Creating optimal literacy learning environments using synchronous technologies to support Aboriginal adult learners effectively: a Narungga perspective

Michelle Eady

University of Wollongong
Indigenous Australians are advised
that this article may include
images or names of people now deceased.
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Creating Optimal Literacy Learning Environments Using Synchronous Technologies to Support Aboriginal Adult Learners Effectively – A Narungga Perspective

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Doctor of Philosophy
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Faculty of Education

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STATEMENT OF ORIGINALITY

This thesis reports the original work of the author, except as stated. It has not been previously submitted for a degree at this or any other university.

Michelle Eady
June 2010
PUBLICATIONS DERIVED FROM THIS RESEARCH

Refereed Journal Articles

Refereed International Conference Publications


Refereed National Conference Publications

International Conference Presentations (refereed on abstract only)

National Conference Presentations (refereed on abstract only)

Online Interactive Presentations (refereed on abstract only)

ACKNOWLEDGMENT OF COUNTRY

Acknowledgement of the Land

I would like to acknowledge the traditional custodians of this land and pay my respects to the Elders both past, present and future for they hold the memories, the traditions, the culture and hopes of Aboriginal people everywhere. I would like to acknowledge all of the Aboriginal literacy practitioners and learners who have opened their hearts and minds to the idea of learning together using technology. We must always remember that under the concrete and asphalt, this land is, was and always will be traditional Aboriginal land.

Paying respect to the first peoples on whose land we are,
Acknowledging the loss of lands, cultures and treasures,
Knowing the consequences for people, communities and nations,
Believing we can walk together to a better future,
This research is a step in that direction.
ACKNOWLEDGMENT OF COMMUNITY

Acknowledgement of the Community of Point Pearce

To my new found friends and family of Point Pearce. I feel very honoured and privileged to have been welcomed into your community and to have worked alongside you, in the process of this research. I know that this experience has been unique and very special, and what I have learned during my time at Point Pearce will never be forgotten. I would like to thank, in particular, the council members who, over the course of this research, endorsed and supported this project: Alec Wanganeen, George Walker, Lynette Newchurch, Marilyn Wanganeen, Ernest Wilson, Carlo Sansbury, Judy Walker, Barry Power, Raymond Wanganeen, Lindsay Sansbury, Paul Sansbury and Doreen Lawrie.

I would also like to thank the two school principals, Eileen Wanganeen and Ron Watson, resident over the course of my research, for their continued support, encouragement and use of the school facilities during my visit and stay in Point Pearce. Thank you to the staff and students of Point Pearce Aboriginal School. Your school is a truly amazing place.

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Most of all, I would like to thank my family, Don and Gabriel. This journey has been a long one and I could never have done on it on my own. Thank you for believing in me, for moving across the world, and for everything that you have done to support me. Gabe, when you were five years old you emphatically stated, “We’re all gonna be doctors and it’s gonna be so great!” Well Gabe, we are all doctors now!

Many thanks to Dr. Anthony Herrington. Thank you for believing in my ability, helping me get here and being such a thorough and thoughtful critical friend to my research.

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To Brenda Dovick, thank you for being a gardener, a traveller, a listener, a researcher and most of all a friend. Love and light always.

I have been blessed to have met Auntie Alice Rigney. Alice is a Narunggan Elder from the community of Point Pearce. She also was the first Aboriginal school principal in Australia. Auntie Alice was involved in this research from the time the researcher arrived in Point Pearce, right through to a meticulous reading and approval of the thesis on the community’s behalf. Auntie Alice, words cannot express how important it was to me that you took part in this project and approved of this work.

A special acknowledgment to the staff at Contact North|Contact Nord for their support during the time of this research, I am very thankful for the privilege and permission to use the training slides that I collaborated on with the staff for the purpose of this study.

Thank you to Dr. Lyn Henderson of James Cook University for her support in using her work to inform my theoretical framework.

A special acknowledgment to the staff at Contact North|Contact Nord for their support during the time of this research, I am very thankful for the privilege and permission to use the training slides that I collaborated on with the staff for the purpose of this study.

To my colleagues at Sioux Hudson Literacy Council, words cannot express how much I appreciate your support, encouragement and faith in what I do. Thank you from the bottom of my heart.

