Digital storytelling in an L2 context,

and its impact on student communication,

engagement, and motivation.

A thesis

submitted in fulfilment

of the requirements for the degree

of

Master of Education

at

The University of Waikato

by

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2014

Abstract

The communicative second language (L2) classroom requires a dual focus. On the one hand, students must be motivated (willing) to communicate, and teachers need to create activities that promote and facilitate peer interaction. Allied to this, is a need for accuracy. However, some L2 learners communicate rarely, if at all, while others struggle to achieve accuracy due to the constraints of time and space, and a lack of teacher feedback in class. This study has adopted the visual (and conceptual) metaphor of *Yin* and *Yang* to symbolize the equilibrium needed within the ideal communicative L2 classroom. This study explores the behaviours and perspectives of a group of L2 learners creating culture-based digital stories on VoiceThread. It examines whether this digital storytelling project can have an impact on students' communicative experience, both online and in the classroom, their motivation and engagement, and their levels of spoken output in class.

This interpretive study recognizes learner behaviours and perspectives as being unique to both the individual and the setting. A literature review presents an overview of digital storytelling, as well as research relevant to the pedagogical, affective, and technological aspects of this study. Data was collected through observation, interviews, and analysis of the digital stories. Findings indicate this digital storytelling project had a positive impact upon students' communicative experience in different ways, which emphasizes the value of a subjectivist approach. The results also suggest high levels of motivation and communication.

This study suggests the constituent elements of this digital storytelling project can enhance the overall communicative experience, promote spoken communication in the classroom, and motivate students. This thesis concludes by offering a series of recommendations for educators, to facilitate meaningful interactivity, and place the student and their culture at the centre of the learning experience.

Key words: digital storytelling, L2 learners, student culture, communication,

motivation, VoiceThread.

Acknowledgements

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Chapter One: Introduction

1. The Origins of this Research

English as a Second Language (ESL) textbooks often seem a world away, both contextually and thematically, from where our students come from (their home cultures) and their new life in Aotearoa, New Zealand. Situated in far-away, often scripted contexts, these texts fail to recognize a learner's interests and background. Furthermore, second language (L2) students often struggle with the collaborative and communicative demands placed upon them in the constructivist educational settings we create. Yet for many, these English language courses represent the last stepping-stone before mainstream study or employment. Consequently, students need to have the confidence and fluency to communicate in the world outside, and it is vital that we create a learning environment that engenders sustained spoken output and instils self-belief. At the same time, L2 learners need to improve communicative accuracy. In response to these needs, this study has adopted a dual focus, and the rationale for this needs to be established.

2. Establishing a Research Question

An examination of both face-to-face (f2f) *and* virtual communication engendered by these digital stories better captures the holistic nature of project-based learning and the communicative language classroom as a whole.

There must be a balance between real-time, f2f communication, where fluency is desired, and opportunities for reflection, feedback, and practice that may lead to improved comprehension and spoken performance (a focus on accuracy). This study has adopted the visual and conceptual metaphor of *Yin* and *Yang* to symbolize this equilibrium. The *Yin*, or *Ying*, represents quiet, cool, and shade (Sacred Lotus Arts,

2014). It is therefore an appropriate metaphor for the time and space for reflection and

practice that asynchronous learning affords. *Yang* is attributed to classroom

interaction as it embodies notions of *activity, energy,* and *creativity* (Sacred Lotus

Arts, 2014). According to Wang (n.d.), *Yinyang* can be seen "as a process of

harmonization ensuring a constant, dynamic balance of all things" (para. 1) and this

notion of balance underpins this project, and the communicative classroom as a

whole. Figure 1 below offers a visual representation of the balanced communicative

classroom envisioned for this project, conceived as *Yinyang*.
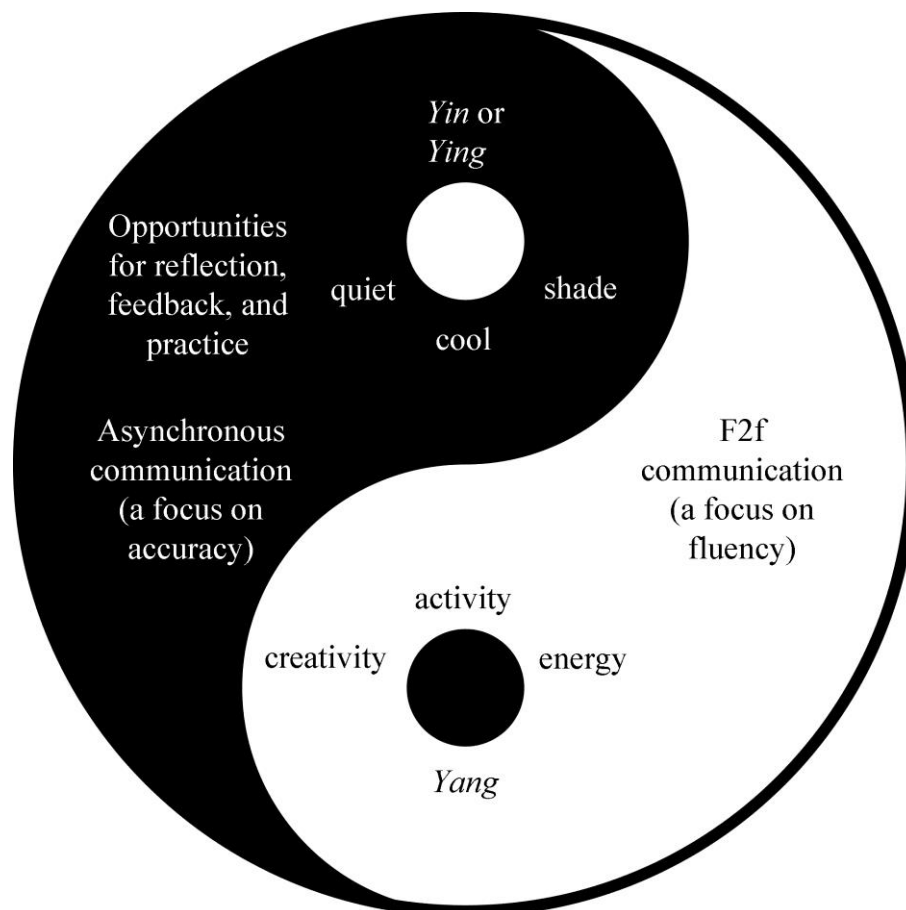
Figure 1. The communicative classroom conceived as *Yinyang*. Adapted from
Endless Journey, by L. Negoi, Retrieved from
http://summaryofmysoul.wordpress.com/. Copyright (2014) by L. Negoi. Adapted
with permission.

This brings us to the research question that underpins this study, as it responds directly to the need for balance within the L2 classroom. On the one hand, this study examines whether a digital storytelling project, based on aspects of the students' culture, increases communication. This classroom-based speaking would focus on aspects of the digital stories and utilize web-based multimedia to assist students in their interaction. This research also examines if and to what extent, this digital storytelling project affects students' overall communicative experience, and their levels of motivation and engagement. The primary research question informing data collection for this study was:

To what extent and in what ways can a digital storytelling project affect L2 learners' communicative experience, motivation and engagement, and promote f2f interaction in an L2 context?

There needs to be clarity as to what this research question *means* and what its parameters are, as this should facilitate understanding of subsequent chapters in this thesis. For this reason, the various elements of this question need to be defined and connections made to the digital storytelling process, or *project*. Robin (2006) defines digital storytelling as "combining the art of telling stories with a variety of digital multimedia" (p. 709) while project-based learning (PBL) involves "students in design, problem-solving, decision making, or investigative activities" (Thomas, 2000, p.1) that lead to a finished product. A digital storytelling project is therefore the *process* leading up the eventual creation of a multimedia story (the product). According to the Merriam-Webster Dictionary (2014) communication can be defined as "the act or process of using words, sounds, signs, or behaviors to express or exchange information or to express your ideas, thoughts, feelings, etc., to someone else" (para. 1). The *communicative experience* in this study represents therefore, any aspect

related to the transmission or comprehension of information, either orally or through multimedia. Finally, learner engagement refers to the levels of interest, attention, curiosity, and passion that students exhibit (The Glossary of Education Reform, 2014, para. 1). Engagement is a key element in our classrooms, as it can increase motivation (Walker & Logan, 2008) which represents "one of the main determinants of second/foreign language (L2) learning achievement' (Dörnyei, 1994, p. 273). Engagement and motivation could have, therefore, a direct impact upon learner achievement and communicative output in this study.

3.   The Research Context

Oral Skills 1 (OS1) forms part of level one of the Diploma in English Programme at Unitec Institute of Technology (known hereafter as Unitec) and focuses on speaking and listening skills. The students on this course are all L2 learners at an upper intermediate level. They are, in the main, permanent residents and come from a wide range of linguistic and cultural backgrounds including various parts of Asia, Africa, Latin America, and the South Pacific. The ages of the students also vary considerably, ranging from those in their early 20s to those in their late 50s. As these demographics suggest, the meeting of such a diverse student group makes for a vibrant classroom dynamic. While the vast majority of these students come from teacher-centred educational backgrounds, most have studied English in New Zealand previously, so a communicative approach was not new to them. However, most of the student group had only used technology at a fairly basic level, so the use of a Web 2.0 platform to create and publish their work, was a new experience. It must be noted that learners in this course were also using blogs and multimedia in another course during their semester.

4. Project Description

The project described here required students to create 2 drafts of a digital story. Students submitted a script for their first draft and received teacher feedback regarding structure and language. Learners created their stories using VoiceThread, a Web 2.0 application that allows users to upload images and video, and post oral and text comments. Figure 2 below illustrates the layout of a typical VoiceThread slide with student and teacher recordings arranged around an image.

Figure 2. Example of a VoiceThread slide.

Peers and teachers would then post questions and suggestions to the students' *first* drafts as part of the creative process. VoiceThread's asynchronous nature allowed learners to review their own recordings and re-record anything they were not satisfied with. During the first iteration (semester two, 2012) the narrator/storyteller was expected to listen to the questions and incorporate their answers into their final recorded drafts. During the next iteration however (semester one, 2013) authors responded to questions by posting recorded (oral) responses to their first draft. In both semesters, the teacher posted oral feedback to each author's draft one digital story once students had finished recording. This feedback related to the author's delivery, and in particular, pronunciation issues (accuracy, word and sentence stress, and

intonation). Teacher feedback also included suggestions about how to enhance the

visual or filmic aspects of their digital stories.

Table 1

Digital Story Project Description

In-class	Students collect relevant images and storyboard digital stories.	Students access Google images during a range of in-class communicative activities where they: - Give an outline of their topic they have chosen, explain the rationale for their choice, and respond to peer questions; - Present their storyboards to group members, describe and justify their choices, respond to peer feedback and questions; - Retell parts of their digital stories and respond to peer questions.

Digital story	Students submit Draft 1 of their digital story script.	→	Teacher marks script.	Students correct errors in script.	Students record draft 1.	→	Teacher posts feedback.	**Semester 2 2012** Students post questions and suggestions to group members' draft 1 (3 % of final grade).	**Semester 2 2012** Students record final draft. Students respond to questions in redrafted scripts (4% of final grade).
		→		→				**Semester 1 2013** Students post questions to group members' draft 1 and respond to questions *orally* on their own digital story (3 % of final grade).	**Semester 1 2013** Students record final draft (4% of final grade).

5. The Pedagogical Rationale for Digital Stories within an L2 Context

The pedagogical rationale for these student-generated digital stories resides in the following learning outcomes. First, a digital story project could potentially create a pedagogically *balanced* classroom with the *Yang* of f2f interaction (a focus on meaning) on one side, with the *Ying* of personalized feedback (a focus on form and phonological accuracy) on the other. Furthermore, the asynchronous nature of the task might encourage an iterative process of practice and reflection. Moreover, by adopting a learner-centred approach in which students created content based on aspects of their own culture, their experiences and needs would become "central to the educational process" (Harmer, 2003, p. 56). This could potentially have an impact on learner engagement and motivation. Finally, a project-based approach, one that involved practice, reflection, and revision would provide a fairer, more holistic assessment, one that might engender learning, as opposed to merely 'testing'.

The communicative tasks that we design should promote linguistic output and at the same time improve learner accuracy, and this digital story project was designed in response to this fundamental need. The literature review that follows examines those areas relevant to the learning outcomes described previously.

6. Summary

This chapter has described the origins of this research, its context, and the digital storytelling process. The conceptual framework of *Yin* and *Yang* has been established to illustrate the need for a balanced communicative classroom and a research question has been established that responds to these communicative needs. Finally, the pedagogical rationale for digital storytelling within an L2 context has been outlined. The next chapter presents a review of literature relevant to this study.

Chapter Two: Review of the Literature

1. Introduction

This literature review examines research relevant to this digital storytelling project, and establishes a theoretical framework that underpins its design. The first section examines the origins of digital storytelling, and its applications in education. The second section describes communicative and cooperative approaches to the language classroom, and identifies a pedagogical need for communication within the L2 classroom. This section also explores a possible role for digital storytelling in assisting Second Language Acquisition (SLA) in both f2f and virtual contexts. The third section examines the affective environment and identifies a possible relationship between task, subject matter, context, and communicative output. The final section looks at literature related to the Information and Communications Technology (ICT) component and considers the characteristics of asynchronous communication and VoiceThread.

2. Digital Storytelling

2.1. Background

Stories have been told and retold throughout history and remain an important part of our social and cultural fabric. Traditionally, stories have been used to preserve traditions (Gyabak & Godina, 2011) and document people's lives (Skouge & Rao, 2009). However, with the advent of easy-to-use authoring software and Web 2.0 tools, digital storytelling has emerged as a powerful new form of narrative that utilizes multimedia for a range of educational and social applications.

Digital storytelling had its beginnings in the early 1990s in the work of Ken Burns, most notably his documentary *The Civil War,* where Burns used first-person narration, old photos, music, and contemporary cinematography techniques to achieve impact (Sylvester & Greenidge, 2009). In 1994, Dana Atchey and Joe Lambert combined their backgrounds in theatre and media studies, and set up the Center for Digital Storytelling, a community arts centre in Berkeley, California, "based on the premise that everyone has a story to tell" (Sylvester & Greenidge, 2009, p. 287).

2.2. Definition

There are a number of interpretations of digital storytelling and this section seeks to establish a definition that is appropriate to this context.

Burgess (2006) sees the digital story as "autobiographical" (p. 206) yet Alexander and Levine (2008) believe it can be "either fiction or nonfiction depending on the context" (p. 44). Robin (2006) describes three major types of digital stories; personal narratives, which examine important events in an individual's life, historical documentaries, that deal with key events of the past, and stories that inform the viewer about a particular idea or practice. Porter (2006) posits a range of digital story types, including *narrative* (short stories, myths, docudramas), *informative/expository* (reports, biographies, how-to videos), *persuasive,* and *participatory*. Finally, Castañeda (2013) describes digital storytelling as "project-based" (p. 45) alluding to their developmental nature.

This study has borrowed from a number of these definitions to create an interpretation of digital storytelling that is appropriate for this context, and the pedagogical aims outlined in the previous chapter. In terms of this project, *a digital story is a narrated, multimedia project that is part fact (informative/expository) and part personal/autobiographical*. The rationale for this definition is as follows. First,

the task had to be challenging yet attainable. It was therefore decided, to avoid a task that was wholly personal or fictional, as this may have been too difficult for students facing linguistic and ICT issues. The stories would contain therefore, a sizeable element of material that students would locate through research and then paraphrase. Moreover, factual content that was culturally familiar might support or encourage potentially reticent students in their classroom interaction. This would also place the student and their culture at the centre of the learning experience. Salpeter (2005) claims the best digital stories are those that have been personalized in some way so that the narrator makes it "clear how the people or events in the story impacted his or her life" (p. 20). In this project, students were asked to include a short, personal connection to the topic they were describing to potentially increase author engagement, encourage creativity, and make the stories more interesting.

As outlined in chapter one, the L2 classroom is often characterized by tasks and resources, which have little connection to the learner. The parameters of digital storytelling established for this context, blend cultural content with a personal connection, with the goal of promoting communication and increasing learner engagement and motivation.

2.3. Digital stories in educational contexts

Digital Stories are used in different educational contexts with a range of objectives. These aims include enhancing and teaching traditional and new literacies (Sylvester & Greenidge, 2009), establishing social identity and presence (Lowenthal & Dunlap, 2010), and giving voice to isolated and/or deveoping communities (Gyabak & Godina, 2011; Skouge & Rao, 2009). However, the digital storytelling project created for this specific L2 context, was designed with communicative and affective outcomes in mind. First, digital storytelling could give voice to these L2

students, and provide a means for student-generated content and collaborative

learning (Burgess, 2006; Ohler, 2006; Rossiter & Garcia, 2010). Furthermore, digital

storytelling can help build a multicultural classroom (Peng, Fitzgerald, & Park, 2006),

foster learner engagement (Burgess, 2006), and provide plentiful opportunities for

language practice and acquisition (Rance-Roney, 2008, p. 29). This clearly has

implications in terms of this learning context. On the one hand, many of the learners

in OS1 are migrants, far from their homes and cultures, and the literature suggests that

digital storytelling can create a multicultural, learner-centred environment that

engages students, and this in turn suggests benefits at an *affective* level. The literature

summarized here also suggests the digital storytelling process can provide

opportunities for language practice, implying a focus on both accuracy and fluency.

The following section examines literature related to communicative

pedagogies in the L2 classroom and how they relate to this digital storytelling project.

The literature suggests the communicative classroom needs to balance accuracy (*Yin*)

and fluency (*Yang*).

3.   A Communicative Classroom

There is a real need for a communicative pedagogy in our classrooms, one that

creates and facilitates opportunities for communication (MacIntyre, Baker, Clément &

Conrod, 2001). MacIntyre, Dörnyei, Clément, and Noels (1998), observe that

'knowing' a language does not mean that students will use it and there are many L2

students who possess the necessary linguistic skills and knowledge, the 'tools' as it

were, who refuse to commit to spoken interaction (MacIntyre, 2007; MacIntyre et al.,

2001). We must therefore set about creating a learning environment where students

have opportunities to speak and are motivated to communicate.

Contemporary perspectives on language teaching have dispensed with notions of a 'best' method, a one-size-fits-all orthodoxy that is appropriate or applicable, to any learning environment (Brown, 2006). Instead, we need to examine our specific learning context and develop an *approach* (Richards & Rodgers, 2001) drawing upon the various pedagogical strands available to us. Only then will we create tasks and curricula that recognize the uniqueness of the learner and their context. This section of the literature review examines communicative and cooperative approaches to the language classroom and the rationale for their implementation. It does not pretend to offer an exhaustive look at SLA theory but attempts to establish the legitimacy of a balanced approach to communication in the L2 classroom.

Communicative Language Teaching (CLT) emerged in the 1970s, and represented a new pedagogical framework for those working within the field of SLA (Spada & Lightbown, 2008). CLT was a significant departure from the behaviourist-inspired grammar-translation and audio-lingual methods prevalent at the time that favoured drilling, rote memorization, and a decontextualization of language (Richards & Rodgers, 2001). CLT, on the other hand, was an approach rooted in social constructivist principles whereby learners "are engaged in meaning-focused activities" (Spada & Lightbown, 2008, p. 181) acquiring language through negotiation and interaction in unrehearsed situations (Brown, 2006). Within the CLT classroom, meaning, motivated by a genuine communicative purpose and desire, takes precedence over linguistic accuracy. Cooperative Language Learning (CLL) grew out of CLT, and has particular relevance to this study.

CLL is a learner-centred approach that favours collaboration and interaction in small groups or pairs (Richards & Rodgers, 2001) and forms part of a wider pedagogical framework, that of Collaborative Learning (CL). It has its origins in the

work of American educator John Dewey, and the theories of psychologists Jean

Piaget and Lev Vygotsky, who argued that social interaction is central to the learning

process (Richards & Rodgers, 2001). One of the key tenets of CLL is that students

develop communicative competence "by conversing in socially or pedagogically

structured situations" (Richards & Rodgers, 2001, p. 194). This concept will be

examined in the following section.

3.1. Communicative competence

Communicative competence is an important construct in this study, as it forms

part of the rationale for in-class peer communication in this digital storytelling

project. The concept of communicative competence resides within the *Yang* of

increased communication (fluency) within the L2 classroom.

Savignon (2002) defines communicative competence as the ability of

"language learners to interact with other speakers, to make meaning, as distinct from

their ability to recite dialogues or perform on discrete-point tests of grammatical

knowledge" (p. 3).

Canale and Swain's (1980) seminal work on communicative competence

identified three components of this construct:

1. *Sociolinguistic competence*: the appropriateness of the language being used;

2. *Grammatical competence*: words and the rules that govern their use;

3. *Strategic competence*: the appropriate use of communication strategies.

Canale (1983), later added *discourse competence*, which referred to an ability to

structure discourse coherently and cohesively. Pair and group interaction, driven by a

clear purpose and a desire to communicate, can create the optimal conditions "for

learning the appropriate rules and practices in conversing in a new language"

(Richards & Rodgers, 2001, p. 194). Communicative competence within a CLL

framework can be achieved through a co-constructed knowledge of language, and the various grammatical, sociolinguistic, discursive, and strategic rules that govern its use. In essence, communication begets communicative competence. These claims are supported by the work of Savignon (1983), who carried out research comparing the performance of learners that had participated in communicative activities, with another group that practiced language drills in a laboratory context. She notes that while discrete point test results in this study were indistinguishable between the groups, "their communicative competence, as measured in terms of fluency, comprehensibility, effort, and amount of communication in unrehearsed communicative tasks, significantly surpassed that of learners who had had no such practice" (Savignon, 2002, p. 3). This finding suggests there is pedagogical value in meaningful, peer interaction and yet there are those who question the utility of a leaner-centred, communicative approach within the L2 classroom.

3.1.1. Criticisms and issues

While the volume of literature disputing the validity of a communicative or cooperative approach is relatively small, it is worth noting some of the more salient criticisms. O'Neill (1991) argues that communicative and collaborative approaches result in minimal spoken output that neither facilitates language acquisition nor promotes student confidence or motivation. Richards and Rodgers (2001) refer to those opponents of CLL who question its usefulness for lower-level students. Furthermore, a student-centred approach may be perceived as strange and/or inappropriate for L2 learners from a teacher-centred academic culture (Harmer, 2003). O'Neill (1991) also questions the logic, and there also appears to be an implicit questioning of the *morality*, of bringing together a group of L2 speakers, paying for the privilege of a native speaker teacher, who then abstains from participation in the

classroom. However, while O'Neill (1991) makes a number of valid points, his argument ignores the real, and highly complex, role of the teacher in a CLL environment as an organizer, facilitator, participant, prompter, observer, and resource (Harmer, 2003; Richards & Rodgers, 2001). Furthermore, the teacher can be a source of modelling (Harmer, 2003) and this has particular significance in this project. On the first draft of students' digital stories, teachers posted oral feedback, and also modelled the correct pronunciation of words and phrases based on errors specific to the individual. The teacher in a learner-centred CLL classroom is also responsible for 'making things happen', for providing the structures that allow for communication and interaction to take place, and ensuring that these structures are maintained and functional. Indeed, as Harmer (2003) notes, "the measure of a good lesson is the student activity taking place, not the performance of the teacher" (p. 56).

Some critics argue that within a CLT framework, ability is perceived, "as variable and highly dependent on context and purpose as well as on the roles and attitudes of all involved" (Savignon, 2002, p. 5). This seems a plausible claim in that communication will vary based on what is discussed, where the discussion is taking place, participant roles, and ultimately, the affective state of the learner (Savignon, 2002). The latter could include their attitude to the task, the subject matter, and their levels of perceived competence, anxiety, and/or confidence. Yet should we accept this as a deficiency in the communicative and cooperative L2 classroom, or celebrate the fact that the tasks we create can impact upon our learners' communicative output? I do not dispute the impact of the situational variables referred to above, but suggest that we, as educators, should adopt any available strategy to support our learners as they seek to convey and negotiate meaning, comprehend discourse, and interact with one another.

Another issue to consider with any pedagogical approach that encourages peer interaction, is the potential neglect of accuracy. Spada and Lightbown (2008) note the importance of a theoretical and practical balance in our classrooms. They argue that while a communicative approach facilitates the development of oral communication and comprehension skills, students "continue to have difficulties with pronunciation as well as with morphological, syntactic, and pragmatic features of the L2" (Spada & Lightbown, 2008, p. 184). The following section examines the importance of a balanced approach to the language classroom, one that includes both peer communication and interaction, and a focus on form.

