

## **Digital Storytelling: A Method for Engaging Students and Increasing Cultural Competency**

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### **Abstract**

Digital storytelling is explored as a method of engaging students in the development of media literacy and cultural competency. This paper describes the perceptions and experiences of 96 undergraduate students at a large Midwestern university, after completing a digital storytelling project in a semester-long diversity course. Digital storytelling was introduced in the course as a pedagogy for engaging students with technology to develop cultural competency. Data were collected from an end of semester survey. Results found that the use of digital storytelling enhanced the learning environment through greater student engagement around technology and diversity issues. By bridging course content and pedagogy around diversity and cultural competency, students were able to gain competency, and experience the use of technology in academic/workplace settings, and create awareness/discourse around social issues.

**Keywords:** Digital storytelling, student engagement, pedagogy, cultural competency, technology.

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Media and digital technology are shaping contemporary approaches to teaching and learning. Expanding technologies and media resources assist educators in the exploration of issues of cultural competency and diversity (Shorkey & Uebel, 2014). Digital storytelling holds unlimited possibilities as a teaching and learning method that engages students in critical thinking, development of cultural competency, and finding their voice within the educational environment (Burgess, 2006; Ohler, 2008; Rule, 2010; Sadik, 2008; Wang & Zhan, 2010). Technology and social media allow educators to connect to cultural and diverse stories while disseminating information globally and expanding educational reach. Mass distribution of media can influence and give voice to the oppressed and digital stories offer a new opportunity for impacting how people relate (Polk, 2010; Sanderson, 2008). The current research explores digital storytelling as a promising teaching pedagogy to engage students in a productive dialogue of diversity and presents an evaluation of the effectiveness of a digital storytelling project to increase media literacy and cultural competency among students.

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***Digital Storytelling***

Digital stories are generally defined as short, first person video-narratives created by combining digital media including recorded voice/audio, still and moving images/video clips, and music or other sounds to tell a story (Center for Digital Storytelling, 2011; Rossiter & Garcia, 2010; Skouge & Rao, 2009). Multimedia elements are woven together to additionally engage creators in a process of critical thinking, self or other-exploration, and imaginative and artistic work (Educause, 2007; Kajder, Bull, & Albaugh, 2005; Ohler, 2008; Rule, 2010; Sadik, 2008). Another way to describe this type of storytelling would be the practice of combining a personal and often emotional narrative with images, sounds, and video into a short movie (Educause, 2007).

A digital storyteller is anyone sharing a story through media and could range from a student given an assignment, a teacher experimenting with or enhancing a lesson, a veteran creating stories for cultural training, or medical school students conducting health information sessions (Seffers, 2011; Thesen & Kara-Soteriou, 2011). A digital storyteller is someone who has a desire to document life experiences, ideas, or feelings, through the use of story and digital media (Center for Digital Storytelling, 2011; Dreon, Kerper, & Landis, 2011). Digital storytelling requires no prior experience in video production, however time spent learning about technologies related to story facilitation is useful. Workshops through university and community can further assist faculty and students with development and technical assistance in digital storytelling (Center for Digital Storytelling, 2011).

Digital storytellers regularly publish their work online via YouTube, Facebook, Scribd, My Story Maker or other online sharing mediums. A recent YouTube (2016b) search for digital storytelling yielded about 206,000 results while digital story yielded about 2.56 million results (YouTube, 2016a). A quick review of these digital stories reveal accounts of diversity, cultures and communities that are both poignant and meaningful.

***Digital Storytelling Pedagogy***

Digital storytelling is viewed as a pedagogical opportunity to combine traditional and creative learning methods to engage otherwise reluctant students in knowledge/skill development allowing students to create narrative and illustrate course content, showcase autobiographical learning, share a person's or communities point of view, as well as promote social justice (Jefson & Niemeier, 2015; Meadows, 2003; Ohler, 2008; Rossiter & Garcia, 2010). The application of digital storytelling is not limited to higher education, as Fletcher and Cambre (2009) indicate, digital storytelling has been applied in a variety of secondary, primary, and post-secondary educational settings. While educators are searching for innovative solutions to problems associated with student engagement, reading assigned materials, and critically thinking about topics, digital storytelling has been shown to motivate struggling writers, engage readers, and facilitate a fundamental understanding of traditional literacy (Malin, 2010; Mihailidis, 2011; Sylvester & Greenidge, 2009).