Many thanks to the academic staff and fellow students in the Faculty of Education, University of Wollongong for your ongoing support, encouragement and professionalism.
COMMUNITY PERSPECTIVE

There are many ways of learning and this process is another futuristic method of getting people to gain knowledge. It seems that we go from what was in the past to what is possible in the future. However, we must retain those valued cultural aspects of our lives which strengthen us, like our family, culture, language and identity. Like everything, when we unite, there are those things which are outstanding and those that we need to build on because sometimes, we come at the subject from different eyes, and that’s okay too because overall, we want to make educational outcomes the best that we can make it for the most disadvantaged people on the planet, in all countries everywhere; those who have been dispossessed, deprived, disempowered but have survived. We have to make it right and sometimes using modern technology of the future is another method of this empowerment. This project helped us to see this and go in that direction.

~Alice Rigney, Narungga Elder
May 2010

“Sophistication is the ability to approach culture with the minimum amount of anxiety.”

~Northrop Frye (1912-1991)
ABSTRACT

Current reports of literacy rates in Australia indicate a persisting discrepancy in literacy skills between Aboriginal and non-Aboriginal Australian adults at a time when the literacy demands of work and life continue to intensify. There are many perspectives of the literacy needs of Aboriginal adults, including opinions from the literature, literacy practitioners, and Aboriginal community members themselves. These needs include adult basic education skills such as reading, writing and mathematics education, as well as employability training and the ever-increasing demand for technology competencies.

Current and active projects worldwide are attempting to alleviate literacy issues and lessen the glaring skills discrepancy in Aboriginal communities by providing opportunities for flexible learning contexts in online, live-time, and mobile environments. The goal of implementing these synchronous platforms is to provide flexible learning opportunities to suit learners’ busy schedules and needs, while enabling them to learn in “anytime, anywhere” environments.

The purpose of this research was to investigate how the literacy needs of adult learners in an Australian Aboriginal community could effectively be supported by the use of synchronous technology. The aim was to develop best practices to support adult literacy learners in Aboriginal communities within this context.

The research questions were three-fold. Firstly, the research identified the adult literacy needs in Aboriginal communities as derived from three sources; the literature reviewed, literacy practitioners interviewed, and from discussion with community members. Secondly, the types of supports and technology already in use by literacy practitioners in Aboriginal community settings were examined. Thirdly, and central to the research, was the creation of a set of principles and a model to be applied in similar teaching and learning contexts.
The theoretical framework for this research was a combination of three theoretical perspectives; Vygotsky’s (1978) sociocultural theory, Lave and Wenger’s (1991) situated learning model and Henderson’s (1996) multiple cultural model. The three perspectives, depicted as encompassing circles, became more refined and introspective of the learning landscape of Aboriginal communities as each layer of theory was added.

To investigate the creation of an environment that best supports adult Aboriginal literacy learners with the use of synchronous technologies, a research approach that could incorporate practitioner knowledge and community participation in the creation of a solution was desirable. A paradigm that could also provide opportunities to test the solution was needed. For these reasons, the design-based approach (Reeves, 2006) was employed.

The process of research when using a design-based approach was undertaken in four phases. Initially design-based research involved the identification of the problem of literacy skill acquisition, and support and technology currently implemented. In the second phase, a collaborative community engagement project was developed as a solution to the problem identified. This was based on the draft-guiding principles drawn from the literature, consultation with literacy practitioners, and the community. The third phase of the research involved three iterations of the project in which the guiding principles were refined and the project reflected and improved at each phase. Finally, in the fourth phase of the research, eleven design-based principles emerged that will guide future research in the areas of online learning and Aboriginal adult literacy learners. This phase also presented an original model that added a further dimension to the assembled theoretical framework. The proposed Community Strength Model offers a conceptual approach to systems of learning in Aboriginal communities, starting with community-based goals and directions, and building shared learning experiences through authentic voice and community strength.

