers changed from being a distributor of knowledge to facilitator of learning. Because the teacher's role changed with the incorporation of new literacies, attention needs to be placed on professional development to provide training in appropriate views of and approaches to instruction required for implementing new media. Supporting this notion, the International Reading Association (2002) has advocated for sufficient time and training for teachers to develop proficiency in the new literacies of information and communication technologies.

Finally, digital storytelling can be used as a building block to incorporating other participatory media and technologies. Through digital storytelling, students can gain basic skills in navigating the computer and creating multimedia presentations. As they gain new skills and abilities, other forms of digital media can be introduced into the classroom, such as podcasting or blogging.

Suggestions for Future Research

Since digital storytelling with primary-grade students is a relatively new field of study with a limited body of research, there are many opportunities for future scholarship. More research is needed on new media with diverse learners and at-risk students. Previous studies like the one conducted by Lagunas and Guzzetti (2011) also included a

sample consisting of white middle-class students. Therefore, future research should be conducted with students of different ethnicities, socioeconomic status, and a more diverse sample to illustrate how digital storytelling can be implemented with diverse learners.

Studies should be conducted that longitudinally follow students through multiple grade levels as they create digital stories. A longer, broader examination of the procedures and processes of digital storytelling may lead to increased understandings of how digital media can develop primary-grade students' literate skills and abilities.

Additional research is needed on digital storytelling as an educational resource. Researchers should investigate the educational value of digital storytelling from a variety of perspectives. Among these perspectives is the direct impact on literacy learning in content areas from the perspective of a hybrid approach to content literacy (Alvermann, 2008). Future investigations should focus on how digital storytelling can be used for content teaching and learning in such subjects as science, social studies, and mathematics. Investigations are needed illustrating the educational impact of digital storytelling with informational texts.

In addition, there is a need for research on students' experiences with and perspectives on digital storytelling. While students' experiences were illustrated in this study, additional research is needed to determine students' perspectives on the ease and utility of software, the value of learning, and their ideas for future applications. A longitudinal study investigating students' experiences over time with the tools of participatory media would advance the research agenda on digital storytelling.

A final suggestion for future research involves developing an adequate means of assessment. Effective writing is not easily measured and does not lend itself to efficient large-scale assessment. There is not one correct answer that all students will produce in response to a particulate writing task. Writing is messy, complicated, and takes time (Graves, 1983). These conditions all create problems in measuring results and pinpointing effective instructional practices supported by research. In addition, the assessment used to evaluate the students' multimodal writing in this study only assessed traditional writing skills, such as conventions, word choice, and writing elements. Research needs to be conducted to develop and examine assessment strategies that evaluate the multimodal aspects of digital storytelling in addition to traditional writing skills.

Personal Reflections

Throughout this study of digital storytelling with primary-grade students, I focused on illuminating the relationship of technology and the new literacies practices of young children. The students in this study used new literacies and multiple modalities of meaning making, demonstrating the habits of innovation required in the new era of communication where the power of the image is ever present (Kress, 2003). As a researcher capturing learning-in-action, I found it noteworthy to illuminate how capable these young students were in using technology and multiple modalities to make meaning with print, images, and voice. I was impressed by the sophisticated language the children developed to articulate and share their understandings of writing and the writing process.

As a result, I recommend that the new literacies practices like digital storytelling should not be considered as an “add-on” or “entertainment”, but rather be positioned as an integral part of classroom curriculum. In light of the shift from an “exclusively print-

based medium toward a more robust semiotic field” and the current emphasis on testing and “reductive views of literacies,” this is especially important (Kinzer, 2010, p. 122). Working with digital literacies not only enhances print-based literacies, it also prepares students to engage with those multimodal texts so common in the 21st century and that are essential for living and working in a global society. Harste, Woodward, and Burke (1984) wrote that the most valuable gift we can give to learners is to “litter their environments with enticing language opportunities and guarantee them the freedom to experiment with them” (p. 27). I believe that digital storytelling is one such opportunity with untapped potential for literacy learning. While limited research on using new literacies practices with young children has been conducted, I anticipate that this study will contribute to that extant literature by expanding the possibilities of using digital media with emergent literacy learners.

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APPENDIX A

SEMI-STRUCTURED INTERVIEW QUESTIONS FOR STUDENTS

1. Tell me about your writing.
2. How do you like writing?
3. What are your favorite things to write about?
4. What is the first thing you do when you start writing?
5. What is difficult for you when you write?
6. What is easy for you when you write?
7. What have you learned about writing this year?
8. How do you use computers in your classroom or in your home?
9. What kinds of writing do you do on the computer, if any?
10. How does using a computer help you to write?