Universities have progressed with technologies that provide resources and instruction; offering solutions and infrastructure for experimenting with and implementing digital storytelling as a teaching and learning tool (Dole, Bloom, & Kowalske, 2016; Garrety, 2008; Thesen & Kara-Soteriou, 2011). Digital storytelling's technological and content flexibility lends itself to broad range of applications across multiple learning styles, formats, domains and institutional settings.

Several scholars have evaluated digital storytelling for its learning effectiveness and outcomes establishing the method as a viable tool for teaching and learning (Garrety, 2008; Jefson & Niemeier, 2015; Robin, 2006; Rossiter & Garcia, 2010). Jenkins and Lonsdale (2007) concluded that the useful nature of digital storytelling was in its promotion of 'learning-about' and 'learning-to-be' skills that are essential for developing skilled twenty first century citizens and lifelong learners. Digital storytelling has been found to expedite a concurrence of student-centered learning strategies including technology integration, project-based learning, student engagement, reflection for deeper learning, and is an applicable mechanism for measuring these strategies (Barrett, 2006; Jenkins and Lonsdale, 2007). Hartley (2010) also found digital storytelling to enhance the classroom setting by providing a means to bring imaginative, oral facilitation, narrative and self-expression into the learning experience.

Opportunities to create digital stories have been welcomed by students involved in classrooms that employ such strategies (Skouge & Rao, 2009). It has been described that "digital media are empowering students to become researchers, storytellers, historians, and cultural theorists in their own right" (Weis, Benmayor, O'Leary, & Eynon, 2002, p. 153). The process of creating digital stories students become active participants rather than passive consumers of information (Meadows, 2003; Ohler, 2008). Some educators feel as though it is easier for students to critically analyze digital stories than written text due to the technological and visual conditioning of contemporary society (Weis et al., 2002). Duffy (2008) states, "a typical student of today is one that absorbs information quickly, in images and video as well as text, from multiple sources simultaneously" (p. 119). Sadik's (2008) classroom observation and interviews found that digital storytelling in class projects could help improve students' understanding of curriculum. By students accessing and utilizing popular or emerging technical tools they are better able to analyze and synthesize information. Therefore, accomplishing a more meaningful integration of course content, personal experiences, as well as technology in the classroom to bring about deeper meaning and purpose (Dreon et al., 2011; Harris, 2005; Sadik, 2008).

### ***Digital Storytelling and Diversity***

While technology and social media are primary sources of diversity information gathering and sharing, the building of links between diversity and technology through digital storytelling holds many promises. Diversity awareness and cultural competency, as related to education as well as professional work, is crucial to communication, advocacy, building relationships and communities, reducing prejudice and stereotyping, transforming conflict, and developing leadership (Bucher, 2015; DuPraw & Axner, 1997; NASW,

2001). Digital storytelling has been described as being “rooted in the notion of democratized culture that was the hallmark of the folk music, re-claimed folk culture, and cultural activists’ tradition of the 1960s” (Lambert, 2006, p. 27). Sharing the project with classmates or out in the community with a variety of partners contributes to a development of a spirit of advocacy for participants as well as viewers of such projects (Frohlich, et al., 2008). Digital storytelling projects have the potential to challenge student understanding of diversity concepts and social justice issues and build critical educational and workforce skills.

Skouge and Rao (2009) view digital storytelling as a means by which, human beings can be profoundly influenced by presenting themselves and others, within familiar contexts, as models of inclusion and self-determination. They continue by asserting that this type of project garners positive outcomes related to learning about cultural differences or students telling stories of inequities. Conversations created through digital storytelling have additionally been found to deepen understanding and empathy of community inequities and diverse human experiences, ultimately generating feelings of empowerment and reward for students who feel they have created a meaningful product (Frohlich, et al., 2008; Gachago, Condy, Ivala, & Chigona, 2014; McKnight, Hoban, & Nielsen, 2011; Skouge & Rao, 2009). Critical and open dialogue on diversity topics can be inspiring and multiple researchers have described digital storytelling as a tool to establish an open dialogue, create compassion, and sustaining student engagement within a community of learners (Burgess, 2006; Freidus & Hlubinka, 2002; Ohler, 2008; Rule, 2010; Sadik, 2008).