Together, these design-based principles and Community Strength Model can inform future directions in curriculum design and teaching approaches for community-based synchronous learning for Aboriginal adult learners.
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<th>Description</th>
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<tbody>
<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
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<tr>
<td>ACAL</td>
<td>Australian Council of Adult Literacy</td>
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<td>ACL</td>
<td>Alberta’s Commission on Learning</td>
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<td>AFLF</td>
<td>Australian Flexible Learning Framework</td>
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<td>AISR</td>
<td>Australian Institute for Social Research</td>
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<td>ANTA</td>
<td>Australian National Training Authority</td>
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<tr>
<td>ASPBAE</td>
<td>Asian South Pacific Association for Basic and Adult Education</td>
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<tr>
<td>BA</td>
<td>Bachelor of Arts</td>
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<tr>
<td>BEd</td>
<td>Bachelor of Education</td>
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<tr>
<td>CBNC</td>
<td>Crossing Boundaries National Council</td>
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<tr>
<td>CD-ROM</td>
<td>compact disc read-only memory</td>
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<td>CDU</td>
<td>Charles Darwin University</td>
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<tr>
<td>CELTA</td>
<td>Certificate in English Language Teaching to Adults</td>
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<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<td>CFG</td>
<td>Community Focus Group</td>
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<td>CSM</td>
<td>Community Strength Model</td>
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<tr>
<td>DBP</td>
<td>Design-Based Principle</td>
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<td>DBU</td>
<td>Digital Bridge Unit</td>
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<tr>
<td>DFEEST</td>
<td>Department of Further Education, Employment, Science and Technology</td>
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<tr>
<td>DGP</td>
<td>Draft-Guiding Principle</td>
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<tr>
<td>ESL</td>
<td>English as a Second Language</td>
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<td>GLA</td>
<td>Good Learning Anywhere</td>
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<tr>
<td>GO</td>
<td>Getting Online</td>
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<tr>
<td>Grad Dip</td>
<td>Graduate Diploma</td>
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<tr>
<td>HSC</td>
<td>High School Certificate</td>
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<tr>
<td>IALLSS</td>
<td>International Adult Literacy and Life Skills Survey</td>
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<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
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<tr>
<td>ICQ</td>
<td>homophone for the phrase “I seek you”</td>
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<tr>
<td>IT</td>
<td>Information Technology</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>K-Net</td>
<td>Kuhkenah Network</td>
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<tr>
<td>Kindy</td>
<td>Kindergarten</td>
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<tr>
<td>KO</td>
<td>Keewaytinook Okimakanak</td>
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<tr>
<td>LBS</td>
<td>Literacy and Basic Skills</td>
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<tr>
<td>LLC</td>
<td>Limited Liability Company</td>
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<tr>
<td>LLN</td>
<td>Language Literacy and Numeracy</td>
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<tr>
<td>m-learning</td>
<td>mobile learning</td>
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<tr>
<td>MoE</td>
<td>Ministry of Education</td>
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<tr>
<td>MTCU</td>
<td>Ministry of Training, Colleges and Universities</td>
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<td>NADC</td>
<td>National Aboriginal Design Committee</td>
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<td>NILA</td>
<td>National Indigenous Literacy Association</td>
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<td>NWOK</td>
<td>Native Ways of Knowing</td>
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<td>NRS</td>
<td>National Reporting System</td>
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<td>ONLC</td>
<td>Ontario Native Literacy Council</td>
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<td>OPFG</td>
<td>Online Practitioner Focus Group</td>
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<tr>
<td>PC</td>
<td>Personal Computer</td>
</tr>
<tr>
<td>PEI</td>
<td>Yanomami Intercultural Education Program</td>
</tr>
<tr>
<td>PhD</td>
<td>Doctor of Philosophy</td>
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<tr>
<td>RA</td>
<td>Relationships Australia</td>
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<tr>
<td>RJ</td>
<td>Research Journal</td>
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<tr>
<td>RTO</td>
<td>Registered Training Organization</td>
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<tr>
<td>SHLC</td>
<td>Sioux Hudson Literacy Council</td>
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<tr>
<td>StatsCan</td>
<td>Statistics Canada</td>
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<tr>
<td>TACT</td>
<td>Teacher Assistant Career Training</td>
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<tr>
<td>TAFE</td>
<td>Training and Further Education</td>
</tr>
<tr>
<td>UAG</td>
<td>University Attendee Group</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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<tr>
<td>Web CT</td>
<td>Web Course Tools</td>
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<tr>
<td>ZPD</td>
<td>Zone of Proximal Development</td>
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DEFINITION OF TERMS

For the purpose of this research, the following definitions will be used:

1. Elder education

Elder education is a term used in the Narungga community. It defines the wealth of knowledge, wisdom and experience that an Elder possesses and passes on to others. To be imparted with Elder education means an Elder has shared his or her knowledge with you.