3.1.2. A focus on accuracy: the need for balance

An examination of SLA literature indicates the need for a balanced approach within our classrooms, one that also includes a focus on form. Communicative approaches to the L2 classroom do not advocate an abandonment of linguistic accuracy, or attention to form, as "communication cannot take place in the absence of structure, or grammar" (Savignon, 2002, p.7). Therefore, within a CLL context characterized by peer communication and interaction, there must be time and space for a focus on accuracy, be it linguistic, phonological, or structural. Spada and Lightbown (2008) cite the need for a focus on form in the L2 classroom, while Savignon (2002) refers to research findings that "overwhelmingly support the integration of form-focused exercises and meaning-focused experience" (p. 7). Liu and Littlewood (1997) argue for a balanced communicative classroom as the L2 learner's desire to take part in communicative activities is matched "by an almost equally strong desire to have their mistakes corrected" (p. 373). In other words, there needs to be an attention to both form (accuracy) and meaning. In this digital storytelling project, Form-Focused Instruction (FFI) was both proactive and reactive

(Spada & Lightbown, 2008) and was designed into the task at various stages of the creative process. A reactive focus on form was a central part of the *scripting* process in these stories, as students submitted a first draft that was returned with comments, suggestions, and corrections. A VoiceThread was also created to provide proactive FFI and this outlined some of the key language forms that students could use in their stories. Students' attention was also drawn to question and suggestion forms, and they spent time in pairs formulating examples of these to prepare them for the feedback and questions they would post to their group members' stories. Teachers also recorded oral feedback on the students' first drafts, and this provided individual reactive feedback.

Research suggests that there needs to be balance in the communicative L2 classroom. On the one hand, students need extensive opportunities for peer interaction and this can lead to communicative competence. At the same time, there needs to be a focus on accuracy and improvement. The next section looks at research connected to the affective environment and the role that this may have in promoting peer interaction, as well as learner engagement and motivation.

4. The Affective Environment

4.1. Background

The affective environment is important within the context of this study for a number of reasons. On the one hand, this thesis explores whether a digital storytelling project (the process) can promote in-class peer interaction. As described previously, this represents an important part (the *Yang*) of a balanced, harmonious communicative classroom. This study also examines whether the *creative aspects* of the digital storytelling project affect learner motivation and engagement, and how this might

manifest itself. At a simplistic level, learner behaviour is governed (driven), by either extrinsic or intrinsic motivation and the following sections examine literature relevant to motivation within this digital storytelling environment.

4.2. Extrinsic motivation

The digital stories in this project are summatively assessed, and therefore, there may be *extrinsic* reasons for certain actions or behaviours. Extrinsic motivation "refers to doing something because it leads to a separable outcome" (Ryan & Deci, 2000, p. 55) and this could be engendered by the goal of a qualification, a high mark in an assessment, or some form of external reward. The digital story is a summative assessment, albeit a small part of the speaking assessment (7% of the 50% allocated for speaking). Understandably, students attach great importance to assessed tasks and an asynchronous communicative activity i.e. one that students could complete in their own time, might engender high levels of effort and energy. However, if this were the case, students would exhibit motivated behavior *only* on those aspects of the digital storytelling project that were assessed (the questions posted to the first draft, and the final draft of the digital story itself). Conversely, learners would exhibit little or no motivation on the non-assessed aspects.

Much of the activity in this digital storytelling project is not assessed. Therefore, a theoretical understanding of intrinsic motivation is necessary as the research question explores notions of motivation, engagement, and possible changes in learner behavior.

4.3. Intrinsic motivation

The concept of intrinsic motivation, the performing of "an activity for itself, in order to experience pleasure and satisfaction inherent in the activity" (Guay, Vallerand & Blanchard, 2000, p. 176) is important in this study. Students' intrinsic

responses to the project, cultural content, or ICTs used, may suggest connections to learner communication and interaction in the classroom, as well as levels of effort in authoring their stories.

In terms of the digital storytelling context described here, the literature suggests intrinsic motivation can be engendered by a student-centred approach that acknowledges and values a student's cultural background. A student-centred approach gives learners "the freedom to explore areas based on their personal interests" (Motschnig-Pitrik & Holzinger, 2002, p. 2) and this can lead to increased levels of intrinsic motivation (Oldfather, 1993; Simmons & Page, 2010). This is supported by Dörnyei and Csizér (1998), who argue that an intrinsically-motivating task or activity should have relevance to the student. Cummins, Bismilla, Chow, Cohen, Giampapa, Leoni, Sandhu, and Sastri (2005), extend this construct by noting, "English language learners will engage academically to the extent that instruction affirms their identities and enables them to invest their identities in learning" (p. 40). Brown (2006) establishes a series of guidelines for those who wish to design a cultural component into the L2 classroom, and argues that an activity should value a learner's culture, and draw on a student's "potentially rich background experiences" (p. 213). Furthermore, Brown (2006) emphasizes the importance of the language classroom to "celebrate cultural differences" (p. 192). In other words, we can engage and intrinsically motivate our language learners by valuing their cultural identities, and the cultural knowledge they bring to the classroom is a key resource in promoting this engagement (Cummins et al., 2005).

Intrinsic motivation can be found within the individual but it can also exist "in the relation between individuals and activities" (Ryan & Deci, 2000, p. 56). A specific task or project can therefore play an important role in a student's affective response

and their subsequent behavior. This is supported by Shroff and Vogel (2009) who claim that interest in a task or topic can motivate learners to engage in learning activities. Research suggests that digital storytelling can be a powerful tool in fostering learner engagement. A digital story can capture the joy that learners experience creating and then sharing their stories (Porter, 2006) and places our students at the centre of the learning experience, allowing their voices to be honoured and heard (Porter, 2005).

A more holistic, learner-centred approach to assessment, can promote intrinsic motivation (Brown, 2006) and innovative assessments such as portfolios, stories, reports and poems can demonstrate and inspire student achievement (Savignon, 2002).

A task that intrinsically motivates our students should be characterized by cooperation and interaction (Dörnyei & Csizér, 1998). Research carried out by Littlejohn (1982) compared peer group work with teacher-led activities among beginner Spanish students. The results indicated that small group work increased motivation, reduced inhibitions, and promoted communication.

Research indicates that tasks or activities that intrinsically motivate our learners can result in positive learning outcomes (Noels, Clément, & Pelletier, 2001; Ryan & Deci, 2000). Intrinsic motivation can result "in high-quality learning and creativity" (Ryan & Deci, 2000, p. 55) and have a positive impact on language output and oral proficiency (Noels et al., 2001). As Noels et al. (2001) note, intrinsic motivation can be, among other things, a predictor of reduced anxiety, perceived competence, language output, and oral proficiency. Intrinsic motivation is therefore, a vital component of this, and indeed any learning experience, as it can influence both the quality and quantity of student output.

The literature suggests culture-based digital stories created within a cooperative framework, can promote intrinsic motivation. In terms of the research question proposed in this study, the literature suggests intrinsic motivation could have a positive impact on the quality and quantity of a learner's spoken and creative output. Finally, intrinsic motivation can increase learner confidence and reduce anxiety and these areas are revisited in the following section, which looks at Willingness to Communicate (WTC).

4.4. Willingness to Communicate (WTC)

WTC is a theoretical construct that examines those factors that precede a person's commitment (willingness) to communicate with others. This has clear relevance to the research question, which asks whether a digital storytelling project can increase communication. Clearly, there must be desire, or willingness, to communicate, before any sustained interaction can take place. WTC grew out of Burgoon's (1976) work on unwillingness to communicate and that of McCroskey and Baer (1985) within a first language (L1) context. MacIntyre et al. (1998) created a pyramid model of WTC (see Figure 3 below) "to explain individual and contextual influences in the choice to initiate L2 communication" (Clément, Baker & MacIntyre, 2003, p.191).
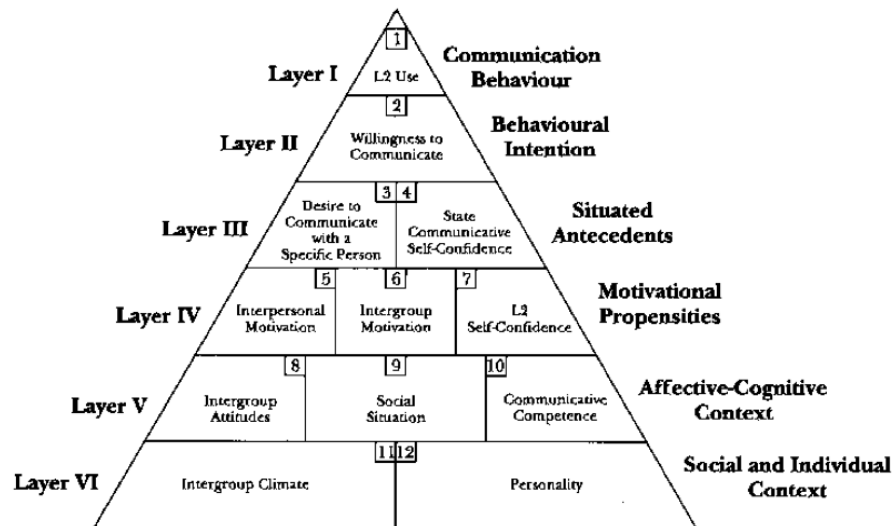
Figure 3. Heuristic model of variables influencing WTC (Macintyre et al., 1998, p. 547).

Willingness to Communicate (WTC) can be defined as that "readiness to enter into discourse at a particular time with a specific person or persons, using a L2" (MacIntyre et al., 1998, p. 547). WTC is a vital prerequisite to L2 interaction and communication, as it represents "the most immediate determinant of L2 use" (Clément et al., 2003, p. 191). WTC represents therefore, a metaphorical door that when opened, leads to communication in the L2. WTC represents a learner's desire to communicate and without this commitment, the communicative classroom is, paradoxically, a silent one. Conversely, the logical consequence of higher WTC, is increased L2 use and practice that in turn, should facilitate language acquisition (MacIntyre et al., 2001) and communicative competence (Léger & Storch, 2009; Richards & Rodgers, 2001; Savignon, 2002). Yashima, Zenuk-Nishide, and Shimizu (2004) indicate a clear correlation between speaking skills and actual use when observing that "to improve communicative skills one needs to use the language" (p. 122). Conversely, as Freiermuth and Jarrell (2006) note, an absence of willingness impedes language production and interaction. It is therefore vital that we, as

educators, create learning environments that encourage students to speak and actually *use* the language.

WTC represents the penultimate layer, or stage, before L2 learners actually engage in communicative behaviour, and represents that moment when a student commits to communication. As can be seen in Figure 3, Layer 1 of the pyramid represents the act of communication while directly below, layer 2 represents the intention (WTC). Layer 3 contains those *situational antecedents* (MacIntyre et al., 1998) that can change over time, and depend on the specific context. These include a person's knowledge of that which is being discussed, and their self-confidence or desire to communicate with someone (MacIntyre et al., 1998). Of greatest relevance to this research is the implication that WTC could be engendered by a range of situational variables, that include the topic being discussed, the project itself, as well as a student's level of anxiety or confidence at a particular moment.

4.4.1. WTC as a predictor of language output

This section attempts to summarize some of the more salient findings in terms of WTC and its connection to spoken output in the classroom.

Yashima et al. (2004) studied the antecedents of WTC among young Japanese learners of English and their findings indicate that WTC could predict both the frequency and the amount of communication among the learners being studied. Research carried out by Dörnyei and Kormos (2000) examined the impact of social and affective variables on L2 learners' performance in oral communicative tasks, and their findings demonstrated a positive correlation between WTC and the number of turns taken. However, there was no significant relationship between WTC and the *number of words* that the students produced. This outcome is not unexpected as WTC is a construct that measures, "whether someone will initiate talk rather than how much

the person actually speaks" (Dörnyei & Kormos, 2000, p. 286). One could infer from these findings perhaps, that WTC represents a first step, but a desire to engage in communication is not enough to ensure lengthy, sustained interaction. I would posit here WTC as a metaphorical flame, one that could be fanned by interest or prior knowledge of a topic, and nurtured within a familiar and supportive environment. Figure 4 below illustrates the role that these situational influences may have in not only fostering willingness to communicate, but also fanning the flames of WTC, leading to sustained interaction.
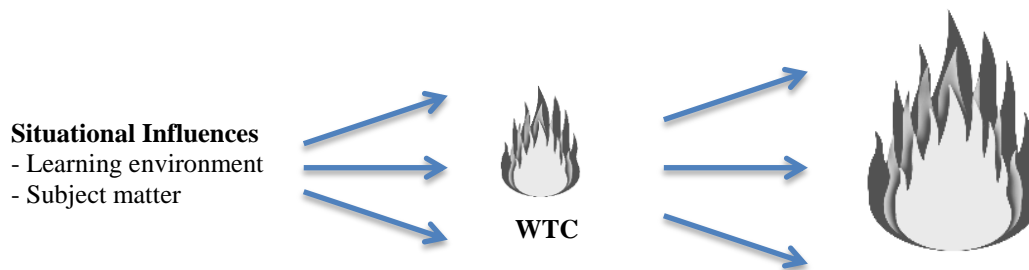
Figure 4. The influence of situational factors on WTC.

As MacIntyre et al. (1998) assert, WTC *can* be influenced by "immediate situational factors" (p. 546) and this will be explored in the following section.

4.4.2. Situational influences

Situational variables such as familiar and engaging content, a positive attitude toward the digital storytelling project and the learning environment, have particular relevance to WTC in this study.

Dörnyei and Kormos (2000) examined the impact of social and affective variables on L2 student engagement in oral communicative tasks, and concluded "only the situation-specific factors - attitudes towards the English course, attitudes towards the task and linguistic self-confidence" (p. 286) have any significant impact upon either the number of words produced or turns taken. Within this area of the layer

exist two variables, *the desire to communicate with a specific person* and *state communicative self-confidence* (MacIntyre et al., 1998). The following sections examine these situational antecedents within the digital storytelling context being described here, and identify possible factors that may engender WTC among the target learner group and lead to *sustained* communication and interaction.

4.4.2.1.   State communicative self-confidence

State communicative self-confidence is a situational precursor to WTC. It exists as a combination of *state perceived competence*, that "feeling that one has the capacity to communicate effectively at a particular moment" (MacIntyre et al., 1998, p. 549) and *state anxiety*, those feelings of emotional tension that vary from one situation to another. According to MacIntyre et al. (1998) levels of perceived competence, confidence, and anxiety at this level, are temporary in nature, and are dependent on a range of factors in the here and now, rather than being trait-like, and therefore stable. This has important implications in terms of this study, suggesting a student's *state communicative self-confidence* is not wholly dependent on the cultural, emotional, and historical baggage they bring to the classroom. Furthermore, it suggests the learning environments we create can have a positive impact upon a student's perception of their abilities and their levels of confidence and/or anxiety.

According to Horwitz, Horwitz, and Cope (1986) speaking can provoke anxiety to a greater degree than any other form of communication and has an influence on spoken interaction (Woodrow, 2006). It is the one form of communication that one cannot hide from, as interaction demands a partner, and any form of spoken discourse requires at the very least, an audience. Furthermore, oral communication is unique among the language skills, in that there is often no help or support at hand, nor do students have time to formulate or adjust what they want to

say. However, one could argue the asynchronous communication that occurs in these digital stories affords students the time and support they lack in f2f communication, and this could minimize anxiety. This will be explored in a subsequent section.

There is a growing body of literature that suggests an appropriate learning environment is key to promoting student interaction and communication (Clément, Dörnyei, & Noels, 1994; Peng & Woodrow, 2010; Yashima et al., 2004). Peng and Woodrow (2010) conducted extensive research on WTC in Chinese EFL classrooms and examined the impact of learner beliefs and classroom environment on WTC within an EFL context. Their findings suggest a learning environment that engages students can promote WTC, and "is likely to heighten perceived competence and to lessen anxiety" (p. 857). Their findings are echoed in the work of Clément et al. (1994) that suggests, "good classroom atmosphere promotes student involvement and activity while moderating anxiety and promoting self-confidence (p. 442). Peng & Woodrow (2010) believe that positive experiences within the communicative classroom may result in L2 students "feeling less concerned about their linguistic limitations or negative evaluations from others" (p. 857).

The literature summarized here indicates a supportive and engaging L2 classroom can help overcome anxiety, instil confidence, and increase students' perception of their own communicative abilities, their *state perceived competence*. The next section examines those factors that might encourage learners to communicate with one another.

4.4.2.2.   Subject matter as motivation for L2 communication

The desire to communicate with another person is the second situational antecedent in the model of WTC established by MacIntyre et al. (1998). This motivation can be engendered by a learner-centred approach that focuses on a

student's interests and background.

Studies indicate subject matter is important in motivating L2 communication (Kang, 2005; Reeves, 2009). More specifically, the literature indicates that a topic that is familiar and/or important to a student can play a vital role in fostering situational WTC. Kang (2005) studied conversational classes between undergraduate (English-speaking) tutors and non-native students on campus. This study revealed that a lack of knowledge about a subject led to insecurity, and all participants felt more secure when discussing familiar topics such as Korean culture (Kang, 2005). Furthermore, Kang (2005) notes that participants were *excited*, conversing about topics that were familiar or interesting to them, "such as their family, major, or Korean culture" (p. 284). Kang (2005) defines this excitement as "a feeling of elation about the act of talking" this being "another psychological antecedent to the emergence of situational WTC" (p. 284). Kang (2005) refers to one student who was excited when asked questions by his interlocutors as this gave him a sense that she was interested in what he had to say and this in turn, made him want "to tell her as much as possible" (p. 285). Reeves (2009) describes how the passive, teacher-dominated language classroom he encountered in China, was transformed by animated debates on Chinese food, art or music.

These findings suggest cultural content can be a powerful tool in promoting learner engagement and fostering WTC. This, in turn, has implications for levels of peer interaction and motivation in this study as culture forms the basis for both f2f communication, and the digital stories themselves.

4.5. The affective role of the ICT environment

To date, this section has examined the affective environment and its possible role in classroom communication. However, communication in this project also exists asynchronously, on VoiceThread, to create a balanced communicative classroom. On

the one hand, asynchronous communication gives students time to practise and review their work, so this could instil a sense of confidence in learners who are able to practice and check their work before committing to a 'public' domain. However, Web 2.0 tools such as VoiceThread require learners to place their work, their voice 'out there' for all to see (and hear) and this may provoke anxiety.

Studies indicate some students are uncomfortable with asynchronous voice tools. Yaneske and Oates (2011) examined the use of an asynchronous audio forum among graduate L2 learners, using Wimba VoiceBoard (VB), observing that some students felt embarrassed because they did not like the sound of their voice. Yaneske and Oates (2011) noted that some students "felt self-conscious" (p. 76) or lacked confidence when recording comments to the forum. These reactions were attributed to the fact that they were L2 learners (Yaneske & Oates, 2011). Hew and Cheung (2012) also examined the use of Wimba VB and its role in asynchronous discussion. Their findings also indicated a degree of self-consciousness among students with some "afraid of appearing foolish should they speak too fast that their voices sounded too high pitched, while others felt awkward, speaking into a microphone" (p. 364). Yaneske and Oates (2011) also found that some learners felt uncomfortable with the permanence of their contributions.

Other studies indicate that asynchronous tools can have a positive impact on the affective environment in L2 contexts. When referring to research carried out among L2 users of an asynchronous forum, Ellis (2001) noted several contributors valued the permanence of the content. This appears credible when one considers the comprehension issues many L2 learners face. The classroom can be a vibrant, dynamic, and stimulating place. However, it can also be characterized by non-linear discussions, often dominated by a few, where some students feel unable to articulate

their ideas due to a lack of time and space. Where a discussion involves L2 learners the problem is exacerbated. There is evidence that students feel more relaxed using Web 2.0 voice tools because the environment is safer and less threatening (Gleason & Suvorov, 2011; McIntosh, Braul, & Chao, 2003; Pop, 2010). Furthermore, students may be motivated by a sense of authentic audience (Pop, 2010; Stanley, 2006; Warschauer, 2001; Wood, Stover, & Kissel, 2013) and this motivation can manifest itself in higher quality work and increased learner engagement. Stanley (2006) claims that his ESL students' took more care with their podcasts due to the presence of an authentic audience. This claim is echoed in the findings of Wood et al. (2013) who observed a group of learners highly engaged in creating VoiceThreads, because of the "authentic audience beyond the teacher" (p. 61). Finally, learners can experience considerable pride when posting their voices to the web (Pop, 2010).

The apparent conflict of perspectives in this section illustrates the fact that individual students will react differently to posting their work to a public platform. The embarrassment that some learners experience when listening to their voice is understandable. While our comments (and errors) may be lost forever in the at-times chaotic classroom environment, web-based publishing has both audience and permanence. Therefore, L2 learners in this study may be concerned about language and pronunciation errors in the digital stories they are committing to the public domain. What these findings emphasize is that we must create supportive learning environments (both online and f2f) that encourage students to take risks and participate fully in all communicative activities.

5. The ICT Component

5.1. Introduction

The previous section examined literature related to the affective factors that might promote (or impede) L2 communication and interaction in both the f2f and virtual environments. This section reviews literature related to asynchronous communication and VoiceThread, the ICT tool chosen for this task.

5.2. Asynchronous communication

The recorded digital stories, and subsequent peer and teacher input, take place asynchronously, which refers to online communication that does not occur "in real time" (Jonassen, Howland, Moore, & Marra, 2003, p. 75). There is a considerable body of research concerning the use of asynchronous communication within educational contexts, and this section summarizes those aspects relevant to this digital storytelling project.

L2 learners often encounter issues of comprehension at both a linguistic and conceptual level and an asynchronous approach can give students the time and space to reflect on what has been said or written, and prepare their answer (Conrad & Donaldson, 2004; Ellis, 2001; Hrastinski, 2008; Palloff & Pratt, 2003).

An asynchronous approach may result in higher quality contributions for a number of reasons. Asynchrony affords learners opportunities to reflect (Conrad & Donaldson, 2004; Hrastinski, 2008) and do research before responding (Ellis, 2001; Hrastinski, 2008; Jonassen et al., 2003). In terms of this study, L2 students can listen, practice, and repeat their audio recordings (Sun, 2009).

Research suggests that students in L2 classrooms appreciate being able to revisit both peer and teacher audio postings (Pop, 2010; Yaneske & Oates, 2011) as this allows them to reflect upon, and identify ,the linguistic strengths and weaknesses

in their own work and that of others (McIntosh et al., 2003; Pop, 2010). This focus

can include "pronunciation as well as intonation, the range of vocabulary, grammar

structures, even creativity and critical thinking" (Pop, 2010, p. 2).

An asynchronous approach can create a more inclusive learning environment

as quieter students can "experience a new freedom and level of participation"

(Jonassen et al., 2003, p. 76) when given the time and space to formulate an answer.

An asynchronous learning environment can increase opportunities for teacher

feedback (Gleason & Suvorov, 2011; Meskill & Anthony, 2005) and improve the

quality of teacher input (Meskill & Anthony, 2005). This suggests that the recorded

teacher feedback in this project could potentially enhance a learner's communicative

experience.

In addition, teacher feedback in audio format can add a human element, and

this can facilitate comprehension as spoken feedback imparts a more nuanced

message due to emotion and emphasis (Yaneske & Oates, 2011).

The literature related to asynchronous communication suggests certain

pedagogical and affective benefits within an L2 context. The following section

examines research related to the technological and pedagogical affordances of

VoiceThread, the asynchronous voice tool chosen for the creation of these digital

stories.

5.3. VoiceThread

VoiceThread allows students to create multimedia stories with all-important

voice recording capabilities, and contributors can listen (and re-listen) to what has

been posted. They can then reflect, and then post questions and/or feedback. It is this

spoken interactivity that makes VoiceThread an ideal fit for the oral skills classroom.

According to Garrison and Anderson (2003) we need ask to ourselves "what e-

learning will allow us to do that we could not do before" (p. 7). This observation

represents a key philosophical principle in terms of this project. This learning context

was conceived as a balanced communicative environment with reflection, practice,

and possible improvement, residing in the *Ying* of asynchronous communication via

VoiceThread. VoiceThread was identified as an appropriate digital storytelling

platform because it offers affordances that both the conventional f2f classroom, and

alternative ICT tools, do not.

      VoiceThread is recognized as an easy tool to use (Alameen, 2011; Brunvand &

Byrd, 2011; Chicioreanu, 2010; Educause, 2009) and this clearly has positive

implications for L2 learners with a disparate set of ICT skills. A complex tool that

creates technological issues, and leads to learner anxiety, would have a negative

impact upon a learner's communicative experience and reduce levels of engagement

and motivation.

      VoiceThread contributions are organized around an image, and it is unique

among social media sites as it captures an entire discussion on one page (Alameen,

2011). VoiceThread discussions suggest a conversational intimacy, having that

metaphorical feel of campers (contributors) sat around a campfire, rather than

scattered, at great distances from each other, as is often the case with certain linear,

Web 2.0 applications. Furthermore, this structural 'tightness' makes it easy for

students and teachers to access the various contributions rather than have to scroll up

and down lengthy discussions or get lost down a series of hyperlinked trails.

      VoiceThread's technological affordances may have an impact on the

communicative experience of the digital storytellers in this project. As Chicioreanu

(2010) asserts, VoiceThread's greatest strength is that it allows learners to tell their

stories *and* post contributions to their peers' work. VoiceThread can facilitate a

variety of interactive tasks and imbues discussions with "multiple voices" (Alexander & Levine, 2008, p. 51). Sharples (2005) observes that "technology may provide or enrich the environment in which conversations take place" (p. 151) and VoiceThread not only provides an environment for conversation, but also *enhances* (enriches) it, by allowing for multimedia content creation (stories, presentations) as well as recorded peer and teacher input. These digital stories are intended to provide a window onto the learner's cultural world, and VoiceThread's interactive and multimedia functionality, suggest it can be that metaphorical window. Unlike many of the storytelling tools available, it is an *open* window, through which students and teachers can easily interact.