Another concept to be noted regarding digital storytelling and diversity, is the concern of equal access and the diversity of student bodies (Dreon et al., 2011; Fitts & Gross, 2010). Many students today are English Language Learners (ELLs), Fitts & Gross (2010) state, “while some teachers might feel apprehensive or uncertain of how to deal with these new groups of students, we believe that this growth in diversity presents novel opportunities to learn about cultural and linguistic difference in the United States and in the world” (p. 8). Thus, cultural competency and having a diverse perspective is a critical component when developing digital stories with students.

Diversity and cultural competency can be represented through digital storytelling in several ways. Illustrations of projects are widespread with projects such as: *Stories of Migration in Southern Africa*; *Equality in Ohio: Stories of Lesbian Relationships and Families*; and *Envisioning New Meanings of Disability and Difference* (Center for Digital Storytelling, 2011). While other examples of digital storytelling projects include students learning about their own cultural identities as well as their teachers, families, and friends (Garrety, 2008; Fitts & Gross, 2010). Lee and Priester (2015) describe the use of video as a means to engage communities in vicarious experiences and dialogue about diversity. Other groups have used digital stories to offer another lens in which to view the world in order to give voice, combat discrimination and oppression, as well as to improve literary skills for those with learning disabilities (Manning, 2009; McKnight et al., 2011; Rolon-Dow, 2011). Digital storytelling has been shown to bring together groups of people with similar stories but without geographical closeness (Polk, 2010). Ultimately,

digital storytelling allows individuals to express the uniqueness of their own and others' lived experiences and brings voice the individual, group or community perspective.

### ***Digital Storytelling, Ethical Responsibility and Technology***

Digital storytelling and technology present instructors and their students with a host of ethical issues to be mindful of. Martinez (2011) states that “digital media literacy continues its rise in importance as a key skill in every discipline” (p. 13), it is virtually impossible to regulate open public forums. Users of the social media platforms such as YouTube, Twitter, Facebook, and Vine, among many others, are left to learn, understand, and apply the ethics and boundaries to their shared technology projects on their own. Individuals and groups who use media outlets should exemplify some form of competence in relation to digital narrative communication (Lundy, 2008; Mihailidis, 2011). Martinez (2011) reiterates digital and social media sites present the user with ethical choices regarding how they use, share, download, and disseminate media. Oversharing personal information increases risk for misuse of personal information, loss of anonymity and misrepresentation or heightened exposure of others who may not have consented. Copyright infringement is an additional risk associated with ethical decision making and digital storytelling (Lundy, 2008; Martinez, 2011).

While digital storytelling and use of social media has great potential for critical thinking, engaging in pedagogy that reflects current trends, and producing transferable skills for future employment the risks associated with lack of education or careless use of technology cannot be ignored (Jenkins & Lonsdale, 2007; Ohler, 2008; Warburton, 2013). 'Virtual boundaries' are a reality of personal and professional lives of today therefore it is important for educators and students to have an awareness of practices to prevent ethical and legal violations regarding technology within public and private institutions (Kimball & Kim, 2013). Martinez (2011) highlights digital literacy is one of the most important skills to develop within every discipline. As new social media and technology platforms emerge the ethical considerations continue to widen. In turn, educational institutions and work environments are implementing social media policies at a rapid pace.

The literature review on digital storytelling as pedagogy, infused with diversity concepts and followed by ethical responsibilities, leads to three research questions to guide the current study with intent to measure perceptions of students' technological and cultural competency following the digital storytelling project.

1. *Does digital storytelling assist students in the enhancement and knowledge of diversity?*
2. *Does digital storytelling assist the student in becoming more sensitive to cultural issues?*
3. *Did the digital storytelling projects engage students in technological and research skill development?*

## Methods

### *Subjects*

A purposive sample of 96 undergraduate students enrolled in a diversity course were included in the study. The sample had a mean age of  $M = 27.7$  years old. Gender breakdowns were representative of typical enrollments in undergraduate social work programs, with 87.5% ( $n = 84$ ) female and 12.5% ( $n = 12$ ) males (CSWE, 2013). Caucasians represented 77.2% ( $n = 71$ ) of the total sample. African Americans in this study represented 10.9% ( $n = 10$ ), overall the school has 13% African American representation. The numbers of Hispanics sampled were 8.9% ( $n = 8$ ) while Asians represented 1.1% ( $n = 1$ ), and 9.8% ( $n = 9$ ) did not report their race. The breakdown of race in the sample closely resembled the overall undergraduate student characteristics at this university (Wichita State University Office of Planning and Analysis, 2016). Finally, it should be noted that of the 96 participants 68.4% ( $n = 65$ ) reported no previous diversity or social justice training.