APPENDIX B

SEMI-STRUCTURED INTERVIEW QUESTIONS FOR TEACHERS

1. What are your views on how students learn to write?
2. What are your thoughts on the sociocultural view of writing? (The sociocultural view places the social context at the heart of the learning process. Proponents believe that social interactions play a role in human learning.)
3. What is your philosophy of teaching writing?
4. Do you have any other units on writing personal narratives aside from the digital storytelling?
5. What strategies do you incorporate when teaching writing to primary-grade students?
6. What do you do with a struggling writer?
7. What have you learned about teaching the writing process by implementing digital stories?
8. What writing skills, if any, did the students develop as a result of producing their digital stories?

9. What advantages, if any, do you think that digital storytelling offered the students?
10. What challenges did the students face?
11. What challenges did you face?
12. How have your views changed if at all regarding your philosophy for teaching writing?
13. What recommendations do you have for implementing similar projects in the future?
14. What other comments do you have, if any?

APPENDIX C

TEACHER REFLECTION JOURNAL

Reflection Journal

Directions: Please share your thoughts and reflections throughout the course of the semester in this journal. For each entry, please include a brief description of what happened that day during writing time, your observations of students' progress and struggles, and suggestions for the following lessons.

Date: _____

Lesson Focus:

Observations:

Struggles:

Successes:

Suggestions for tomorrow:

Questions:

APPENDIX D




DEMOGRAPHIC QUESTIONNAIRE FOR TEACHERS

1. Name:
2. Address:
3. Phone:
4. E-mail Address:
5. Prior Teaching Experience:
6. Number of Years Taught:
7. Undergraduate Degree:
8. Graduate Degree:
9. Career Goals:
10. What are your reasons for participating in this study?
11. How do you currently teach writing in your classroom?
12. What digital literacies practices, if any, do you incorporate in your classroom?
13. What kind of technology do you have access to in your classroom?

APPENDIX E

ORAL READING FLUENCY RUBRIC

Digital Storytelling Personal Narrative Narration Rubric

Possible Points	Requirements	Student	Teacher
5	When I read, I used a normal talking voice . I read loud enough for the audience to hear me, but I did not scream.		
5	I read clearly . (No mumbling!)		
5	I read with expression! <ul style="list-style-type: none"> • If there is a period (.), I read normally. • If there is an exclamation point (!), I read with enthusiasm. • If there is a question mark (?), I asked it like a question. 		
5	Be Yourself! I used my voice in a way where everyone knew it was <i>my personal story</i> .		
5	When I read, I read with a good pace ...not too fast, and not too slow. <div style="display: flex; justify-content: space-around; align-items: center; text-align: center;"> <div style="text-align: center;">  Not Hot! (too fast) </div> <div style="text-align: center;">  Not too Cold! (too slow) </div> <div style="text-align: center;">  Just Right! </div> </div>		
Total Points:			

APPENDIX F
WRITTEN CHILD ASSENT FORM

Digital Storytelling with Primary Students

I have been told that my mom or dad have said it's okay for me to take part in a project where I will create a digital story in my classroom.

I will be asked to write a personal narrative, take pictures, and create a digital story over the course of the academic semester.

I am taking part because I want to. I know that I can stop at any time if I want to and it will be okay if I want to stop.

Sign Your Name Here

Print Your Name Here

Date

APPENDIX G

PARENTAL LETTER OF PERMISSION

Parental Permission

August 1, 2012

Dear Parent:

I am a graduate student under the direction of Professor Barbara Guzzetti in the New College of Interdisciplinary Arts and Sciences, Division of Humanities, Arts and Cultural Studies at Arizona State University. I am conducting a research study to identify and describe the ways digital storytelling can enhance young students' engagement in the writing process and their identities as writers.

Students will create a digital story as one of their regular classroom writing assignments this semester. I would like to visit the classroom and observe the instructional activity and briefly (10-15 minutes) interview students about their writing activities. I am asking your permission to talk with your students about his or her activities and instruction in school and his or her out-of-school literacy practice. I may photograph or audio-record these interviews so that I can remember what was said and done. These tapes will be stored in my office and will be destroyed after being analyzed unless I request your permission to use a photo of your child in particular.

When I analyze what was said, comments will be kept confidential. Pseudonym will be used in any written or oral reports of these interviews to protect students' privacy. The results of this study may be used in reports, presentations, or publications, but your child's name will not be used.