VoiceThread was chosen for its communicative functionality and its ease of use. VoiceThread represents a platform that can transform digital storytelling from the transmissive into the collaborative, creating an asynchronous experience that affords reflection and interactivity.

6. Summary

This research question examines to what extent and in ways a digital storytelling project can affect L2 students' communicative experience, engagement, and motivation, and increase communication. The literature reviewed in this chapter has indicated the need for a balanced communicative L2 classroom. On the one hand, peer interaction is vital, as this leads to communicative competence. This corresponds to the *Yang* within this study. However, research also indicates a need for accuracy, and this may reside in the opportunities for reflection, practice, and accuracy, that are available asynchronously through VoiceThread. This represents the *Yin* within the holistically-conceived communicative classroom. It is perhaps through the

affordances of asynchronous communication and VoiceThread's functionality, that this digital storytelling project can have an impact upon a learner's communicative experience. Finally, the literature suggests situational variables such as task, subject matter, and learning environment, can increase levels of engagement and intrinsic motivation, and instill not only WTC, but a desire to engage in sustained interaction. The following chapter examines the research design for this study, and its theoretical underpinnings.

Chapter Three: The Research Design

This section describes the research design of this study. It begins with its theoretical positioning, as this will dictate the research method and the methodologies adopted.

1. The Research Question

As discussed in the introduction section the principal research question is:

To what extent and in what ways can a digital storytelling project affect L2 learners' communicative experience, motivation and engagement, and promote f2f interaction in an L2 context?

2. Theoretical Stance

The L2 classroom in NZ is a rich, complex setting where students from a range of cultural backgrounds meet. This study examines the unique perspectives of a group of L2 learners studying English here in NZ. The specific context is a digital storytelling project, based on a cultural topic of their choice using VoiceThread, a Web 2.0 voice tool. The theoretical stance that underpins this study is based on my own constructivist beliefs that reality, knowledge, and truth, are constructed and that meaning is situated and cannot be separated from its context (Mutch, 2005). This *philosophy* of knowledge, or ontological and epistemological positioning, is critical, and precedes any discussion of a research method (Guba & Lincoln, 1994). As Davidson and Tolich (2003) assert, "before we can talk about how to research something we need to know how we can believe in anything" (p. 23).

Ontology deals with beliefs about what exists in the world (Davidson & Tolich, 2003). I hold a *nominalist* position (Cohen, Manion, & Morrison, 2007), one

that assumes the existence of multiple realities that are socially constructed, unique to the individual, and dependent on the context in which they are occurring (Joniak, 2005). A *nominalist*, or *subjectivist* ontology, posits reality as being internal to the individual, a product of their consciousness (Cohen et al., 2007). In other words, reality is what an individual, within a specific context, perceives to be real. In terms of *this* project, each digital storyteller will have their own set of beliefs about the realities that they have constructed during the creative process and what is true or 'real' for one participant, cannot be assumed to be true for another. Consequently, a *subjectivist* ontology values a participant's interpretation of reality (Joniak, 2005) and clearly this holds implications for the type of research method that is adopted.

Epistemology concerns the nature and form of knowledge, how it is acquired, and how it can be communicated to others (Cohen et al., 2007). I perceive knowledge as something that is socially constructed, subjective and unique to the individual. This is a *subjective* epistemology, one that recognises that knowledge or reality, the 'world' in which we live, is perceived in different ways (Cohen et al., 2007) and allows for different explanations (Mutch, 2005). The subjectivist researcher believes that individuals construct their world through lived experience or social interaction (Mutch, 2005) and by adopting this theoretical position, this study examines how groups and individuals within this digital storytelling context, perceive their world and the significance of their interpretations (Cohen et al., 2007; Mutch, 2005). A subjectivist epistemology assumes knowledge emerges due to a profound understanding of both the data and context (Joniak, 2005) and this brings us to an examination of the interpretive paradigm adopted for this study.

3. Adoption of an Interpretive Paradigm

A paradigm could be seen as an entire world-view, a net that contains one's ontological and epistemological beliefs (Denzin & Lincoln, 2008). It is also the lens through which we view and understand phenomena (Cohen et al., 2007). My philosophical stance is a subjectivist one, where individuals perceive the world in which we live, in different ways. This theoretical stance is underpinned by a desire to understand an individual's unique stories and interpretations of their world. This research investigates the behaviours and experiences of a group of L2 learners creating digital stories. It is, on one level, about their digital stories. On another level, it is about their *backstories*, their unique experiences within this digital storytelling context. This study is, in effect, about stories within stories. Consequently, an interpretive paradigm was adopted for this study in order "to get inside the person" (Cohen et al., 2007, p. 21) and understand their experiences.

An interpretive paradigm emphasizes an *inductive* process that seeks to identify "how people create meaning in their social worlds" (Davidson & Tolich, 2003, p. 26). In other words, an interpretive approach starts at the bottom with observation, takes note of any patterns, then moves towards a tentative hypothesis and an eventual theory (Trochim, 2006). This could be contrasted with a positivist stance that begins with a theory and then tests it (Cohen et al., 2007).

This study concerns itself with the meanings or knowledge that these L2 learners construct within this digital storytelling context, and how they interpret this 'world' (Cohen et al., 2007). An interpretive paradigm demands therefore, a research method that allows participants' interpretations of this reality to emerge.

The interpretive researcher rejects the belief that phenomena occur the same way irrespective of time and place (Gage, 1989) but instead examines them within the

specific context where they occur (Davidson & Tolich, 2003). The notion of context

is vital within an interpretive paradigm, as behaviour and events are "richly affected

by context" (Cohen et al., 2007, p. 20). In other words, the component parts of the

social world we are studying, do not behave in the same way in isolation as they do

within a specific setting (Davidson & Tolich, 2003). In terms of this study, an

interpretive approach would focus on meanings that participants generate as a result

of their interaction with the various elements of this digital storytelling context; the

task, content, ICTs used, and the other students. For example, L2 students in *this*

study might construct very different realities to learners studying within a culturally

and linguistically homogenous environment (in their own country). Furthermore, the

adoption of an alternative topic, ICT, or task, would all create a different context

within which participants would construct meaning. One could posit here a 'Sliding

Doors' principle (Norton, 2014) to illustrate how variables can alter a research

context. Figure 5 below, situates this concept within the digital storytelling setting

studied here. The 'Sliding Doors' principle, inspired by the film of the same name,

demonstrates that the variables on the other side of these sliding doors will create a

specific environment within which participants will construct realities unique to *this*

setting only. This schematic representation does not hypothesize outcomes within this

context, but demonstrates how contextual variables within a subjectivist, interpretive

paradigm can create a new environment within which learners would experience and

construct new (multiple) realities. In other words, the 'sliding doors' that we

encounter within our educational contexts, can have a significant impact on the

realities we experience and the knowledge that we create, 'on the other side'.

Consequently, any data that emerges from this interpretive framework needs to be

seen, and interpreted, within the specific context already described, and care must be

given not make wide, sweeping generalizations to a wider educational setting. This

notion of context-specificity is an important one and has implications that will be

revisited later in this chapter in the section on transferability.
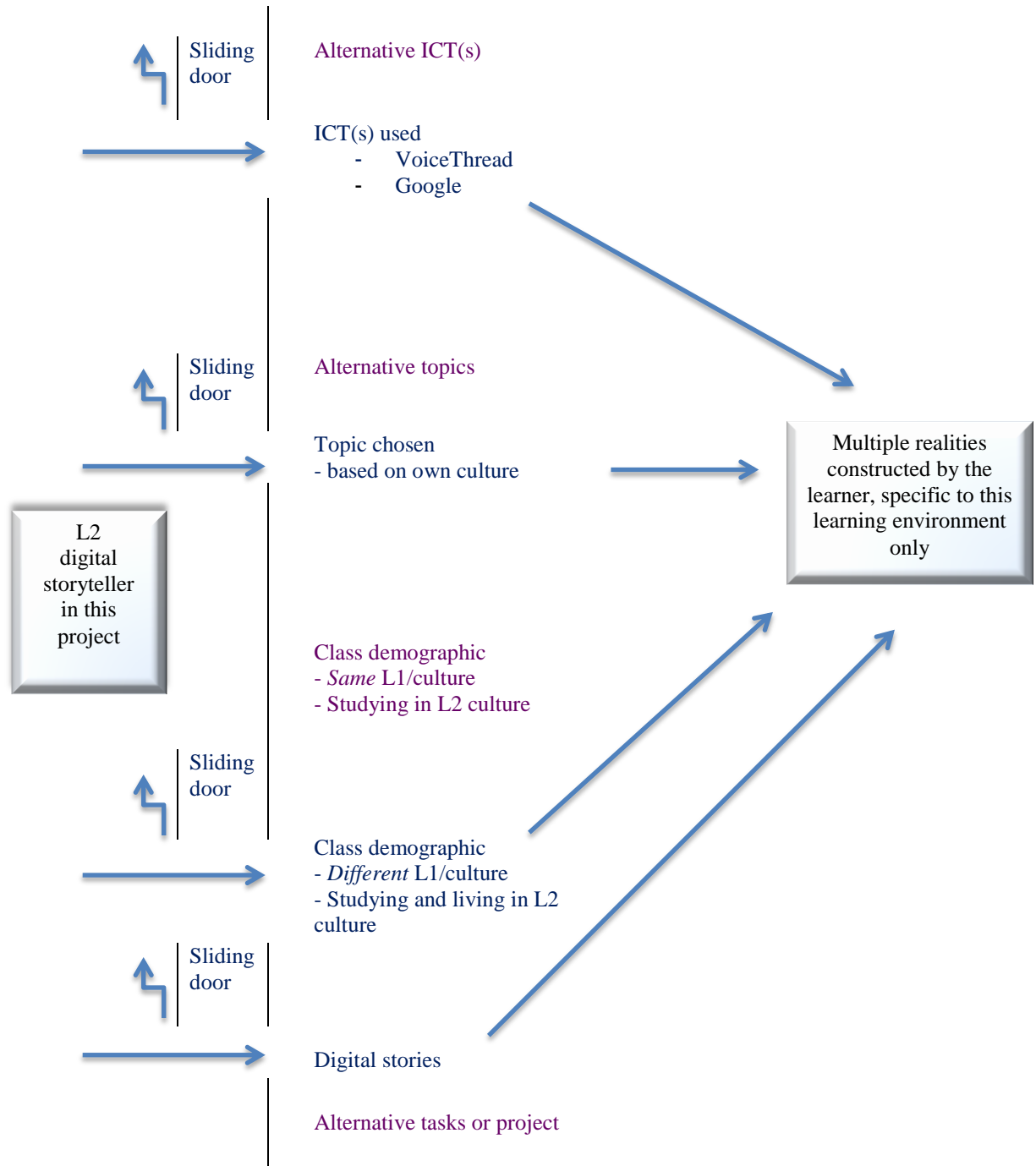
Figure 5. The Sliding Doors principle.

The interpretive paradigm has a fundamental "concern for the individual" (Cohen et al., 2007, p. 21) and research conducted within an interpretive framework adopts research methods and methodologies that allow for the individual experience to emerge rather than guarantee a scientific certainty that could be applied universally. The importance of the individual voice is reflected in the following section, which examines the qualitative approach adopted for this study.

4. A Qualitative Approach

The concept of 'fitness of purpose' is vital when planning research as "the purposes of the research determine the methodology and design of the research" (Cohen et al., 2007, p. 78). As Mutch (2005) observes, we need to have a clear idea as to what it is we want to discover and then select a method that best achieves our research goals. The interpretive framework adopted for this study necessitates a qualitative approach as it allows researchers to "get closer to the actor's perspective" (Denzin & Lincoln, 2008, p. 16), provide greater depth (Davidson & Tolich, 2003) and enable individual 'stories' and perspectives to emerge.

A range of qualitative methods was adopted for this study to give a better understanding of the context, improve the validity of the data (triangulation), and indicate connections between the information generated by the various methods of data collection. Through observation, interviews, and an examination of the digital stories themselves, it might be possible to create a rich layered description, one that acknowledges the uniqueness of an individual's experiences while revealing patterns among the collective. The qualitative researcher has been described, among other things, "as a bricoleur, as a maker of quilts" (Denzin & Lincoln, 2008, p. 5) and it is

the flexibility and multi-method nature of a qualitative approach that allows this

tapestry of human experience to emerge.

5.   Research Method: Case Study

A case study "focuses on understanding the dynamics present within single

settings" (Eisenhardt, 1989, p. 534). It is therefore an appropriate research method for

this study, which examines learner behaviours and perspectives within this specific L2

digital storytelling context. According to Cohen et al. (2007) case studies can be

situated and bound in institutional, organizational, temporal, and geographical

contexts. This case study is bound by the digital storytelling project, which spans all

related activities in both the classroom and on VoiceThread. The student group

comprises L2 students enrolled on the same course (OS1), engaged in the same digital

storytelling project, and represents the unit of analysis, as this group constitutes the

'case' under investigation.

Even allowing for new, unexpected and emerging theories, a case study must

begin with a research question to give the study a clear focus and allow for data to be

collected systematically (Mintzberg, 1979). The research question proposed here,

guided the choice of data collection methods and gave focus to the data collection

process.

6. Data Collection

Data collection was carried out in this study using a range of methods, to

triangulate data, address the various aspects of the research question, and ensure that

the individual's experiences and perspectives could emerge. Table 2 below

summarizes the data collection process adopted in this study.

Table 2

Summary of Data Collection in this Study

Organization involved	Unitec Institute of Technology			
Location	Mt Albert and Waitakere Campuses			
Restrictions on those who could participate	There were no restrictions although post-task interviews were not conducted until all assessments had concluded			
Number of participants involved	27 (25 of these were interviewed)			
Data collection methods	Participant observation Filmed segments of class activity Interviews Analysis of digitals stories			
Details of data collection sessions (number and length)	Participant observation and filming	Weeks 3-6	3 sessions per class (OS1W and OS1C)	- Observation throughout these sessions - Filmed segments 2-5 minutes in length
	Semi-structured interviews	Weeks 16-17	6 students from OS1A and B (Sem 2 2012) 11 students from OS1C & W (Sem 2 2012) 8 students from OS1A (Sem 1 2013)	30-45 mins
	Digital story analysis	Ongoing during project		
Time period over which data was collected	July 2012- June 2013			

6.1. Semi-structured interviews

The interview is well suited to an interpretive paradigm, as it can unearth individual

perspectives and meanings that other tools cannot (Wellington, 2000). A semi-

structured interview was adopted for this study as it begins with a set of questions to

guide the interviewer (see Appendix B) but allows for flexibility (Mutch, 2005) as new areas can be explored as they emerge. The semi-structured interview also provides "opportunities for clarification and discussion" (Bishop, 1997, p. 33). Consequently, the semi-structured interview can elicit greater depth and detail, and generate *thickness of description*. Within this interpretive framework, the semi-structured interview is an ideal instrument to understand participants' perceptions and experiences.

6.2. Observation and field notes

Observation is common in case studies, as it allows the observer to experience the world of the participant as it is being lived. It was felt that the observation and filming of students would give an indication of the level of interaction in communicative activities. While observation can focus on both the general and the specific, qualitative observation tends to record "rich description" (Mutch, 2005, p. 123). In other words, the observer notes down everything they hear and see, codes the data, then organizes it into themes and categories as part of a thematic analysis (Mutch, 2005).

During this research I fulfilled the role of *participant observer* (Mutch, 2005, p. 125). There was a balance between observation and the noting down of important details, with answering students' questions, offering advice, and giving learners feedback on their ideas.

Observation presents a number of benefits. First, it allows the researcher to "look directly at what is taking place *in situ* rather than relying on second-hand accounts" (Cohen et al., 2007, p. 396). Participant observation gives the researcher the opportunity to be part of the environment that is being studied and understand it, to share the stage with the actors, and not merely observe from afar (the wings). In

addition, data that results from observation can record non-verbal actions (Cohen et al., 2007) and this is of particular relevance in this research, which examines the relationship between situational variables such as task, subject matter, the ICTs used, and f2f communication and interaction.

Another major benefit of observational fieldwork is that it can allow for an "overlap of data analysis with data collection" (Eisenhardt, 1989. p. 538). In other words, the researcher in the field can take notes and at the same time analyse, and note down, the significance of what is said or done within the specific context. By working in the here and now, researchers can interpret the interplay of actors and their environment while all the variables are fresh, vivid and occurring before them. Field notes are, therefore, "a running commentary" (Eisenhardt, 1989. p. 538) of both event and possible significance. Field notes of this type force us to focus on several aspects of that unfolding before us, and make critical judgements about what we are seeing. One could argue that this critical examination of events leads to a greater understanding of the research context and any emerging themes. Furthermore, our interpretations made *in situ* can more accurately capture the significance of the events occurring before us.

Observation was *semi-structured* (Cohen et al., 2007, p. 397) in that I set out to note down (and film on occasion) any communicative behaviour related to students' digital stories. These activities generally involved communicative tasks in front of computer screens in labs.

6.3. Artefacts: the students' stories

Various aspects of the students' digital stories were analysed and coded. The first area of focus concerned teacher feedback posted to draft one of their digital stories and changes made to draft two. Stories from the second iteration were also

analysed for the recorded questions and responses posted to the first drafts on VoiceThread. All of the digital stories were examined for salient uses of language and/or multimedia. The rationale for focusing on these areas was as follows. First, improvements in their delivery or use of multimedia as a result of teacher feedback, reflection and practice, might suggest a connection between an asynchronous voice tool (VoiceThread) and an enhanced communicative experience (the *Yin* of the communicative classroom). Moreover, a creative use of language and/or technology, even in isolated cases, might imply communicative benefits accruing from these digital stories. Finally, the length of the stories and the adoption of a soundtrack might suggest learner engagement and motivation.

7. Ethical Procedures

7.1. Introduction

If one accepts the definition that "research is the search for truth and commitment to truth is an ethical imperative" (Snook, 2003, p. 81) then the quest for knowledge (truth) and the *means* by which research is conducted (and knowledge acquired), should be characterized by a process of honesty and transparency. On the one hand, this should preserve the dignity of all those involved, and build respect and understanding of both the participants and their stories. The following sections describe the ethical procedures that were implemented during this study.

7.2. Access and acceptance

Before this, or indeed any research project can commence, access must be granted by the organization where the research will take place (Cohen et al., 2007). As Cohen et al. (2007) observe, access is less problematic when a researcher is "a member of the organization where the research is taking place (an insider)" (p. 56)

and my position as 'insider' certainly facilitated this phase of the project.

Notwithstanding my insider position, it was vital that the right people were

approached in the appropriate manner and the description of the study and its methods

was both comprehensive and transparent. Ethical approval of this study was granted

by The University of Waikato on July 3, 2012, and Unitec's Research Office

approved access upon receipt of this documentation. A copy of the Student

Information and Participant Agreement (see Appendix A) was given to the Head of

Department, Language Studies, who also approved access.

7.3. Informed consent

Informed consent refers to a situation where participants willingly agree to be

involved in research once they feel "fully informed about the research purpose and

process" (Mutch, 2005, p. 78). This section examines some of the key principles that

underpin informed consent, highlights a series of potential issues within this specific

context, and describes how they were dealt with.

Cohen et al. (2007) suggest that *competence*, *voluntarism*, *full information* and

comprehension (p. 52) need to occur for informed consent to take place. These four

factors were highly significant in terms of this study, as these were L2 students

enrolled on a course that I was teaching and coordinating. While I felt comfortable

with the level of detail that was given to the students (full information), and their

ability to make appropriate decisions once they were in possession of all of the

relevant information (competence), these two factors could have been compromised

by a linguistic inability to *understand* all the information (comprehension). Finally,

voluntarism ensures "that participants freely choose to take part (or not) in the

research" (Cohen et al., 2007, p. 52). However, within this context there existed

potential for a sense of coercion on the part of the students, bearing in mind the

teacher-student relationship and the assessed nature of the course. It was decided, given the characteristics of the research context, that a set of guidelines had to be drawn up to address any issues, and ensure that the informed consent process was both comprehensive and ethical.

First, an information and participant agreement was given to students (see Appendix A). This included a description of the study, its purpose, and the fact that pseudonyms would be used to maintain confidentiality.

I then visited each class to talk to the students about the project. Before speaking to the students, I tried to situate myself on 'the other side', as an L2 learner, a refugee, a newcomer to this country. On the one hand, I was conscious of the role that culture or an absence of WTC can have on student-teacher interaction. I was also aware that some of these students were from repressive and totalitarian backgrounds where investigation and questioning might have negative connotations or worse, trigger painful and personal memories. I therefore used these sessions to allay any fears or anxieties, clarify any misunderstandings, and answer any questions, so there was clarity and transparency around the research.

Allied to the concept of informed consent, is the right of subjects to participate voluntarily, without coercion, and be able to withdraw at any time (Mutch, 2005). This was made clear to students in the information and participant agreement (see Appendix A).

7.4. Harm

Harm can take place at both a physical and affective level and its avoidance represents "an absolutely basic consideration" (Guillemin & Gillam, 2004, p. 272). This section examines areas of potential harm within this study and argues that a

process of reflexivity, an attention to "ethics in practice" (Guillemin & Gillam, 2004, p. 264) is necessary to counter any risk of harm to participants.

To mitigate any possible harm related to the *subject matter* of their digital stories, students were given a range of topics (traditional or contemporary music, food, festivals, a famous figure) that would not provoke emotional pain or discomfort in the classroom, or at the interview stage.

In terms of preparation for the interviews, I created a list of possible risks of harm and noted down some potential means of dealing with them. These risks included topics that might emerge when discussing their stories, such as childhood, the memory of lost loved ones, a tragic (perhaps war-torn) past, to possible feelings of anxiety or inadequacy due to issues of communication. Insensitive questioning or excessive probing at the interview stage might also cause a participant harm. It was also important to reflect upon how I would deal with issues as a researcher must be able to provide support if required (DiCicco-Bloom & Crabtree, 2006). Guillemin and Gillam (2004) argue that the real informed consent process is here, in the field, and it is vital therefore, that the qualitative researcher is attuned not only to what is being said but also any signs, non-verbal or otherwise, that may suggest discomfort or anxiety (harm). Ultimately, it is this reflexivity, an ongoing attention to ethics as events evolve and unfold, that can prevent harm occurring.

8. Validity and Trustworthiness

Validity refers to whether a study measures what it is intended to (Mutch, 2005). Clearly, the credibility of any research hinges upon its legitimacy and if a study cannot be trusted, for whatever reason, then its findings must be deemed irrelevant and meaningless (Cohen et al., 2007). Cohen et al. (2007) suggest that

validity in qualitative research might be achieved through a combination of "the honesty, depth, richness and scope of the data achieved, the participants approached, the extent of triangulation and the disinterestedness or objectivity of the researcher" (p. 133). Validity is allied to *trustworthiness*, as the research must have clarity, transparency, credibility, and sufficient detail to enable the reader "to have the same experience as the original observer and appreciate the truth of the account" (Mays & Pope, 1995, p. 111). According to Mutch (2005) qualitative research can be considered trustworthy when "research decisions, research design, data-gathering and data analysis techniques" (p. 114) have been clearly documented and the project has been conducted in an ethical manner. Essentially, readers need to be able to trust both the process and the findings that emerge (Mutch, 2005). This section examines the degree to which this study, and its findings, can be considered legitimate, in light of these criteria, and the procedures that have been adopted.

Validity can be ensured through triangulation, where "more than one data source, data-gathering technique, or researcher" (Mutch, 2005, p. 115) is used to give multiple perspectives. As Malterud (2001) notes, triangulation "can enrich the description of a phenomenon" (p. 487) and recourse to a range of data collection methods, can lead to a "stronger substantiation of constructs and hypotheses" (Eisenhardt, 1989. p. 538). A data collection method (observation for example) is akin to a single photographic image. While this singular perspective can capture a moment, albeit an important one, it can never describe a story in its entirety. Triangulation, on the other hand, can provide us with a representation of the same event or scene from different vantage points (perspectives). This may reveal the wholly unexpected, or indeed confirm the evidence (data) suggested by the original image (method).

To achieve triangulation in this study, a range of data collection methods were adopted, in the form of observation and field notes, filmed sessions, interviews, and artefact analysis. Triangulation allowed for observation to be followed up at the interview stage, and these follow-up conversations were vital in either confirming or negating the interpretation or significance of certain behaviours.

Respondent validation was used to ensure the validity of the study (Malterud, 2001; Mays & Pope, 1995). This was carried out at the interview stage when participants were asked about their in-class and online comments and behaviours. At this juncture in the data collection process I was able to check earlier understandings with both implicit and explicit questioning. The interview stage also allowed me to check by asking for clarification and rephrasing their answers, and summarizing my understanding of the meanings they had expressed. This helped to 'firm up' the significance of the data that had been collected from participant observation, and analysis of the artefacts (digital stories).