**Description of digital storytelling assignment.** Digital storytelling, as a semester-long assignment framed by course content and textbook, was assigned to students working in groups to tell a story of diversity. The textbook structured chapters on a broad range of diversity topics such as age, class, color, culture, disability, ethnicity, gender, gender identity and expression, immigration status, political ideology, race, religion, sex, and sexual orientation.

As a part of the project, students were given instructions on the length of the video, media element requirements, and platforms in which to develop their digital stories, as well as numerous online resources and examples of digital stories. Students were also provided with cameras if they did not have them. Several class periods throughout the semester were devoted to group time with dialogue and troubleshooting issues they encountered. Class time during the start of the semester was used to teach elements of digital storytelling and provide free resources that included hardware, software, and community contacts. One class session was also spent with a media resource department specialist to discuss story planning and technology.

**Digital storytelling project outline.** The steps of the digital storytelling process were outlined for students in the syllabus and was a lecture topic in the first week of class. Outline elements included: developing a topic through group consensus, collecting resources, storyboarding video, creating a media script, and taking advantage of the variety of free media available such as music, video, pictures, drawings, text, and spoken word. Ethical use of resources was covered through lecture and written resources and links were included in the course portal. The media resource specialist also shared copyright law and fair use media information during their guest speaking spot (Kimball & Kim, 2013; Lundy, 2008; Martinez, 2011). Criteria for individual and group evaluation included the integration of content from diversity course topics, the use of literature, contribution/participation with group members, creativity, and originality in the use of self. Evaluation criteria was provided to students through rubric format in the course portal and discussed during the first week of class.

### ***Data Collection Instrument***

The survey contained standard demographic questions (sex, age, marital status, race, previous diversity training and class standing) along with twelve original items designed to measure student's experiences in developing digital stories and cultural competency. Instrument items focused on the impact of the digital storytelling project and included questions regarding understanding of diversity, development of research skills, increase of critical thinking, being emotionally moved by the project(s), learning media and technical skills, creativity development, and being pushed to explore difficult topics. Participants were asked to respond to the items using a four point Likert scale (1=Definitely False, 2= Mostly False, 3= Mostly True, 4= Definitely True). Cumulative scores on the twelve items ranged from 12-48, with higher scores indicating perceived higher levels of cultural competency and value of the digital storytelling project. Two items on the questionnaire were designed to test the reliability of participant answers, with the Likert scale reversing the pattern of participant responses. The final question on the survey asked students to provide a narrative of the benefits and challenges of the digital storytelling project.

### ***Procedures***

This study utilized a sample of convenience with students enrolled in a baccalaureate level social work diversity course located in an urban community in the Midwest. The choice of this student population was based on the interest in gaining a more complete understanding of the impact of digital storytelling. Ninety-six students completed the digital story project, provided informed consent, and participated in the current study.

### ***Data Collection and Analysis***

Analysis of the data began at the completion of the digital storytelling project with the survey administered the last day of class. The 12-item survey with the qualitative narrative question attached was input into SPSS for descriptive analysis. Research questions framed the univariate and bivariate statistical procedures. Qualitative data collected through the open-ended item were coded by instrument topic themes: knowledge and enhancement of diversity, technical research skill-building, affective reactions and working as a group. Narratives were used to support the quantitative findings.

## **Findings**

Choice of methodology was based on interest in gaining an understanding of the impact of digital storytelling and capturing any transformative aspect of this educational experience utilizing digital storytelling as a central pedagogy (Creswell, 2014). The 12-item questionnaire garnered responses that revealed overall positive feedback to the digital storytelling project and univariate and bivariate statistical procedures.

