

# EDUCATIONAL USES OF DIGITAL STORYTELLING: CREATING DIGITAL STORYTELLING CONTESTS FOR K-12 STUDENTS AND TEACHERS

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**Abstract:** This paper describes the results of a research study about DISTCO 2008, the first in a series of Digital Storytelling Contests. DISTCO 2008 was designed as a pilot project for the inaugural DISTCO planned for spring 2009. These contests are open to all K-12 students and teachers in San Antonio, Texas and surrounding areas. The project is designed so that students and teachers from different schools may submit original digital stories in for the contest. The competition will be held solely online, and digital stories are required to be submitted using the official contest website (<http://www.distco.org>). Specifically, this paper will highlight if and how teachers incorporated digital storytelling in the classroom, what they hoped to gain by using digital stories in the classroom, what challenges and successes they faced in the implementation process, whether digital stories helped students and teachers prepare for the standardized state assessment test (Texas Assessment of Knowledge and Skills- TAKS). In terms of the research implications for students, this paper analyzes students' perspectives on using digital stories in the classroom, the motivating factors using digital stories, and preferred content areas for digital story use.

## Introduction

Digital storytelling is an educational technology tool used in the classroom. Hull and Nelson (2005) define digital storytelling as a form of multimedia consisting of images and segments of video with background music and a voice-over narrative. In essence, digital storytelling is a process of creating a short movie that combines a script or an original story with various multimedia components, such as images, video, music and narration, often an author's own voice. Topics for digital stories can include personal tales, retellings of historical events, teaching/introducing a specific subject to an audience, and various other purposes. The process of digital storytelling utilizes almost all of the skills students are expected to have in the 21<sup>st</sup> century (Jakes, 2006). Information literacy, visual literacy, being creative and taking risks, and using the latest technology to communicate effectively can all be achieved when students actively participate in the creation process of digital storytelling (Jakes & Brennan, 2005; Robin, 2008).

An increasing number of K-12 teachers are using digital storytelling as a new way of teaching content in the classroom (Weiss, Benmayor, O'Leary & Eynon, 2002). Digital storytelling has been used in the classroom for various purposes, such as to teach content to students, to empower students by making them active researchers and storytellers, to teach writing, to meet International Society for Technology in Education (ISTE) Technology standards, and to build communities through storytelling (Banaszewski, 2002; Salpeter, 2005; Weiss, Benmayor, O'Leary & Eynon, 2002).

## The Study

There are few research studies that address the use of digital storytelling as an effective instructional tool in the classroom, its effects on student learning, and potential problems that may arise in the implementation process. Given the lack of current research on effective use of digital storytelling in K-12 education, the researcher completed a doctoral dissertation study on the implementation of digital storytelling in the classroom by a group of K-12 teachers. To further explore and continue the current research on educational uses of digital storytelling, a new

project has been developed. This project involves hosting a series of “Digital Storytelling Contests” (DISTCO 2008 and DISTCO 2009) at a middle and high school, where the researcher currently works as the principal. The contests are open to all K-12 students and teachers in San Antonio, Texas and surrounding areas.

The DISTCO has two major goals: 1) to encourage students and teachers to challenge themselves in an exciting competition where they can enhance skills such as media literacy, technical skills, and writing skills; and 2) to further current research on the effectiveness of digital storytelling in K-12 education. The project is designed so that students and teachers from different schools may submit original digital stories in a certain time frame and manner for the contest. The competition is held solely online, and digital stories are required to be submitted using the official contest website (<http://www.distco.org>). The first contest of the DISTCO series, DISTCO 2008, was initiated in fall 2008, and the digital story submissions accepted through January 2009. The digital story submission period was approximately three weeks as DISTCO 2008 was designed as a pilot project to the DISTCO planned for spring 2009. Given the limited publication of the project and time frame for submission, only 36 teachers and 174 students participated in DISTCO 2008.

DISTCO 2008 contest participants were asked to fill out an online survey along with their consent forms to participate in this research study before submitting their digital stories. The data collected from the surveys is being used for research purposes. In addition, interested students and teachers will be contacted for interviews after the competition for further analysis of the results.