Another key strategy to ensure the validity of a study is to examine closely and fairly any negative cases (Mays & Pope, 1995; Malterud, 2001), those instances that contradict the researcher's themes or explanations. 'Unexpected data' that negated themes that had emerged elsewhere have been given a degree of prominence in the findings as per the tenets of an emergent (interpretivist) framework. These new, unexpected meanings that emerged from negative cases, took the study along different paths. For example, they informed the literature review in terms of the choice of texts, and alerted me to possible areas to explore in subsequent interviews. In other words, those instances that appeared to negate or contradict previously analysed data, forced me to question 'what I had', and consider new, alternative positions.

The type of sample can also affect research validity and care was given to include a wide range of ages and backgrounds in the sample for this study.

Cohen et al. (2007) claim, "perhaps the most practical way of achieving greater validity is to minimize the amount of bias as much as possible (p. 150) so this needs to be a priority in any research. While it is acknowledged that researchers working within a qualitative framework will bring their own perspectives and preconceptions to a study, we must seek to keep these threats in check. As the following section describes, it is necessary to acknowledge any preconceptions, examine them in light of any findings, and document them as part of an ongoing process of reflexivity (Malterud, 2001).

8.1. External validity and transferability

According to Malterud (2001) "external validity asks in what contexts the findings can be applied" (p. 484) and this is allied to the notion of transferability, the *extent* to which findings can be applied to other settings (Malterud, 2001). Transferability becomes possible when a study provides enough detail of the setting to allow a reader to decide whether the context is similar to one they are familiar with, and "whether the findings can justifiably be applied to the other setting" (Shenton, 2004, p. 63). This description should include organizations, participants, restrictions, methods of data collection, details of the data collection sessions, as well as the time involved (Shenton, 2004). However, the researcher can only be aware of the context where the study has taken place, the "sending context" (Shenton, 2004, p. 70), and cannot make any inferences regarding transferability. The onus, therefore, for identifying commonalities (transferability) lies with the reader, that person familiar with the *destination* context. However, as Malterud (2001) observes "no study, irrespective of the method used, can provide findings that are universally transferable"

(p. 485). The very nature of interpretivist, qualitative research is that it allows unique, individual stories to emerge from a specific context. As *the Sliding Doors principle* demonstrates, the variables unique to this bounded context (the subject matter, the ICTs used, the class composition, and the task itself) make transferability somewhat problematic.

8.2. Challenges to validity and trustworthiness

Malterud (2001) disputes the existence of the neutral observer, as we cannot deny who we are, nor can we hide our preconceptions, those experiences, perspectives and motivations we bring to a specific research context. We must however, ensure that bias, that "sense of undesirable or hidden skewness" (Malterud, 2001, p. 484) does not compromise the integrity and validity of our work. The qualitative researcher therefore, needs to recognize and document any preconceptions, as part of an ongoing process of reflexivity, (Malterud, 2001).

Reflexivity, is defined by Malterud (2001) as "the knower's mirror" (p. 484) and this is an apt metaphor, as it captures the idea of the researcher stepping outside of the self to examine any impact we may be having upon the research context that compromises its validity. Furthermore, we need to consider whether our preconceptions cause us to see something that is not there, or overstate the importance of something because it fits with our previous experience or research agendas. Consequently, any data that mirrors my own beliefs needs to be questioned. In other words, I need to step outside my researcher self and decide whether the data has been imagined, exaggerated, or 'forced' (through leading questions) to fit with my own beliefs.

To ensure validity and trustworthiness we must also guard against selectivity. In other words, we cannot select findings which suit our beliefs or hypotheses while

ignoring contradictory data. Table 3 below contains examples of observations I made

that document contradictory or disconfirming data, the shade to any light that

emerged during the study.

Table 3

Examples of Contradictory or Disconfirming Data

Delivery	It is clear that some students have read their scripts and this has impacted on their delivery. Consequently, a number of the digital stories are 'flat' (there is a lack of intonation).
	Delivery was often more natural (and unscripted) when learners responded to their peers' questions orally (in the second and third iterations of this project).
	The analysis of one digital story indicated that a student had recorded a totally new and unscripted version for their final draft, ignoring virtually all of the teacher's feedback. The delivery in this new version was natural, and a huge improvement on the scripted first version. This was also noted in an unscripted YouTube video another student produced.
Filmic / multimedia aspects	In some learners' stories, images were repetitive (similar) and did not correspond to the content/narrative.
Motivation	Some students were motivated by the assessed nature of the project.

8.3. My role as teacher and participant researcher

One key aspect that demands further examination is my role in this study as

teacher and participant/researcher, its potential effects, and how these were mitigated.

As part of this ongoing process of reflexivity, I tried to situate myself 'on the other

side', and posit any impact that I, as teacher/researcher, might have on the validity

and trustworthiness of this study. First, students may have wanted to tell me what I

wanted to hear. This is a risk in many research contexts, but this is perhaps more

pronounced when there is a clear power relationship involving a teacher and his or her

students. To mitigate this, I did not mark any of the assessments of the classes that

were part of this study, and this was made to clear to students at the beginning of the research, and at various stages throughout the study. Furthermore, interviews were held after the semester had ended, and all the assessments had been marked and approved at this stage. Care was taken during thematic analysis, to ensure that data was not the product of my interviewing technique or my position of teacher/participant researcher. I was circumspect about data when I sensed that students were telling me what I wanted to hear, perhaps as a result of the question, or my own enthusiasm. Responses that contradicted my own beliefs, or countered the *thrust* of the question and 'went against the grain', were included in the analysis. Furthermore, those responses that had 'a life of their own' were also included. These answers were often lengthy and unprompted and at times went in unexpected directions, thereby eliminating (or minimizing) the effects on validity that the question and/or interviewer might have on the participant's response.

Ultimately, robust qualitative research should be characterized by an ongoing process of reflexivity that documents the researcher's perspectives, background, and motives (Malterud, 2001), and the effect they have upon the data. Furthermore, as Malterud (2001) notes, "if reflexivity is thoroughly maintained, personal issues can be valuable sources for relevant and specific research" (p. 484). In other words, our baggage, those beliefs and experiences we acquire over time, can provide insight into areas worthy of research.

8.4. Why certain digital stories were analysed

This brief section describes why certain digital stories were analysed in this study to ensure there is clarity and transparency.

Six students from different linguistic backgrounds (Korean, Cantonese, Burmese, Farsi, Yombe, and Urdu) were analysed to find out whether, and to what

extent, any improvements had been made to the first draft. These six digital stories were not the 'best' six in terms of pronunciation, improvement, or use of technology. They were selected as a purposive sample of both languages and types. Among this sample were digital stories that had been recorded many times, while others were more spontaneous. There was also a range of technical complexity among this sample.

In the second iteration of this project, students posted questions to their group members' stories, and authors recorded spoken responses. Of the six digital stories analysed above, three were from the second iteration and these were analysed for the students' questions and responses.

The personal connections expressed in the digital stories of three students, Mei, Fazilah, and Adena, were analysed because they were examples of the *possibilities* of a project such as this to create powerful, original, and personal work. Although a number of stories contained elements of personal insight and connection, the three digital stories analysed here cannot be considered *representative* of the sample.

Paul's digital story was analysed in detail not because it was emblematic of the wider group, but because it demonstrated the *potential* of digital storytelling in an L2 context, to create a powerful and cohesive multimedia story.

9. Data Coding

Cohen et al. (2007) stress the importance of fitness for purpose when considering the analysis and presentation of qualitative data, as the researcher must be clear about what it is they want the data analysis to achieve. This will govern the type of analysis to be carried out, which will in turn impact upon how the data is presented (Braun & Clarke, 2006). For this research, thematic analysis was used, "a qualitative

strategy that takes its categories from the data" (Mutch, 2005, p. 176). Thematic

analysis represents the coding of qualitative data that produces patterns, themes, and

categories and was adopted for its flexibility, and the fact that it represents "a

foundational method for qualitative analysis" (Braun & Clarke, 2006, p. 78).

The first stage of thematic analysis in this study was *familiarization* with the

data (Braun & Clarke, 2006) and this began during the data collection process. For

example, while taking descriptive field notes I would witness a critical event, a "non-

routine but very revealing" (Cohen et al., 2007, p. 404) episode and would add

observations that suggested connections and relationships to follow up later. I also

conducted all the interviews and transcribed them in full. This helped in the data

familiarization process, as I was in effect, immersing myself in the data as the

interviews unfolded, and in the subsequent transcription. I also gave the students

feedback on their scripts, posted recorded feedback to VoiceThread and observed

their digital stories as they were built (and rebuilt). This involvement at various

junctures in the creative process was a vital part of the data familiarization process.

The second stage involved a close reading of the collected data to highlight

anything unusual or significant in the form of recurring comments or behaviours, or

isolated, yet conspicuous events. Table 4 below indicates how key words and phrases

were highlighted during this stage, to indicate any data that appeared important.

Table 4

Example of Second Stage of Thematic Analysis

So how did you feel about talking about an aspect of your culture?
Joseph: I think proud to talk about my culture and even here in NZ where I am still participating in my community ...to show our culture…how our culture is…and we are helping some young people also to grow…. to grow in like the way we have grown up in our culture…not forget and lose the culture…where we come from

The third stage saw an initial coding of the data to get a feel for those "tentative ideas and themes that come through in initial qualitative analysis" (Mutch, 2005, p. 216). Here I wrote down themes, ideas, words, and questions next to the data extracts as they emerged "to indicate potential patterns" (Braun & Clarke, 2006, p. 89). Table 5 below uses the same extract from Table 4, but a series of ideas that match the data, have been added in the right-hand-column. An overarching theme (culture) has been inserted as a heading for this section.

Table 5

Example of Third Stage of Thematic Analysis

So how did you feel about talking about an aspect of your culture?	
	Culture
Joseph: I think proud to talk about my culture and even here in NZ where I am still participating in my community	*pride*
...to show our culture…how our culture is…and we are	*sharing*
helping some young people also to grow…. to grow in	*preserve*
like the way we have grown up in our culture…not forget	
and lose the culture…where we come from	*legacy*

A number of data items were double-coded during this stage (see Table 6 below). For example, data suggested motivation and engagement during f2f communicative activities, and also in student levels of effort in revising and creating the digital stories. Data also suggested learners felt a strong connection to the cultural content itself, which permeated every aspect of this project.

Table 6

Example of Third Stage of Thematic Analysis with Examples of Different Data Codes

Excerpt from interview	Different data codes
Mya: I spent a lot about that digital story…what happened…	motivation/asynch.
because this is like a biography… a little bit like not talking	different genre
in a conversation… I try to …talk like this – but most I can't	
…because like a biography	

You spent a long, long time on it…can I ask you why?

Mya: I tried to make a nice speak…about talking…trying to make it clear as well…so other people can understand my pronunciation...so that's why I just close the door… switched off the phone… and so I focus on putting on my voice…and listening again…and something I don't like … and I delete it… and my God!

> motivation
> reason
> motivation/ asynch.
>
> listen again/reflect
> asynch. / intense
> experience

The whole day?

Mya: Yeah

> motivation

So this is for draft 1 or draft 2?

Mya: same!

> extrinsic X
> (no mark D1)

Mya: the first one …Lyn comment to me which part I need to fix it**…**she thought my voice a little flat...so I delete it and try to make another recording…so finally…because if I fix some part…I make another part is mistake…and I can't make it completely like perfect …so finally I think a little bit mistake…so finally I just leave it

> teacher feedback
>
> can redo (asynch.)

How many times did you re-record each slide? 2/3 times?

Mya: 2/3 times record?….noooo…over 20!

> asynch./motivation
> why?

For each slide?

Mya: I mean I record…I listen…and I don't like and I delete it…and I think like this…repeat again and again.

Before when I'm making it it's quite fun too…because I never done it before! (laughs)…so I want like my speech is perfect…that's why I never do it in the class because I can't concentrate…because lots of behind talking…so I just go

home and close my room…and switch off my phone

> asynch. reflection
> asynch repetition/
> motivation
> engagement
> motivation
> quiet (asynch.)
> many distractions
> (asynch.)
> no distractions

Note.
In this excerpt, data were coded in the following ways:

Asynchronous communication
Motivation/engagement
Different genre
Intense experience
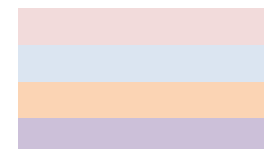
The fourth stage of thematic analysis involved organizing data in groups and

labelling them (Mutch, 2005). The goal here was to check whether themes have been

established, "how they fit together, and the overall story they tell about the data"
(Braun & Clarke, 2006, p. 92). Four main themes were created and a series of sub
themes were established within these.

During this fourth stage, certain codes, such as *intense experience* (see Table 6
above) were removed, although data related to effort and immersion in authoring the
digital stories was variously coded under the themes of *Creative Output* and *The
Asynchronous Experience*. *Different genre* (see Table 6 above) was removed, as there
was little data directly related to this. However, Mya's observation that the digital
story was unlike a conversation alludes to an important aspect of the findings, and
data concerning issues of stress and intonation were presented in *The Asynchronous
Experience*.

In terms of coding of the artefacts, I made notes regarding teacher feedback
regarding pronunciation and/or intonation and then listened to the final draft several
times to see if the corrections had been made. Phonetic transcription was used to
represent the forms in both drafts and comments were added to give 'thickness' to the
eventual description and interpretation in the thesis (see Table 7 below).

Table 7

*Example of Coding for Pronunciation after Specific Teacher Feedback and/or
Modelling*

Student	Draft 1	Correct form modelled	Draft 2	Other comments
Yasmin	/espi:nɪʧ/	X 2	/spɪnɪtʃ/ (spinach) ✓	'Spring' was not modelled but presents a similar issue for Farsi speakers. This sound was accurately achieved in D2.

The artefacts were also analysed for the use of multimedia, the VoiceThread

doodle tool, and any salient uses of language and/or a personal connection (see Table

8 below). These data were grouped under *The Asynchronous Experience* theme as

they suggested a connection between time, space, and tool, and the overall

communicative experience.

Table 8

Example of Coding for Use of Doodle Tool on VoiceThread

Student	Draft 2	Other comments
Cecile	Circled village on map of Congo (was suggested in the feedback)	Did not begin the narration until *after* the doodling had ended. Was not the only student (see Mei's calendar). Issues of multi-tasking? A distraction? Very few students used this. Aesthetic issues?

All of the digital stories were checked to see whether a soundtrack had been

used and the length of the stories was also noted. These data were grouped under the

Creative Output theme.

The fifth (final) stage of the data coding process, involved double-coding the

data to ensure they were relevant to the research question. Table 9 below contains the

codes (sub themes) organized beneath one of the four principal themes. A secondary

code has been added to each sub theme to indicate its relevance to one or more

aspects of the research question to ensure codes and data responded to the research

question and were not off topic.

Table 9

Themes and Sub-Themes, Double-Coded to Match the Research Question

Theme with sub-themes listed below	Double coding to indicate relevance to research question
The Asynchronous Experience	
Comprehension	
• Conceptual	comm. exp.
• Linguistic	comm. exp.
• Time and space for research	comm. exp.
Revisiting, practicing, re-recording	comm. exp.
• Revisit others' contributions	comm. exp.
• Copying / learning from others	comm. exp.
• Time and space for other ICTs	comm. exp.
Personalized teacher feedback	comm. exp.
• Improved pronunciation	comm. exp.
• Improvements re DS devices/structure/content	comm. exp.
Communicative multimedia storytelling	comm. exp.
Asynchronous conversation	comm. exp.
Confidence	comm. exp., affective
Personal connection	comm. exp., affective
F2f (In-Class) Communication	
Non-verbal communication - pointing, gesturing	increased comm., comm. exp.
Extended discourse (spoken communication)	
• Cultural subject matter	increased comm., comm. exp.
• The power of the web - online multimedia, images, video	increased comm., comm. exp., engagement/motivation, comm. exp.
Creative output	
Levels of creative output	
• Length of digital stories	engagement/motivation
• Adding of soundtrack, images	engagement/motivation, comm. exp.
Reasons for levels of creative output	
• Public domain / audience	engagement/motivation, comm. exp.
• Assessed nature of DS	extrinsic motivation
• Sense of pride in DS	engagement/motivation
The Cultural Connection	
Sense of pride, representing the culture	engagement/motivation
A digital record	
• Preserving culture	engagement/motivation, comm. exp.
• Sharing with / teaching others	engagement/motivation, comm. exp.
Setting the record straight (fighting misconceptions)	engagement/motivation

Note.

comm. exp. = communicative experience

incr. comm. = increased communication

DS = digital storytelling

Headings in red correspond to sub themes

Bullet points are areas that form part of the sub theme

At this point in the thematic analysis process I reflected upon the connection between these themes and whether they suggested "a particular format" (Mutch, 2005, p. 131). I felt that the visual and conceptual representation that best captured this relationship was that of *Yin* and *Yang,* already proposed at the beginning of this thesis as it embodied the holistic, dual nature of this project as reflected in the thematic analysis. In Figure 6 below *the asynchronous experience* and *creative output* are situated within the reflective cool and shade of *Yin*, as these themes pertain to activity occurring *outside* the classroom. F2f interaction resides within the heat and energy of *Yang*. The cultural connection, present throughout this digital storytelling project, straddles both the *Yin* (virtual) and *Yang* (physical) classrooms. Connections between the four main themes and the various aspects of the research question are indicated beneath each theme.
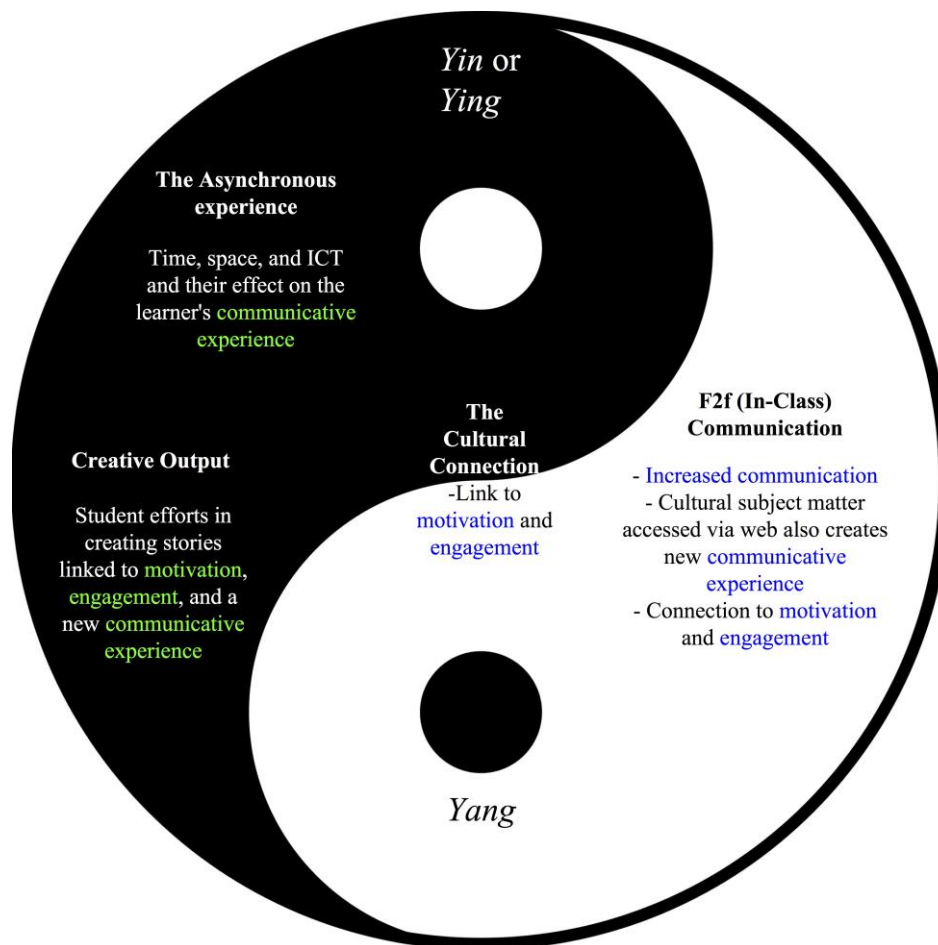
Figure 6. A visual and conceptual representation of thematic analysis in this study conceived as *Yinyang*. Adapted from *Endless Journey*, by L. Negoi, Retrieved from http://summaryofmysoul.wordpress.com/. Copyright (2014) by L. Negoi. Adapted with permission.

10. Summary

A subjectivist framework was adopted for this study, as my own philosophy sees knowledge and reality as socially-constructed, and unique to an individual within a specific setting. Research within an interpretive paradigm must therefore, try to understand or 'see' reality from within the setting, and from the individual's unique perspective, rather than observe (and generalize) behaviours from a distance. A qualitative approach was used for this study to obtain "rich description" (Mutch, 2005, p. 223). This data emerged from participant observation, artefacts, and

interviews, and created a series of *backstories* behind the digital stories themselves. In terms of fitness for purpose, a case study was used as a research method as it analyses unique, bound contexts in detail. It was therefore ideal for a L2 digital storytelling project implemented in one course, and in one institution. This chapter also described the tools used to collect data, the ethical procedures adopted to protect students, as well as issues of validity and trustworthiness and how these were deal with. The final section outlined the data coding process and how it led to a set of coherent themes and sub themes.

The following chapter presents those findings that correspond to the themes and sub themes outlined in this section.

Chapter Four: Findings

1.   Introduction

This research sought to identify to what extent, and in what ways, a digital storytelling project affected L2 learners' communicative experience, motivation, and engagement. This study also examined whether f2f interaction increased as result of in-class tasks related to the project. The findings section in this thesis is divided into four parts as per the four main themes established in the previous chapter. Each sub-theme in table 9 corresponds to a sub-section in this chapter. *The Asynchronous Experience* includes data related to students' communicative and affective experience, when working and communicating asynchronously via VoiceThread. *In-Class Communication* contains data that emerged from in-class speaking activities related to the learners' digital stories. The focus of this theme is whether web-based cultural content promotes communication and interaction in the classroom. The theme of *Creative Output* presents data related to how much effort students expended in producing their stories, and the reasons for this. Finally, *The Cultural Connection* contains data concerning participants' attitudes toward the cultural content of these digital stories.

Quotes have been included in the findings that relate directly to the themes and sub themes established in the previous chapter. In some instances, these quotes are representative of the wider sample, while others are unexpected, contradictory, and/or salient. Where data is *not* representative of the wider group, this is indicated. Quoted data from interviews and the digital stories have been transcribed verbatim.

2. The Asynchronous Experience

2.1. Comprehension

Comprehension of spoken discourse is a key issue for L2 learners and participants in this study invariably cited the importance of 'going back' to review postings to understand what had been said. Approximately three quarters of the sample listened to their peers' digital stories between two to five times.

Over half of the students found it difficult to understand different accents and as Fazilah observed, "being able to rewind it and listen to it again gives you a chance of understanding it more" (personal communication, November 26, 2012).

A small part of the sample cited a lack of familiarity with the content as being problematic. Mei did not know anything about Husna's subject, *Quaid-i-Azam,* and this made it difficult to understand. She listened many times and took notes and finally had to search for "that person on the Internet, for a little bit of information" (Mei, personal communication, November 23, 2012), before listening again. When listening to Fazilah's *Sudanese Wedding*, Jenny could not understand due to the unfamiliar cultural content. To solve this issue, she went to Google "to know more words about that, like henna" (Jenny, personal communication, November 26, 2012). Rachel encountered a similar issue, although this was in part due to the fact that one of her group members' had changed his topic from the first draft, so the subject matter was completely new to her. She had to listen eight times and told me how she had gone to Google to do some research about the African saint that the story was based on; "then I go back and then I replay and then I listened and ahhh, that story. Yeah I know, and I play again what he said" (Rachel, personal communication, August 1, 2013).

Some of the participants were interviewed in pairs, and some disagreed about which stories were easy or difficult to understand. Fazilah and Jenny had similar topics (Sudanese and Chinese weddings respectively) and were close friends in class. When referring to a fellow Arabic speaker's digital story, Fazilah noted that she "kind of understood it the first time" (personal communication, November 26, 2012) but found Jenny's story on Chinese Weddings, a bit difficult. She also found another Mandarin-speaking student very hard to understand and had to go back "over and over and over" (Fazilah, personal communication, November 26, 2012) to understand him. Mei and Husna discussed one digital story, authored by a student who spoke Mandarin (Mei's L1). At the *exact* instant that Mei told me, "his one is easy" (personal communication, November 23, 2012), Husna said, "his one I find a little bit hard" (personal communication, November 23, 2012.

One student alluded to the difference between the scripted language of the digital stories, and communication in the f2f classroom:

> When they're talking on a VoiceThread, telling their story, they are reading it from a paper and obviously it's written well. So, some of the words written on the paper they don't use in class, so the pronunciation would probably be the first time we heard it. So that's why we have to listen twice or three times. (Karim, personal communication, July 25, 2013).

Two students, Karim and Paul, described how they had to revisit my feedback to understand the concepts I was expressing. While this represents a very small part of the sample, it has been included here for two reasons. First, Karim and Paul were probably the strongest students in their class in terms of oral communication. Furthermore, both learners were prepared to voice their opinions and ideas in class

and these comments emerged unprompted during the interview. Karim listened twice

to my comments, not because of any issues of linguistic comprehension, but because

he "tried to pick up the points" (personal communication, July 25, 2013) that I had

mentioned. Paul concurred, noting that he had encountered the same issues, that it was

"not a problem with the pronunciation, it's just for make sure I'm understanding your

point" (personal communication, July 25, 2013).

