

Digital Storytelling in Educational Use: Applicability, Adaptability and Perception

Soonbok Kim
Sejong University

ABSTRACT

Digital storytelling as an instructional technology has recently drawn the attention of language educators in L1 and/or L2 settings. Digital storytelling in educational use has been claimed in the previous studies to serve as an effective tool for development of multiple skills; linguistic, social, technological and media (Robin, 2005; Ohler, 2008). This study examines how digital storytelling could be applicable to an EFL class, and perceived by the students in terms of language and social skills. In this study digital storytelling in integration with a content-based EFL class is found to be an effective technology that optimally facilitates contextual development of writing and oral skills in EFL as well as social skills in collaboration, communications, and creation via the student's project.

I. Introduction

Since the advent of information communication technology (ICT) in 1990s along with the Internet, the entire world has extensively evolved into participatory web culture. The web-based environment of today has resulted in data deluge, open interoperable platforms, open educational resources by large collaborations to collect and aggregate data (Oblinger, 2008). Consequently, knowledge is no longer something of one's possession but of one's creation. This knowledge-based digital environment requires one's language competence and skills in collaboration, communications and creation.

Today's learners are all found to be connected, spending more time online via social networks such as instant messaging (IM) or computer-mediated communication (CMC) activities. The 2008 statistics on the internet users (Naver blog) show that 77% of the those who are six and over are found to be Internet users, and 100% of the teens and twenties are so in Korea. Of those Internet users 50% are connected online for 2 hours per day on average. More than 90% of them are found to be engaged in online entertainment for music or games, and 90% in information surfing, and 85% in social CMC activities.

The learners have been transformed from receivers into constructors of knowledge, while learning shifted from behavioristic assimilation to cognitive experiencing and the acquisition of skills and knowledge shifted from being independent and to being within realistic context (Grabinger, 1996). Context, in the view of contextual constructivism, serves as a crucial component in learning, and the context is embedded in social interaction (Solomon, 1987). This study aims to answer two research questions; 1) how effectively could digital storytelling be incorporated into class curriculum as a knowledge construction tool from the teacher's perspective?; 2) how could digital storytelling be perceived by the student as a tool for not only EFL skills but also skills in collaboration, communications, and creation?

II. Digital Storytelling in Educational Use

In Paull's (2002) view, digital storytelling can be distinctively characterized in terms of three parts: 1) the story part in writing and telling or voice-over narration for communication; 2) the multimedia part in interactive utilization of the media sources between the user and the content; and 3) the computer part in digital operation of all the text and media sources for creative production and for distribution to share. Each part is to be elaborated in relation to its educational use in a content-based EFL class, i. e. *English Readings in Current Issues in Business and Business Management*, for university seniors of English majors.

Stories are known to help make meaning out of experiences, as they are created from experience which serves as a key to learning (Schank 1990; Zull 2002). As the writing of a story and the voice-over narration facilitate linguistic literacy, so the digital storytelling technology has been implemented as a new challenge to language acquisition in L1 and/or L2 settings. Linguistic literacy via digital storytelling is not simply a matter of writing and reading or telling the story, but involves using multiple literacies to negotiate and construct meaning from socio-cultural perspectives.

Owing to the linguistic, technological, and social factors embedded in, digital storytelling has entered the academic mainstream to be implemented into curriculum as an emerging technology. The related research findings support digital storytelling as an instructional technology has a great potentials to motivate students to engage in reflective and deep learning (King, 2002) since it uses a range of new technologies and multimedia that are more familiar to young people. All kinds of applications are possible with digital storytelling as a tool for communication skills in literacy and oracy through writing, telling or narrating the story, and for computer skills in the use of visual and audio media.

In connection to language ability, Kane and Butterfield (2007) with their colleagues investigated the effectiveness of digital storytelling as an instructional practice for improving writing of the students in Maine middle schools. They confidently came to a conclusion how effectively digital storytelling could produce authentic and engaged writing via the fun and important part of digital story. In their blending of digital storytelling technology with writing they came to be certain of the power of digital storytelling technology for literacy. Digital storytelling is quickly capturing the attentions of educators because it combines traditional storytelling with modern-day pop culture and technology.

