Digital Storytelling and Meaning Making: Critical Reflection, Creativity and Technology in Pre-service Teacher Education

Bonnie Long
Galway Doctoral Research Fellow, School of Education, College of Arts, Social Sciences & Celtic Studies, National University of Ireland, Galway

Abstract

This paper discusses the first year and a half of a PhD study which examines the use of Digital Storytelling as a method of enhancing student teachers’ ability to be reflective practitioners. The reflective practitioner model has long been seen as the appropriate model for the professional development of teachers (Sutherland, 1997). However, deep reflection is difficult for most pre-service teachers, and can be seen by them as a compulsory element that has to be tackled to satisfy course requirements, instead of something that leads to empowerment and engagement in their own development. (MacLeod & Cowieson, 2001) One way of evidencing this reflection and deep learning could be through the creation of digital stories (Barrett, 2006).

The methodology being used in this project is design-based research (DBR). In keeping with established practices of DBR (Bell, 2004), a mixed methods approach has been taken, implementing both qualitative and quantitative research methods. During the first year of the study, the researcher designed and implemented a digital storytelling unit. 18 Post Graduate Diploma in Education students in the NUI, Galway School of Education voluntarily created digital stories as a partial requirement for their reflective portfolios. Although the majority of the students who created digital stories felt the use of digital storytelling enhanced reflection on their own practice, the levels of reflection evidenced in the digital stories was disappointing. Lessons learned during this first implementation, and subsequent changes to the design of the digital storytelling unit of instruction for year two of the implementation, will be discussed.

Keywords: Digital storytelling, narrative, pre-service teacher education, reflection-on-practice, multimodality, creativity, engagement
Introduction

This paper discusses the first year and a half of a four year PhD study, which examines the use of Digital Storytelling as a method of enhancing student teachers’ ability to be reflective practitioners. The reflective practitioner model has long been seen as the appropriate model for the professional development of teachers (MacLeod & Cowieson, 2001; Sutherland, 1997). Pre-service teachers are encouraged to become “reflective practitioners” (Schön, 1983), professionals who learn both from experience and about experience. Students are asked to reflect on their own teaching practices and theories of teaching and learning, as well as to make connections between their own experience in the field and theories they are introduced to through lectures and academic readings. However, deep reflection is often difficult for most pre-service teachers, and can be seen by them as a compulsory element that has to be tackled to satisfy course requirements, instead of something that leads to empowerment and engagement in their own development. (MacLeod & Cowieson, 2001)

This study will explore the potential of digital storytelling as a technology enhanced learning process for pre-service teachers, and will investigate how creative ICTs and innovative pedagogies can be combined effectively to enhance reflection on practice and professional identity construction. The students participating in this study are on a one year, Post Graduate Diploma in Education (PGDE) course in an Irish university. They are creating digital stories as a partial requirement for their reflective portfolios. These digital stories are used to illustrate understanding of their own personal learning and identity construction during their experiences as pre-service teachers. Through the creation of these digital stories, it is also hoped that students will enhance their own understanding of and confidence in the effective use of ICTs in education.

The central research question driving this investigation at the present is, how can digital storytelling, as a technology enhanced learning framework, be designed to enhance reflection in teacher education? Ancillary questions include, a) does digital storytelling allow pre-service teachers to better evidence their reflection and growth? And, b) in what way does digital storytelling enhance student teachers’ ability to construct their professional identity as teacher? Secondly, this study endeavours to determine the characteristics of a successful digital storytelling unit for pre-service teachers. Finally, the study aims to clarify and identify the design sensitivities and resources which need to be consulted in order to effectively create such an experience.

Digital Storytelling

Digital storytelling usually consists of a short, 3-5 minute video, produced by someone who is not a media professional, and usually constructed as a thought piece on a personal experience (Matthews-DeNatale, 2008). The creation of the digital story includes incorporating multimedia components such as images, music, video and a narration, which is usually the author’s own voice (Dogan & Robin, 2006).

Definitions of digital storytelling abound in the literature and on the Internet, where the use of digital tools to communicate some sort of story are labelled ‘digital storytelling’. This study, however, is based on the type of digital storytelling designed and promoted by the Center for Digital Storytelling (CDS) in Berkeley, California. Over the years, the CDS has developed guidelines for the production of digital
stories. Their website, (www.storycenter.org) and Lambert’s books (Lambert, 2007a; 2009) have proved an invaluable resource for educators attempting to implement digital storytelling in their classrooms.

**Use of Digital Storytelling with Pre-service Teachers**

A review of the literature reveals a good deal of information on the use of digital storytelling with pre-service teachers. Barrett (2005a, 2006) has advocated the use of digital storytelling in conjunction with pre-service teachers’ digital portfolios, and states that it “…is a highly motivating strategy that can make reflection concrete and visible.” (Barrett, 2006, p. 1) Li and Morehead (2006) conducted an exploratory research project which engaged college students (teacher candidates) in using digital storytelling as one of the approaches to build their e-portfolios, through reflection and self-assessment of the learning process. The researchers found it to be “…a useful tool in the enhancement of teaching and learning new literacies in today’s technology enriched environments.” (p. 6)

Kearney (2009) examined the potential role of digital stories in pre-service teacher portfolios. He also looked at digital storytelling’s support of reflection in teacher education. Kearney found that “…digital stories can help address the problem of reflection being perceived by students as ‘over-used’ and that students can use new media to “…initiate reflective processes in compelling ways…” (p. 8) He calls for further research into the use of digital storytelling with pre-service teachers, which he terms “…a crucial but underdeveloped area of research into teacher learning.” (p. 9)

Drazdowski (2009) investigated the use of digital storytelling with teachers. He found that the effort to train teachers in the use of digital storytelling definitely had merit, and that digital storytelling has a great deal to offer education. He also states that, “We in teacher education now face the challenge of infusing these digital storytelling skills throughout the teacher education curriculum.” (p. 3)

Many more studies into the use of digital storytelling with pre-service teachers exist. It is the intention of this researcher to build on the research that has gone before, and extend it into a long-term, iterative, formative evaluation of the effective uses of digital storytelling for the enhancement of reflective practice in pre-service teacher education.

**Methodology Selection and Rationale**

The main methodology being used in pursuit of this research project is design-based research (DBR), as this has been proven to be a successful methodology for innovative learning environments, often including new educational technologies (Barab & Squire, 2004; Sandoval, 2004).

While limitations in the methodology have been identified, such as difficulties arising from the complexity of real-world situations, large amounts of data due to the combination of ethnographic and quantitative analysis, and comparing across designs, the paradigm has arisen as an accepted methodology for use in educational settings (Collins et al, 2004). Additionally, Reeves, Harrington and Oliver (2005) suggest that DBR is the most appropriate method for studying instructional technology in higher education. Hofer and Owings Swan (2006) specifically suggest a design-based research approach be undertaken to study the use of digital storytelling.

Design-based research involves ongoing cycles of research, design, implementation, reflection/evaluation and redesign. “Each design enactment puts into practice ideas
developed in the reflection phase, and provides a testing ground for those ideas.” (Joseph, Edwards, & Harris, 2002, p. 4) Studying the design in practice, and progressively refining it, allows for more robust designs over time. (Collins, Joseph, & Bielaczyc, 2004) It is envisioned that this four year study will follow the progressive refinement shown in Table 1.