Finally, Paul and Karim alluded to the challenges of communication via voice

only. Paul told me, "I think the body language helps when you're in class" (personal

communication, July 25, 2013) and Karim concurred by adding immediately

afterwards "expression" (personal communication, July 25, 2013).

2.2. Revisiting, practising, and re-recording

Participants were asked about their experiences revisiting, practising and re-

recording their work. There was a considerable range of responses from participants

in terms of how often they practised and/or re-recorded their digital stories. However,

virtually all participants expressed a desire to improve their pronunciation, to make it

'nice', 'perfect, or 'beautiful'. Just over half of the sample re-recorded and/or

practised their digital stories between two to four times.

Four students recorded their stories only once, and there were varying reasons

for this. Arshad had had technical problems and tried to record his story three times

before finally succeeding. He did not seem keen to attempt another recording. Masrin,

initially, did not use VoiceThread, but instead recorded a video of herself, in one take,

and posted it to YouTube. Two students, Kate and Lisa, re-recorded or practised their

first drafts four and ten times respectively, while only requiring a single attempt to

record the final draft. Lisa told me she could have done a better job with her

completed story and preferred her first draft, which was done in one single recording, rather than posting a separate recording for each slide.

However, a number of students spent a great deal of time practising and re-recording their digital stories. When asked how often she recorded her story, Mei replied, "Many! Before I do, I practice for maybe 10 times and I record it maybe 8 times. Draft 1 not more than 5 times but on draft 2, I record it again and again" (personal communication, November 23, 2012). Another student described how she spent the whole day shut in her room and explained the rationale for putting so much effort into getting the pronunciation and delivery right:

> I tried to make a nice speak … trying to make it clear as well, so other people can understand my pronunciation. So that's why I just close the door, switched off the phone. And so I focus on putting on my voice and listening again, and something I don't like … I delete it. And my God!
>
> (Mya, personal communication, November 27, 2012).

Mya told me that she followed the same procedure for both draft one and two. Her final draft focused on the recorded oral feedback that she had received from her teacher, highlighting the need for more intonation (her first recording was a bit 'flat'). Mya explained that she had recorded her digital story more than 20 times because she wanted to improve her speaking and pronunciation: "I mean I record, I listen, and I don't like and I delete it. And I think like this, repeat again and again" (personal communication, November 27, 2012). She felt that it improved her pronunciation and every time she recorded it was better: "If you repeat again it's much better, your speak, your pronunciation" (Mya, personal communication, November 27, 2012). Jenny told me that she wanted to make her story perfect and to "make my voice

sweet" and had recorded it "at least 30 times" (personal communication, November 26, 2012). Rachel explained that she recorded "the first draft … like, twenty times, but second draft is a little bit less, fifteen or thirteen" (personal communication, August 1, 2013) and that she had almost memorized it. This interview had been conducted in pairs, and her close friend Ellen observed, "Yeah it's not very hard to listen you" (personal communication, August 1, 2013). Kim told me that she recorded her final draft more than twenty times, and that it took two hours to correct her grammar mistakes and five hours to record it. She told me that she had tried to pronounce her story correctly, but she had found it very difficult to inject feelings and emotions, to avoid sounding "like a robot" (Kim, personal communication, November 27, 2012).

A small part of the sample studied their peers' work with the intention of learning from them. Yasmin told me that she had studied other students' work, especially "Min-ho, because I know Min-ho's grammar, spelling and writing is good. My reading not good, my writing not good. Always listen to Min-ho's one because very good for me, lots of grammar" (personal communication, November 21, 2012). Jenny mentioned in class that she had listened to other students' digital stories to get ideas for words and chunks of language. I asked her about this in the interview and she explained that she did so, "because their speaking is very good. Yeah I listen and try to understand and I study some grammar and speaking" (Jenny, personal communication, November 26, 2012). George listened to the digital stories of students who shared the same L1, as the teacher's feedback focused on the same pronunciation mistakes. He also listened to the teacher's comments to find out what students were "doing best, what they're doing not so good' (George, personal communication, November 29, 2012).

Some students used a range of ICTs during the digital storytelling project to practise aspects of their digital stories. Mei told me that she had recorded the words and phrases I had modelled on VoiceThread to her mobile phone, and that she found it, "very useful for me. It's a good way for my study English, and when I walk here I can listen" (personal communication, November 23, 2012). George explained that these digital stories had to engage the audience but that he did not feel able to do this:

> You have to give your feeling, emotion, tell the story. You can communicate with the audience. So, I haven't got the confidence the first time I'm recording, because I listened to it and it's not like my sound. So, I recorded my friend, a kiwi. I asked him to read the story and made a recording of him. (George, personal communication, November 29, 2012).

George then played me an extract of his friend's recording on his iPhone and he told me that he had listened to it and repeated many times. He explained that pronunciation was an issue and that many people did not understand him. He told me, "because we're Chinese, speaking is quite different. So, my friend a Kiwi, so he read the story. Is real Kiwi style. So, I can follow one sentence by one sentence ... so all the vocabulary was quite easy to pronounce" (George, personal communication, November 29, 2012). Rachel spoke of how she prepared herself for the final recording by checking the length, pronunciation, and fluency on her mobile phone. She explained that before she recorded her digital story on VoiceThread, she recorded to her "smartphone many times. I listened to my voice and this pronunciation is very bad, so I recorded it many times" (Rachel, personal communication, August 1, 2013).

2.3. Teacher feedback

The sub theme of teacher feedback includes the type and detail of recorded input, participants' opinions about it, and the changes or improvements that students made to their definitive versions based on these suggestions. The entire sample felt that teacher feedback was useful and participants listened to this input between two to five times.

In particular, learners valued input concerning pronunciation. Husna referred to the various types of feedback she had been given regarding her story of Pakistan's founding father, *Quaid-i-Azam.* She told me that she had "changed a little bit my pronunciation, a little bit my way of talking. It was really useful" (Husna, personal communication, November 23, 2012). Mei told me that the feedback was "very useful" and "maybe your suggestions help me so I can know where I'm not good" (personal communication, November 23, 2012). When listening to her submitted version of the final draft she notes, "finally I found my voice is like a TV" (Mei, personal communication, November 23, 2012) and indeed, her narration is gentle, measured, and documentary-like.

Two students gave quite different reasons for valuing their teacher's recorded feedback. Kim told me that she really cared about her teacher's comments, and listened to them "again and again, almost more than 10 times … because Denise always said 'oh you did a very good job! And I just love listening to this!" (personal communication, November 27, 2012). Another student, Min-ho, told me that teacher feedback provided a model that could be revisited and imitated. He had listened more than 5 times to my feedback and told me "I loved it. I listened a lot. I wanted to copy your way of speaking" (Min-ho, personal communication, November 21, 2012). I interviewed Min-ho and Mary together, and the latter echoed her partner's comments

telling me "me too, I loved it. I think speaking for the feedback is a good idea" (Mary, personal communication, November 21, 2012).

This data was included, because improvements evident in the final draft could suggest a positive impact of targeted teacher feedback or the benefits of reflection and revision. Learners were given feedback at a segmental level, related to individual sounds, and also at a suprasegmental level, the latter pertaining to issues of stress and intonation.

George, a Cantonese speaker, listened to his teacher's feedback three times and told me this input pushed him to correct a mistake that he recognised as being problematic:

Like cake. I haven't got sound *k*, so the second time, the draft 2, I recording suddenly I found 'oh, I remembered to the draft 1'. I listened to Lyn's feedback, so draft 2 I record again. I cancel everything because all the cake I haven't the *k*. So the teacher gave us some feedback for the pronunciation. It was very good. (George, personal communication, November 29, 2012).

George's utterances in conversation often exhibit fairly strong L1 influences, yet the final draft of his digital story was clear, easy to follow, and a significant improvement on the first draft in terms of clarity, intonation, and accuracy.

Table 10

Feedback on George's Draft One, and Changes Made to Draft Two

Author: George	L1: Cantonese Title: Mid-Autumn Festival
General feedback on Draft 1 (D1) Need to concentrate on final consonant sounds.	**Analysis of Draft 2 (D2)** This was generally heeded very well (see below). The endings are generally good, as is the word and syllable stress. The

Words/phrases modelled next to transcribed error	Words/phrases in D2
	delivery is clear, measured, natural, and easy to follow. It is a major improvement on D1.
/d/ missing from *Mid-Autumn Festival* - it was suggested to add the /d/ from 'Mid' to 'Autumn' to help with the pronunciation	✓Mid-Autumn Festival was linked and pronounced correctly on 12 occasions. The final /m/ was missing on 2 occasions from 'Autumn'.
/muːnkeɪ/(*mooncake*) - the teacher suggested "to continue to breathe out" to achieve the final /k/	✓There were 14 variations of *cake* (/keɪk/) - *cake*, *mooncake*, *mooncakes*, *fruitcakes* - in D2, and the final plosive /k/ is present in each one (very clear and crisp). The final plosive /k/ is missing however, from *make* /meɪ/, *like* /laɪ/, *economic* /ekɪnɒmɪ/. Specific feedback was not given on these words.
yolk /jɒk/ *reward* /rɪwɔː/ *diameter* (basically correct in D1)	x /rɒk/ x /rɪwɔː/ x /daɪæmɪtiː/ ✓consistency /kɒnsɪstɪnsiː/ correct in final draft (was missing final /iː/ in D1). This was not mentioned in the feedback. x The final /t/ is missing from *eight* /eɪ/, *bright* /braɪ/, *light* /laɪ/, *night* /naɪ/ and *celebrate* /selɪbreɪ/. No specific feedback was given on this sound.

Yasmin, a Farsi speaker, had missed a number of classes for personal reasons and had to rush to get things completed. However, she told me that she had made changes based on my feedback and emphasized, "I practice, always I practice … before, no one said about my pronunciation" (Yasmin, personal communication, November 21, 2012). When I analysed Yasmin's completed digital story I noted that the modelled sounds were all correct, the content had been improved, and the introduction had more intonation and life.

Table 11

Feedback on Yasmin's Draft One, and Changes Made to Draft Two

Author: Yasmin	L1: Farsi Title: Ash Reshteh
General feedback on Draft 1 (D1)	**Analysis of Draft 2 (D2)**

	Explained these aspects well in introduction slide (describes how it is eaten at Nowruz and how the dish goes back thousands of years).
Had to explain origins and significance of dish.	
Needed a personal connection.	Not included.
Should add pauses.	Little if any difference with D1.
More intonation.	Very good in introduction (a big improvement on D1). Became 'flatter' after this.
Words/phrases modelled next to transcribed error	**Words/phrases in D2**
also known /əlsəʊ/	*also* omitted (*known as* used instead).
which /vɪʧ/ winter /vɪntə/ when /ven/	These three words were all omitted.
	✓/weə/ (where) ✓/weɪ/ (way) ✓/wɪθɪn/ (within) These three words were added to D2 (were all pronounced correctly).
when invited (needs to link two words together)	Omitted.
spinach /espɪnɪʧ/	✓/spɪnɪʧ/ ✓/sprɪŋ/ (spring) ✓/speʃɪl/ (special) ✓/stɒk/ (stock) These three words were not modelled but all correct in D2.

Rachel, a Korean speaker, had a very strong Mother-Tongue Influence (MTI), but she worked very hard to improve this. There were still a number of errors, primarily related to the substitution of /l/ for /r/. However, the final draft was characterized by calm and clarity, and the soundtrack gave the story a sense of place and tradition.

Table 12

Feedback on Rachel's Draft One, and Changes Made to Draft Two

Author: Rachel	L1: Korean Title: Kimchi
General feedback on Draft 1 (D1)	**Analysis of Draft 2 (D2)**
It was suggested to Rachel that she add traditional Korean music, as it	Traditional music added. Music was to the fore *before* the narration then the volume was lowered to provide a

would be apt for the subject. Was complimented on opening question to grab audience attention.	background track. Changed music track midway through. Began to use pauses well which allowed soundtrack to emerge through the pauses. Intonation and word stress was very good. Took a lot of risks with lexis (plenty of complexity). Didn't shy away from problematic sounds or complex lexis.
I mentioned that I could not understand one of the fermented foods she was referring to.	Was *yellow bean paste* and was very clear in D2
Issues with /r/ v /l/	Partially resolved (see below).
Words/phrases modelled next to transcribed error	**Words/phrases in D2**
	restaurant /lestɔ:rɒnt/ was not picked up in the D1 feedback, but was correct in D2
record /lekɔ:d/	✓/rekɔ:d/ once and x /lekɔ:d/ once.
recipes /lesɪpi:z/	x /lesɪpi:z/
regions /li:ʒɪnz/	x /li:ʒɪnz/ (incorrect on four occasions)
fermented /fɒmentɪd/	x /fɒmentɪd/ (a very insignificant error)
rain /leɪn/	✓/reɪn/
particularly /pətɪkjɪreri:/	omitted
now /laʊ/	✓/naʊ/ once and x /laʊ/ once.

Mya, a Burmese student, has been in New Zealand for 10 years. She is a confident speaker, although this was not the case when she first came to this country. Her digital story focused on Burma's leader of the democracy movement, Aung San Suu Kyi. There was a major improvement in Mya's delivery in the final draft in terms of word stress, intonation, and pronunciation. There were considerable risks taken with the lexis and these vocabulary items were generally accurate and comprehensible.

Table 13

Feedback on Mya's Draft One, and Changes Made to Draft Two

Author: Mya	L1: Burmese Title: Aung San Suu Kyi
General feedback on Draft 1 (D1)	**Analysis of Draft 2 (D2)**
Complimented on a beautiful, moving story and personal connection. It was noted that she was	Both drafts were clear with only very occasional chunks of language that were difficult to understand. Words ending with the alveolar plosives /t/ and /d/ - /traɪd/, /fɪkst/, /pəfekt/, /rɪli:st/,

clearly trying hard. Recording needed more intonation ("was a little bit flat"). "This will make you sound more interested". Had to stress key words (strong/weak forms explained) and teacher modelled an example: "was RELEASED". There was general comment made about needing to focus on word endings.	/muːvmɪnt/ - were consistently accurate in D2. There was also considerably more intonation and word stress in D2. "was RELEASED" stressed as per the teacher's model
Words/phrases modelled next to transcribed error	**Words/phrases in D2**
rejected /rɪʤetɪd/ *visit* /bɪzɪt/, *visited* /bɪzɪtɪd/, visiting /bɪzɪtɪŋ/	x /rɪʤestɪd/ x /bɪzɪt/. However, visiting /vɪzɪtɪŋ/ was correct.

Cecile, a Yombe speaker from the Democratic Republic of Congo, was a confident communicator in class. However, she lacked confidence with the technological aspects of the digital storytelling project and would visit Adena outside class hours to get assistance. Cecile basically created two very different digital stories. The narration in her first draft was flat and lacked fluency, and she was clearly reading from the script (there was an audible rustle of paper at one point). For the second draft, she described an almost totally different story, ignoring most of my feedback. The result, however, sounded natural, unrehearsed, and unscripted.

Table 14

Feedback on Cecile's Draft One, and Changes Made to Draft Two

Author: Cecile	L1: Yombe Title: History of Cassava Leaves and Pinto Beans
General feedback on Draft 1 (D1)	**Analysis of Draft 2 (D2)**
Was suggested to show where the tribe is from on the map of D.R of Congo. Was complimented on the idea of unity that she expressed and also on the way she had 'flicked' through the slides as she narrated the story.	Cecile used the doodle tool to circle her village and added a traditional soundtrack, although this had not been suggested (it was hard to tell if D1 had a soundtrack as there was very faint music in the background that could have been playing in another room). D2 was very different in terms of content and language, and the changes were not based on explicit feedback. Apart from retaining the initial map, the images were different as well. Although I had complimented her on the narration in D1, this final draft was much more natural. When comparing

	the two it sounded as if she was reading a script in D1 while in D2 she seemed to be speaking unrehearsed and describing the images and ideas about their significance.
Words/phrases modelled next to transcribed error	**Words/phrases in D2**
Indigenous /ɪndʒenɪrɪs/	Omitted.
subsistence farming /sʌbstɪns/	Omitted.
include /ɪnklɜːd/	Omitted.
throughout the country /θruː/	Omitted.
who taught me /tʊtʃ/	Omitted.

Adena, an Urdu speaker, created a highly personal digital story that documented her physical and spiritual journey from India to New Zealand. Adena's delivery was slower and more measured in her second draft, and the soundtrack resulted in a more powerful piece of work than the first draft.

Table 15

Feedback on Adena's Draft One, and Changes Made to Draft Two

Student: Adena	L1: Urdu Title: My Journey from India to New Zealand
General feedback on Draft 1 (D1)	**Analysis of Draft 2 (D2)**
Was complimented on poetic language, and use of personal images to chart her story. I suggested she add some traditional music, especially for the first part of the story set in India (something to match the subject matter).	Haunting traditional music was added to the first part of the story. The later part of the story (set in NZ) had soothing classical music as a soundtrack. There was an excellent use of word stress and intonation and it was very clear. Draft 2 was slower and less rushed, and pausing was used to good effect, although no feedback had been given regarding these aspects.
Words/phrases modelled next to transcribed error	**Words/phrases in D2**
joyful (second syllable stressed)	✓
relatives (second syllable stressed)	✓
' ... istrical (?) of my parents'.	This phrase was omitted.
priorities /priːɒtiːz/	x /priːɒtiːz/
coping /kɒpɪŋ/	✓/kəʊpɪŋ/
mother /mʌdɔː/	x /mʌðɔː/ (was an improvement – error almost imperceptible now).
progenitors /prəʊgenɪtɪz/	x /prəʊgenɪtɪz/

2.4. An asynchronous conversation

For the second iteration of this digital storytelling project, students were required to post oral responses to their peers' questions, and this sub theme concerns the 'conversations' that took place via VoiceThread. Among the six digital stories examined in the previous section, three were from the second iteration (Rachel, Cecile and Adena) and their first drafts are analysed here. Students were required to post at least three questions to each group member's digital story, and the authors would then reply to these questions. It was suggested they greet one another, and either refer to the section of the digital story they were asking about, or in the case of the author's responses, the question itself.

Author responses to questions were frequently lengthy, unscripted, and natural. I have included below an extract of a 'conversation" between Adena and Cecile that includes the former's first question and Cecile's response. I have transcribed this extract in full (including all 'fillers') to give a sense of the spontaneous, conversational language used:

Adena: Hi Cecile! I just listened to your story, which is very good. My
question is, in which season of Africa do cassava leaves and pinto
beans grow? (Online posting April 3, 2013)

Cecile: Hi, er, Adena. Thank you for listening to my story. My name is
Cecile, thank you for listening to my story about cassava leaves and pinto
beans. Um, normally your first question was, which season (pause) does, um,
those kind of food, uh, er, er, have to be grown? Normally we grow cassava
leaves and pinto beans in both season, the wet and the dry because, is, as I said,
in my culture, in my country, cassava leaves and er, pinto beans are the
principal food for the Congolese. Like, Congo is my country, so we grow it in

the rainy season and the (pause) and the (long pause), dry season. It doesn't

matter which season you are going to, so rain, and the, and the, dry we grow

cassava leaves and pinto beans. (Online posting, April 5, 2013).

Cecile was a very confident and outgoing communicator but the first draft of her

digital story was audibly read, word for word, and the delivery was flat and lacking in

intonation. However, when she replied to her group members' questions, her voice

had more intonation, key words were stressed, and the language was clearly

spontaneous. She pauses, repeats chunks of language and ideas, and uses a range of

fillers (um, uh) as she thinks about what she wants to say next.

Rachel answered some of the questions as if she were having a conversation

with that person. She was asked if she knew how to make kimchi, and several minutes

later in her VoiceThread, she greeted that student directly and replied, "of course I

do" (online posting April 8, 2013) without including a verb or an object that might

indicate what she was referring to. She then continued with her response. Rachel's

responses also sounded natural, and she too used fillers at various points in her

recording.

Questions were also natural and conversational at times. Cecile asked Adena,

"Why do you feel, you felt, a lot of emotion during your journey (pause) because

normally it's a good thing to have, to do?" (Online posting, April 8, 2013).

As they had been instructed to, peers would refer to what had been said when

posting their questions as Karim does here when posting to Rachel's digital story:

But, um, as you said, um, traditionally Korean um, used to keep kimchi in a

clay pot under the ground, Uh, why do they keep it under the ground? Uh, is to

keep it away from hot or cold weather? Or does it make, keeping it

underground, does it make it taste better? (Karim, online posting, April 12, 2013).

Students also referred to specific visuals in their questions. Adena, in her second question to Cecile, asks "In the third picture of your story there is a village. In all over the country is only this kind of house?" (Online posting April 3, 2013)

Finally, participants posted lengthy contributions to these conversations (see Table 16 below). For example, Rachel was asked whether kimchi reminded her of a special place or person and she responded with a lengthy description (1:15 secs) of making kimchi in the family kitchen alongside her siblings, mother, and grandmother. When asked if she could remember a special occasion associated with it she begins by saying, "I have little tiny story about kimchi" (Rachel, online posting, April 8, 2013) and describes learning to cook alongside her future mother-in-law (1:14 secs). Adena was asked about the difficulties she faced in New Zealand and she described at length (2:30 secs) how everything was strange to her when she first arrived. In terms of questions, students did not merely 'deliver' their three questions, but included greetings, 'lead-in' language, and references to what they were asking about.

Table 16 below presents data related to the duration of peer questions and author responses to questions. These data have been included because the duration of this interaction could suggest the validity of this tool and/or approach for extended asynchronous conversations.

Table 16

Duration of Peer Questions and Author Responses to Questions

Group member	Number of questions asked	Combined duration of questions/postings by group member	Author	Combined duration of responses by author
Student A	3	39 secs		3:35 secs
Student B	3	1:21 secs	Cecile	2:05 secs
Student C	3	1:18 secs		1:40 secs
Student A	3	55 secs		3:10 secs
Student B	3	1:27 secs	Adena	4:00
Student C	3	1:31 secs		1:55 secs
Student A	4	55 secs		3:00
Student B	3	38 secs	Rachel	1:25 secs
Student C	3	2:15 secs		1:15 secs
Student D	1	55 secs		Did not respond

Note.

The times for the questions include greetings and references to various aspects of

digital story.

2.5. The communicative role of multimedia

Another sub theme within the asynchronous experience, concerned the

communicative role of multimedia in these digital stories.

Karim had used forty-one images in his first draft, which was somewhat

disorienting for the viewer. In the interview I asked him *why* he had included so many

images in his first draft, as there were only marks for the *questions* they posted to

group members' stories, and their subsequent answers. He told me:

I was thinking if someone do not understand my points that I am talking, a

picture might help. You know, I was trying to bring the closest picture to my

point, that picture that is relevant to the point I am talking about. So, if

someone see, if they do not understand me, they might get some idea from the

picture. (Karim, personal communication, July 25, 2013).

Rachel described her difficulty in comprehending one particular digital story, noting that he "only had one picture and that made it maybe a little bit harder to follow" (personal communication, August 1, 2013).

When asked why he had included music in his story Paul expressed an interesting notion:

> Firstly, because you suggested, and after we put the music … you get more inspired. And also give you timing because the music got time, so it helps you with the timing to deliver the story. I think in the last result it's more powerful with the music. (Paul, personal communication, July 25, 2013).

His response was echoed by Karim who noted, "the message can be delivered well with the music and also that music makes the story more attractive for the audience" (personal communication, July 25, 2013). Kim described how she was able to "follow the music and talk and it's very beautiful I think … I try to imagine what I'm saying and follow the music" (personal communication, November 27, 2012). Lisa expressed a similar concept; "it's a story I wanted people to enjoy and the music as a background just makes a little softer and more closer, just a little touch" (personal communication, July 27, 2013). Husna's final draft was bookended with a powerful opening section where she introduced her subject, Pakistan's founding father *Quaid-i-Azam,* with her country's national anthem playing in the background. The conclusion to her digital story had a beautiful piece of music celebrating Pakistan, to accompany her final thoughts. It was very documentary-like and the delivery (and various filmic aspects) gave the story an old newsreel feel, which matched the period and gravitas of the subject matter.

Table 17 below presents an analysis of Paul's digital story, *The Chilean Telethon*. This story was included, to demonstrate the power of digital storytelling to

deliver a message, or tell a story, through a combination of language, timing, and multimedia.

Table 17

Description and Analysis of the Communicative Elements in Paul's Digital Story

The introductory slide is a map of Chile, and gives a geographical context. The digital story begins with a ten-second lead-in of acoustic guitar and at the exact point of a major chord change, and the introduction of a flute section, Paul begins his narrative by announcing, "I remember, growing up as a child, in Chile, when everybody gathers around to support the Telethon.' It is a poignant moment, one of many in this digital story.

At 45 seconds the next slide transitions in. There is a short (five second) pause and then at the exact instant the Spanish vocals begin in the background, Paul continues his narration stating that due to hot weather, "this time of the year is a good time to hold an event". He talks of the need to set up a foundation to help those with developmental difficulties due to a lack of government funds. The image captures the Andes in the middle of summer with holidaymakers enjoying Lake Villarica.