2. Indigenous

The word *Indigenous* does not currently have an established, congruent global definition that is found is any dictionary. The United Nations Educational, Scientific, and Cultural Organization (UNESCO) (2004) stresses:

> There is no universal and unambiguous definition of the concept of ‘Indigenous peoples,’ since no single accepted definition captures the diversity of Indigenous cultures, histories and current circumstances (p. 10).

Through its work in supporting the rights and status of Indigenous populations on a global level, the United Nations has established the following as a working definition of Indigenous peoples that will be the working definition of this research:

> Those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing in those territories, or parts of them. They form at present non dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal systems (Martinez Cobo, 1986, p. 44).

3. Literacy

There are many definitions for the term literacy. For the purpose of this research, literacy is not viewed solely as a set of skills limited to reading and writing, but as Bougie (2008) suggests:

> Literacy skills are seen as essential for individuals to realise their full personal, social and economic potential, and the foundation upon which
people may acquire additional knowledge and skills throughout adulthood (p. 3).

Literacy activities can be recognised in three ways, which when viewed together provides a wholistic view of literacy:

1. Functional; such as filling out forms or personal banking,
2. Home-based; for example, reading and managing recipe instructions or reading to children,
3. Work-related; for example reading reports, using a computer and completing tasks associated with employment (Kral & Falk, 2004).

When using the term literacy in the context of Indigenous peoples, this wholistic perception of adult literacy for Indigenous peoples broadens to include the preservation of cultural identity and attainment of community self-determination (Antone et al., 2002; George, 1997; Kral & Schwab, 2003; Zepke & Leach, 2002).

4. Literacy practitioner
The term literacy practitioner refers to the individual who might act as an instructor, mentor and guide in teaching basic literacy skills to adults. This includes both trained instructors and community volunteers who may work with small groups consisting of one to 10 learners, or more (Community Literacy of Ontario, 2009). In the context of today’s learning environment, this also includes larger groups in an online setting. The writer of this thesis recognises that those who work in the field of adult literacy “have diverse and often multiple roles in the delivery of literacy programming – whether instructor, advocate, counsellor, administrator, coordinator, etc.” (Sault College, 2006).

5. Platform
For the purpose of this research, the definition of platform will be adopted from Wenger, White and Smith (2009): Platform means a technology package that integrates a number of tools available on the marketplace (for purchase or for free) that one can acquire, install or rent. Platforms offer communities a simple entry into using a set of tools (p. 40).
6. Point Pearce Community (by request)

As mentioned in the first definition, the term Indigenous is used in much of the literature as a means to provide a working definition of ‘Indigenous peoples.’ There are many other terms that are used globally for this population, such as Aboriginal people, First Nations people, and Traditional Custodians. For certain groups, the language group is a preferred name; for instance, Narungga people or Cree Nation. For the purpose of this research, the community has requested that the term Aboriginal be used when discussing the community of Point Pearce and community members directly. Much of the literature in Chapter Two uses the term Indigenous that the research has left intact, however, the research questions and work described onwards will respect the communities’ wishes and use the term ‘Aboriginal.’

At the beginning of the research, the community signed consent forms that would assure their personal anonymity and the anonymity of their community. However, once the research was completed and the final presentation and document delivered to the community members, the community asked if their first and last names could be used in the acknowledgement section of this document, as well as identification of their community and their language group acknowledged. This research was done in cooperation with the community, and therefore, the researcher complied with their wishes.

7. Remote communities

Remote communities are considered geographically isolated locations that are generally limited to access by air, water or railway transportations. Depending on seasonal conditions, some road access can be used for human transport and hauling goods (McMullen & Rohrbach, 2003). Limited access to services in these communities necessitates residents to travel to larger urban centres for some personal needs, employment and amenities such as visits to hospital, high school attendance, and shopping.

8. Synchronous learning technologies

Synchronous learning refers to learners and instructors exchanging information and interacting simultaneously in an online learning community in real time. Synchronous learning technologies currently utilised in the area of adult literacy include Internet
conferencing, satellite broadcast, mobile or cellular phones, video teleconferencing and interactive chat rooms (Aderinoye, Ojokheta, & Olojede, 2007; Australian Flexible Learning Framework, 2009; Greenall & Loizides, 2001).
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CHAPTER 1 – INTRODUCTION

1.1 INTRODUCTION

The Australian education system is moving towards greater inclusivity of access. However, substantial disparity remains in the levels of educational skill attainment between Aboriginal adults and the general adult population, with lower levels of participation for Aboriginal people than non-Aboriginal across all sectors (Australian Bureau of Statistics [ABS], 2006). Only one fifth of Aboriginal adults have completed Year 12, compared to nearly half the non-Aboriginal population (ABS, 2006). Most of the Aboriginal adults who have completed their Year 12 education are located in urban areas (ABS, 2006). This suggests that Aboriginal adults living in remote and rural areas of Australia have had limited access to the same level of educational opportunities as the rest of Australia (Biddle, Hunter, & Schwab, 2004).