Table 1: Proposed Progressive Refinement

<table>
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<th>Year</th>
<th>Description</th>
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| Year 1: | Literature Review  
Pilot study with volunteers  
Reflection/Cooperative evaluation 1 |
| Year 2: | Redesign  
1st Implementation with whole cohort  
Reflection/Cooperative Evaluation 2 |
| Year 3: | Redesign  
2nd Implementation with whole cohort  
Reflection/Cooperative Evaluation 3 |
| Year 4: | Final Write-up |

In keeping with established practices of DBR (Bell, 2004; Brown, 1992; Collins et al., 2004; Hoadley, 2004; The Design-Based Research Collective, 2003) a mixed methods approach has been taken in this study, implementing both qualitative and quantitative research methods. Research has drawn upon established literature and theory, using validated as well as researcher created instruments and data collection protocols. Methods of data collection include questionnaires, analytic assessment rubrics, online discussion boards, ethnographic observations, researcher’s journal and the digital stories produced by the students. Students’ digital storytelling ‘working portfolios’, including all planning and design documents, have also been collected in order to analyse the creative process followed by students in the construction of their digital stories.

An analytic assessment rubric (see Appendix A) as defined by Mertler (2001) was developed and used to assess the digital stories produced by the students. This rubric was based on rubrics found in the literature on digital storytelling (Barrett, 2005a; Hodgson, 2010; Integrating Digital Storytelling in your Classroom, 2006; Porter, 2004a). The rubric included criteria on “Planning and Preparation”, “Use of Technology”, “Mechanics and Structure” and “Content”.

An analytic assessment rubric was also designed to measure levels of reflection evident in the digital stories (see Appendix B). This rubric was not given to students and was used for analysis purposes only. This rubric was based on Moon’s (2004) “Resource 9, A Generic Framework for Reflective Writing” (pp. 214-216). The rubric included criteria on ‘Story’, ‘Frame of Reference’, ‘Metacognition’, ‘Multiple perspectives’, ‘Self questioning’, ‘Role of Emotions’, ‘Effect of Prior Experience’ and ‘Learning Recognised and Noted’. The rubric categorised levels of reflection as “Descriptive”, “Descriptive with Some Reflection”, “Reflection (1)” and “Reflection (2)”, as used in Moon’s reflective framework continuum.

A post digital storytelling questionnaire was designed to gather students’ opinions on the process of creating their digital stories. Questions were formulated to gather information on creativity, self efficacy, engagement, learning theory, motivation, reflection and the process overall.
As suggested by Creswell (2005), established survey instruments testing for these items were sought and modified. Items dealing with engagement were based on The User Engagement Scale, created by O’Brien & Toms (2009). Items dealing with technology self efficacy were based on an instrument created and validated by Torkzadeh and van Dyke (2001). Lastly, items on the survey dealing with motivation were based on the Intrinsic Motivation Instrument (IMI) available at: http://www.psych.rochester.edu/SDT/questionnaires.php, developed by the Self Determination Theory group at the University of Rochester, New York. (2009)

Theoretical Framework
In their discussion of design-based research, Barab and Squire (2004, p. 1) state, “The emerging field of the learning sciences is one that is interdisciplinary, drawing on multiple theoretical perspectives and research paradigms so as to build understandings of the nature and conditions of learning, cognition, and development.” In this manner, this study is informed by an evolving, multiontological theoretical framework. Situated in a constructivist paradigm, theories informing this study include narrative, especially Bruner’s (1990) theories of ontological narrative and the autobiographical self (Hall, 2004; 2010), reflection in teacher education (Brookfield, 1995; Dewey, 1910; Moon, 1999; 2004; Schön, 1983) and learning through storytelling (Egan, 1986; McDruy & Alterio, 2002), among others.

Reflection on the PGDE Course
The Post Graduate Diploma in Education (PGDE) is a one year course offered by the National University of Ireland, Galway, for certification of post-primary teachers in Ireland and recognition by the statutory body, the Teaching Council of Ireland. Several opportunities for reflective practice have been incorporated into the PGDE course over the last several years. Students develop a Professional Practice Portfolio throughout the year which incorporates a reflective journal, essays on initial teaching and learning philosophies (Part A), critical incident analysis (Part B), catering for diversity (Part C) and a final reflective piece at the end of the year encapsulating how their attitudes and ideas about teaching have evolved over the course of the year (Part D). This portfolio process is supported by four small-group Professional Practice tutorials, held throughout the year. Other forms of reflection built into the course include post-lesson evaluations (PLEs), which students are required to write each week of their block teaching practice. (Heinz, Howard, Keane, NiGhuidhir, & Tansey, 2010)

Genesis of the Digital Storytelling Unit
As one of the reflective portfolio tutors since the program's inception in the 2007-2008 school year, the researcher has experienced firsthand students' reluctance to engage in reflection as described by MacLeod and Cowieson (2001) above. During reflective practice tutorials over the years, students have made clear their feeling that this 'reflection thing' was one more assignment heaped upon them during the course, and something that they felt they had to 'get done.' During one reflective practice tutorial toward the end of the 2008-2009 academic year, one student slammed his hand down on the table and stated loudly, if a little in jest, “If you ask me to reflect on one more thing this year, I’m going to scream!”

This researcher’s main role in the School of Education at NUI, Galway is as an Education Technologist, responsible for team teaching the Education Technology (Ed Tech) section of the PGDE course. While researching the possible implementation of a digital portfolio for the Ed Tech module a few years ago, she came across Helen
Barrett’s website and articles on digital portfolios. (See Barrett, 2005a; Barrett, 2005b; Barrett, 2006; Barrett, 2005c) Within these, Barrett advocated digital storytelling as a way to enhance reflection for students as a part of their digital portfolios. The researcher became intrigued by the possibility of using digital storytelling to enhance and promote student reflection, while at the same time providing students with a myriad of technology skills that they would be able to incorporate into their teaching practice. Research into the process commenced, and eventually became this PhD study.

With the commencement of the 2009-2010 school year, the question of where to fit the digital storytelling assignment into an already demanding course was discussed with staff of the School of Education. It was decided that, as this was an activity that supported reflection, it should be connected with the Professional Practice Portfolio. The decision was made to give students a choice; to present the closing section of the Professional Practice Portfolio, ‘Part D’, as an essay, or as a digital story.

**Pilot Project**

The Digital Storytelling pilot project with the first cohort of students took place in February and March, 2010. Five one hour lessons on the different components of the digital storytelling process were devised and implemented, based on the digital storytelling literature (see Banaszewski, 2005; Lambert, 2007a; 2009; Matthews-DeNatale, 2008; Ohler, 2008; Porter, 2004a).

The Digital Storytelling unit consisted of the following five lessons:

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<th>Table 2: Digital Storytelling Pilot Project Lessons</th>
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**Education Technology Classes:**

The Education Technology Centre at NUI, Galway houses two PC labs, running Windows XP. Lab 1 has 17 student PC’s and one instructor PC connected to a digital projector. Lab 2 has 30 student PC’s and one instructor PC connected to a digital projector. We also have an iMac lab, which has 20 student computers and one instructor computer connected to a digital projector. Two education technology instructors, one of whom is the researcher, teach weekly classes to groups of 17 to 25 students over the course of the academic year, from September to May.