Your child's participation in this study is voluntary. If you choose not to have your child participate, or to withdraw your child from the study at any time, there will be no penalty. It will not affect your child's grade. Likewise, if your child chooses not to participate or to withdraw from the study at any time, there will be no penalty. The benefits of participation will be that the information from the study may be used to inform teachers and researchers about how students learn writing through participatory media practices. There are no foreseeable risks or discomforts to your child's participation.

If you have any questions concerning the research students or your child's participation in this study, please call me at (xxx) xxx-xxxx or email me at leslie.foley@asu.edu. You may also contact my advisor, Dr. Barbara Guzzetti, at (xxx) xxx-xxxx or email her at xxx@xxxx.com. We would be happy to talk with you.

Sincerely,
Leslie Foley

By signing below, you are giving consent for your child _____ (Child's name) to participate in the above study.

Signature

Printed Name

Date

If you have any questions about your students' rights as a participant in this research or if you feel he or she has been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board through the ASU Research Compliance Office at 480 965-6788.

APPENDIX H
PRINCIPAL LETTER OF PERMISSION

Principal Permission

Dear Principal:

I am a graduate student under the direction of Professor Barbara Guzzetti in the New College of Interdisciplinary Arts and Sciences, Division of Humanities, Arts and Cultural Studies at Arizona State University. I am conducting a research study to identify and describe ways digital storytelling can enhance young students' engagement in the writing process and their identities as writers.

Students will create a digital story as one of their regular classroom writing assignments this semester. I would like to visit two teachers' classroom and observe the instructional activity and briefly (10-15 minutes) interview students about their writing activities. I am asking your permission to conduct research in your school with these teachers.

Parental consent will be obtained prior to the start of this study. Participation is completely voluntary. Comments will be kept confidential. Individuals will not be identified. Pseudonyms will be used in any written or oral report of these conversations to protect students', teachers', and the school's privacy. The results of this study may be used in reports, presentations, or publications but your school's name will not be used.

The benefits of participating will be that the information from the study may be used to inform teachers and researchers about how students learn writing through participatory media practices. There are no foreseeable risks or discomforts from this study.

If you have any questions concerning the research study, please call me at (xxx) xxx-xxxx or email me at leslie.foley@asu.edu. I would be happy to talk with you.

Sincerely,

Leslie Foley

By signing below, you are giving consent for me to conduct research in your school.

Signature

Printed Name

Date

APPENDIX I
TEACHER ASSENT FORM

Teacher Assent

My name is Leslie Foley. I am a graduate student at Arizona State University.

I am asking you to take part in a research study because I am trying to learn more about digital storytelling and how it can be used to meet the Common Core Writing Standards. I want to learn about the writing process and students' views on writing.

If you agree, you will be asked to fill out a demographic questionnaire, participate in informal interviews throughout the semester that will be audio recorded and last approximately 30 minutes, facilitate a digital storytelling project lasting from August to December, and keep a reflection journal on your thoughts throughout the study.

Your participation in this study is not required. Your participation is fully your choice and you may stop at any time during the study. You may also ask questions about the study at any time. Your name will not be used at any time. Pseudonyms will be used in any written reports.

Signing here means that you have read this form and that you are willing to be in this study.

By signing below, you are giving consent to participate in the above study.

Signature

Printed Name

Date

APPENDIX J

SCHOOL DISTRICT INSTITUTIONAL REVIEW BOARD APPROVAL

CUSD Institutional Review Board

Date: August 5, 2012
To: Leslie Foley
Cc: IRB file
From: Research Committee
Re: Acceptance of research project/proposal

Dear Leslie Foley,

This letter is notification that your proposal to conduct research on how the incorporation of digital media practices can be used to meet the common core state standards for writing within the Chandler Unified School District has been approved. You may conduct your research as outlined in your study with the stipulation that any changes to your protocol must be submitted to the CUSD IRB and receive approval before they are used with students.

Please note that the Principal Investigator is responsible for 1) complying with human subjects research regulations, 2) retaining signed consents by all subjects unless a waiver is granted, 3) notifying the IRB of any and all modifications (amendments) to the protocol and consent form and submitting them to the IRB for approval before implementation and 4) supplying a final report to the district.

Sincerely,

Nicolle Karantinos, Ed.D.
Director of Curriculum
IRB Representative

APPENDIX K

ARIZONA STATE UNIVERSITY INSTITUTIONAL REVIEW BOARD APPROVAL

To: Barbara Guzzetti
EDB

From: Mark Roosa, Chair
Soc Beh IRB

Date: 08/13/2012

Committee Action: **Exemption Granted**

IRB Action Date: 08/13/2012

IRB Protocol #: 1208008092

Study Title: Digital Storytelling with Primary Students

The above-referenced protocol is considered exempt after review by the Institutional Review Board pursuant to Federal regulations, 45 CFR Part 46.101(b)(1) .