### *Univariate Analysis*

**Enhancement and Knowledge of Diversity.** The development of cultural competency was an important focus of infusing digital storytelling into the pedagogical practices of the course. Some students were impacted by the specific topics of diversity that were viewed through digital storytelling. Over 90% ( $n = 87$ ) of the participants reported that they felt more knowledgeable about different cultures based on the digital storytelling project. This is supported by participant's comments such as, *"During the project, I learned more about Islam and what it was like for someone to immigrate to the United States."* While another student wrote, *"Homelessness is out there and people look but not everybody sees. This project has helped me to actually see these people and the difficult situations they are in. It was also a challenge to learn about homelessness and stigma."* And 92.7% ( $n = 89$ ) of respondents felt digital storytelling provided them with a broader understanding of diversity. One item provided a reliability check of these two questions regarding knowledge development. 86.5% ( $n = 83$ ) of the respondents disagreed with the negatively worded item that "the digital storytelling project did not provide further understanding of diversity." This is further reinforced by a respondents' comments that reflected *"I learned a lot about these issues of social diversity, and I also realized how much more I need to learn in order to practice Social Work. It was an eye opening experience and I honestly didn't know some of these problems were so bad."* Thus, the majority of respondents indicated that digital stories were beneficial and engaging as indicated by 83% or greater percentage of the respondents supporting statements that gains in knowledge and understanding of diversity/cultural competency following the course. See Table 1 for complete descriptive results of the 12-item measure of digital storytelling and perceptions of cultural competency.

**Affective Reactions to Digital Storytelling.** Many respondents reported the digital storytelling project changed their views of diversity, helped make use of critical thinking skills, and brought about emotional reactions to the process and viewing of the digital stories. Eighty participants (84.2%) felt the project was important in changing views on diversity in the community with which they reside. One student wrote, *"This (project) inspired me to help and use my voice and make a difference in the community. This also taught me that people really are willing to help, we simply just need to shed some light on these issues so that others can become aware of the problems we have in our own back yard."* While, 91.6% ( $n=81$ ) of participants reported the project required them to think critically about their topic of diversity and use critical thinking skills in project development. All participants ( $n=96$ ) indicated in the survey that viewing the projects of their classmates sparked emotions or a call to action. For example two students captured the overall sentiments of the class by writing *"I enjoyed watching them, some made me cry. . ."* or *". . . the majority of the videos pulled at my emotions and forced me to take a look inside at my own feelings . . ."* While another student indicated a call to action after viewing the projects by writing *". . . the digital storytelling project... made me want to get more involved and it showed me when the community comes together it creates a support system and hope for change. I want to be one of those people that get involved and make a difference."* And finally one student's response summed up the intention of engaging in the digital storytelling projects with *"The project pushed me to*



**Table 1. Responses to Items on Digital Storytelling (N = 96).**

Items	Definitely False	Mostly False	Mostly True	Definitely True
The digital storytelling project enhanced my understanding of diversity	1% (n=1)	8.3% (n =8)	43.8% (n=42)	46.9% (n=45)
I feel more knowledgeable about different cultures based on the digital storytelling project	1% (n=1)	8.3% (n =8)	47.9% (n=46)	42.7% (n=41)
The digital storytelling project did not provide further understanding of diversity	62.5% (n=60)	24% (n=23)	7.3% (n=7)	6.3% (n=6)
Digital storytelling provided me with a broader understanding of diversity.	1% (n=1)	6.3% (n=6)	41.7% (n=42)	51% (n=49)
The digital storytelling project helped me build research skills.	3.1% (n=3)	4.2% (n=4)	32.3% (n=31)	60.4% (n=58)
The digital storytelling project was important in changing my views of diversity in our community	2.1% (n=2)	13.7% (n=13)	35.8% (n=34)	48.4% (n=46)
The digital storytelling project required me to think critically about my topic on diversity	1% (n=1)	7.3% (n=7)	33.3% (n=32)	58.3% (n=45)
Viewing other's digital storytelling projects I was moved by their project.	0% (n=0)	0% (n=0)	26% (n=25)	74% (n=71)
I learned new technical computer skills that I had not known previously.	2.1% (n=2)	12.5% (n=12)	28.1% (n=27)	56.3% (n=54)
I feel that the digital storytelling project helped me to be more creative in my presentation of diversity	0% (n=0)	3.2% (n=3)	30.5% (n=29)	65.6% (n=63)
The digital storytelling project pushed me to explore topics that were difficult	1% (n=1)	16.7% (n=16)	28.1% (n=27)	54.2% (n=52)
The digital storytelling project pushed me to evaluate skills with group members.	1% (n=1)	0% (n=0)	25% (n=24)	74% (n=75)