**Choice of Software/Hardware**

While designing the lessons for the technology aspects of the unit, it was important to the researcher that software be used that was freely available to the students in their schools, at home, and online. Choices made regarding the hardware and software used were influenced by this condition.

**Video Editing Software:** Windows Movie Maker and iMovie were chosen as the video editing software that would be taught to the students as they are bundled free
with their respective operating systems and readily available to students. Initially, it was planned to provide instruction on both iMovie and Windows Movie Maker, allowing students to choose which platform they wanted to receive instruction on. Porter (2004b) warns that it’s more difficult to create a digital story using Windows Movie Maker as it only has one audio track, and suggests using iMovie instead, which has multiple audio tracks, making it easier to add a voiceover, music and sounds to the digital story. It was suggested to the students interested in completing a digital story that they use iMovie for this reason. However, most students wanted to use Windows Movie Maker to create their digital stories, as this is the type of computer they have access to at home, on campus and in their teaching practice schools.

**Audio Editing Software:** Aviary.com’s Myna ([http://www.aviary.com/tools/myna](http://www.aviary.com/tools/myna)) was chosen as the audio editing software taught in the digital storytelling lessons. This online audio and music editing tool is free to use, allows students to record their own voice, and also includes a royalty free music library that allows students to create their own soundtrack. The voiceover and music tracks can then be mixed down into one track, alleviating the problem posed by Windows Movie Maker’s single audio track, as described above. Students were also introduced to other royalty free music sites to help them with the creation of their soundtracks.

Due to firewall issues on campus, students were unable to use the voice recording aspect of Myna in the PC labs. Several inexpensive USB microphones were purchased by the researcher for students to check out and record their voiceover at home on their own PCs, using Myna, or the audio editing software of their choice.

**The Assignment Brief**
Students were given an assignment brief (see Appendix C) at the beginning of the digital storytelling unit. The brief asked students to:

… reflect on:
- your educational journey
- re-evaluate learning goals and learning philosophies, evaluate achievement of these learning goals
- trace any transformations in your learning and teaching beliefs, values, attitudes, and assumptions, how these changes have come about
- relate what/why/how different elements of the PGDE programme contributed to your learning and teaching
- highlight significant landmark achievements/improvements you have made to your learning and teaching (draw from your journal, lesson plans and evaluations…)

The digital storytelling assessment rubric (Appendix A) was given to the students for use both as a means of self assessment while producing their digital stories, and as a guide to what was expected from the assignment.

The whole cohort of PGDE students received instruction in digital storytelling during their Education Technology classes over the five week period. However, the choice to create a digital story at the end of the instructional period was voluntary. Of the 221 PGDE students, 67 initially volunteered to complete a digital story. The students were enthusiastic about participating in a project that would allow them to create something different from their normal essay assignments. However, as the due date drew near, many students dropped out of the digital storytelling project. Most cited
time constraints and excessive workloads as the reasons for not completing a digital story, and most expressed regret in not being able to complete the project.

**Support Provided**

After the five weeks of instruction, which ended on the week of 22 March, 2010, students who had volunteered to complete a digital story had an additional 6 weeks to work on them. Help sessions were scheduled for the two weeks before the digital stories were due, and the researcher made herself available to students for assistance. In addition, a discussion group was set up on Blackboard, the NUIG’s virtual learning environment, to support students during the process of completing their digital stories. Students could post any queries they had regarding the production of their digital stories to the discussion board. These queries were then answered by the researcher so that all participants could benefit from the answers given.

**Submission of the Digital Stories**

In the end, eighteen students voluntarily created digital stories as a partial requirement for their reflective portfolios. The digital stories were submitted by uploading them to Blackboard. They were also burned to DVD’s and turned in with the ‘Working Portfolio’ part of the assignment that was handed in to the researcher.

To ensure parity of assessment with students who did not choose to create a digital story, the digital stories were assessed by the researcher using the essay marking criteria (Appendix D) in order to obtain marks for their portfolio, Part D. For purposes of research, the digital stories were also assessed using the rubric originally designed for their assessment. Finally, the digital stories were assessed for levels of reflection, using the Levels of Reflection Rubric based on Moon (2004).

**Findings**

**Post-digital storytelling questionnaire:** Of the eighteen students who completed a digital story, twelve completed the post-digital storytelling questionnaire. Student responses to the post-digital storytelling questionnaire showed that all were pleased with the outcome of their digital story. Students enjoyed creating their digital stories, and all found the creation of their digital story a rewarding experience. Other findings include:

- Most found it to be a reflective process
- All enjoyed the chance to be creative
- Almost all showed high degrees of technology self efficacy at the end of the process
- Most felt it helped them to articulate what they learned as pre-service teachers during the year
- All felt it improved their ICT skills
- All felt that using images, music and sound in the digital story made it easier to express themselves
- Creating a digital story was time intensive: Students spent an average of 30 hours on the creation of their digital stories, much more time than they would have spent on an essay!

When asked, “What did you like most about the digital storytelling process?” some student responses were:

I liked the way I could see the story unfolding as I worked on it and that I could express myself through pictures and images without having to say everything. I
sometimes find it hard to say exactly what I want to convey and this provided an alternative method for me to work with.

A chance to be creative. Do something different and learn a lot about new ICT software at the same time.

When asked, “Were you pleased with the outcome of your digital story?” all answered “Yes.” Some of their additional comments were:

It was great to see all my hard work come together in a movie and I feel really confident in using the software for other school work now.

I felt that I had completed something meaningful for myself while at the same time learning a new skill.

I feel it is a very personal and true reflection of me that would not have been apparent if I had just written the composition style version of part D. I have made my family, boyfriend and friends watch it!

Students were asked which part of the digital storytelling process they had the most difficulty with. The overwhelming answer was that the process of recording their voiceover had caused the most difficulty. Most who experienced difficulties related them to the use of Myna, which had a tendency to freeze and not save if they recorded long segments of voice. A few said they didn’t have any trouble with Myna, as long as they recorded in short segments and saved often.

Finally, when asked what they thought about the digital storytelling process overall, all responded positively about the experience. Some of their comments were:

It was very enjoyable, and a process that I could see real use in, this is something I will use again for personal (my mom is fifty this year) and professional projects (could be good for introductions to topics and experiments)

I feel that it was a really interesting approach to an assignment rather than traditional essays and the skills I learned will be very helpful in the future, I will definately use this process in my teaching.

I really enjoyed it as something new and creative - it fitted into the Philosophy we were being encouraged to use in our own classrooms. There should be more assignments like that. Well done!

Levels of Reflection Rubric

Although the majority of the students who created digital stories felt the use of digital storytelling enhanced reflection on their own practice, the levels of reflection evidenced in the digital stories were disappointing. Figure 1 shows the resulting scores from the analysis of the digital stories for levels of reflection.
Results of Assessment of Digital Stories for Levels of Reflection

Surprisingly, the digital stories that showed the highest levels of reflection were the ones that strayed furthest from the “Part D” assignment brief, causing the researcher to question the assignment brief that was given to the students in the first place. In addition, the researcher had difficulty in making the rubric for levels of reflection ‘fit’ the digital stories produced by the students.