Generally with digital residents of young people digital storytelling is ready to serve as an entrance into communicative, collaborative, reflective, and creative learning through their uses of technology and multimedia. The use of visual and audio media offers creative opportunities that can motivate students to develop deeper learning. In the writing of a digital story a structured approach to creative writing is essential to achieve the pedagogical aims that are set up from the perspective of literacy. At the same time, digital storytelling can orally provide students with a compelling and competitive voice and enlarges the boundaries of their ability to communicate, potentially to a class and further to a worldwide audience. Accordingly, especially in the age where computer technology entirely drives human life, digital storytelling by nature of technology has been highly assumed to serve as a powerful way to teach knowledge contents for construction via script writing and voice-over narration

in the context of digital storytelling project.

III. Implementation and Questionnaire Survey

1. Rationale and Practice for Implementation

The teacher researcher's purpose of implementation into a content-based EFL class is twofold: to examine whether digital storytelling can serve as a tool for construction of knowledge of content within the context of a story; 2) to see how participant learners perceive their learning in terms of social literacies; collaboration, communications, creation, and problem-solving, by means of questionnaire survey. The rationale for its use was based on the following: 1) the pedagogical shift from knowledge gaining to knowledge construction from the constructivist view (Cobern, 1993); 2) high accessibility by the students of digital age; 3) educational effectiveness in knowledge construction via digital storytelling; 4) real learning takes place by carrying out a multiple performance-based multimedia production in social interactions.

The guidelines on the digital storytelling project were handed out in paper and elaborated from the start of the class. The digital storytelling project as one group production was designed for each group member to take part in all parts; story, multimedia, and computer. The practice guidelines were drawn from the following perspectives:

- 1) Their story writing was linguistically restricted in sentence length and complexity depth (Cook, 1979), and in story length, i. e. 500 word long story;
- 2) The students were purposefully split into project groups, and each was directed to collaboratively produce one group project, but every single student was directed to digitally display his or her multiple literacies as a writer, reader or narrator, audio and video media creator, and or a producer in their collaborative project;
- 3) The project guidelines for production were drawn based on Robin's (2005) four-step approach in terms of process and activities;
- 4) The project evaluation criteria were set up in terms of (1) written literacy of the narrative story; (2) effective use of multimedia; (3) computer literacy in their use of programs and software; (4) team work in collaboration; (5) oral literacy in their voice-over narration; (6) construction of knowledge in relation to CEOs practical mindsets in their business management. The assessment criteria are put on the five scales; poor, average, good, very good, and excellent. .

2. Questionnaire Survey: Questions and Results

The questionnaire survey was conducted to serve a purpose of this research study. The questions were put in one of the following types; open, yes-no questions with reasons for your choice, or scale rating (See Appendix). The questions were primarily raised from the following aspects:

- 1) The student's perception of their learning experience with digital storytelling project aligned with their content-based EFL class
- 2) The student's writing process from topic selection to polishing up in incorporation of the contents of knowledge covered in class;

- 3) The student's voice-over narration process;
- 4) The student's use of multimedia, software, and programs;
- 5) The student's collaboration and interactive communications;
- 6) The student's evaluation of the digital storytelling as instructional technology in terms of merits and demerits.