This paper describes the results of DISTCO 2008. Specifically, this paper highlights if and how teachers incorporated digital storytelling in the classroom, what they hoped to gain by using digital stories in the classroom, what challenges and successes they faced in the implementation process, whether digital stories helped students to prepare and teachers to teach for the standardized state assessment test (Texas Assessment of Knowledge and Skills-TAKS). In terms of the research implications for students, this paper analyzes students’ perspectives on using digital stories in the classroom, the motivating factors using digital stories, and preferred content areas for digital story use.

## Results

The majority of participating teachers indicated that they preferred to use their own stories (41%) to teach content in the classroom rather than the stories created by others (13%). In addition, some teachers had their students create digital stories (27%). Only about 16% of the teachers indicated that they had no plans to use digital stories at the point the survey was taken.

When teachers were asked the survey question, “how easy did you find creating digital stories?” all teachers agreed that the difficulty level of creating digital stories was easy or normal. Forty one percent of the teachers found creating digital stories “easy,” 22% of teachers found it “very easy,” and “36%” of the teachers found it “normal.” None of the teachers indicated that they found creating digital stories “hard” or “very hard.”

Teachers were also surveyed about the use digital of storytelling to improve students’ skills such as research, organization, writing, technical, and presentation skills. “Presentation skills” were the highest ranked skill category, selected by 27% of the teachers, followed by “Research skills” (19%), and “Technical skills” (16%). “Writing skills” was the least selected item with only 8% of the teachers selecting this category.

Teachers were asked about the perceived barriers that would keep them from using digital storytelling in the classroom. “Time issues” was the highest ranked barrier with almost half of the teachers reporting it as a potential barrier (47%) followed by “Access to software” (13%) and “Technical assistance” (11%).

One of the research questions posed by this project was the motivational factor effect of digital storytelling for students. Teachers thought that “creating students’ own movie” was the number one motivating factor for students (36%). “Getting to use a variety of media” was the second most selected response (27%) followed by “getting to use computers” (16%). The “Director’s chair effect” (being the director of one’s own movie) (Banaszewski, 2005) was selected by 16% of the teachers in this question item.

When teachers were asked to evaluate digital storytelling as an educational tool, “Digital storytelling can be shared with others” was the most selected response (33%). “Digital storytelling motivates user to learn about the subject” was the second most selected response (30%) by the teachers followed by “Digital storytelling is easy to create” (16%), “Digital storytelling is easy to use” (8%), and “Digital storytelling is easy to teach” (8%).

The teacher survey also addressed the issue of teacher and student use of digital storytelling for standardized test preparation. Eighty percent of the teachers surveyed answered “yes” to this question. Open-ended question results on this question were largely positive. Among the possible uses of digital storytelling suggested by teachers for this purpose were reviewing content material; presenting vocabulary for any subject; preparing timelines; explicit illustration of test taking strategies; exploring what makes young people nervous about the test

and demonstrating solutions to those issues; having students make a short presentation on specific objectives to demonstrate their knowledge and understanding; having students create oral storylines and answer questions about what was seen, heard, or interpreted; and supplementing direct instruction by using multiple modalities to present content.

Most of the students rated the ease of creating digital stories in “normal” to “easy” range. While 34% of the students found digital stories in “normal” range of ease, 24% of the students found it “very easy,” and 22% of students found it “easy”. Only 10% of the students found creating digital stories “very hard”.

Twenty eight percent of the students said that they “learned a great deal” about the subject for which they created a digital story while 27% indicated that they only “learned some” or “learned a little bit” (17%). If these three categories are combined, approximately 74 % reported to have learned about the subject they used to create their digital story.