Finally, it is felt by the researcher that the decision to use the essay marking criteria to assess the digital stories contributed greatly to the lack of reflection in the final products. One student commented on the questionnaire, “I felt restricted by the assignment brief as it was difficult to address the brief set out for a 1500 word essay in the same detail in a 3-5 minute digital story.” While students were encouraged to continue to use the assessment rubric as a guide for producing their digital stories, the results indicate that most placed an emphasis on meeting the essay criteria, knowing that this would be used to mark their digital story. This resulted in many students creating what could best be described as ‘essays with pictures’ instead of true digital stories.

Design Changes for Year 2:
Many changes have been made to the design of the Digital Storytelling unit for Year 2 of the project. For one thing, all students will be required to complete a digital story this year. In addition, a great deal more time has been devoted to the process. Table 3 below shows the changes to the digital storytelling unit in year 2, compared to the pilot project.

Figure 1: Results of Assessment of Digital Stories for Levels of Reflection

All eighteen of the digital stories were assessed for levels of reflection using the rubric designed by the researcher, based on Moon’s (2004) generic framework for reflective writing. The scale ranged from the lowest level of “Descriptive” to the highest level of “Reflective (2)”. While none of the digital stories received the lowest “Descriptive” rating, the majority of digital stories were rated as only “Descriptive with some reflection” (n=10). Five of the digital stories showed “Reflective (1)” levels, and only three of the digital stories were rated as showing the highest level of reflection, “Reflective (2)”. 

While students contributed greatly to the lack of reflection in the final products. One student commented on the questionnaire, “I felt restricted by the assignment brief as it was difficult to address the brief set out for a 1500 word essay in the same detail in a 3-5 minute digital story.” While students were encouraged to continue to use the assessment rubric as a guide for producing their digital stories, the results indicate that most placed an emphasis on meeting the essay criteria, knowing that this would be used to mark their digital story. This resulted in many students creating what could best be described as ‘essays with pictures’ instead of true digital stories.

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Table 3: Comparison of DST Unit Plans from pilot project to 1st Implementation

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<th>Pilot Project, 2009-2010</th>
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**Lessons Learned:**
Outlined below are the lessons learned during the implementation of the pilot project, and the subsequent design changes brought about by them.

**The task set for the students has to match the desired outcomes:** While assessing the digital stories for levels of reflection, it occurred to the researcher that the task that had been set for the students did not match the desired outcome of deep reflection. The ‘Part D’ brief asked for a summing up of the year, looking back at original goals and teaching philosophies and assessing whether or not these goals were met. While this allows for some reflection, the task requires a broad assessment of the year. If we want students to produce something that is deeply
reflective, we need to set them a task that will allow them to delve deeply into an experience.

**Design changes implemented:** This year the digital story will be used to present the Critical Incident analysis section of the Professional Practice Portfolio (Appendix E). The critical incident analysis requires students to take one incident they have encountered in their practice and delve into it deeply. This task is more closely aligned with the activities described in Moon (2004) to engender deep reflection.

**More time is needed for story creation:** During the pilot project in the introductory session, students were given a chance to brainstorm story ideas and discuss their ideas in small groups. They were then given one week to write their first story draft before the ‘story circle’ session the next week. Many showed up to the ‘story circle’ feedback session without a story to share, due to lack of time to work on the story.

**Design changes implemented:** This year, students will have six weeks to work on their story before the ‘story circle’ step of the process. The critical incident is introduced during a professional practice tutorial a week before the introduction of the digital storytelling unit in the Ed Tech classes. Students come to the Professional Practice tutorial with a one page rough draft of a critical incident from their reflective journal and stories are shared in small groups. There is then a 6 week interval before the second draft of the critical incident is due in the Ed Tech class for the ‘story circle’ activity. This gives students much more time to work on their story, which they are given as homework over the holiday break.

**Place more emphasis on the ‘story circle’ step:** During the pilot project, many students were unprepared for and unenthusiastic about the story circle stage of the digital storytelling process. The researcher was aware of this dynamic, and skimmed over the process instead of strongly encouraging the students to participate. However, McDrury and Alterio (2002), emphasise the importance of providing students with opportunities to share their practice stories as this “…encourages a reflective process, especially when storytelling is accompanied by dialogue and occurs in formalised settings.” (p. 111) Listeners can assist the storyteller in reaching deeper levels of reflection by listening to stories and engaging the teller in reflective dialogue. (McDrury & Alterio, 2002)

**Design changes implemented:** A great deal more time has been devoted to story sharing between students this year. Students have a chance to share the rough draft of their critical incident with peers in their professional practice tutorial. They are then given the chance to share a second draft of their critical incident in the ‘story circle’ step of the digital storytelling process. More time and emphasis during this one hour lesson has been allocated to the ‘story circle’ process than was given during the pilot project.

**Require a due date for the final draft of the script:** Many students did not adhere to the ‘suggested’ timeline for finishing the different aspects of their digital story, especially the final draft of the script for voiceover recording. This resulted in many rushing to put their digital stories together at the last minute.

**Design changes implemented:** A due date has been set for the final voiceover script during week 5 of the digital storytelling unit. This is to ensure students finish their script and record it before going out on their second teaching block in mid-February. A schedule for recording sessions has been set up that will allow two students at a time to record in the Mac lab in one hour blocks. Requiring the
voiceover to be recorded before students leave for their teaching block will give them the time they need over the next several weeks to work on their digital stories in an unrushed manner.

**More time needed for the lesson on voice recording and soundtrack creation:** During the pilot project the lessons on image sourcing and voice recording/soundtrack creation were taught together. This lesson was too rushed and students did not get enough time to learn the technical aspects of voice recording and soundtrack creation, which proved most difficult for them during the pilot project.

**Design changes implemented:** The lesson on image and music sourcing and soundtrack creation has been divided into two separate lessons. This allows more time to be spent on the technical aspects of voice recording and soundtrack creation.

**Refine voiceover process to make it easier:** Myna is a good program for creating the soundtrack and mixing it down with the voiceover, however, another program should be found to record the voiceover.

**Design changes implemented:** Audacity will be taught to students for recording their voiceover. It is free to download and is a fairly simple program to use. Students can record using Audacity on campus, or, if they prefer, can download the program to their own computer and record their voiceover at home. Students will be taught to create their soundtrack in Myna, import the voiceover recorded in Audacity, and mix it down to one audio track for use in Windows Movie Maker.

**Quality of voiceover was a big problem:** The old adage ‘You get what you pay for’ really came true in regards to the inexpensive microphones that were purchased for the recording of student voiceovers. The quality of voiceover was poor for many students, and seriously detracted from the effectiveness of some of the digital stories.

**Design changes implemented:** Two high-quality USB microphones have been procured for recording the voiceovers in the Mac lab with Audacity.

**Need for a better assessment metric for levels of reflection in a digital story:** After assessing the first few digital stories with the levels of reflection rubric, the researcher realised that the rubric didn’t take into consideration the multimedia aspects of the digital stories.