Over recent years, there has been a movement towards the use of Internet technologies to provide greater opportunities within the education system for employment development and training. This has encouraged educators worldwide to implement the online environment as a tool for achievement of educational aims and goals (Kral, 2010). The online learning movement has provided opportunities for novel approaches in a variety of contexts, including students in Early Years through to Year 12, as well as students in Technical and Further Education (TAFE) institutions, universities and other post-secondary environments. One of these settings includes the adult literacy and learning arena, in which adult learners can now access literacy upgrading, employment up-skilling, and personal life-skill training through the use of various distance-learning approaches.

There have been many positive changes and increasing opportunity for greater numbers of adult learners Australia-wide. However, the difference in the skill competency levels between Aboriginal and non-Aboriginal populations indicates a need for literacy skills support for Aboriginal Australians who experience limited access due to factors such as geographical barriers, government policies, language background, poverty, and health and technical insufficiencies. There have been some
success stories in the area of online adult learning for Indigenous adult learners on a
global level such as the Good Learning Anywhere (GLA) program in Ontario, Canada
for instance. However, there is limited research that has focused on the approaches
taken to create content and learning experiences for Aboriginal adults through the use
of synchronous technologies. This study aims to provide a framework of best
practices to apply when using synchronous technologies with adult learners in
Aboriginal community settings.

1.2 BACKGROUND TO THE STUDY

An increasing number of adult learning programs are using technology to reach
potential learners. One such program is Good Learning Anywhere (GLA) for which
the author served as the Distance Projects Coordinator for five years. GLA arose in
answer to a call out from the Ministry of Training, Colleges and Universities in
Ontario, Canada. Desired goals included reaching adult literacy learners located in
remote and isolated locations, and connecting these adults with learning and
employability training opportunities. The project, now seven years running, has
provided live-time, synchronous learning opportunities to Aboriginal adults at a
distance and has added a level of depth and novelty to adult literacy learning in
Ontario, Canada.

Snyder, Jones and Lo Bianco (2005), exploring the relationship between adult literacy
and the use of information and communication technologies (ICT), determined that
the association between literacy and technology are intertwined and dependent on one
another. Thus, some level of literacy skills is required to access computer-based
learning and employment opportunities. Kral (2010) relates the decline in
employment opportunities for Indigenous adults to the accelerating demand for
“literate and technical competence” (p. 3). Thus elevated access rates to employment
are contingent upon concomitant technical and literacy training.

In terms of their general populations, Australia and Canada share similar literacy
profiles as evidenced by comparison of data collected under the International Adult
Literacy and Life Skills Survey (IALLSS), conducted in Australia in 2006, and the
findings from IALLSS conducted in Canada in 2003. These surveys were part of an international study coordinated by Statistics Canada and the Organisation for Economic Development to compare literacy levels across countries (ABS, 2007).

In Australia, approximately 47 percent of the population surveyed ranked below the minimal level in literacy while 53 percent ranked below the minimal level in numeracy. The figures for the Canadian population were similar (ABS, 2007, p. 27), demonstrating that, in both countries, significant proportions of the respective populations possess insufficient literacy and numeracy skills to operate effectively in the workplace, or to participate fully as active members of society.

The Provincial Government of Ontario in Canada has a unique funding structure for education programs in the province. There are two distinct sectors; the Ministry of Education (MoE), which funds programs of education for children from preschool through to Grade 12, and Ministry of Training, Colleges and Universities (MTCU), which not only funds University and College (or in Australia TAFE) systems but also incorporates a budget which specifically supports adult literacy and learning. With nearly 500 agencies, networks, umbrella groups and supporting administrative bodies, the Literacy and Basic Skills (LBS) branch supports learning, literacy and employability upgrading for adults province-wide. In 2003, the Government of Ontario’s MCTU announced a call out for proposals pertaining to accessing adult literacy learners at a distance. The aim was to provide support for agencies to pilot projects aiming to reach adults possessing various literacy needs and skill levels, who live too far away from a government-funded adult learning centre to receive face-to-face support.