Students had a variety of answer choices for the question: “In what subject would you like to see your teachers allowing you to create digital storytelling projects?” Music (18%) was the most selected subject by students followed by Art (17%), Computers (14%), and Science and Social Studies (8%). Surprisingly the subject of English Language Arts (3%) was not a popular choice by students in spite of being a common application of digital storytelling to teach writing as indicated in the literature (Banaszewski, 2005; Salpeter 2005; Weiss, Benmayor, O’Leary & Eynon, 2002). Another interesting result was that the subject of Science (8%) was preferred as much as Social Studies and was twice as preferred as both English (3%) and Mathematics (3%). Traditional digital storytelling subjects, English and Social Studies were not very popular choices in the survey responses.

The same trend followed in the responses to the question “In what subject would you like to see your teachers using digital storytelling in the classroom?” According to students, Music was, again, the most popular subject choice with 22%, followed by Art (15%), Computers (14%), Science (10%) and Social Studies (9%). This time, however, Science was a more popular choice than Social Studies; meanwhile English was slightly more popular over Math (3%), with 4%.

Simply having the chance to use computers when creating digital stories was the main motivating factor for students (33%). Also, the answer choice of “I liked using multimedia components such as images and music” was the second most popular answer with almost 19%. This was followed by “I felt like directing my own movie” (16%) and “I had a chance to express myself with digital stories” (13%).

Seventy percent of the students wanted to see their teachers use more digital storytelling in the classroom. They also wanted their teachers to allow them to use more digital storytelling in the classroom (74%).

When students asked if they had prior experience with using digital stories, only 14% of the students had created a digital story before the contest.

According to survey results, 80% of the students learned about digital storytelling through their teachers; only 13% of the students indicated that they learned how to use digital storytelling from a classmate or another student.

Even though the results of open-ended question “what did you like the most about digital storytelling” revealed various responses from the students, some themes emerged. The main themes among the responses were “having the chance to use computers for a project,” “opportunity of self-expression and customization of your digital stories,” “being able to make one’s own movie,” “narrating one’s own story,” “learning about the topic researched,” and “feeling of an achievement or completion of a significant project,” respectively.

## **Conclusions**

### **Teachers**

In conclusion, the teacher survey results indicated that most of the teachers preferred to create their own digital stories to teach content and only some teachers let the students create their own. This result was contradictory to a previous study in which digital stories were used as much by students as by the teachers. (Dogan & Robin, 2008) However these results are not surprising given the fact that the implementation of digital storytelling in the classroom by teachers might vary by teacher population and situation.

Overwhelmingly, teachers found creating digital stories “easy” and none of the teachers participated in this project thought that creating digital stories was “hard.” Finding the creation of digital stories easy is one of most highly regarded features for teachers. Therefore, this result is also aligned with what has been reported in the literature.

The teachers who used digital storytelling in the classroom reported to have observed increases in student skills such as technical skills, presentation skills, research skills, organizational skills, and writing skills. When students actively participate in the creation process of digital storytelling, they develop certain 21st century skills (Howell & Howell, 2003; Jakes, 2006; Robin, 2008). Overall, the teachers who participated in this study agreed that specific skills can be improved by using digital storytelling. Among these skills, "Presentation skills" was the highest ranked skill followed by "Research skills", and "Technical skills." Surprisingly, "writing skills" was the least selected item with only 8% of the teachers selecting this skill despite the fact that digital storytelling is known for being used to teaching writing (Banaszewski, 2002; Salpeter, 2005; Weiss, Benmayor, O'Leary & Eynon, 2002).

Teachers were asked about the perceived barriers to using digital storytelling in the classroom. "Time issues" was the highest ranked perceived barrier that would keep teachers from using digital storytelling as they intend to use them in the classroom. Almost half of the teachers indicated that this would be the biggest barrier to using digital stories in the classroom. This result was expected as time is commonly cited as a barrier to incorporating technology in the classroom (Dexter, Anderson & Ronnkvist, 2002; Ringstaff & Kelly, 2002; White, Ringstaff & Kelly, 2002) and specifically with digital storytelling (Dogan & Robin, 2008).