**Design changes implemented:** More research needs to be done into the types of reflection evidenced by the multimedia aspects of digital stories. Plans to look into the work of Furth (1988), as mentioned in McDrury & Alterio (2002) as well as the cognitive theory of multimedia learning (Mayer & Moreno, 2002; Sorden, 2005), have been made.

**No time for sharing stories at the end:** The reflective portfolios and digital stories were submitted at the end of the course, which didn’t leave any time for students to share their stories with each other.

**Design changes implemented:** A peer assessment session has been scheduled for the week before the final digital stories are due. This will allow the students a chance to see each others’ digital stories, as well as providing a further story sharing opportunity.

**Is the process more important than the product?** While assessing the digital stories for levels of reflection, the researcher was struck by the thought that perhaps the depth of reflection evident in the final digital stories was not the *most* important
thing. Reflection can take place at all stages of the creation of a digital story. The emphasis is on the process, not necessarily the product (Gravestock & Jenkins, 2009; Sandars, Murray, & Pellow, 2008).

**Design changes implemented:** Gravestock and Jenkins (2009) suggest the use of additional evidence outlining the steps taken to create the digital story to show evidence of deeper learning, “as it may be possible for a student to engage in quite high levels of learning and reflection…but for this not to be manifest within the final digital story.” (p. 269) As part of the ‘working portfolio’, students were asked to include an 800-1000 word reflective piece that explains both the process of making the digital story and how they felt about the product.

**Attend a workshop at the Center for Digital Storytelling (CDS):** After stumbling through the first implementation of the Digital Storytelling unit based on the literature only, the researcher knew she needed to go through the process of creating a digital story herself. She attended an Educator’s Workshop at the CDS in Berkeley, CA in July of 2010. It was an eye-opening experience! Not only did she receive a great deal of material to use with her students, the experience of creating her own digital story gave her a deeper insight into difficulties students might encounter while creating their own digital stories.

**Design changes implemented:** More of the CDS materials have been incorporated into the digital storytelling unit this year. The introduction to digital storytelling lesson was changed to incorporate the seven elements of an effective digital story (Lambert, 2007b), as provided in handout form during the educator’s workshop. In addition, the assessment rubric for the digital stories was altered to incorporate the rubric devised by the CDS (Appendix F).

**Conclusion**

This paper has discussed the first year and a half of a PhD study which examines the use of digital storytelling as a method of enhancing student teachers’ ability to reflect on practice. The first step toward answering the question of how digital storytelling can be designed to enhance reflection in teacher education has been taken.

The levels of reflection evidenced in the students’ digital stories in the pilot project were initially disappointing; however, it is felt that, with refinement of the task, the results of this year’s digital storytelling intervention will yield evidence of deeper reflection. The most pertinent lesson learned by the researcher during the pilot project is that asking students to create a digital story will not miraculously create an opportunity for deep reflection. The task has to be formulated in a way that allows for deep reflection.

Many positive findings emerged from the pilot project. Students spent much more time engaging in the process of reflection than they would have done simply writing an essay on the topic, and they enjoyed themselves while they did it. They evidenced high technology self efficacy at the end of the process, and all found it a motivating and worthwhile experience.

Implementation of the second iteration of the digital storytelling unit began with the 2010-2011 PGDE cohort in December, 2010. Early signs with this implementation are promising in that the stories produced by the students, who are at the ‘story circle’ stage of the process, already show deeper levels of reflection than many of those produced during the pilot project.
References


## Digital Story Evaluation Rubric

The following rubric will be used to evaluate your Digital Story. This rubric is based on the guidelines discussed in class for creating a Digital Story.

### Planning and Preparation

<table>
<thead>
<tr>
<th>Score</th>
<th>Working Portfolio</th>
<th>Storyboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>Portfolio does not include planning notes. Brainstorming sheet, story drafts, storyboard, and copies of articles/chapters/resources used in the creation of the video.</td>
<td>Little to no evidence of planning. Mostly minimally completed sketches, sequencing, pacing, script, images, and sound.</td>
</tr>
<tr>
<td>3-4</td>
<td>Portfolio includes some planning notes. Brainstorming sheet, story drafts, storyboard, and copies of articles/chapters/resources used in the creation of the video.</td>
<td>Evidence of planning through some of the storyboard, including sketches, sequencing, pacing, script, images and sound.</td>
</tr>
<tr>
<td>5-6</td>
<td>Portfolio includes all planning notes. Brainstorming sheet, story drafts, storyboard, and copies of articles/chapters/resources used in the creation of the video.</td>
<td>Evidence of planning through most of the storyboard, including sketches, sequencing, pacing, script, images and sound.</td>
</tr>
<tr>
<td>Exemplary</td>
<td>Portfolio includes complete and detailed planning notes. Brainstorming sheet, story drafts, storyboard, and copies of articles/chapters/resources used in the creation of the video.</td>
<td>Complete and detailed evidence of planning throughout the storyboard, including sketches, sequencing, pacing, script, images and sound.</td>
</tr>
</tbody>
</table>

### Use of Technology

<table>
<thead>
<tr>
<th>Score</th>
<th>Editing</th>
<th>Images</th>
<th>Music/Sound</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>Transitions, effects, audio, and edits are not appropriate to the subject matter and distract from the video.</td>
<td>Little or no attempt made to use images to create an atmosphere or tone, but more work is needed.</td>
<td>Music/sound is not integral to the story.</td>
<td>Word choice is not relevant; use appears mostly as decoration.</td>
</tr>
<tr>
<td>3-4</td>
<td>Some transitions, effects, audio, and edits are appropriate to the subject matter. Some, however, distract from the video.</td>
<td>An attempt was made to use images to create an atmosphere or tone that enhances the story. Images may communicate symbolism and or metaphor.</td>
<td>Music/sound is OK, and not distracting, but it does not add much to the story.</td>
<td>Word choice is somewhat relevant, but only adds limited ornament value to the story’s meaning.</td>
</tr>
<tr>
<td>5-6</td>
<td>Most transitions, effects, audio, and edits are appropriate to the subject matter and add to the flow of the video.</td>
<td>Images create an atmosphere or tone that enhances the story. The images may communicate symbolism and/or metaphor.</td>
<td>Music/sound enriches the emotional response that matches the storyline very well.</td>
<td>Word choice is relevant, extends the topic’s meaning, and creates insightful emotional mood, tone or impact.</td>
</tr>
<tr>
<td>Exemplary</td>
<td>Transitions, effects, audio, and edits are very appropriate to the subject matter and greatly enhance the story.</td>
<td>Images create a distinct atmosphere or tone that greatly enhances the story. The images may communicate symbolism and or metaphor.</td>
<td>Music/sound enriches the emotional response that matches the storyline very well.</td>
<td>Word choice is powerful, relevant, extends the topic’s meaning, and creates insightful emotional mood, tone or impact.</td>
</tr>
</tbody>
</table>