*talk about uncomfortable topics to people I did not know. I feel this is important in making me more comfortable talking about social issues.”*

**Working as a Group.** The final survey question challenged respondents to evaluate social skills, dynamics and cooperation of group members and this topic area garnered the most narrative responses in the study. All but one participant felt group evaluation skills were developed through this project. Several narrative statements described their discovery and reconciliation of group work and supported this finding. For example these student’s responses summed up the general attitudes expressed by students; *“Overall, I have learned a very important lesson when it comes to working in groups. I will strive to work even harder in future group projects. This project has given me the opportunity to grow and learn more as a student”* and *“One of the biggest challenges was also the biggest benefit; working with group dynamics and trying to diffuse interpersonal conflict gave me a better understanding of myself and how to influence group dynamics.”*

### ***Competency Development in Culture, Technology, and Research***

Spearman’s rho revealed several statistically significant relationships between students perceived learning of technical skills and feeling more knowledgeable about different cultures based on the digital storytelling project ( $r_s[95] = .27, p < .008$ ), providing students with better understanding of diversity ( $r_s[95] = .24, p < .02$ ), thinking more critically about their diversity topic ( $r_s[95] = .38, p < .000$ ), and research skill developed by the digital storytelling projects ( $r_s[95] = .41, p < .000$ ). Student narratives supported these findings, *“I think the most unique thing about this project was picking the subject, and doing the research because it allowed me to see a lot of different opinions and values of my group.”* And *“In our current society, media is so important and integrated into our society. YouTube and social media are great places to advocate for causes. I think the digital storytelling project is amazing and a great option. I’m so thankful for it and all I learned.”* Finally, one student’s response summed both working with the group and learning new technologies by writing; *“The required learning of how to use these different multimedia formats greatly influenced our group participation and team work skills. They were stimulated as a result.”*

### ***Bivariate Analysis***

**Previous Diversity Training.** Results did not reveal significant differences between students who reported previous diversity training and those who did not as a factor in students’ perceived changes in understanding of diversity and cultural competency. Participants who reported no previous diversity oppression or social justice training ( $n = 65, 68\%$ ) were no more likely than those reporting previous diversity, oppression or social justice training ( $n = 30, 31.6\%$ ) to believe that the digital storytelling enhanced their understanding of diversity,  $\chi^2(3, N = 95) = .596, p = .90$ . Additionally, participants who reported no previous diversity, oppression or social justice training ( $92.3\%, n = 60$ ). Both groups equally felt they gained new knowledge. The benefits were highlighted by one student as *“digital storytelling allowed me to put faces to subjects. The benefits were open-mindedness to see others in the human perspective rather than just race, culture, or*

*ethnicity.*” While another student stated the *"benefits of this digital storytelling project were being able to see life through someone else's eyes. Everyone has a story to tell and you should always take time to listen to them."*

**Traditional and Nontraditional.** Students who identified as traditional (18-25 year old) and nontraditional students (26 or older) differed significantly  $p \geq .05$  on one item (digital storytelling project had an impact on student's perceived competencies in technology, diversity, and communication). A significant difference in the percentage of traditional and nontraditional students was found on the item “that the digital storytelling project did not a further understanding of diversity”  $\chi^2(3, N = 93) = 8.52, p = .04$ . Nontraditional students were more dispersed in their answers across the Likert scaling while the majority of traditional students found this statement to be definitely false (70.7%,  $n = 41$  or mostly false (15.5%,  $n = 9$ ). However, it is interesting to note that no differences were found between, the traditional and nontraditional students on the item *“the digital storytelling project enhanced their understanding of diversity”*  $\chi^2(3, N = 93) = 8.52, p = .46$ . The majority of nontraditional students found this statement to be mostly true or definitely true ( $n = 34, 97\%$ ). Patterns of response between traditional and nontraditional students provided only speculative insights into differences in how the digital storytelling project enhanced understanding of diversity and cultural competency when age of the students was introduced as a variable.