At 1:05 we see a group of children in wheelchairs cutting a ribbon at an opening somewhere. Paul describes how the Telethon has raised "hundreds of millions of dollars" and "ten rehabilitation centres have been built" as a result.

At 1:20 we see a smoke-filled telethon stage at dusk within a Chilean stadium as he describes how 'every year, worldwide artists participate in the show performing and encouraging people to donate'.

At 1:46, we see an image of a boy in a wheelchair being interviewed on stage. There is a five second pause before the narration begins and we are told how informative the event is because of "the personal interviews".

The next image (at 2:06) describes the various fundraising activities (bandanas, t-shirts etc.) and how they contribute to the cause.

At 2:27 Paul describes how his family likes to get together, enjoy dinner, and watch the show. The image is an old black and white image of a family gathered around a TV.

The penultimate slide, beginning at 2:46, describes the long-time host of the Telethon, Don Francisco and the role of business and members of the public in donating to the show.

The final slide begins at 3:15 and there is a 12 second pause before Paul starts the narration. He describes how the Telethon provides support the government is not able to. There is a further five-second pause and we are told of the hope that it brings to people. These pauses allow the final crescendo in the music to come to the fore. These pauses also give prominence to these concluding statements. Paul ends the digital story, stating, "I can say … that Chile is a world-wide champion of solidarity". Seconds later, the song ends.

The visual elements of the story are well matched to the content and the Chilean
soundtrack adds both poignancy and power to the narrative. There were a number of
other examples of digital stories that successfully married content to the more filmic
aspects. However, in general, there was a stronger communicative quality, both orally
and visually, in the digital stories created during second and third iterations of this
task.

Adena's account of her physical (and spiritual) journey from India to New
Zealand, was one of the most successful fusions of the visual and the spoken word,
and was among the easiest digital stories to follow. It was also the only story to use,
almost exclusively, a student's own photos and Figure 7 below illustrates how
Adena's use of personal images helped to convey meaning.
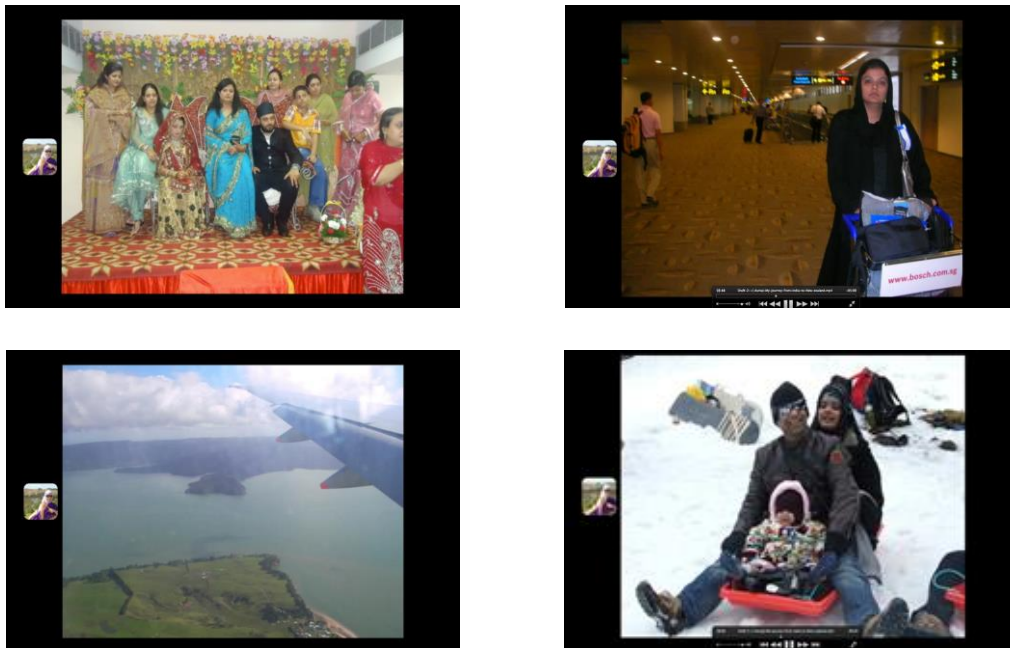
Figure 7. Telling a story through the use of personal images.

Learners were encouraged to use the doodle feature on VoiceThread, which allows both author and audience to draw on slides. This tool was modelled as a means to indicate a place on a map (a hometown or a key location), or key aspects of an image. However, this tool was widely ignored, with only two students among the sample using it. Cecile used the doodle tool to circle the location of her tribe, the Bayombe, on a map, while Mei doodled around the date of the Moon Festival in her story. Table 18 below illustrates how these two students used the doodle tool, and emphasizes the fact both students 'doodled' *before* beginning their narratives. In other words, neither Cecile nor Mei spoke until they had finished 'doodling'.

Table 18

Use of Doodle Tool by Cecile and Mei

Cecile circles the location of her tribe (the Bayombe) from 13-16 secs. However, the narration (and the soundtrack) does not begin until 20 secs.

Mei, on her second slide, circles the date for Mid-Autumn Festival, and then pauses for a moment before continuing with her narration.

Students used a range of images in their digital stories. The two images in Figure 8 below were included to given an indication of how a visual image can

communicate a sense of time, or period. Husna used an old black and white image of *Quaid-i-Azam,* while Mya used a photo of *Aung San Suu Kyi* as a child with her family. The scanned image on the right appears to have been folded and this adds a sense of history and authenticity.
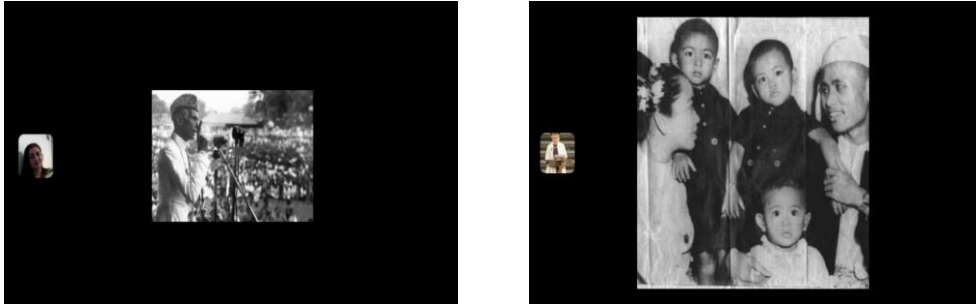
Figure 8. Example of images to give a sense of history or period.

However, there was at times a discrepancy between what was said and what was seen in the students' stories, notwithstanding the preparation embedded in the storyboarding process. Some students would use a series of similar images, perhaps different portraits of the same well-known figure, thereby robbing sections of a *visual uniqueness* that might add or enhance meaning.

2.6. Confidence

The sub-theme of confidence within the VoiceThread environment contained conflicting data, as some students perceived an increase in confidence during this project while others felt the asynchronous environment was a challenging one.

Mei believed "this story, this work for me become confident. I didn't know how to use English talking to other people. But now I can do it and finish my story, so I feel confident" (personal communication, November 23, 2012). I asked her what she meant by *confident* and she told me:

> Group work. Like we need to do some suggestions on our partner's story and
> we need to answer their questions. Before I'm very shy, I can't do that. It's

true, I can't do that and I can't talk like now. I can't talk a sentence, a whole

sentence. I can't do that. I think I can't do just because I'm not confident. This

is a big improvement for me. (Mei, personal communication, November 23,

2012)

George had recorded a kiwi friend reading the script of his digital story, and so

"the second time when I made the recording I get more confident. It made me

pronounce more like a kiwi!" (personal communication, November 29, 2012).

Kim felt that the music (soundtrack) gave her more confidence when narrating

her digital story and the revision process "builds my confidence because when I'm

doing this if I listen back I will know which part I improve, so it's very good, so when

I practice again and again I can speak very comfortable" (personal communication,

November 27, 2012).

However, Paul felt that some of the students were audibly nervous noting, "I

think sometimes the students get nervous when they are recording" (personal

communication, July 25, 2013). James reported feeling "a little bit embarrassed or

nervous when I was recording" and that his voice sounded 'strange' (personal

communication, November 26, 2012).

2.7. A personal connection

A further sub theme related to the personal connection that students were

expected to include in their digital stories. Some students struggled with this notion

and presented a series of paraphrased facts about their subject matter, rather than

create something unique and personal. Others, however, shared personal stories that

were powerful and original. This section looks at three different yet memorable

personal connections that students shared during this project.

Mei described the symbolic connection between the full moon during Chinese

Mid-Autumn Festival and the connection she felt with her family: Figure 9 below

illustrates how the symbol of the full moon in Mei's story is a powerful visual

representation that matches the sentiments expressed in this section of the story (see

below).
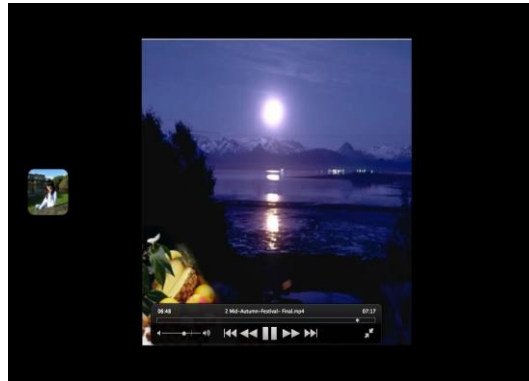
Figure 9. Mei's use of the full moon as a symbolic representation of her sense of connection to her family.

On that day

the moon looks extremely round, big and bright

This year's mid-autumn festival will come soon

I miss my family eating together

I miss my grandmother very much

There is only one moon in the world

So, I believe I can see the same round moon as my family

I think they can feel how much I miss them from the moon. (Mei, online

posting, September 12, 2012).

During the interview, Fazilah told me that she had listened to Mei's story, even though they were in different groups. She explained that when Mei talked about her family and how she missed them "it was quite emotional and actually reminded me of myself when I come first to NZ. It remind me of myself and I cry" (Fazilah, personal communication, November 26, 2012).

Lisa's digital story was a personal one from the very outset. Her story described her tribe in Taiwan and the connection she felt to it. She began her story with a song that she sang beautifully and with great feeling. She played guitar as she sang while her young daughter played the drums. She told of her Han Chinese father and Paiwan mother, and despite being very proud of both her parents she noted, "the children in my mother's village are just like the birds without the cage, that can fly everywhere, explore their life" and that school holidays were spent in a paradise with no homework or extra classes (Lisa, online posting, May 15, 2013). She described a childhood spent hunting, swimming, fishing, climbing, and encountering poisonous snakes. She concluded her story by giving her Paiwan title (she was a princess in the tribe) and stated, "I'm very proud of my heritage" (Lisa, online posting, May 15, 2013). She saluted the audience in her native language and concluded her digital story with another beautiful song.

Adena created a digital story based on her journey from India to New Zealand. It describes how she leaves her home and parents, her flight here, her marriage to her husband and the birth of her baby boy. As Adena observed at the beginning of her digital story, "it is a mixture of emotions" (online posting, May 2, 2013) and while measured in its delivery, it was a very honest and deeply personal account of one person's new life in a new country. She described how she agonised over her future, and the thought of leaving her "nearest and dearest behind" (Adena, online posting,

May 2, 2013). What really gives this story resonance and adds to the deeply personal

nature of the narrative, is the fact that unlike other students, the visual aspect of the

story was almost entirely composed of family snapshots (see Figure 7). In the

narrative, Adena described how, "in the corner of my heart there was always

memories of my family. I could still smell the soil of India. I could not remember any

moment when my eyes were dry without tears" (online posting, May 2, 2013). Adena

expressed her feelings of loneliness here and how her new son "became the

companion of her lonely life" (online posting, May 2, 2013). At the story's end she

described how she was coping and then thanked her husband for his support, and

saluted all those who had been close to her.

The findings described up to now have been related to the students'

experiences working within an asynchronous environment. The next section,

examines those findings related to levels of spoken output within the classroom, the

Yang of this study.

3. In-Class Communication

This digital storytelling project was conceived as a balanced, holistic approach

to the communicative classroom, where the *Yang* of f2f interaction could exist

alongside the *Yin* of reflection, practice, and possible improvement via asynchronous

communication. F2f communicative activities were designed to serve as scaffolding

for the creation of the stories themselves, and these activities usually took place in

front of a pc in the computer lab. Participant observation and subsequent analysis of

filmed sessions suggested high levels of sustained communication and interaction in

these activities.

3.1. Non-verbal interaction

During these communicative tasks there was a great deal of non-verbal interaction. Students not only indicated toward the screen but among each other as they explained things and asked questions.

Both 'storyteller' and audience would regularly point at the screen to indicate that which they were referring to either as part of a description or a question. In Figure 10 below, Shahnaz is indicating toward a map of her native Iran and Min-ho, not normally given to gesturing in class, can be seen expressing himself with his hand, and he did this frequently during these activities. This illustrates how pairs interacted both verbally and non-verbally when discussing aspects of their digital stories on the computer screen.

Figure 10. Shahnaz and Min-ho discuss an aspect of Shahnaz' story.

There was plenty of body language during these tasks with learners cooking, rolling, measuring, and pointing. John, a fairly quiet student had both hands open towards himself, his fingers pointing upwards as he tried to emphasize a point. At another point in the class, he described how tofu was made, his hand making a circular motion that perhaps indicated the grinding of the beans. This figure illustrates how even quiet

students like John would use body language, to indicate toward the screen, and

emphasize a point.

Figure 11. John explains to Yasmin how tofu is made.

Gesturing and body language were not limited to the storyteller alone. In Figure 12

below, Mei indicates toward the screen while Husna uses a gesture to help explain an

aspect of her story. This figure shows how storytellers *and* their partners engaged with

the content and/or the images on the screen.

Figure 12. Husna explains an aspect of her story to Mei.

Learners appeared excited and energized by what they discovered and described on the Internet. Figure 13 below shows Joseph, on the edge of his seat, excitedly pointing toward something on the screen, and illustrates how learners reacted to the discovery of the culturally familiar on the web.

Figure 13. Joseph leans forward to indicate something on the monitor.

3.2. Extended discourse

Students frequently went beyond the time that was allocated to them in these speaking tasks related to their digital stories. Learners would also ask for more time to discuss aspects of their stories and Table 19 below has been included as an example of this.

Table 19

Murhula and Shahnaz Request More Time

Joseph is explaining an aspect of his story to Shahnaz and they both seem to be enjoying themselves. I asked them to finish up their discussion, as we had to move on to another activity.

As I pass, Joseph asks if they could have another five minutes to discuss his topic.

Shahnaz turns and repeats Joseph's request, as she too wants more time to talk about his topic.

Joseph and Shahnaz continue their animated discussion for another five minutes or so.

Some learners refused to 'cede the floor' to other group members. During one session, students described their choice of images as part of a storyboarding process. I suggested to Fazilah several times, to swap with one of her group members but she kept going for over 15 minutes. She had announced in class a few weeks earlier that she was getting married, and she was keen to share every aspect of the week-long Sudanese wedding via the images she had found.

Ali, a middle aged former teacher, had chosen a famous Iraqi singer and wanted to play one of his songs all the way through to his group members. Rather than speak about the justification for choosing his images or retell his story, he gave a lengthy commentary on the meaning of the lyrics of the song. During that lesson we had around fifteen minutes of the songs of *Kadim Al Sahir* playing in the background (Ali didn't stop at just one song!). For that brief period, it felt like we were no longer in a classroom in New Zealand. Ali leant back in his chair and it felt like a teashop somewhere in the Maghreb or the Middle East. Conversation bloomed in this group, and elsewhere in the classroom.

On another occasion, I saw Shahnaz desperately trying to find a video of how kebab was cooked in her native Iran. Although the lunch break had started, she remained behind to show the video to her group members, who crowded around her iPad.

The communicative activities were characterized by authentic, unscripted language and had a genuine communicative purpose. Table 20 below describes a section of a discussion among four students who are discussing the images that Yasmin had chosen for her digital story. At first, the students try to identify the visual elements in one particular image. They then help her choose a picture that more accurately represents one part of her digital story.

Table 20

Group Members Discuss Images for Yasmin's Digital Story

Yasmin is discussing an image she would like to use in her digital story about *Ash Reshteh*, which is often eaten to break the fast during Ramazan. She wants an image that matches this aspect of her story and she stands up to indicate two mosques in the image.

Min-ho, when referring to the small objects in the image asks, "are all people?"

Marielle tells Min-ho she does not think they are people and indicates toward the screen and asks Yasmin, "are there people?"

As one, the members of the group move closer to the screen to verify if there are indeed people in the image.

Min-ho encourages Yasmin to use another image, which shows Muslim people sharing the food during Ramazan. Yasmin replies "yeah, this one, share the food". Min-ho concludes by telling Yasmin, "Yeah this one is good. The Muslim celebration, they're eating, it's very nice" and gives Yasmin the thumbs up.

A colleague asked me one day how Min-ho was getting on, as he had taught him the previous semester. He told me, "you know … he never spoke to anyone. He never said a thing in class. And you know what? At the end of the course he got 39/40 for the speaking!" (Rob, personal communication, October 22, 2012). Min-ho *was* a quietly-spoken and polite student in this class, yet in these speaking activities, he spoke at length, smiled, and used body language to support that which he was talking about.

Students, such as Ali or Fazilah, would start out with the intention of justifying their visual choices (their storyboards) or following the linear narrative of their digital stories. They would invariably, however, digress in an often epic and non-linear fashion as they became engrossed in the images and multimedia they either discovered, or brought to class.

Learners appeared engaged and energized during these sustained periods of interaction and communication. Both author and interlocutor appeared to speak in a more animated fashion than in conventional speaking activities, and many of these communicative events lasted for over 10 minutes.

This section has examined learner communication and interaction in the classroom, related to aspects of their digital stories. The next section presents data related to students' creative output.

4. Creative Output

This section examines students' creative efforts in producing their digital stories as well as their attitudes toward the technology and the task. The digital story was required to be approximately four-minutes long and no marks were awarded for technological skill or artistry.

4.1. Levels of creative output

The first sub theme relates to the length of the digital stories and whether a soundtrack had been included. These findings were considered significant because lengthy, and technically ambitious digital stories, might suggest high levels of engagement and motivation.

The duration of 20 digital stories was recorded and eight of these were over eight minutes and four ran to over 12 minutes. Moreover, most of the students added a soundtrack in the form of background music, and this was something virtually all of the students did in the second and third iterations of this task. Table 21 below presents data related to the duration of the final draft of the students' digital stories and the inclusion of a soundtrack.

Table 21

Duration of Digital Stories and Inclusion of Soundtrack (Final Draft)

Student	Title	Duration	Soundtrack
Arshad	Ghormeh-Sabzi	3:27	✓
Masrin	Korsi	15:55 VT	x
		5:50 YT	✓
Yasmin	Ash Resteh	3:09	x

Mya	Aung San Su Kyi	10:13	x
George	Mid-Autumn Festival	6:49	x
Mei	Chinese Mid-Autumn Festival	7:17	✓
Neissa	Ebisa Adunya	10:22	✓
Husna	Quaid e Azam	8:58	✓
Marielle	Cassava Leaves	5:27	x
Cecile	History of Cassava leaves and Pinto Beans	4:17	✓
Aisha	Diwali	4:49	✓
Mary	Tuvalu Garland	3:56	x
Min-ho	Kimchi	5:05	✓
Fazilah	Sudanese Wedding	12:59	✓
Jenny	Chinese Wedding	12:17	✓
Kim	Chinese New Year	12:10	✓
Adena	My Journey from India to New Zealand	8:57	✓
Lisa	Paiwan Tribe	12:04	✓
Kate	Wong Faye	5:30	✓
Paul	The Chilean Telethon	5:22	✓
Karim	Malalai and the battle of Maiwand	Over 10 minutes in Draft 1**	✓
Rachel	Kimchi	5:30	✓
Joseph	Congolese Wedding	NR*	NR*
John	Tofu	NR*	NR*
James	Chinese Tea	NR*	NR*
Ellen	Chinese New Year	NR*	NR*

Note.

VT = VoiceThread version

YT = video posted to YouTube

*Not recorded by the author

**The recording on the final draft was inadvertently deleted

During computer lab sessions, I observed the effort that learners made to locate the right images for their story. Shahnaz seemed to encapsulate the creative mood of the students when she noted, "when you use a photo you have to choose the perfect photo for that" (personal communication, September 17, 2012). Participants also revealed during the post-task interviews, the lengthy (and repetitive) recording process they undertook, as they sought to improve their pronunciation. The students' efforts seemed disproportionate to the marks allocated to the task, and one of the areas of focus at the interview stage was *why*.

4.2. Reasons for students' creative output

During the interviews, students struggled to articulate the reasons for their concerted efforts to improve their digital stories, despite a series of probing questions. Almost without exception students cited a need to 'do their best', make it 'interesting', 'nice', 'attractive', or 'perfect'. However, some students were able to articulate their motivations.

Karim expressed the general notion of the audience as a motivating factor; "I was trying to make it more interesting, more attractive … so that it should be more interesting for them listening to it" (personal communication, July 25, 2013).

Others expressed a desire to present their country in a positive way. Jenny's story was 12:17 long, and as with a many of the other stories, it was embellished with a range of images and a soundtrack. I asked her why she had put so much effort into her story and she told me, "I hope my classmates, not only my classmates, when they see my story they feel very interested and they want to know more about Chinese culture, about Chinese people" (Jenny, personal communication, November 26, 2012). Fazilah expressed a similar idea, stating she "wanted to represent Sudan in the best way I could" (personal communication, November 26, 2012). Husna told me, "I think that's everyone's feeling. Everyone wants to show his country and people's politicians or whatever, heroes, in a positive way" (personal communication, November 23, 2012).

Students expressed different perspectives on the value of music in their digital stories. Paul, Karim, and Lisa saw music as a means to increasing the power and allure of their digital stories. Paul felt he got "the icing on the cake with the music" (personal communication, July 25, 2013) as it was a band he really liked and it inspired him. Husna expressed a similar sentiment, noting that, "after I add music, it

makes more interesting my story. I love it after that" (personal communication, November 23, 2012). Arshad had struggled with the technology and yet made a significant effort to add music. He told me that he felt compelled to add a soundtrack to his story, the traditional Iranian dish *Ghormeh-Sabzi*, because good food must be accompanied by music. He explained that this music, "without speaking or any words … tells you many things about Iranian culture" (Arshad, personal communication, December 4, 2012).

Two students described how they felt a certain amount of pressure publishing online. Kate described how she felt nervous about having her story online "because my pronunciation is not good" (personal connection, July 27, 2013) while Lisa noted the pressures of having her work in the public domain, alongside that of her peers:

> Yeah of course, because when you listen to others, most of them they do a very good job, and a kind of motivation I want to do good as well. And also when you know it's going to be there, other people going to listen, so you can't just "I'll hand it in now". You want to make it interesting for people to listen or when they listen to it they are enjoying or they understand the story you want to tell. It helped me to motivate myself. (Lisa, personal communication, July 27, 2013);

Data emerged concerning learner engagement with the task and/or technology. On the same day that the task had been assigned, James emailed me in the evening to tell me he had already finished his digital story. He had not prepared a script, nor had he participated in any of the planned in-class activities. When I reminded him about this in the interview he told me, "I just can't wait to finish". When I asked *why*, he told me it was "a good chance for me to use more technology about computers, like

making movies or making films" (James, personal communication, November 26, 2012). He told me that he made changes to his slides (the images and/or the music) 10 times because "that's what makes the story more interesting, you know, more good stuff" (James, personal communication, November 26, 2012).

Masrin produced two digital stories. One, a very lengthy VoiceThread version, was somewhat flat and staccato-like in its delivery, and was clearly recorded in the computer lab, as students can be heard in the background. The second version was a beautifully relaxed retelling of her chosen topic (korsi) that she created and posted to YouTube, within a few days of having been given the task. Masrin's delivery in her YouTube version was relaxed, and appeared unscripted (see Figure 14 below).

Figure 14. Screenshot of Masrin's video.

During a lab session where we had been working on the digital stories, Fazilah told me she was 'extra happy'. When I enquired why she was in such a good mood she replied "because I did something for my class!" (Fazilah, personal communication, October 22, 2012). I made a note to myself to follow this up at a later stage to find out what she meant by this. During the interview she told me:

To be honest, I don't like studying. Studying is *really* - I'm dyslexia, if you

know what it means. So studying is something I push myself toooooo much to

do, especially if I have to study in class. If I have something to do at home I lie

down on the floor, drink tea. I have to drink tea or V before I start reading

otherwise I straight away go to sleep. So it wasn't something I like to do. So,

that day I pushed myself sooo hard to do in class what I was told to do instead

of going on Facebook. Going on something else. Cos I kind of go out of the

blue especially after I buy the iPad. I just can't study. (Fazilah, personal

communication, November 26, 2012).

During the lesson she refers to she did, in fact, work really hard. She had missed a

couple of classes and was well behind with the scripting and preparation of her story.