### Mechanics

<table>
<thead>
<tr>
<th>Score</th>
<th>Grammar/Spelling</th>
<th>Citation of Sources and Permission</th>
<th>Economy</th>
<th>Length</th>
<th>Pacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>Repeated errors in grammar and usage distract greatly from the story.</td>
<td>More than two sources are not cited completely in the credits and/or more than 2 copyrighted pieces of material are not identified properly or were not given written permission.</td>
<td>The story seems to last forever.</td>
<td>Length of presentation was more than one minute shorter or longer than the required 3-5 minutes.</td>
<td>The pace (p rhythm and voice punctuation) somewhat fits the storyline and is at times engaging for the audience.</td>
</tr>
<tr>
<td>3-4</td>
<td>Grammar and usage are mostly correct, but errors distract from the story.</td>
<td>Two sources are not cited completely in the credits and/or 2 copyrighted pieces of material are not identified properly or were not given written permission.</td>
<td>The story is slightly too long.</td>
<td>Length of presentation was one to two minutes shorter or longer than the required 3-5 minutes.</td>
<td>The pace (p rhythm and voice punctuation) fits the storyline and is engaging for the audience.</td>
</tr>
<tr>
<td>5-6</td>
<td>Grammar and usage are mostly correct for the dialect chosen and contribute to clarity, style, and story development.</td>
<td>One source is not cited completely in the credits and/or 1 copyrighted piece of material is not identified properly or was not given written permission.</td>
<td>The story is slightly too short.</td>
<td>Length of presentation was 3-5 minutes.</td>
<td>The pace (p rhythm and voice punctuation) fits the storyline and is engaging for the audience.</td>
</tr>
<tr>
<td>Exemplary</td>
<td>Grammar and usage are correct for the dialect chosen and contribute greatly to clarity, style, and story development.</td>
<td>All sources are cited completely in the credits and all copyrighted material, if used, is identified and used with written permission.</td>
<td>The story is just right.</td>
<td>Length of presentation was between the required 3-5 minutes.</td>
<td>The pace (p rhythm and voice punctuation) fits the storyline very well and strongly engages the audience in the story.</td>
</tr>
</tbody>
</table>

### Structure/Context

<table>
<thead>
<tr>
<th>Score</th>
<th>Narrative Structure</th>
<th>Purpose/Brief</th>
<th>Reflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>The story does not incorporate characteristics of personal narrative.</td>
<td>The digital story is not in keeping with the assignment brief. Some requirements of the assignment brief have not been met.</td>
<td>Reflection is not evident. Feelings and thoughts are not revealed.</td>
</tr>
<tr>
<td>3-4</td>
<td>The story incorporates characteristics of personal narrative somewhat.</td>
<td>The digital story is somewhat in keeping with the assignment brief.</td>
<td>Reflection is somewhat evidenced through revealed feelings and thoughts.</td>
</tr>
<tr>
<td>5-6</td>
<td>The story incorporates characteristics of personal narrative.</td>
<td>The digital story is in keeping with the assignment brief.</td>
<td>Reflection is evidenced through revealed feelings and thoughts.</td>
</tr>
<tr>
<td>Exemplary</td>
<td>The story incorporates personal narrative very well.</td>
<td>The digital story is clearly in keeping with the assignment brief. All requirements of the assignment brief have been met.</td>
<td>Reflection is clearly evidenced through explicitly revealed feelings and thoughts. Deep insight is shown through a natural flow of ideas and an effective conclusion.</td>
</tr>
</tbody>
</table>
Appendix B

Levels of Reflection Rubric

"It is worth thinking of the quality of reflective writing as being on a continuum from rather superficial writings that are largely descriptive, to much deeper writings in which the questioning is more profound."

<table>
<thead>
<tr>
<th>Level</th>
<th>Description 1</th>
<th>Description with Some Reflection 2</th>
<th>Reflective (1) 3</th>
<th>Reflective (2) 4</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Story</td>
<td>This account is descriptive and it contains little reflection. It may tell a story but from one point of view at a time and generally one point at a time is made. Ideas tend to be linked by the sequence of the account/story rather than by anything.</td>
<td>This is a descriptive account that signals points for reflection while not actually showing much reflection. The account is more than just a story. It is focused on the event as if there is a big question or there are questions to be asked and answered.</td>
<td>There is description but it is focused with particular aspects accentuated for reflective comment. There may be a sense that the material is being mulled around. It is no longer a straightforward account of an event, but it is definitely reflective.</td>
<td>Description now only serves the process of reflection, covering the issues for reflection and noting their content. There is mulling over and internal dialogue.</td>
<td></td>
</tr>
<tr>
<td>B. Frame of Reference</td>
<td>There is no recognition that the personal frame of reference can change according to the emotional state in which it is written, the acquisition of new information, the review of ideas and the effect of time passing.</td>
<td>There is little recognition that the personal frame of reference can change according to the emotional state in which it is written, the acquisition of new information, the review of ideas and the effect of time passing.</td>
<td>The account may recognise that frames of reference affect the manner in which are reflect at a given time but it does not deal with this in a way that links it effectively to issues about the quality of personal judgement.</td>
<td>There is recognition that the personal frame of reference can change according to the emotional state in which it is written, the acquisition of new information, the review of ideas and the effect of time passing. The effect of these variables on personal judgement is taken into account in making judgements.</td>
<td></td>
</tr>
<tr>
<td>C. Meta-Cognition</td>
<td>Metacognition is not evident.</td>
<td>Metacognition is not evident.</td>
<td>Metacognition is not evident.</td>
<td>A metacognitive stance is taken, i.e. critical awareness of one’s own processes of mental functioning, ability to reflect on one’s processes of reflecting.</td>
<td></td>
</tr>
</tbody>
</table>

**Overall level of reflection:**

<table>
<thead>
<tr>
<th>Description</th>
<th>0-8 Descriptive</th>
<th>9-16 Descriptive with some reflection</th>
<th>17-24 Reflective (1)</th>
<th>25-32 Reflective (2)</th>
<th>Final Score</th>
</tr>
</thead>
</table>

Based on material developed by Jenny Marsh, (2004) Resource9
<table>
<thead>
<tr>
<th></th>
<th>Descriptive 1</th>
<th>Descriptive with Some Reflection</th>
<th>Reflective (1)</th>
<th>Reflective (2)</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>G. Effect of Prior Experience</td>
<td>The account describes what happened, sometimes summarising past experiences, sometimes anticipating the future – but all in the context of an account of the event. There is no recognition that prior experience interacts with the production of current behaviour.</td>
<td>There is some recognition that prior experience interacts with the production of current behaviour.</td>
<td>There is recognition that prior experience interacts with the production of current behaviour.</td>
<td>There is recognition that prior experience interacts with the production of current behaviour.</td>
<td></td>
</tr>
<tr>
<td>H. Learning and Consequences Noted</td>
<td>There is no sense of recognition that this is an incident from which learning can be gained,</td>
<td>There is a sense of recognition that this is an incident from which learning can be gained, but the reflection does not go sufficiently deep to enable the learning to begin to occur.</td>
<td>There is observation that there is learning to be gained from the experience and points for learning are noted, but not fully explored.</td>
<td>There is observation that there is learning to be gained from the experience and points for learning are noted.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix C

Digital Storytelling Brief
Educational Autobiographies

This is a voluntary assignment.

**Aim:** To create a digital story in place of the essay required for part four of your Professional/Reflective Portfolio. The digital story should demonstrate your capacity to draw connections between different elements of the PGDE programme and to offer a synthesis of your learning as a whole.