## Implications

Findings revealed several implications and areas for future exploration of the relationship of digital storytelling as related to pedagogy, technology and the development of cultural competency. Implications outlined from this research are concrete and speak to the potential for implementing digital storytelling in university classrooms as well as in community and workplace settings.

**Technology.** College students are often thought to possess vast understanding of multiple technologies and any assumptions by students themselves, as well as faculty, can be misleading. Students anecdotally present in the classroom great variances with technology skills, especially lacking in knowledge and transfer of educationally useful technologies. As an implication of this research, educators are encouraged to evaluate where the class level curve exists with student understanding as to ensure a smoother timeline with project completion. As students may understand a very limited number of technology applications such as texting, Instagram, Facebook, Snapchat and music downloading and are unfamiliar with other technology resources applicable in education.

**Faculty Development.** Digital storytelling as pedagogy is intended to produce connections. Not only between the student and their topic, but also between students and faculty. Interestingly enough, Stoltzfus, Scragg, and Tressler (2015) found that faculty convey similar perceptions to students of their own technology grasp and know-how. While faculty use of educational technology has grown exponentially, the gap that remains is between faculty use of technology and student expectations of technology use. Meaning,

faculty are not using the technologies that students want and need to feel they are moving forward. Merisotis (2016) identifies this as an alignment issue within higher education.

Digital storytelling offers opportunity to create an alignment between faculty, students, content and concepts that enables transformative learning experiences for both faculty and students (Jacobsen, 2001). In order to feel more competent, faculty would best benefit from professional development in this area especially if they experience a gap between themselves and their students. By integrating a digital storytelling project, faculty have an opportunity to increase their own technology skills and increase their confidence, and better connect with students.

**Institutional barriers.** Concurrently, gaps also exist between perceptions of barriers related to technology integration and resource allocations within university systems to prepare/promote technology as pedagogy for faculty development. Some have suggested that universities are not preparing faculty in ways that close the gap between the tech skills of faculty, needs of students and expectations of employers (Hunter, 2016; Sadik, 2008). Dahlstrom (2015) produced a research report that demonstrated the need for higher education institutions to prioritize investments in teaching and learning with community based contexts supported by various technologies. Faculty reported strong interests in ‘creation of opportunities to experiment with technologies in the learning environment’ and digital storytelling can serve as an experiment of sorts. To create the opportunities within our own classrooms rather than waiting for the institution to create it for us. Although these points are not a direct implication of findings, as faculty work through issues of remaining relevant within university systems with dwindling funding, it is important that discussion of this issue occurs. Often, a variety of incentives exist for faculty to innovate their curriculum and introduce new technologies to students. Digital storytelling can certainly serve as a starting point for educators interested in developing their skills with little outside support required.

**Investment in social issues and motivation.** Digital storytelling can provide shared experiences and connect us to cultural and social movement. Marshall, Taylor, and Yu (2004) indicate that “this type of connection encourages the community and connecting diverse people through shared experiences” (p. 39). These projects offer then, an opportunity to experience a progression of motivation and investment with a community or an issue deepen over time. One recent anecdotal example, digital storytelling project ideas were developed in consultation with a group of community members. By creating a roundtable event, faculty brought students together with community to talk about existing issues and collaborate on ideas for digital stories. Students became motivated to better understand the issues and also more invested in the issues and people of their surrounding community. Digital storytelling projects can be designed in multiple creative ways and educators should feel open to engaging people within the community and working toward awareness and justice in a manner that is mutually beneficial.

**Communication skill development.** Helping students to develop communication skills is a rather difficult challenge for many educators, especially those whose disciplines are content and skills specific, and not primarily focused on communication skill building.

Additionally, these skills are multifaceted and individual. Students arrive to college with varying abilities to speak in front of others or in a group, write with purpose, or effectively get their point across to an audience. While the digital storytelling project accounts for individual skill development, perhaps the most important communication skills are built by working within the group environment. Group work, in digital storytelling, creates challenges for understanding the perspectives of other individuals and groups, listening to stories that are told by communities, working through emotions that arise from hearing lived experiences, and working to also build consensus, share decision-making, and overcome the conflicts that arise throughout the duration of such a project. The process is more meaningful and useful than the final product.