The results of questionnaire survey can be summed up in the following ways:

- 1) Almost 100% of the 25 student subjects perceived their learning with their digital storytelling project as creative, problem-solving, fun, and meaningful learning, supporting for the related to studies (Ohler, 2008; Robin, 2008; Sadik, 2008);
- 2) 75% of the subject narrators did the narrating over and over until they became satisfied with their narration for best quality of oral communication, while 25% of them practiced their narration at an appropriate level of clarity of enunciation.
- 3) 100% of the respondents witnessed that they were thoroughly and emotionally engaged in their voice-over narration of the story as if they were telling their authentic experiences. Their narration was done independently of the video version of their digital story.
- 4) As for their use of multimedia, software, and programs, some technophobia subjects addressed that they could not have any fuggiest idea of how to get the project started and processed to completion in line with the curriculum objectives. However, they were reported to be amazingly surprised at their own project in completion, and finally achieved a great sense of fulfilment with their own multimedia production of their story. They responded that they started out as digital media consumers and ended up as digital media creator.
- 5) The video sources used in their stories for additional meaning making turned out to fall into two categories: (1) authentic creation by video camcorder and/or by drawing; (2) downloading from free Internet sites. More than half, e. g. 58% of the student media creators turned out to have utilized their animation sources taken from their own video taping along with mixture of still images obtained from various Internet sites such as Google, and Photo gallery. The audio sources used for their digital story turned out to have been downloaded from the free Internet sites or from the MP3 sources.
- 6) The programs or software used for their digital story were found to be as follows; Window Movie Maker, Power Point, Final cut studio, Gold wave, Windows XP drawing collections, Bundle Video Editor, Apple Mac, Goam Player, Al Player, and the like. The most frequently used software turned out to be Windows Movie Maker by 67% of the student subjects in this study. It turned out that most of the project students of EFL grammar class had no prior knowledge of the computer programs and software that were relevant to getting their digital storytelling project started and finished. In other words, they as novices came to successfully use the needed programs and software for their project. This finding supports the claim that digital storytelling helps students with their computer literacy, e. g. technology skill in Robin's term (Robin 2006).
- 7) In regard to the students' collaboration skills it turned out that the subject students all had to collaboratively work in person with their individual piece of work as if they put the pieces of their work into the right place like in a picture puzzle game. No matter how socially the students have become collaborative via their group

project, they are fostered to improve their social skills in communications and collaborations owing to the intrinsic nature of digital storytelling as a contextual construction tool.

In summary the majority of the EFL student respondents have revealed that they came to have feels for construction of knowledge in the context of digital storytelling and their interviews with CEOs. Especially when they intended to incorporate their content knowledge into their story of interviews, they could have a strong sense how the cognitive knowledge could be recreated through the process of meaning making. By their comments it is suggested that digital storytelling serves as an effective tool for knowledge construction and/or reconstruction in context.

In the view of contextual constructivism learning is claimed to take place in context, and context is an interaction between the learner and local surrounding or context (Oblinger, 2008). Accordingly, it is suggested that EFL learners of today acquire ability to construct knowledge available anywhere in context via digital storytelling technology as a means of contextual construction.

IV. Findings and Implications

As responded in the questionnaire survey, so the students in content-based EFL class were found to have gained confidence and a new understanding of written and oral literacy along with the digital storytelling project. Digital storytelling as a contextual construction tool was also supported in such a way that students' contents knowledge was appropriately materialized in the context of their digital story. Their voice-over narration certainly serves to improve their oral skills with but also of their empathetic skills. Findings from the questionnaire survey can be easily summed up as follows:

- 1) Digital storytelling has been proven to be almost readily adaptable to the EFL students in the content-based EFL class, since they were impressively finished with their project despite their initial resistance to a new challenge.
- 2) Their perception of learning via digital storytelling is associated with fun, collaborative, and creative learning through interactive communications with project members and with content knowledge in meaning making.
- 3) The ability to make meaning by storylines of the digital story is related to one's ability to understand context within context via interactions between the learners and the context of what they are expected to know and to be able to do in the 21st century.
- 4) Digital storytelling was found to have been impressively favored by the EFL students as a learning technology. They expressed their belief that their written and oral skills are effectively improved and polished while enjoying their creation of digital storytelling.
- 5) Improvement of the students' computer literacy in their use of programs and software has been confirmed by their questionnaire feedback responses. They all unanimously confirmed that they were enabled to use the relevant programs and software that they never knew of or used before.
- 6) It was also confirmed that from the initial step to the final step the digital storytelling project had to be carried out in collaboration, requiring for the

participating students' social skills as well their language skills.