In your digital story, **reflect** on:

- your educational journey
- re-evaluate learning goals and learning philosophies, evaluate achievement of these learning goals
- trace any transformations in your learning and teaching beliefs, values, attitudes, and assumptions, how these changes have come about
- relate what/why/how different elements of the PGDE programme contributed to your learning and teaching
- highlight significant landmark achievements/improvements you have made to your learning and teaching (can draw from your journal, lesson plans and evaluations...)

**Guidelines:**

- The educational autobiography should be told as a personal narrative
- The film can incorporate text, still images, moving images, voiceover, music, special effects, animation
- The film should be between three and five minutes in length
- Teach the viewer about the growth of your understanding of teaching and learning
- You should explicitly incorporate some of the theories about teaching and learning that have influenced you this year
- Bibliographic references must be listed in the film credits
- Submitted with the film will be a *working portfolio* including: complete and detailed planning notes; (brainstorming sheet, story drafts, storymap, storyboard, music/sound list, image/shot list, and references for articles/chapters/quotes used in the creation of the video)
- A typed, printed hard copy of the voice-over script used for your digital story must be included in your final portfolio for part D.

**Resources:**

- PC Labs, AiPle Lab D302 – Computers, software (Windows Movie Maker, iMovie, GarageBand, Myna; etc.)
• 5 hours of supervised class time in the lab
• Additional unsupervised hours in the AiPle Lab or PC Lab at your discretion

**Assessment:**
Digital Stories will be assessed using the reflective portfolio part D marking criteria (Available on Bb)

**Due:** Thursday, 13 May, 2010

• **Upload your published digital story as a .mov file to Blackboard.**
• **Include a hard copy of your script with your Reflective portfolio as ‘part D’.**
• **Turn your Working Portfolio in to the correct assignment box in D–Block.**
  Your working portfolio should include:
  o Complete and detailed planning notes:
    ▪ brainstorming sheet
    ▪ story drafts
    ▪ storymap
    ▪ storyboard
  o Music List
  o Image/Shot List
  o A hard copy of your final script
  o References for articles/chapters/quotes used in the creation of the video

✔ Make sure you DON’T cite ‘google images’ for images you use in your digital story. You have to cite the actual web page that the image came from.
✔ If you use any commercial music, you must cite this specifically
### Appendix D

**School of Education**  
**Postgraduate Diploma in Education 2009–'10**  
**Criteria for Part D of Portfolio**

#### CLOSING STATEMENT

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>Maximum Mark in percentage terms</th>
<th>Student Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) <strong>RE-EVALUATION OF LEARNING GOALS AND PHILOSOPHIES</strong></td>
<td>(30)</td>
<td></td>
</tr>
<tr>
<td>Restatement of learning goals and teaching and learning philosophy (brief statement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to re-evaluate learning goals and to evaluate achievement of them, as well as to relate how you have achieved them</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity to trace any transformation in your teaching and learning beliefs, attitudes and assumptions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to comment on reason(s) for any transformation of your learning and teaching beliefs, values, attitudes and assumptions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) <strong>REFLECTING ON THE TEACHING AND LEARNING JOURNEY/EXPERIENCE</strong></td>
<td>(30)</td>
<td></td>
</tr>
<tr>
<td>Ability to narrate and critically reflect on progress and development, highlighting significant achievements/improvements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample evidence illustrating progress and development in your understanding about teaching and learning, e.g. drawn from your journal, lesson plans and evaluations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iii) <strong>APPLICATION AND INTEGRATION</strong></td>
<td>(30)</td>
<td></td>
</tr>
<tr>
<td>Evidence of appreciation of <strong>significance</strong> of local/school setting context</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity to make appropriate connections in your learning in context of Portfolio as a whole, e.g. in context of a critical incident, teaching for diversity, your journal, and if appropriate to relate to elements of PGDE programme as a whole</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iv) <strong>PRESENTATION</strong> <em>(applies to the entire Part D)</em></td>
<td>(10)</td>
<td></td>
</tr>
<tr>
<td>Appropriate presentation, style of language, coherence and accuracy of writing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate use of referencing conventions (citations and quotations, as appropriate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate length (1,500 words)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL** 100²
Appendix E

Critical Incident: Digital Storytelling Assignment Brief

Aim: To create a digital story that evidences your ability to reflect on a critical incident from your practical experience on the PGDE.

Definition of a critical incident:

A critical incident can be defined as a happening, a specific incident or event either observed by you or involving you. The happening sparks your thinking and makes you subsequently think and/or act differently about the particular event and related issues.

Guidelines:

Content:

- The digital story should evidence your critical reflection on a chosen critical incident from your reflective journal (ensure that you have removed all identifiers in terms of pupils’ names, teachers’ names, particular school, etc.)
- The story should be told as a personal narrative which explains the critical incident and should answer the following questions for the viewer:
  - What is your rationale for choosing this incident?
  - What happened during the incident? Who was involved?
  - What were your initial beliefs about the incident?
  - What is the possible significance of the incident in context of the school and the wider society?
  - What issues were raised for you by the incident?
  - How did you deal with these issues?
  - How did the incident impact on your emotions, thoughts, beliefs and actions?
  - How has this incident changed your thoughts and/or actions?
  - What did you learn from this incident?
  - What resources did you utilise to help you reflect on and resolve this incident? E.g. relevant literature, colleagues, your own internal dialogue, drawing on thoughts about the event within different time frames, etc.
- You should explicitly incorporate some of the theories about teaching and learning that are relevant to this incident
  - Incorporate at least three quotations from academic literature about teaching and learning that hold significant meaning for you in relation to this incident

Technical:

- The digital story can incorporate still images, moving images, voiceover, text, sound effects and music
- The digital story should be between three and five minutes in length
- The digital story should utilise video editing software effectively
- Bibliographic references must be listed in the film credits
- Submitted with the film will be a working portfolio including: brainstorming, planning notes; rough drafts, storyboarding, a copy of your final voiceover script; bibliography of articles/chapters/resources used in the creation of the film; and a 800-1000 word,
type-written reflection about the making of your digital story that explains both the process of making the film and how you feel about the product.

- A typed copy of your final voiceover script must be included in your Professional Portfolio as ‘Part B’. You will also include the essay about the making of your digital story in the appendix/dossier section of your Professional Portfolio.

**Resources:**

- PC Labs, AiPle Lab D302 – Computers, software (Windows Movie Maker, iMovie, Audacity, Myna; etc.)
- 6 hours of supervised class time/tutorials in the computer labs
- Additional unsupervised hours in the computer labs at your discretion

**Assessment:**

The digital story will be assessed using the Digital Storytelling Rubric presented and discussed in class, available on Bb in the Intro to Digital Storytelling folder.

**Due:**

- “Rough cut” for peer assessment due in your Ed Tech class the week of 2 May, 2011
- “Final cut” of movie due, **Thursday, 12 May, 2011**
  - uploaded to Bb, and included in your Professional Portfolio on DVD
## Digital Story Evaluation Rubric

**Digital Storytelling: B. Long**

### Categories
- **Excellent to Supreme (7-10)**
- **Good to Very Good (4-6)**
- **Satisfactory (1-3)**
- **Unacceptable (0)**

#### Content (Critical Incident)

**Rationale for choice of critical incident and context:**
- **Excellent to Supreme:** Clear rationale for choice of particular critical incident, aligned with context of school and wider society.
- **Good to Very Good:** Rationale for choice of particular critical incident is apparent, identifies what initial beliefs were about incident, interprets possible significance of incident in context of school and wider society.
- **Satisfactory:** Rationale for choice of particular critical incident may be apparent, but is not as well articulated.
- **Unacceptable:** No rationale evident for choice of particular critical incident.