Group projects are a standard within many professional programs and in an age of valued autonomy, working within a group or team is expected although difficult for some. In education and the workforce, teamwork is one of the core values of building a successful system. The majority of students in this study felt the activity as a group project pushed them to evaluate the communication skills of group members as well as themselves. In today's social world, individuals avoid interactions such as these as they often associate it as conflict. Negotiation and teamwork are characterized by overcoming multiple conflicts, but it is the development of skills to work through issues that will allow our students to better engage the world around them. Rather than seeking to avoid conflict at all costs.

**Organizational training opportunities.** In community settings, digital storytelling offers opportunities for cultural awareness development and encourages the capturing of community archival and oral history. Local narratives can be gathered through digital storytelling to maintain and re-remember histories while also creating connection in and out of our direct communities. Digital storytelling, then, becomes an application that transcends age gaps and encourages broader audiences to view and collaborate (Klaebe, Forth, Burgess, & Bilandzic, 2007). Digital storytelling allows local organizations to increase opportunities for community members to share their stories in local, national, and global contexts. Also, an outlet for sharing elements of an organization, or advertising services or needs, is accomplished through digital storytelling. It can be useful for students to work with organizations, for instance non-profits, to create stories that assist the organization in some way. Perhaps by creating a story to advertise their clientele, or describe services, students can work with community organizations to enhance their outreach or service delivery. These types of efforts can also in turn enhance the relationship between the university and the community.

### **Considerations for Future Research**

Activity such as digital storytelling, offers a wide range of opportunities for additional research as it is a developing and multifaceted field. It offers consideration for other similar projects and technologies useful for educational settings. Research to identify measurements of faculty and student technology competencies would be useful within many institutions to recognize the gaps occurring with a particular setting. By identifying the

level of need as related to technology in higher education classrooms, professional development training plans could be in this area could be prioritized.

This work is a useful tool for meeting the ‘high impact practice’ objectives many higher education settings are striving for (AACU, 2016). While high impact practices are identified by opportunities to enhance college education, digital storytelling offers opportunities for common intellectual experiences to occur, facilitated diversity learning, brings about a community based perspective, and is rooted in the collaboration of students with one another as well as their faculty and wider community.

Research to identify effectiveness across multiple disciplines and multiple subject areas would further solidify this pedagogical method. In addition to diversity, this author has considered how such information can be utilized in facilitating students’ understanding of healthy relationships, support in therapy, workforce patterning, and the impact of community conditions on the most vulnerable, etc. With efforts progressing in areas such as business, engineering, and healthcare, digital storytelling has the potential to give insight into many areas that are not seen or understood by the greater population.

In conclusion, the research opportunities in the digital storytelling arena are still in the infancy stage. New research studies will provide greater perception and understanding in “how digital storytelling can engage, inform and enlighten new generations of students and educators to come” (Robin, 2006, np).

## Conclusion

Results of this study provided a glimpse of the impact of using a creative and engaging project to develop student competencies. Student experiences, perceptions of cultural competency, as well as development of research and technology skills were all heightened through digital storytelling. Davis (2004) spoke to the unique value of digital storytelling and is “the completed digital story also becomes “fixed” in a way that is not true of oral stories...once it is complete, it stands as a work of art, a representation apart from the teller, an “object” for reflection and critique” (p.3-4). The participants in this study consistently identified their projects as a product that provided personal and educational benefit. One student concluded “*This was by far my favorite project in my college experience. I was able to share this video with friends, colleagues and family with pride.*”

This paper explored the students’ technological and cultural competency development through the use of digital storytelling techniques. Benefits included the use of creative thinking and ultimately producing a short film of their chosen diversity topic without having identified as an artist or filmmaker. Students were able to view and listen to stories and engage in self-correction of their own misperceptions and prejudgments. Students were able to use additional tools to create/enhance meaning. Another benefit of the digital storytelling for students was having an opportunity to engage an audience with their work. They learned to address different learning styles and be mindful of the learning process. Finally, students were able to overcome fears of technology and take pleasure and pride in their development and their creative product. In conclusion, the use of

digital stories creates a student-centered learning environment that engages students, advances their perceptions and assists them in development and cultural competency. These benefits and experiences become a crucial element for their foundations of professional work, ethical adherence and practice within their communities.

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