- 7) With their shared understanding of collaboration-based project the students' human relationship among members displayed as strangers to each other at first and later as indispensable collaborators with each other.

In conclusion, the questionnaire results affirm that digital storytelling as instructional technology is amusingly rewarding and yet a challenging experience of communications, creation and collaboration when implemented into school curriculum of EFL education.

Implications of this study on digital storytelling as contextual construction tool are drawn in terms of its applicability to L2 grammar class and adaptability of L2 students with reference to contextual constructivism in learning:

- 1) Digital storytelling is highly applicable as an effective knowledge construction tool to content-based L2 class
- 2) Digital storytelling is readily adaptable to today's learners as residents of this web culture.
- 3) However, how effectively applicable to L2 class digital storytelling can be all depends on L2 teacher's creativity in implementation into L2 acquisition context in the participatory web culture of today.
- 4) How effectively adaptable L2 learners could be to digital storytelling can also depend on how L2 educators views today's L2 learners and their learning styles within the context of contextual constructivism in learning.
- 5) Consequently, the use of digital storytelling as a new pathway to L2 acquisition thoroughly rely on L2 educators' immediate adaptation based on their understanding of significant benefits for L2 learners to have in their L2 acquisition.
- 6) Digital storytelling has been pointed out to be a time-taking project especially when implemented in the time-sensitive program. However, it can be carried out in any of time frame of a few weeks or months. In this study the digital storytelling project was put into the 16 week semester time frame condensed into the time frame of 5-day-3-week long winter program.

V. Conclusion

This study has limitations in the following issues; 1) the research paradigm; 2) implementation design; 3) questionnaire data. The research design of this study is neither exclusively qualitative nor quantitative, but more of case study. The implementation design concerns certain grammar rules consciously learned in class and assigned to be contextualized within the context of a digital narrative story. Their use of assigned grammar rules was to be taken into consideration in relation to its contextual use rather than form in their meaning making within context. The questionnaire data was collected as results and reported as findings of this study, despite the partial estimation by statistics.

With limitations mentioned above major contributions of this study can be summarized as Follows: First, this study has closely examined digital storytelling with reference to today's learners, shifts in learning style from the perspective a new learning theory, contextual constructivism. Secondly, it has examined the applicability of digital storytelling as

contextual construction tool to EFL English grammar class. Thirdly, it has conducted a questionnaire survey with the students taught via digital storytelling as an instructional technique in their EFL grammar class.

This study confirms that digital storytelling serves as “the” optimal instructional resource to engage digital-age students of today within the context of real world learning via their experiences of communication, collaboration and creation. As Ohler (2008) demonstrated in his book, each student enrolled in EFL grammar class to which digital storytelling was applied, were found to become an active and confident meaning-maker by using multimedia tools that make stories powerful aids to understanding of grammar rules in context.

Based on the questionnaire results learning via digital storytelling has been proven to be creative, problem-solving, and experiential learning. For both novice and technologically experienced educators integrating digital storytelling with instruction is to be found to provide a creative opportunity of teaching. Digital story telling aligned in curriculum deserves to be readily implemented for great potentials and effectiveness pointed out in various researches. Especially when in aligned in L2 acquisition curriculum digital storytelling deserves to be optimal tool for enhancement of linguistic, digital, and media literacy required in the 21st century.