Teachers believe that creating digital stories increased their students' motivation and engagement levels. Specifically, the findings of this study support the "director's chair effect," self expression, and opportunity to utilize technology as key factors in captivating and motivating students (Banaszewski, 2005; Paull, 2002; Dogan & Robin, 2008). According to the results of this study, teachers thought that "creating students' own movies" was the number one motivating factor for students along with "getting to use a variety of media" and "getting to use computers." "Director's chair effect (being the director of one's own movie)" (Banaszewski, 2005) was also selected by 16% of the teachers in this question item.

Most teachers reported that being able to share digital stories is the best feature of digital storytelling. In addition, motivating users to learn more about the subject and the ease at which the user can create digital stories and implement them into instruction were also found to be remarkable features of digital storytelling.

One important question that this study explored was whether digital storytelling can be used as an effective teaching tool for standardized tests such as TAKS. An overwhelming majority of teachers reported that digital storytelling could be used for preparing students for these types of tests. The results section included specific ideas from teachers on how to use digital storytelling in the classroom. Teachers listed the following suggestions for the use of digital storytelling in standardized test preparation: use as a tool for reviewing content material, presenting vocabulary for any subject, and preparing timelines; and utilize in explicit illustration of test taking strategies, exploring what makes young people nervous about the test and demonstrating solutions to those issues; In addition, teachers suggested requiring students to make short presentations on specific objectives to demonstrate their knowledge and understanding; create oral storylines and question them regarding what was seen, heard, or interpreted; and capitalize on its dynamic supplementation of direct instruction using multiple modalities to present content.

## Students

Interesting results were obtained from the student survey. Most of the students rated the ease of creating digital stories in "normal" to "easy" range. Only 10% of the students found creating digital stories "very hard." This implies that digital storytelling can be as easy for students as it is for teachers to use in the classroom. As long as adequate training is provided and time is allocated appropriately, students should easily be able to master digital storytelling under the guidance of their teachers.

Digital storytelling is dynamic and very engaging way of learning about a particular subject. As the results of the study indicated, almost two thirds of the students who participated in this research study reported that they have learned about the subject they used to create their digital story. This is a very promising result for digital storytelling as a valuable educational tool for students.

Students had a variety of response choices for the survey question "In what subject you would like to see your teachers allow you to create digital storytelling projects?" Surprisingly, English Language Arts was not a popular choice by students despite literature suggesting it as a common application of digital storytelling to teach writing (Banaszewski, 2005; Salpeter 2005; Weiss, Benmayor, O'Leary & Eynon, 2002). Another interesting result was that the subject of Science (8%) was preferred as much as Social Studies and was twice as preferred as both English (3%) and Mathematics (3%). Traditional digital storytelling subjects, English and Social Studies were not very popular choices in survey responses. Music was the most popular subject by students followed by Art, Computers, and Science and Social Studies.

Digital stories were reported to increase student motivation and engagement (Dogan & Robin, 2008; Salpeter, 2005). The main motivating factor for students' use of digital storytelling was having the opportunity to use computers. Along the same lines, using multimedia components such as images and music was also a popular response given by students. The "director's chair effect (being the director of one's own movie)" (Banaszewski, 2005) was also reported as a motivating factor by students. Students found digital storytelling to be "a chance to express themselves."

The results also implied that a great majority of the students want their teachers to use more digital storytelling in the classroom. Moreover, a larger number of students want their teachers to allow them to use more digital storytelling in the classroom.

According to the survey results, more than two thirds of the students had no experience with digital storytelling before this contest. Most of the students indicated that they learned about digital storytelling through their teachers. Only 13% of the students indicated that they learned how to use digital storytelling from a classmate or another student. The main themes that emerged from the responses of students for the question of "what did you like the most about digital storytelling" were "having the chance to use computers for a project," "opportunity of self-expression and customization of your digital stories," "being able to make one's own movie," "narrating one's own story," "learning about the topic researched," and "feeling of an achievement or completion of a significant project," respectively.

In conclusion, DISTCO 2008 was a successful pilot project despite some limitations, such as limited marketing and time constraints. It provided valuable experiences in preparation for the upcoming DISTCO 2009. The results of DISTCO 2008 will be investigated in further detail through additional interviews with teachers and students about their experiences using digital storytelling in the classroom.

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