This part of the federal regulations requires that the information be recorded by investigators in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. It is necessary that the information obtained not be such that if disclosed outside the research, it could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.

You should retain a copy of this letter for your records.

GLOSSARY

Arizona Instrument to Measure Standards (AIMS) Assessment -- A standards based assessment which measures students' proficiency of the Arizona Academic Content Standards in Writing, Reading, Mathematics, and Science and is required by state and federal law

Artifacts – Anything people make and use

Blog (Web log) – A website in which journal entries are posted on a regular basis; commonly consists of hypertext, digital images, and hyperlinks

Case Study -- An exploration of a bounded system through detailed, in-depth data collection involving multiple sources of information

Center for Digital Storytelling – An organization that trains and supports individuals in sharing meaningful stories from their lives (<http://www.storycenter.org/>)

Circle Map – a graphic representation where the main topic is written in the inner circle and ideas about the topic are listed in the outer circle

Common Core State Standards – Common academic standards among participating states that define the knowledge and skills students should have within their K-12 education careers so that they will graduate high school able to succeed in entry-level, credit-bearing academic college courses and in workforce training programs (Common Core State Standards Initiative, 2010)

Consciousness Theory – The notion that how we think about the world is who we are

Constructivism -- The view that writing is rule-governed, strategic, and personal

Dialogism -- Writing is seen as a dialogue between a writer and a reader

Digital Booktalk – Interactive visuals of books created to engage and entice students to read. It identifies the concept of talking about reading with reader-response contexts

Digital divide – Economic, cultural, linguistic, or attitudinal divides that inadvertently limit the access and/or benefits of technology

Digital Storytelling -- The art of combining narrative with digital media, such as images, sound, and video to create a short story

Discourse Community – Groups of people who share common language norms, characteristics, patterns, or practices as a consequence of their ongoing communications and identification with each other. With respect to writing, the term has been used to point out that writers produce text as part of a community

Discrepant Case – A negative case evidenced in the data that did not fit with the themes or assertions that the other data revealed

Do-It-Yourself (DIY) Media – Any tools or practices that facilitate creating new media texts

Fan Fiction – Stories that fans of an original work write by changing the settings, characters, and plot to create different scenes and situations across genres and media

Field Notes – Various notes collected during observations of a particular phenomenon

Five-Step Writing Approach – Seen as part of the writing process, the five steps include: prewriting, drafting, revising, editing, and publishing

Flow Map -- graphics that included space for their topic sentences, ideas for three paragraphs, and supporting details for each paragraph

Formalism -- An approach that provides a basic set of rules about writing to be taught to students in some particular sequence. The formalist approach focuses on the words, syntax, organization, and coherence as the major components of the writing process

Free Writing – A strategy in which students write any ideas that came to them, not focusing on editing until later on in the writing process

GarageBand Software – A software application that allows users to create music or podcasts (<http://www.apple.com/ilife/garageband/>)

High-Stakes Testing – Assessments used to make educational decisions for individual students

Hybrid Writing – Blended or flexible writing across multiple genres

Hypermedia -- An extension to hypertext that supports linking graphics, sound, and video elements in addition to text elements

Identity – The assigned meaning given to identity categories- such as race, age, gender, class and ability- when authoring texts

iMovie – Video editing software of Macintosh computers (<http://www.apple.com/ilife/imovie/>)

Information and communication technologies (ICTs) – Technologies that provide possibilities for and access to communication and information: Web logs (blogs), word processors, video editors, World Wide Web browsers, Web editors, e-mail, spreadsheets, presentation software, instant messaging, plug-ins for Web resources, listservs, bulletin boards, virtual worlds, and many others

Instant Messaging -- A form of communication over the Internet that offers an immediate transmission of text-based messages from sender to receiver

International Reading Association -- A nonprofit, global network of individuals and institutions committed to worldwide literacy; members promote high levels of literacy by improving instruction, disseminating research, and encouraging lifelong reading

Intertextuality – How texts influence each other’s meaning, either multimodally or through referencing one text in relation to another

iPods – Portable media player created by Apple

Literacy learning – The formal and informal acquisition of communicative tools for reading, writing, listening, speaking, viewing, and designing 21st century texts

Member Checks – A technique used by researchers to help improve the accuracy, credibility, validity, and transferability of a study in which the informants or participants check the authenticity or interpretation of the study

Modding – A slang expression derived from the term modify that refers to the act of modifying hardware or software to perform a function not originally conceived or intended by the designer