The LBS sector is divided into four distinct streams; Anglophone, Francophone, Deaf, and Native (Aboriginal). One of the 26 Native programs, the Sioux Hudson Literacy Council (SHLC), located in Sioux Lookout, Ontario was successful in its application, from which it devised the GLA program. This proposal, motivated by community needs, aimed to provide online literacy and other educational courses to the 35 isolated, remote Aboriginal communities in Northwestern Ontario who, prior to this initiative, had no access to adult education courses. SHLC has worked to accommodate curricula and deliver courses using a synchronous platform called
CENTRA© that is available for all literacy agencies in Ontario through the coordinating centre Contact North|Contact Nord. At the time of publication, the SHLC had reached over 1200 learners and was expanding with a mandate to provide services to all Native adult learners in the province of Ontario.

During the coordination and development of GLA, there were many opportunities for the facilitators of the program to attend conferences, network and share experiences with other practitioners working in the area of distance learning for adults. As a result of such opportunities, an invitation was extended from the Australian government, through the Department of Communications, Information Technology and Arts, to consider a research project similar to GLA in Ontario, in the context of an Australian Aboriginal community.

The aim of the GLA project is to reach adult literacy learners located in remote, isolated communities and to offer them a variety of literacy and numeracy programs. In the past, GLA has primarily used a western-education influenced curriculum and a top-down approach to meet the government-regulated guidelines. The present research differs from that of GLA in aiming to add a further dimension to the use of synchronous technology by including the community’s voice and strengths in the development of learning opportunities. This study focused on community-generated and self-directed learning tasks in a bottom-up approach in which the Aboriginal community and its members took control and ownership of their learning and became empowered through their shared experiences and strengths. The invitation for research in Australia allowed for a slightly different approach to learning needs than that attempted through the use of synchronous technologies as employed by GLA.

**1.3 PURPOSE OF THE STUDY**

The purpose of this research was to investigate how literacy needs of adult learners in an Australian Aboriginal community could effectively be supported with the use of synchronous technology. The aim was to develop best practices to support adult literacy learning in Aboriginal communities within this context. The study strived to develop an understanding and appreciation of how best to incorporate
technologically-based learning while respecting a specific Australian Aboriginal cultural context with the desired aim of developing principles to inform and support teaching and researching in these contexts.

The study sought to determine the literacy needs of Aboriginal learners as articulated by key stakeholders, and to investigate technologies already employed in these learning contexts. The research also endeavoured to furnish an appropriate model to underpin future research from which resulting theoretical, scientific and societal outputs could help establish guiding principles for literacy practitioners, community members, future researchers and policy makers. These principles may help inform future work that employs synchronous technologies for adult literacy learning opportunities in Aboriginal community settings.

1.4 RESEARCH QUESTIONS

The research questions for this study are:

1. What are the literacy needs of an Aboriginal community?
   1.1 What are the perceived needs and current approaches to service these needs as reported in the literature?
   1.2 What do literacy practitioners perceive to be the literacy needs in Aboriginal communities?
   1.3 What are the literacy needs of an Aboriginal community as perceived by community members?

2. What types of literacy support and technology are utilized by practitioners in Aboriginal adult literacy learning contexts?
   2.1 What types of literacy support and technology are available to the Aboriginal community in question?

3. What underlying principles, when applied in these contexts, can support use of synchronous technologies in Aboriginal communities?
   3.1 Can a model be developed for use in similar contexts to support Aboriginal adult learners’ literacy needs?
1.5 LOCATION AND PARTICIPANTS

Two groups of participants were recruited for this study. The first consisted of practitioners in the literacy field who had worked with Aboriginal communities, community members and/or with Aboriginal literacy issues, in either a face-to-face or computer-based capacity. These literacy practitioners are located in various states across Australia and together brought a wealth of educational backgrounds and experience to the study.

The second group of participants consisted of members of an Aboriginal community located in a region of South Australia. The community members were voluntary participants who varied in age, sex, employment and literacy levels, and who each held unique connections to the Aboriginal community. The community participating in this study is considered a rural or remote community that is at least 20 kilometres from any adjacent towns and approximately 200 kilometres from the nearest major city centre.