REFERENCES

- Butterfield, D. et al (2007). Literacy through Technology: The Power of Digital Storytelling. <http://www.nwp.org/cs/public/print/resource/2410>
- Cook, Walter A. (1979). *Case Grammar: Development of the Matrix Model (1970-1978)*. Georgetown University Press. Washington, D. C. 20057.
- Cobern, W. W. (1993). Contextual constructivism: The impact of culture on the learning and teaching of science. In K. G. Tobin (editor), *The practice of constructivism in science education* (pp. 51-69). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Grabinger, S. (1996). Rich environments for active learning. In D. Honassen (Ed.). *Handbook of research for educational telecommunications and technology* (pp 665-693). New York, MacMillan.
- Kajder, S. B. (2004). Personal Narrative and Digital Storytelling. *English Journal*, 93(3). 64 - 68.
- King, T. (2002). Development of Student Skills in Reflective Writing. Down-loadable from http://www.osds.uwa.edu.au/_data/page/37666/Terry_King.
- Lowenthal, P. (2006) Digital storytelling: An emerging institutional technology? preprint to appear in story circle: Digital storytelling around the world. Digital storytelling: An emerging institutional technology? in K. McWilliam & J. Hartley (Eds.)
- Mullen, Rebecca & Linda Medwick (2008). Avoiding the Digital Abyss: Getting Started in the classroom with YouTube, Digital Stories, and Blogs. *Clearing House*. Nov. 2009. 82 (2). 66-9.
- Naisbitt, John (2006). *Mind Set! Reset Your Thinking and See the Future*. Collins Publishers. New York.

- Ohler, Jason (2008). *Digital storytelling in the classroom : new media pathways to literacy, learning, and creativity*. Thousand Oaks, CA : Crown Press,
- Oliver, R. (2000). *When teaching meets learning: Design Principles and Strategies for Web-based Learning Environments that Support Knowledge Construction*.
- Oblinger, D. (2008). *Technology and the Global Commons*. Opening Keynote, 2008 NMC Summer Conference, Princeton University.
- Paull, C. (2002) *Self-perceptions and social connections: Empowerment through digital storytelling in adult education*. Dissertation published by University of California, Berkely.
- Robin, B. (2005). Educational uses of digital storytelling. Main directory for the educational uses of digital storytelling. Instructional technology Program. University of Huston. <http://www.coe.uh.edu/digital-storytelling/default.htm>.
- Robin, B. & Pierson, M. (2005). A multilevel approach to using digital storytelling in the classroom. Digital Storytelling Workshop, SITE 2005, University of Houston. <http://www.coe.uh.edu/digital-storytelling/course/SITE2005>.
- Robin, B. R. (2008). "Digital Storytelling: A Powerful Technology Tool for the 21st Century Classroom", *Theory into Practice*, 47 (3) 220-228.
- Sadik, A. (2008). Digital storytelling : a meaningful technology-integrated approach for engaged student learning. Educational Technology Research & Development. Aug. 2008, 56 (4). 487-506.
- Shank, R. C. (1990). *Tell me a story: Narratives and Intelligence*. Evanston, IL. Northwestern University Press.
- Solomon, J. (1987). Social influences on the construction of pupil's understanding of science. *Studies in Science Education*. 14, 63-82.
- Tucker, G. (2006). First person singular: The power of digital storytelling", *Screen Education*, Issue 42: 54-58.
- Weaver, C. (1996). Teaching grammar in the contest of writing. Retrived from <http://www.english.vt.edu/-grammar/GrammarForTeachers/readings/weaver.html>.
- Willson, B. G. (Ed.). (1996). *Constructivist Learning Environments: Case Studies in Instructional design*. Educational technology Publications. Englewood Cliffs. NJ.
- Zull, J. E. (2002). *The Art of changing the Brain. Enriching the practice of teaching by exploring the biology of learning*. Stylus Publishing.

About the Presenter

Soonbok Kim, PhD, full professor in the Dept. of English Language and Literature, and Dean, International Languages School, Sejong University, Korea. She started her full-time teaching career at the university level in 1978, while being committed to EFL teaching and textbook development via mass media in various Radio and/or TV programs till 1994. Her professional engagements are in the areas of textbook screening, employment test development for prospective EFL teachers, paper presentations at conferences in Korea and abroad. She implemented the TQM system into the English mandatory program for university freshmen and sophomores. She founded Sejong Cyber University in 2001 and served as the university president. Her teaching and research interests include syntactic studies in application to English education, culture of language use, online education technology, ubiquitous learning. *Email: kimsb@sejong.ac.kr*