She had just got engaged and would get married in a few months, and was very

excited about her topic, *Sudanese Weddings*. That semester, I organized a couple of

extra sessions in the computer lab for those students who needed lab time and/or

technical support to get their stories completed. Fazilah came to one of these sessions

and worked non-stop to get her story right. While not always the most punctual of

students in terms of arriving on time or handing work in she threw herself into this

project. She was highly active in pair and group discussions regarding these stories

and her digital story was beautifully detailed and structured. In the first iteration

students were expected to post 3 questions or suggestions for improvement, to their

group members' stories. Fazilah posted 23. You could hear the enjoyment and sense

of fun in her voice as she introduces her topic. 'Sudanese Wedding!' When asked how

she felt about this project, she told me:

Yeah, actually I enjoyed. From the whole semester I liked doing that. It was a

reeeeeally really nice thing to do and I kind of, I don't know, maybe because

of VoiceThread, the system itself, I felt it was something that pulled me. I like

more doing something on computers, and more doing something talking, than

you asking to do some reading or writing, I don't like it much. But if I have to

talk I'll do it perfectly. (Fazilah, personal communication, November 26,

2012).

Ellen, who professed to a lack of ICT skills during the interview, articulated a

positive reaction to the task; "I very enjoy this, pictures, stories, and so on."

Mya, who had made put a great deal of effort into the delivery and visual

appearance of her digital story, described how much she enjoyed the task: "I love it,

the digital story … so that's why I keep it. Now I go to Burma and I show them.

That's my plan" (Mya, personal communication, November 27, 2012).

A small part of the sample (four students) referred to the assessed nature of the

digital story as being a motivating factor in their efforts. However, three of these

participants cited a range of additional motivating factors, with only one student citing

the assessed component as her prime motivation. Interestingly this student had missed

a number of classes and finished the digital story at the last minute.

This section presented data related to students' efforts in producing their

digital stories and included examples of individual perspectives on the task and/or

technology. The following section examines learner perspectives on the cultural

component of this project.

5.   The Cultural Connection

Culture was a cornerstone of this digital storytelling project as cultural topics

provided the basis for both in-class speaking activities and the digital stories.

5.1. Pride and patriotism

A small group of students expressed an explicit cultural pride or patriotism in the interviews. Cecile had mentioned earlier in the interview that she had not been given the opportunity to talk about aspects of her culture in other English classes. When I asked her how she felt about her topic she told me:

> I was so proud, because my tribe is there. Bayombe tribe and cassava leaves idea, it was very good. I was very, very happy, like I was in the village. Even you were in the city, I just go back to the village! (Cecile, personal communication, August 5, 2013).

Lisa echoed this perspective, and noted that within the Paiwan tribe, "there's a beautiful culture, something very special for me. I do connect with it, I do represent my tribe". Karim believed that when a person migrates to a new country, "that feeling of patriotism grows and you are more patriotic than those that are inside" (personal communication, July 25, 2013). Paul alluded to a similar theme, when he described how he did not buy Chilean music back home, "but when you are here, you start valuing our music" (personal communication, July 25, 2013).

5.2. The digital stories as a digital record

For some learners there was a sense that these digital stories would document traditions for new generations growing up in New Zealand, and share aspects of their culture with a wider audience.

Some participants saw their digital story as a record of cultural traditions for younger generations. Joseph, a young, single Congolese man, was fascinated by the complex traditions and protocols of weddings in his native Congo. His story included textual and visual references to his sister's wedding, and he realised that he too would

be part of this tradition in the coming years. When asked how he felt talking about an aspect of his culture he replied:

> I think proud to talk about my culture and even here in NZ, where I am still participating in my community, to show our culture, how our culture is. And we are helping some young people also to grow, to grow in like the way we have grown up in our culture, not forget and lose the culture, where we come from. (Joseph, personal communication, November 23, 2012).

Lisa also saw her digital story as a record for others, "so I can use this to let my children listen and kind of like a piece of work I can remember and continue, to keep it as my record" (personal connection, July 27, 2013). Cecile spoke of her digital story as a 'souvenir', and described how she had played it to the children at her daughter's birthday party and how they were fascinated by the topic. Masrin stressed the importance of maintaining her culture here in New Zealand; "I try to keep my culture for my kids. This is a long, long, long, love for us and I want to keep it forever. They are childhood memory" (personal communication, November 26, 2012). Masrin also emphasized her personal connection to her topic when she explained, "korsi touched my heart every time I think about it" (personal communication, November 26, 2012).

        Some learners expressed a desire to share their cultures with a wider audience. Masrin had put her digital story on YouTube almost as soon as she had been given the task. When I asked her what motivated her to do this she told me:

> I want everybody to know what means korsi. If one day, they hear the name 'korsi', what does mean? And also I'm sending my culture to other people, where I come from. Lots of people they have no idea where is Iran, but I have

5000 years history. I want to share with everybody. (Masrin, personal

communication, November 26, 2012).

Neissa told me it was very important for people to know about Oromo culture through

his story of Ebbisa Adunya, the assassinated musician, poet, and soldier. He wanted to

promote awareness of his culture and his people's struggles against injustice, and

concluded his digital story by stating, "they will remember him as a hero and one day

Oromia will be free". Fazilah told me that the Sudanese community was very small in

New Zealand and that her digital story gave her an opportunity to share aspects of her

culture with others. When asked what important ideas she had taught us through her

digital story, Mya replied, "If, when you listen, you know about Aung San Su Kyi

life, that's what I want to get people knowing about her, about the country" (personal

communication, November 27, 2012).

5.3. Setting the record straight

Some participants reported being wrongly identified as belonging to another

culture or their cultures being perceived in a negative way. Fazilah told me that she

was upset that people mistook her for South African or Samoan, and George

described how he had been mistaken for Japanese when he first came to New

Zealand. He wanted to raise people's awareness of the changes that had occurred in

his country:

At that time the economy is not so good in China. So, many people maybe just

know a little bit about China. So, they're thinking about the Chinese people

maybe from the movie, people hundreds ago, long hair (he laughs – perhaps a

little embarrassed). So, the feeling is maybe Chinese people are like this, and

the country, the environment is very bad, and dirty, and the people maybe they

smoke all day. So, maybe people feeling is like this and now it's all changed.

So the story has to tell people things are new, it's exciting to go. (George,

personal communication, November 29, 2012).

Cecile spoke of how an MC at a Congolese national celebration here in New Zealand

had been asked if he was from South Africa. She told me that it was important to

inform people where she was from through her digital story:

> They don't know Congo, good for me to put the map so that they know there is
>
> a country called Congo. They say 'Congo is in Venezuela' or 'Congo is in
>
> whatever, South Africa'. I put it so that they can know there is a country called
>
> Congo in Central Africa. (Cecile, personal communication, August 5, 2013).

Karim explained that the celebrated Afghani heroine Malalai, who rode into battle to

inspire her fellow Afghans against the British, was an important choice in order to

dispel some misconceptions about his country:

> I wanted this story to give a message to them. A distorted image that we have
>
> now in the Western world is not like that because when talk about Afghanistan
>
> in the west a lot of people think, 'whoa, these are the people that oppress
>
> women'. (Karim, personal communication, July 25, 2013)

6. Summary

This section has presented data related to learner behaviours online and in the

classroom, and their attitudes toward various aspects of the digital storytelling project.

The following chapter discusses the significance of these data and their relationship to

the research question.

Chapter Five: Discussion

1. Introduction

The research question proposed in this study, examines to what extent and in what ways a digital storytelling project affects L2 learners' communicative experience, motivation and engagement, and promotes f2f interaction in an L2 context. The significance of the key data described in the findings section will be discussed below, as they relate to this research question.

2. Asynchronous Communication: A Question of Time and Space

The data collected in this study suggest asynchronous communication via VoiceThread can have a positive impact on an L2 learner's communicative experience. A combination of time, space, tool, and teacher feedback, can facilitate comprehension, increase spoken accuracy, and lead to the possible acquisition of language forms through repetition. In terms of learners' *affective* response to this asynchronous communicative experience, some learners reported an increase in confidence.

2.1 Ensuring conceptual and linguistic comprehension

The findings in this study suggest that a Web 2.0 voice tool like VoiceThread can have a positive effect on the communicative experience because students can revisit and review teacher and peer contributions, thereby facilitating understanding.

Two participants in this study expressed a need to revisit teacher feedback to ensure *conceptual* understanding. This finding, albeit from a very small part of the sample, is significant for two reasons. On the one hand, it appears to validate the use of asynchronous communication to understand ideas as it affords learners the time,

and space, to process information (Hrastinski, 2008) and negotiate meaning (Meskill & Anthony, 2005). However, the traditional educational model insists that students achieve conceptual understanding in real-time, f2f contexts, in both language and mainstream classrooms. As McCormack and Taylor (2006) note, all-important feedback delivered in f2f mode is often fraught as "students often miss learning opportunities as they are concentrating on an earlier comment rather than the comment currently being delivered" (p. 526). On the one hand, we ask our L2 students to comprehend difficult concepts within our classrooms and lecture theatres, and grasp our own linguistic complexity and idiosyncrasies. However, this finding implies students do not always 'get' everything that is said in the traditional f2f classroom. While we may ask comprehension-checking questions, and scan our classrooms for outward signs of confusion or bewilderment, there will always be language and ideas (and students) that slip through the net. I would posit therefore, that students might be better served by content they could access in their own time, revisit and perhaps interact with. The implication here is that an asynchronous Web 2.0 platform like VoiceThread can enhance the communicative experience, because the time and space that asynchrony affords, facilitates comprehension, presenting students with opportunities for reflection. I am not arguing here for an abandonment of the f2f classroom, an environment potentially rich in authentic communication and interaction, but rather an alternative (blended) model that gives L2 learners the time and space to acquire knowledge. This is supported by Meskill and Anthony (2005) who argue, instructor-led Computer-Mediated Communication (CMC) can "enhance f2f (face-to-face) learning by providing an additional venue to practice and reinforce f2f instruction" (p. 90).

The asynchronous nature of this task allowed learners to revisit their peers' work to ensure linguistic comprehension. While some participants in this study only had to listen once to their peers' work to fully comprehend their digital stories, the majority revisited their group members' work several times. The data that emerged in this study related to *why* students felt the need to 'go back' so many times, hints at the inherent strengths and weaknesses of the Web 2.0 and f2f classrooms. On the one hand, some students noted the spoken postings lacked the non-verbal cues (body language and expression) that support understanding in a f2f setting. Oral asynchronous communication could be seen therefore, as a challenge for L2 learners. This is in line with the findings of McNeil (2014), whose study of Korean EFL students working on asynchronous VoiceBoard tasks, cited a number of students who missed the non-verbal cues present in f2f communication to support their understanding. Furthermore, a small part of the sample in this study, found the scripted language of the digital stories more complex than that of the traditional classroom. This linguistic complexity, coupled with a range of unfamiliar content, also posed a challenge. Students also cited pronunciation issues in some of their peers' work. Conversely, a prior knowledge of the content or a common L1 seemed to facilitate comprehension. A small part of the sample took advantage of the time and space available to them to do research to better understand their peers' work, adopting a strategy we recommend to our students to prepare them conceptually, or linguistically, for an upcoming lecture or discussion.

The findings in this study indicate the dichotomous nature of asynchronous oral communication for L2 learners. On the one hand, an asynchronous platform gives L2 students a valuable opportunity to revisit classmates' work. However, asynchronous spoken output can be challenging due to an absence of non-verbal

clues, an increase in linguistic complexity, and a lack of familiarity with the subject

matter. An asynchronous approach can therefore both enhance and impede the

communicative experience, and we as educators, need to be aware of this when

designing and implementing web-based speaking tasks.

2.2 The role of repetition

Findings in this study indicate students practised and re-recorded their stories,

as well as problematic words and phrases, several times.

Approximately half of the sample re-recorded and/or practised their digital

stories between two to four times, while some re-recorded their work 10, 20 and even

30 times. These findings are echoed in the work of Rance-Roney (2008) whose

students re-recorded their voices more than five times, while the learner group of

Castañeda (2013) also made multiple recordings, with one student recording their

story 20 times. The role of repetition in these digital stories demands further

examination as Larsen-Freeman (2012) acknowledges, it is not so much a question of

whether repetition works but "why it does" (p. 198).

Repetition, "the act of saying over again" (Larsen-Freeman, 2012, p. 197) has

long been associated with behaviourism, and while the latter has been largely

discredited, repetition still exists within the classroom and beyond (Larsen-Freeman,

2012). McLaughlin (1987; as cited in Larsen-Freeman, 2012) argues that repetition

can promote automaticity, as L2 learners acquire chunks or patterns of language.

According to Gass (n.d.) "many studies on language acquisition show that very high

numbers of repetition are necessary for a word to become truly owned and in your

long term memory" (p. 1). Larsen-Freeman (2012) argues that repetition can be

viewed as iteration rather than exact reproduction, and that this generates variation

rather than replication. In other words, the repetition of language makes items of

language available to be repurposed and re-formed in different contexts and for different purposes.

It is beyond the means and scope of this study to make definitive claims in terms of vocabulary acquisition via repetition in this project. However, when reflecting upon her 20 recordings, Rachel felt as though she had almost 'memorized' her story. The level of repetition and revision that emerged in this project suggests therefore, that learners *may* have internalized certain lexical items, chunks of language, and/or language patterns. However, this would clearly require further research to ascertain if these forms had indeed been 'learned'.

2.3 Personalized teacher feedback

Despite the relative intimacy of the L2 classroom, it is difficult to provide learners with personalized oral feedback. This is due to time constraints within the classroom, and the need to analyse and reflect upon a student's utterances, before formulating meaningful feedback. Analysis of six digital stories revealed notable improvements between drafts, and these frequently correlated to specific teacher feedback. Data suggest VoiceThread can facilitate a teacher/student 'conversation' leading to improved learner performance. These findings imply, therefore, an enhanced communicative experience for the L2 student.

In this study, all participants acknowledged the utility of individual, recorded teacher feedback. As Harmer (2003) observes, most L2 learners "want and expect us to give them feedback on their performance" (p. 104) and Rance-Roney (2008) describes how her L2 digital storytellers asked her to repeat words and help with pronunciation prior to recording. However, in Rance-Roney's (2008) study, feedback was given *in class*, which has clear benefits in terms of immediacy and freshness, but lacks the permanence of recorded (stored) feedback. Gallien and Oomen-Early's

(2008) study of personalized and collective feedback online, found that "students who received personalized feedback from the instructor on assignments were significantly more satisfied and performed academically better than students who received collective feedback" (p. 474). In terms of this study, data suggest improvements between the first and final drafts with problematic sounds often eliminated where specific teacher feedback had been given.

George had been advised by his teacher Lyn, "to continue to breathe out" in order to achieve an accurate /k/. As Chan and Li (2000) observe, "Cantonese plosives in word-final position are unreleased" (p. 68) unlike those in English. In other words, there is no air released and these consonants, to English speakers at least, are almost impossible to hear. It is as if the ending has been left off altogether. These unreleased plosives from L1 Cantonese speakers (and indeed other South East Asian language groups) can make comprehension highly problematic, as these word endings make the lexical items recognisable. George had remembered his teacher's feedback and worked hard to resolve this issue. Interestingly, in his digital story, the plosive /k/ is missing from make (pronounced /meɪ/) suggesting he was, in this case at least, focusing only on the words that had been indicated to him. It should be noted here that George had recorded his Kiwi friend's reading of his digital story and this may have played a significant part in his improvements.

Unlike George, Yasmin resolved her principal pronunciation issues not only in the words that had been modelled for her but also in those lexical items containing the same sound. According to Wilson and Wilson (2001), "consonant clusters do not occur within single syllables in Farsi, and Farsi speakers therefore, tend to add a short vowel, either before or in the middle of various English clusters" (p. 181). Wilson and Wilson (2001) note that /*sp*/ is one of these problematic "initial two segment clusters"

(p. 181) yet all the examples of this sound were correct in Yasmin's final draft. She also corrected her pronunciation of the initial consonant /w/ in the words she used in the final draft, rather than substituting it with /v/, another common error among Farsi speakers (Wilson & Wilson, 2001). Yasmin's delivery was better in the opening section at least, and appropriate changes were made to the content based on teacher input.

Rachel's pronunciation in class demonstrated significant MTI. While draft one and two demonstrated few of the common errors that Korean L1 speakers transfer to English, Rachel continued to substitute /l/ for /r/ in her final draft. For Korean L1 speakers, "the /r/ sound occurs between two vowels and the /l/ sound occurs at the beginning or end of vowels" (Avery and Ehrlich, 1998, p.46; as cited in Iris-Wilbanks, 2013, p. 3) hence Rachel's ongoing errors with words such as /lesɪpi:z/ (recipes) and /li:ʒɪnz/ (regions). Rachel added traditional music as she was advised to do, and the finished digital story was professional sounding and narrated with intonation and assuredness.

Mya had received specific teacher feedback regarding word endings, and words ending with the alveolar plosives /t/ and /d/, such as /traɪd/, /fɪkst/, /pəfekt/, /rɪli:st/, and /mu:vmɪnt/, were accurate throughout the final draft despite the fact that Burmese speakers invariably adapt these sounds into unaspirated forms (Chang, 2008), thereby making the word endings difficult to hear. Furthermore, there was also considerably more intonation and word stress in draft two and all of these areas had been indicated in the teacher's feedback.

Adena's final draft was a marked improvement on the first, in that the delivery was slower, pauses were used to good dramatic effect, and appropriate music was added. Interestingly, there had been no specific *individual* feedback regarding these

issues, suggesting these improvements were either the result of critical reflection, or collective feedback given to the whole class.

Cecile responded *in part* to the individual feedback given to her. She indicated the location of her village via the doodle tool, and added a soundtrack, as was suggested to her. However, little of the content or language from draft one was re-used in the final draft, suggesting little or no teacher influence in terms of pronunciation. However, Cecile's final draft was a significant improvement in terms of its *suprasegmental* quality. Her delivery appeared unscripted and I would posit this as the principal reason for the natural delivery and improved use of word stress and intonation.

According to Harmer (2003), correction that takes place in the midst of a communicative activity can hinder communication and haul the activity back to a focus on form, thereby 'destroying the moment'. The asynchronous platform used for this project, VoiceThread, allows for targeted feedback that does not intrude on learner collaboration and communication. This blended approach affords the best of both worlds; uninterrupted peer interaction within the f2f classroom (the *Yang*) complemented by feedback and a focus on accuracy via VoiceThread (the *Ying*).

Giving meaningful feedback to an individual learner in class almost feels like an abdication of responsibilities, when one considers the other twenty-plus students who also require support relevant to their needs. The reality of our classroom, is that the most basic of educational phenomenon, the teacher/student conversation, is rarely possible. However, asynchronous Web 2.0 tools like VoiceThread can provide a temporal elasticity whereby students can receive personalized oral feedback. Maeroff (2003) notes that critics of e-Learning see it as machine-like, and incapable of replacing the teacher. However, Web 2.0 technologies like VoiceThread are not

teacher-substitutes, but a venue for communication without temporal or spatial restrictions, thereby making "one-on-one education" (Maeroff, 2003, p. 1) a reality.

2.4 Instilling confidence

The findings suggest that while asynchronous oral communication can promote learner confidence, it remains a challenging environment for some students. According to Vonderwell (2003) "research findings indicate that shy students tend to participate more in online than in traditional environments" (p. 79). Comments made by one student, Mei, suggested she was able to achieve language outcomes online (asking questions, and producing complete, accurate sentences) that she was not previously able to. Some participants described how the digital storytelling task helped them to grow in confidence as L2 communicators and this has important implications, as affective factors can clearly inhibit or promote a willingness to communicate. A communicative task, utilizing a voice tool like VoiceThread, could provide a platform (a launch pad?) for a wider WTC. However, there exists a caveat here, as one participant noted nervousness in the recordings of others while another learner reported feelings of embarrassment hearing their own voice.

3. The Communicative Power of Digital Storytelling

Data that emerged in this study suggests digital storytelling can be a powerful means of communication through multimedia. The communicative power of the digital stories in this project resided in the use of multimedia and in the personal connections that students shared.

Hull and Nelson's (2005) work on the semiotic power of multimodality, examines how "digital artifacts … draw on a variety of modalities - speech, writing, image, gesture, and sound - to create different forms of meaning" (p. 224). For

example, music can create a very different meaning in combination with an image or

narrative text, than alone. This represents an important communicative benefit of

digital storytelling, one that was evidenced in *part* by the stories in this study. Within

this study, there were several examples of multimedia combining to create powerful

and unique meanings.

The filmic qualities of Paul's *Chilean Telethon* demonstrate the *potential* of

digital storytelling to communicate meaning through the interplay of multimedia. In

this digital story, the cadences of the narrative punctuate the soundtrack for dramatic

effect, while Paul pauses at various stages, giving the audience time to absorb both

visual and textual information. Multimedia in this digital story enhances both the

clarity and impact of the message thereby adding *communicative value* (Norton,

2014).

Hull and Nelson (2005) claim that music can add a "layer of meaning" (p. 253)

to a digital product by creating a mood as well as emphasizing or punctuating speech

in connection with the sounds and rhythms of the accompanying soundtrack. Most

participants in this study added a soundtrack to their digital story. When asked why,

participants explained they wanted to make their story 'nice', or 'do my best'.

However, the *communicative* impact, or value, of the soundtrack, went beyond the

superficial or the aesthetic. By adding music from their own culture, students situated

their stories within a cultural context. The soundtrack gave a sense of place that text

alone could not. Hull and Nelson (2005) argue that music "adds an important

emotional element to digital stories" and that part "of the satisfaction that viewers and

creators experience around this form of multimodality derives from emotionality" (p.

253). Within this study, music contributed an emotional dimension to a number of the

digital stories. The sombre and stately mood that prefaced Husna's *Quaid-e-Azam*,

matched the newsreel feel and look of her story of Pakistan's founding father. The hypnotic rhythms that accompanied Fazilah's *Sudanese Wedding* suggested a collective celebration, while Lisa's songs from her Paiwan tribe, accompanied by her daughter on drums, were a unique and personal expression of identity.

One interesting feature of VoiceThread is that authors, and interested contributors, can use the doodling tool to support the narrative, as "the viewer is able to acquire a comprehensive understanding of the content being discussed as the creator uses the 'Doodle' tool to draw attention to specific text or images" (Gillis, Luthin, Parette & Blum, 2012, p. 209). Interestingly, only two students used this tool and both found it problematic to speak at the *same time*. This suggested that this form of multitasking was a distraction, or even impeded their spoken delivery. The vast majority of students chose *not* to use the tool. This could be due to its perceived interference with their delivery, or perhaps its freehand quality was seen as an intrusion on the aesthetic quality of their stories. I acknowledge the 'ugly' aesthetic of this tool, but there are clear uses for this feature in a range of educational contexts. Teachers and students may need to draw attention to a visual aspect of the slide they are commenting on, and this could be something that the learner has created or perhaps 'captured' (photographed) while out in the field.

Porter (2005) argues that the best digital stories have a personal connection, and that "emotionalizing information gives important "sticking power" in our brains and for our audience" (p. I4). While many students in this project struggled to present a compelling personal connection, those that did, shared work that was at various times, poetic, heartfelt, and highly creative. Mei describes how she gazes at the same moon as her family, and the connection she feels to her family through this single moon. As she delivers these words, we see an image of a full moon reflected over the

sea. This example of narrative combined with visual support creates a powerful image of both separation and symbolic connection. Adena's story of her physical and spiritual journey from India to New Zealand is a powerful story that offers a very real insight into the complexities and challenges of the migrant experience. However, as a written piece alone, it would have been an altogether different piece of work. The personal photos of family, airport departures, and her new life in New Zealand, not only support the narrative with appropriate visual information, but also imbue her digital story with mood and emotion.

Clearly, one of the inherent strengths of digital storytelling lies in its ability to convey or support meaning, to add *communicative value*, through the use of multimedia. Furthermore, multimedia can convey *emotions* thereby increasing the affective impact of a digital story. While some participants in this study used multimedia at a basic level, that did little to improve comprehension or add meaning, others embraced the potential of multimodality. The findings in this study suggest that digital storytelling via VoiceThread, has the potential to add *communicative value* to our students' stories, and create a more *powerful* communicative experience.

4. VoiceThread and Interactivity

Perhaps VoiceThread's greatest affordance is that it can make communication truly *interactive*. When describing the pedagogical affordances of VoiceThread, Holcomb and Beal (2010) note, "when students share their work with peers, they are able to create a conversation" (p. 29) and the conversational and interactive qualities of these digital stories grew with each iteration of this project.

A story is by nature the telling, or retelling, of a narrative, and while not precluding interaction between storyteller and audience, the notion of story has

traditionally implied a transmissive, one-way event. Digital stories are often created with software programmes such as iMovie and Windows Movie Maker, and these self-contained units can be impenetrable to interaction in the *spoken* medium in which they were created. In other words, digital stories are crafted by the author and then sealed off (saved). They can be posted to a Web 2.0 platform, but any asynchronous comments, or interaction, would be either text-based, the traditional language of asynchrony, or recorded and uploaded. The beauty of VoiceThread is that allows for spoken peer and teacher interaction on the digital story itself, thereby facilitating an interactive process.