Modernist Identity Perspective -- The notion that individuals have one core, consistent, true inner self

Movie Maker – Video-editing software for PC computers
(<http://windows.microsoft.com/en-US/windows-live/movie-maker-get-started>)

Multiliteracies – A set of open-ended and flexible multiple literacies required to function in diverse contexts and communities

Multimedia – Computer-based technology that integrates text, graphics, animation, audio, and video

Multimodal – The integration of multiple ways of knowing and multiple modes of communication including text, images, art, music, drama, and technologies

Multimodal texts – various modes of communication (text, image, sound, symbols, interactions, abstract design, etc.) mixed into a single document

National Assessment of Educational Progress -- the largest nationally representative and continuing assessment of what America's students know and can do in various subject areas; Assessments are conducted periodically in mathematics, reading, science, writing, the arts, civics, economics, geography, and U.S. history

New literacies – The new literacies of the Internet and ICTs include the skills, strategies, and dispositions necessary to successfully use and adapt to the rapidly changing information and communication technologies and contexts that continuously emerge in the world

No Child Left Behind Act -- A United States Act of Congress that came about as wide public concern about the state of education; NCLB supports standards-based education reform based on the premise that setting high standards and establishing measurable goals can improve individual outcomes in education. The Act requires states to develop assessments in basic skills

Participatory Culture – A culture with relatively low barriers to artistic expression and civic engagement; strong support for creating and sharing one's creations with others, some type of informal mentorship whereby what is known by the most experienced is passed along to novices, members believe that their contributions matter, and where members feel some degree of social connection with one another

Participatory Media -- Such things as blogs, wikis, tagging and social bookmarking, music-photo-video sharing, podcasts, video comments and videoblogs

Personal Narrative – A narrative story about a personal memory

Podcast – Recordings available online for downloading

Postmodern Identity Perspective -- Argues that there is no absolute self; holds the belief that there are different versions of selves expressed at different times and in different places

Process Writing – A complex, recursive process writers work through when writing; 5 stages are often identified with the writing process: prewriting, drafting, revising, editing and publishing

Prolonged Engagement – Refers to the amount of time a researcher gathers data in the field in an effort to build trust with participants and gain an understanding of the environment

Psychological Identity Perspectives – The view that identity development is a normative process that one can achieve for psychological well-being

Qualitative Research – A method of inquiry in which a researcher’s aim is to gather an in-depth understanding of human behavior and the reasons that govern such behavior

Rich, Thick Description – A detailed account of field experiences in which the researcher makes explicit the patterns of cultural and social relationships and puts them in context

Self-Contained Classroom -- Located within a regular education school, a full day or mostly full day class or program for children with disabilities, usually composed of children in the same categorical grouping who cannot be educated appropriately in a regular classroom; characterized by highly individualized, closely supervised specialized instruction

Semantic Map – graphic overviews of the relationship among terms or concepts

Semi-Structured Interviews – Flexible interviews used to guide the discussion and explore specific issues

Social Constructivism – Extends the notions that writing is a personal process by arguing that written text should be viewed as discourse conventions and cognitive processes

Sociocultural Identity Perspective – The notion that there are different versions of the self-performed, enacted, and lived in moment-to-moment interactions

Teacher Research -- Research by a teacher on her own practice and her students’ responses to those practices

Teachers of English to Speakers of Other Languages (TESOL) – An organization designed to advance professional expertise in English language teaching and learning for speakers of other languages worldwide

Thematic Analysis -- A qualitative analytic method for identifying, analyzing, and reporting patterns or themes within the data

Title 1 -- The largest federal education-funding program. Title 1 provides financial assistance to local educational agencies and schools with high numbers or high percentages of children from low-income families to help ensure that all children meet challenging state academic standards

Triangulation -- The process of using multiple sources or methods to clarify meaning or identify different views of a phenomenon

21st Century Texts – Common and intuitive texts that communicate meaning in a variety of ways. They are read but they don't necessarily include print. They include texts necessary for today's lifestyles and pop culture texts

Venn Diagram - A diagram consisting of a series of interconnecting circles to represent how specific items relate to one another

Virtual Worlds -- Interactive 3D virtual environments where the users take the form of avatars to interact with one another

Webcomic -- Any comic book designed for viewing on the Internet

Wiki – Website software that allows the creation and sharing of interconnected pages, often used as a reference to share information collaboratively

Writing Workshop – A method of teaching writing using a workshop model; Students are given opportunities to write in a variety of genres to help foster a love of writing

Zines – Self-published alternatives to popular culture magazines