**Outline of incident:**
- **Excellent to Supreme:** Clearly describes key features of incident, chronology of events in the incident are clear.
- **Good to Very Good:** Describes key features of incident, chronology of events in the incident is stated.
- **Satisfactory:** Describes key features of incident, elements of the incident are indicated.
- **Unacceptable:** Does not describe key features of incident, chronology of events in the incident is not explained.

**Demonstrates learning that involves the whole person:**
- **Excellent to Supreme:** Critically reflects and draws on other perspectives about incident, including dwarves in different ways and within different time frames.
- **Good to Very Good:** Critically reflects and draws on other perspectives about incident, considers incident in different ways and within different time frames.
- **Satisfactory:** Little evidence of reflection on critical incident, does not show how the incident impacted on their emotions, thoughts, beliefs and actions.
- **Unacceptable:** No evidence of reflection on critical incident, does not show how the incident impacted on their emotions, thoughts, beliefs and actions.

**Draws on other perspectives and time frames:**
- **Excellent to Supreme:** Little evidence of reflection on other perspectives about incident, considers incident in different ways and within different time frames.
- **Good to Very Good:** Little evidence of reflection on other perspectives about incident, considers incident in different ways and within different time frames.
- **Satisfactory:** No evidence of reflection on other perspectives about incident, does not consider incident in different ways or within different time frames.
- **Unacceptable:** No evidence of reflection on other perspectives about incident, does not consider incident in different ways or within different time frames.

**Demonstrates change in thoughts or actions:**
- **Excellent to Supreme:** Clearly conveys how critical incident has changed their thoughts and actions.
- **Good to Very Good:** Conveys how critical incident has changed their thoughts and actions.
- **Satisfactory:** Somewhat conveys how critical incident has changed their thoughts and actions.
- **Unacceptable:** Does not convey how critical incident has changed their thoughts and actions.

**Evidence of integration of theory and practice:**
- **Excellent to Supreme:** Incorporates at least three quotations from academic literature, integrates language that holds significant meaning for the writer and reflects on critical incident.
- **Good to Very Good:** Incorporates at least two quotations from academic literature, integrates language that holds significant meaning for the writer and reflects on critical incident.
- **Satisfactory:** Incorporates one quotation from academic literature, integrates language that holds significant meaning for the writer and reflects on critical incident.
- **Unacceptable:** Does not incorporate quotations from academic literature about teaching and learning that holds significant meaning for the writer and reflects on critical incident.

---

### Digital Story Evaluation Rubric

**Digital Storytelling: B. Long**

#### Categories
- **Excellent to Supreme (7-10)**
- **Good to Very Good (4-6)**
- **Satisfactory (1-3)**
- **Unacceptable (0)**

**Planning**

- **Working Portfolio:**
  - Working Portfolio includes complete, detailed planning notes, brainstorming sheets, storyboards, lists of resources used in the creation of the video and reflective writing.
  - Evidence of planning through the making of the story board, including sketches, sequences, voice-overs, script, images, music and sound.

- **Storyboard:**
  - Reflective writing is within the 800-1000 word count.
  - Reflective writing is 8% above or below the expected word count.

- **Reflective Writing:**
  - Reflective writing is 20% above or below the expected word count.

**Mechanics**

- **Citation of Sources and Permission:**
  - All sources, including reflective journal, are cited correctly and with written permission.
  - More than two sources are cited completely in the credits and no copyrighted material is not identified properly or not given written permission.
  - Two sources are not cited completely in the credits and/or 1 copyrighted piece of material is not identified properly.

- **Length:**
  - Length of digital story is exactly the required 8-9 minutes.
  - Length of digital story is longer than the required 8-9 minutes.

- **Grammar and Spelling:**
  - Grammar and spelling are correct (the cliché word is correct) and contribute greatly to the story.
  - Grammar and spelling are incorrect, but errors do not detract from the story.

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*Rubric based on NBUS critical incident criteria and assessment rubric provided by the Center for Digital Storytelling www.storycenter.org, used with permission. Adapts to NJS grade bands.*
## Digital Story Evaluation Rubric

### Use of Technology

<table>
<thead>
<tr>
<th>Categories</th>
<th>Excellent to Supreme 5</th>
<th>Good to Very Good 4</th>
<th>Satisfactory 3</th>
<th>Unsatisfactory 0</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Images complement and help convey the ideas in the script</td>
<td>Many images convey information not contained in the script. Images enhance the audience's understanding of the story. Tone of most visuals is aligned with the tone of the story.</td>
<td>Many images convey information not contained in the script. Images enhance the audience's understanding of the story. Tone of most visuals is aligned with the tone of the story.</td>
<td>Many images convey information not contained in the script. Images enhance the audience's understanding of the story. Tone of most visuals is aligned with the tone of the story.</td>
<td>Many images convey information not contained in the script. Images enhance the audience's understanding of the story. Tone of most visuals is aligned with the tone of the story.</td>
<td>125</td>
</tr>
<tr>
<td>Soundtrack (optional) contributes to the message of the story</td>
<td>Soundtrack enhances sense of satisfaction with the story and makes it more interesting. Soundtrack does not interfere with ability to hear voiceover or underlines purpose of story.</td>
<td>Soundtrack enhances sense of satisfaction with the story and makes it more interesting. Soundtrack does not interfere with ability to hear voiceover or underlines purpose of story.</td>
<td>Soundtrack enhances sense of satisfaction with the story and makes it more interesting. Soundtrack does not interfere with ability to hear voiceover or underlines purpose of story.</td>
<td>Soundtrack interferes with ability to hear voiceover and underlines purpose of story.</td>
<td>120</td>
</tr>
<tr>
<td>Voiceover supports purpose and tone of story</td>
<td>Voiceover is clearly audible. Voice inflections and pacing in most of the script make it easy to listen to and engage with the story.</td>
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<td>Voiceover is clearly audible. Voice inflections and pacing in most of the script make it easy to listen to and engage with the story.</td>
<td>Voiceover is difficult or impossible to hear in voiceover and underlines purpose of story.</td>
<td>100</td>
</tr>
<tr>
<td>Student utilizes video editing software effectively</td>
<td>Mastery of options for special effects, including pacing and sound, is used only when needed, and does not distract from story, and gracefully enhances the experience of watching the digital story. Titles and transitions used effectively.</td>
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<td>Mastery of options for special effects, including pacing and sound, is used only when needed, and does not distract from story, and gracefully enhances the experience of watching the digital story. Titles and transitions used effectively.</td>
<td>Titles, transitions and effects used, but distract from story nevertheless. Two many pans and zooms, titles and transitions that move too quickly or slowly.</td>
<td>80</td>
</tr>
</tbody>
</table>

### Final %

Total Score: 350  
Final %: 100%