In this project, students recorded their stories and received oral input from peers and teachers in the form of questions, suggestions for improvements, and words and phrases modelled by the teacher. In the first iteration of this project the conversation, as it were, ended there. In subsequent iterations, learners responded to peer questions on their actual VoiceThreads, resulting in extensive, unscripted responses. This was an important finding, as a number of students struggled to bring their scripts to life. Some learners, such as Cecile, were clearly focusing on the reading rather than the performance, and at a suprasegmental level, their narratives were flat and lacked word stress and intonation. The unscripted 'conversations' however, were characterized by natural, spontaneous language and this finding suggests a possible future application in the L2 classroom.

VoiceThread, while lacking the filmic qualities and features of other digital authoring tools, has great potential for sustained interaction and conversation to occur across time and geographical space.

5. A World-Wide Window onto the World

The data that emerged from participant observation and the filming of student interaction in the classroom, suggested high levels of f2f communication as learners discussed aspects of their digital stories. If one accepts the definition of WTC "as a situation-based variable representing an intention to communicate at a specific time to a specific person" (MacIntyre et al., 1998, p. 559) then one needs to identify the situational variable(s) that *prompted* this extensive f2f communication within this project and *sustained* it. The situational commonalities in these tasks were a web connection and access to various multimedia signs and symbols of their home culture (images, maps, videos, and music) as well as varying degrees of prior knowledge.

According to Oxford (1997), electronic media can promote interaction and this can include "talking in a small group gathered around a computer" (p. 449). The findings in this study suggest L2 students are highly motivated, willing to communicate, and subsequently engage in sustained interaction, when they have access to multimedia representations of their culture in the form of images, music, and video. In terms of communication levels, this access was akin to letting the metaphorical genie out of the bottle. Student interaction was characterized by gestures, body language, and appeared heightened by interaction with the computer screen itself. Students who previously said little, or who never used gestures, came alive. There was visible and audible excitement as students discovered a visual representation of the culturally familiar, and the sights and sounds of their cultures seemed to transport them and drive sustained and meaningful interaction. The computer screen was not unlike a window, a conduit, onto their world and this access to multimedia appeared to alleviate the pressure on students to create meaning from discourse only.

So what of the pedagogical value in these interactions? Canale and Swain (1980) argue that authentic and meaningful communication is vital in facilitating both communicative competence and confidence. Furthermore, a cooperative approach such as this, can create opportunities for authentic SLA, facilitate the acquisition of communication and learning strategies, and promote an optimal affective environment (Richards & Rodgers, 2001). McGroarty (1989; as cited in Richards & Rodgers, 2001) believes cooperative tasks such as these can encourage students to become more active learners as they assume responsibility as a resource for peers.

Of particular relevance to this study is the work of Van Lier (2002) who examines the role of multimodality to increase and enhance learner interaction. Van Lier (2002) argues that language is but one part of the meaning-making process. He describes two L2 students seated in front of a computer, their interaction "heavily embedded in pointing, establishing joint attention and commenting on what they see" (p. 147). This image suggests immediate parallels with the digital storytellers I have just described, immersed in descriptions of their storyboards or a f2f retelling of their stories. Van Lier (2002) notes the intensity of the focus of the students who work side-by-side rather than addressing one another directly and notes, "when learners work side by side in triadic interaction they share affordances with the environment. Language and gestures combine to indicate objects, places, and events. It is in dynamic, triadic interactions of this sort that language emerges" (p. 157). This implies that the *triadic interaction* (Van Lier, 2002) I had observed in my classes, elicited both language and gestures, and when combined with multimodality, served to assist in conveying and constructing meaning. So what are the *implications,* in terms of the quality and quantity of communication and interaction in this digital storytelling task? Van Lier (2002) argues that language must be contextualized "in order to become

meaningful" (p. 158) and can be examined "in the context in which it is used, through field work, printed texts, movies, songs, Internet resources, etc" (p. 158). One could surmise here that the multimedia content students used to retell their stories or present their storyboard choices, represented a series of semiotic affordances. In other words, multimedia gave context and meaning to what learners were describing and assisted them in meaning making.

Furthermore, these triadic interactions result in a specific *type* of interaction (invariably side-by-side) which according to Van Lier (2002) "encourages joint action, exploratory talk, and the use of indexical language" (p. 157) as well as promoting mutuality within the classroom. These assertions mirror observations within this research context that suggest the semiotic (meaning-making) power of multimodality can enhance and promote communication within the classroom.

There is evidence that multimedia may have reduced levels of anxiety and increased learner engagement. Observation of student interaction in these activities suggested anxiety was minimal while the learner's perceptions of what they could *achieve* communicatively in the form of *state perceived competence* (MacIntyre et al., 1998) appeared greatly enhanced. Woodrow (2006) in her study of predominantly Asian English for Academic Purposes (EAP) students prior to entering Australian universities, found evidence to support the models of anxiety put forward by Tobias (1985; as cited in Woodrow, 2006). Of particular relevance to this study is the *interference retrieval model,* which suggests anxiety can inhibit "the recall of previously learned material at the output stage" (Tobias, 1985; as cited in Woodrow, 2006, p. 310). If one considers the levels of spoken and non-verbal output and interaction evident in this study, one could argue that the multimodal resources on the computer screens, aided, and perhaps circumvented, the retrieval process. The

retrieval as it were, became less of an issue as the objects for discussion were laid out in front of students. With recall 'out of the way', students were freed up to focus on the message and on making meaning through language, gestures and multimodal artefacts, as part of a *triadic interaction* (Van Lier, 2002).

Classroom observation suggested that the multimedia content that students accessed in class, increased learner enthusiasm, motivation and engagement. This could be due to what Oldfather terms *honored voice* (Oldfather, 1993, p. 672), as motivation and empowerment stems from students being able to choose relevant and interesting materials, tasks and topics knowing "that their voices have been heard" (Oldfather, 1993, p. 680). In other words, this multimedia content was visual (and aural) proof of the richness and wonder of the cultural world they were describing. Observation of communicative activities suggested that students were excited by their visual discoveries and proud to share and discuss these artefacts.

The findings in this study suggest that aspects of a student's culture accessed via a simple web connection can facilitate interaction, reduce anxiety, promote a learner-centred classroom, and provide a window onto their cultural world. Results also suggest an increase in *state perceived competence*, a learner's perception of what they can achieve communicatively (MacIntyre et al., 1998). I would posit the following reasons for this. First, learners may have had background knowledge of the subject matter. Furthermore, students may have felt empowered by the multimedia content in front of them that they could 'lean' on, as this provided them with reference points and visual prompts to support their discourse. These visual references may have increased students' confidence, if they sensed that meaning-making was being supported. These interpretations require further research, but conventional wisdom

would suggest that it is easier to talk about something with visual support than without.

6. The Importance of Culture

Culture permeates every aspect of this project. It formed the basis for in-class speaking around the computer screen and provided the content for the digital stories themselves. During the interviews, a number of students described the importance of their culture. For some, the digital story represented an opportunity to preserve or document traditions, inform people, as well as dispel misconceptions. Learners appeared driven to share their culture and present it in a positive light, and this was evident in students' spoken communication and creative output.

One could infer from the data that cultural content increased WTC and intrinsic motivation, and provided familiar points of reference for f2f speaking activities, and this manifested itself in high levels of spoken communication and interaction. This is in line with the findings of Reeves (2009), who noted that the silence in his English language classes in China was quickly transformed into animated conversation by a cultural focus on "cuisine, music, or art" (p. 87) and that these topics appeared to promote risk-taking among learners. In this study, students appeared highly motivated to discuss and share aspects of their culture in class, and engaged in high levels of spoken, and non-verbal, interaction in speaking tasks around the computer.

Furthermore, culture may have been one of the contributing factors to the high level of effort students expended in creating their digital stories. Students went to enormous lengths to create the best product (story) they could and this may have been due in *part* to the cultural and/or personal importance of that which they were sharing.

As Irwin, Moore, and Stevenson (1994) argue, literacy activities that focus on "students' life experiences and background knowledge in the context of an emotionally supportive environment…encourages students to explore and experiment with the language" (p. 259; as cited in Peng et al., 2006, p. 263). Data that emerged from observation and interviews indicated that students were proud of their cultures, and wanted to share them, and one could argue that the high levels of *creative* output stemmed, in part, from a desire to present their culture in a positive light. This is in line with the work of Peng et al. (2006), who describe how their digital story project enabled their L2 students "to celebrate their cultures and be proud of themselves by integrating their cultural backgrounds into their stories" (p. 281) and the children who created these stories "expressed pride in their own cultures and appreciated others' cultures" (Peng et al., 2006, p. 282). This is also echoed in the work of Alameen (2011) who asserts, "web 2.0 digital stories provide a place for learners to share and discuss their experiences and culture" (p. 366). In addition, there was a significantly high level of spoken output in the digital stories themselves, as evidenced by the length of the stories that went well beyond task requirements.

The cultural component of this digital storytelling project appeared to have a positive impact on learner engagement and motivation, and this manifested itself in high levels of creative and communicative output both in class and online.

7. Engagement with the Task and the Technology

The digital storytellers in this project appeared to be highly engaged by the task at an emotional level and this is echoed in the research on digital storytelling carried out by Rance–Roney (2008) and Castañeda (2013). Some learners also engaged with the technology.

Students put a huge, almost disproportionate, amount of effort into the creation of their digital stories, and this was evident at the observation, interview, and artefact analysis stages. The digital stories were, in many cases, longer than required (both drafts one and two) and students repeated their stories many times in order to improve their spoken delivery. The majority of students added a soundtrack, and spent a great deal of time searching for images and altering the visual look of their digital stories. These findings are significant for a number of reasons. The first draft was worth three marks for their course and these marks were for the questions and responses only. The final draft was worth four marks and there was no extrinsic reward (mark) for the look, sound, or even length of their digital stories. So where did all the creative output come from?

At the interview stage, learners expressed an overwhelming desire for improvement, to 'do better". One student, Lisa, described how her awareness of the other students' digital stories impacted upon her efforts, suggesting that some students may have been driven to create work that stood up to that of their peers. Students may also have been motivated by their awareness of audience. Some participants felt they were representing their cultures, and so a desire to 'get things right' may have been driven by a sense of pride in presenting their culture in a positive light, through a proficient and effective use of language and multimedia.

While only a small part of the sample articulated an enjoyment of the technology in the project, observation suggested the majority of the students engaged with the creative aspect of the digital story. According to Rance-Roney (2008), digital storytellers can become "entranced by the power of their own voice and their own images" (p. 29) and there were numerous instances in this study of learners smiling in part excited, in part embarrassed, as they listened to their recordings, or working

feverishly to get the right image or achieve accurate delivery in their recorded stories. Paul, when describing the soundtrack he added to his story, described how the music in his digital story inspired him during the creative process.

It must be noted however, that some participants cited the assessed nature of the task as a motivating factor, thereby acknowledging the role that assessments can play in extrinsically motivating our students. This finding is neither surprising nor unwelcome, as it merely emphasizes the importance that learners place on assessments. This should serve as a reminder to educators and task designers, of the need to create holistic assessments that encourage learning rather than artificially 'test' a student's performance at a given moment. e-Learning has seen a move away from a transmissive approach (McLoughlin & Luca, 2006) to a collaborative, student-centred pedagogy, underpinned by the emergence of Web 2.0 tools such as VoiceThread. An ICT-infused (learner-centred) pedagogy can "maximise the value of the assessment process" (McLoughlin & Luca, 2006, p. 559) through a greater focus on reflection, learner content creation, and feedback, that ultimately results in a qualitative increase in learner output and an increase in learner engagement and motivation.

8. Summary

The preceding six sections examined the implications of the findings in this study in relation to the research question.

Findings suggest a combination of time, space, ICT tool, and teacher input, led to an enhanced communicative experience. Students received individual teacher feedback and this had a positive impact on pronunciation, intonation, and certain

filmic aspects. Furthermore, students were able to practise, review, and re-record their work as part of an iterative process of reflection and improvement.

While a number of students failed to exploit the potential of multimedia in their digital stories, others combined multimodality with content to produce powerful, unique, and memorable work. These digital stories indicated the *potential* of multimedia in digital storytelling, to create a communicative experience that supports meaning and has emotional impact.

VoiceThread's interactivity can provide a platform for an oral communicative experience that spans time and space. In the second iteration of this project, students posted questions, and responded to them on their digital stories. Three students' questions and answers were analysed, and students' delivery was natural and 'conversational', unlike a number of the actual digital stories, where learners clearly focused on reading their script to the detriment of their performance.

Speaking activities related to the students' digital stories, supported by web-based multimedia, appeared to increase student interaction, engagement, and motivation.

Students articulated the importance of culture in this study, and results suggest culture may have been a motivating factor in positive learner behaviours both in-class and online.

The majority of learners in this study appeared engaged and motivated in this project on a number of levels, and while a small part of the sample expressed a desire to get a good mark, the vast majority of students in this project exhibited behaviours that did not relate to an assessed outcome. These behaviours included the length of their digital stories, the effort expended to improve the various aspects of the finished product, and the sustained communication that took place in the classroom.

Chapter Six: Conclusion, Recommendations, and Implications

This chapter summarizes the key themes that have emerged from this research, makes recommendations based on the most salient results, and suggests areas for future research.

1. Summary of the Study

This study set out to examine the effect of a digital storytelling project on students' motivation and engagement, their levels of spoken communication in the classroom, and their overall communicative experience. This section summarizes the most salient aspects of this study, linking them to both the research question and the conceptual framework of *Yin* and *Yang*.

In order to develop students' communicative competence, the communicative L2 classroom must promote WTC that leads to sustained interaction. Allied to this is a need for accuracy. This digital storytelling project was conceptualized as *Yinyang,* to capture the dual nature of the communicative classroom. The cool and shade of *Yin* represents a focus on accuracy through reflection, practice, and asynchronous interaction. Balanced against this is the energy and creativity of classroom interaction, conceptualized as *Yang*. The communicative experience in this project resided in two areas, or halves, as per the holistically-conceived communicative classroom of *Yin* and *Yang*. The results of this study suggest that f2f speaking activities in the classroom increased communication (the *Yang*), while asynchronous communication via VoiceThread promoted accuracy (the *Yin*). Motivation and engagement, however, were evident throughout the project, and spanned both the physical and virtual classrooms.

Results suggest the digital storytelling project had a significant effect on learners' communicative experience asynchronously via VoiceThread. There is often insufficient time in the traditional classroom for personalized feedback, and students have little time to process what has been said and respond. Through VoiceThread, students received personalized teacher feedback and were able to return to their work, analyse their recordings, and improve their spoken performance as part of an iterative process of reflection, revision, and repetition. Results suggest a range of improvements in students' work as a result of teacher input and/or reflection. Learners were also able to review their peer and teacher postings to ensure comprehension. The high level of repetition suggests students were motivated by the task and may have acquired words or chunks of language as a result. Learners were also asked to include a personal connection in their digital stories, and a small number of learners shared work that married multimedia to content to create work that was creative, unique, and memorable. The communicative potential of digital storytelling was evident in some students' work as multimedia elements added meaning and emotional impact to the narrative, thereby enhancing communicative impact and clarity.

The communicative experience in the classroom was characterized by sustained communication and learner engagement, and findings suggest this was due to a combination of cultural content and relevant multimedia. Multimedia related to a students' home culture, represented an important situational variable that appeared to promote WTC and resulted in sustained and animated spoken interaction. A simple web connection provided a window onto students' cultural world, and appeared to play a transformative role in promoting spoken and non-verbal interaction. It could be argued that multimedia content in this project served to both facilitate and increase in-

class communication, as it provided a series of communicative touchstones, eliminated issues of anxiety impeding recall, and promoted a motivated and engaged learner (centred) environment.

Learners appeared highly engaged and motivated during the digital storytelling project. The *physical manifestation* of this engagement was evident in students' creative output as they strove to improve the filmic quality of stories that often went well beyond the required length. High levels of engagement and motivation were also evident in the extensive verbal and non-verbal communication in class. Student behaviours in this study suggest that a learner-centred approach, one that integrates (and celebrates) their cultural backgrounds, can promote intrinsic motivation, and increase engagement. While some students expressed a desire to get a good mark, the majority were not extrinsically motivated.

2. Recommendations for Educators

An interpretive paradigm was adopted for this study based on my own ontological and epistemological beliefs. I do not therefore, advocate for the transferability of these results to each and every educational context, as these findings represent the unique voices and experiences of L2 learners within a specific setting. However, I believe the results of this study indicate a possible way forward in the communicative L2 classroom, in terms of educational conversations, learner motivation, and communicative output.

Giving feedback to individual students on their speaking, within the classroom itself, is problematic for a number of reasons. There is a lack of time, and a teacher's intervention can interrupt the flow of conversation. Consequently, teachers working within L2 classrooms should consider the use of VoiceThread for individual feedback

on pronunciation issues. Learners could create pronunciation and/or speaking portfolios that could include individual words and phrases, as well as recorded conversations with both L1 and L2 speakers. Students could revisit their own work on VoiceThread, and this would encourage critical reflection, revision, and practice, leading to eventual improvement.

Educators should consider the use of VoiceThread as a forum, or hub, for the sharing of culture-based digital stories or conversations with groups of L2 students from different countries and cultures. This could promote a sense of pride among learners, and increase levels of engagement and motivation, as students would have an authentic communicative purpose when sharing their culture with interested peers in another part of the world. This would benefit L2 learners who share the same L1 (perhaps learning the language in their own country) who may not perceive value, or understand the rationale, for using the L2 with peers who share the same L1. These students would then participate in a genuine multicultural and multilingual classroom. By adopting VoiceThread for asynchronous conversations, students can revisit peer postings for linguistic and conceptual understanding, and practice appropriate responses before posting.

Language teachers working with L2 migrants need to adopt a learner-centred approach. We have to look beyond the Anglo-centric coursebooks and resources we currently use, and the tasks and topics that *we* feel are interesting. Instead, we need to fill our classrooms with our learners' voices, with their cultures and stories. By placing our students and their culture at the centre of the learning experience, we can create an environment that fosters cultural understanding, engages and motivates students, and increases both spoken and creative output.

L2 students often work in isolation in computer labs, using software applications, word processing software, or writing contributions to a forum or blog. However, these are activities that could and should be done autonomously, far from the communicative f2f classroom. The web is a resource that can serve as a touchstone or reference point, one that can inspire WTC, and provide learners with ideas and visual support for their conversations. By adopting the web as a resource for culture-based communicative activities, we give our learners an 'honored voice' in our classrooms, and increase levels of engagement and motivation.

Educators working within mainstream contexts should consider the use of VoiceThread. It not only provides spoken feedback, which has benefits in terms of communicating meaning through stress and intonation, but also allows peer and teacher input in other forms. The doodle tool, for example, allows contributors to indicate part(s) of an image (an aspect of a building site, an object created by a student) and offer feedback. These contributions can become genuine learning conversations, as the community constructs and reshapes ideas around an authentic and practical aspect of the student's learning experience. VoiceThread could be a hub, therefore, for learning conversations underpinned by constructivist pedagogy, that would benefit both L1 and L2 learners.

Finally, digital storytelling, irrespective of the ICT used, should be adopted in the L2 classroom. Conceived as a project, rather than a finished product, digital storytelling can provide opportunities for sustained interaction, and practice of the four key language skills (listening, reading, speaking, and writing). It also provides learners with an artistic and creative outlet. Digital storytelling also provides learners with an opportunity to write *creatively*, something that is often overlooked in L2 classrooms obsessed with highly prescriptive writing assessments. Digital storytelling

can also foster intercultural understanding and this can occur within the classroom but also across borders.

3. Limitations of this Study

In retrospect, there were aspects of data collection that might have benefited from an alternative approach. During f2f classroom interaction it was impossible to recognize, and note down, everything that was said. In-class speaking was, for the most part, only filmed and observed (two conversations were audible on the camera microphone). Recordings of the actual conversations may have yielded more accurate, quantitative data revealing the number of words spoken, the number of turns taken, as well as linguistic complexity. On the other hand, students often appear inhibited when they are being filmed and/or recorded and this could have compromised the validity of the data. Furthermore, a questionnaire could have been administered at the end of the semester to gather data related to the number of recordings, revisions etc. However, by gathering this data at the interview stage I was able to explore learner motivations, and unexpected data emerged, that I could explore through further questioning.

Finally, one needs to be wary of trying to generalize the results of this (interpretive) study to a wider context. Each student had their own story, or backstory, to tell, and while patterns and themes emerged, the areas explored in this study require further research.

4. Areas for Future Research

This study does not pretend to offer definitive conclusions regarding the impact of digital storytelling in L2 contexts. However, a number of areas emerged in this study that warrant further research.

While students demonstrated great pride in their cultural backgrounds, a number of learners expressed dismay that their cultures were unknown or misrepresented. One area that requires further research is the correlation, if any, between acculturation and the acceptance (and celebration) of a migrant's culture through tasks such as these. It would be worth exploring whether acculturation is facilitated (or accelerated) when a newcomer feels that their culture is known about or valued.

The interactive and conversational nature of VoiceThread was only *partly* exploited in this project. Analysis of the questions and responses in three digital stories, indicated these were more spontaneous and 'conversational', and at a suprasegmental level, there was far more intonation and 'life'. This suggests that VoiceThread has great potential within the language classroom for meaningful spoken communication across time and space. It could be utilized as an alternative means to communicative competence, as learners would have the opportunity to re-listen to peers' work and could practice (unscripted) responses. Further research is therefore required as to the application and impact of VoiceThread within L2 settings, to promote authentic asynchronous conversations.

The high levels of repetition in this study suggest learners *may* have acquired some of the language forms as a result of this practice. Research that explored the connection between the repetition of language for a recorded project such as this, and the eventual acquisition of these forms, warrants further research.

5. Conclusion

Digital storytelling can promote spoken output in the classroom, have a positive effect on students' communicative experience, and create motivated and engaged learners. This is not due to affordances inherent within digital storytelling, but because of the constituent elements that were designed into this project. These digital stories were not conceived as an end product but rather as a holistic unit, a process, one that encompassed interaction within the f2f classroom and that occurring on VoiceThread. Within this blended approach, the virtual (VoiceThread) environment represented the *Yin* of CMC, where students and teachers could exploit the pedagogical affordances of time, space, and ICT, to enhance the communicative experience. The sustained f2f communication that occurred in the classroom, mediated by a simple web connection, corresponded to the *Yang* of fluency, leading to communicative competence.

Digital storytelling is a learner-centred approach that honours the student and their voice, and can be transformative at both an affective and pedagogical level. At the beginning of this project we asked students to become teachers and I believe that many of these digital stories will endure in our hearts and minds, and we leave these classrooms seeing the world in a different way.

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Appendix A: Student Information and Participant Agreement

Department of	Phone +64 7 838	
Professional	4466	
Studies in	www.waikato.ac.nz	
Education		
Faculty of		
Education		
Te Kura Toi		
Tangata		

July 12 2012

Student information and participant agreement

Dear Student,

My name is Howard Norton and I am a lecturer in the Department of Language Studies here at Unitec.

This semester I am conducting a study on the use of Digital Stories among second language (L2) students. A Digital Story is any story that uses digital sound, photos or video to tell a story. They are widely used in schools around the world to assist students to develop specific content knowledge, share aspects of a person's culture and improve a range of literacies.

The research will involve students working in pairs and groups as they develop a digital story as part of their normal classroom activities. I would like to interview students about their experiences in the digital story project and whether it had any impact on their communication and participation. These interviews will take approximately 45 minutes. I would also like to observe students while they work on these digital stories. The completed digital stories may also be copied for analysis.

Pseudonyms (false names) will be used to protect the identity of those students who participate in the interviews. No data will be attributable to any individual participant. Finally, I must stress that I will *not* be marking *any* of the assessments on OS1A, B, C or W to reassure all students that their participation (or otherwise) in this study is in no way connected to their assessments.

The interviews will take approximately 45 minutes. Students may withdraw at any time but it would be appreciated if this were no later than week 14 in the semester (November 5).

The results will be used to form the basis of my Masters' thesis but may also be used in conference presentations, and some publications to be submitted to academic journals and/or other academic texts. Finally, an electronic copy of the thesis will become widely available, as the University of Waikato requires that a digital copy of Masters theses will be lodged permanently in the University's digital repository: Research Commons.

It is anticipated results from this study will assist OS1 teachers in the Department of Language Studies (and perhaps other teachers in other courses) to create tasks that encourage communication and participation, allow students to choose their topics and create their own content, and teach us something about their cultures.

I hope you are able to participate in this study. If you have any questions you would like answered regarding any aspect of this study, please do not hesitate to call or email me at the contact details below.

Many thanks and kind regards,

Howard Norton
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Appendix B: Semi-Structured Interview Questions

1. How did you feel about being able to stop, rewind, and listen again to your group members?

2. How many times did you listen to your group members' stories?

3. How did you feel about receiving teacher feedback?

4. How many times did you listen to your teacher's feedback?

5. How many times did you practice the words that were modelled for you?

6. How many times did you practice or re-record your digital stories?

7. Did you learn anything about yourself during this project?

8. How did you feel about choosing your own topic?

9. What was the reason for your effort in creating this digital story? Was it the mark?

10. Have you shown your digital story to other people?