1.6 APPROACH AND METHODOLOGY

This research project was a qualitative study which used a design-based research approach (van den Akker, Gravemeijer, McKenny, & Nieveen, 2006) to guide the investigation of synchronous technologies and their support of literacy needs in Aboriginal communities.

Wang and Hannafin (2005) define the design-based research approach as “a systematic but flexible methodology aimed to improve educational practices through iterative analysis, design, development, and implementation, based on collaboration among researchers and practitioners in real-world settings and leading to contextually-sensitive design principles and theories” (Wang & Hannafin, 2005, p. 6-7).

There are four phases in the process of design-based research. The first includes an analysis of practical problems identified and the establishment of draft-guiding
Design-based research offered advantages to this study as it integrates practice and theory, while valuing the interactive relationships between researchers and practitioners. The approach also enabled the researcher to incorporate data collected through interviews and focus groups, with Aboriginal community members themselves participating in formation of the research questions and drafting the guiding principles.

While design-based research was the vehicle that drove this study, the methodology and tools of research that were utilised were of a qualitative nature and included online focus groups, face-to-face focus groups, individual interviews, naturalistic observations, and field notes.

This research aimed to both connect and complement current theorization associated with sociological and cultural theories of learning, reflective of both long-standing theories of learning and a relatively new model of Aboriginal cultural awareness of the constructs of the learning process. The theoretical framework that grounded the research was selected with awareness regarding the cultural considerations of research practices with Aboriginal communities and principles of their teaching and learning. The framework included sociocultural learning (Vygotsky, 1978), situated learning (Lave & Wenger, 1991), and the multiple cultural model (Henderson, 1996). The combination of these theories, which all relate to learning, situated influences, and working with Aboriginal adults and technology, were employed as the lens through which the research was carried out.
1.7 SIGNIFICANCE OF THE STUDY

It is hoped that the research outcomes, including the design-based principles identified, will offer for a variety of stakeholders, a model for future projects with Aboriginal adult learners and the use of synchronous learning opportunities in Aboriginal communities. This research project aimed to provide a model which supports an Aboriginal community focused approach, partnered with synchronous learning tools. This model proposed strives to provide a wholistic, community-centred approach to support the literacy skills of the learners and their self-identified needs. It was also anticipated that the project would identify the advantages of synchronous technologies to provide relevant literacy opportunities for Aboriginal peoples in their home communities. The critical need for Aboriginal community involvement, from the onset of any research project through to the end, is anticipated to be a valuable outcome of the research, demonstrating that every community has strengths and stories to share, history to respect and talents to celebrate. This research aspires to contribute an increased understanding the value of incorporating a ground-up approach and involving community strengths and collaboration in learning processes when working with Aboriginal communities and their adult learners.

This research project is built upon the sociocultural theory, based on the work of Vygotsky, which suggests that adults will learn more effectively when they socialise with other learners in a positive environment, and instruction is deemed more effective when it is connected to cultural learning relevant to the learner (Scherba de Valenzuela, 2002). Vygotsky’s (1978) theory, when applied to this research, also demonstrated that guided social interactions serve a cognitive function which occurs in the Zone of Proximal Development (ZPD). In essence, the ZPD is the difference between learner’s independent ability and what can be accomplished cognitively with guided support from others more knowledgeable in the field (van der Veer & Valsiner, 1991). The research aims to demonstrate how a synchronous platform can complement these theories as a tool to help direct the process of moving the learner from assisted performance to greater self-assisted and self-regulated competence (Henderson & Putt, 1999; van der Veer & Valsiner, 1991).
Contemporary interpretations of Vygotsky’s ZPD, such as Lave and Wenger’s (1991) theory of situated learning, share Vygotsky’s view of the ZPD and argue that it is the context in which knowledge is obtained and applied in daily situations that governs understanding of the information being taught (Chin & Williams, 2006; Lave & Wenger, 1991; Stein, 1998). This study aimed to also build on the work by Stein (1998) which suggests that, rather than being an action of the learner acquiring knowledge from an academic body, learning is a “sociocultural phenomenon” (Stein, 1998, p. 7), which considers the “situations, values, beliefs and environmental cues by which the learner gains and masters content” (Stein, 1998, p. 3).

The multiple cultural model introduced by Henderson (1996) is complementary to this research as it provided fuller guidance for this project. Henderson’s model aims to advance the designing of learning environments that promote equality for learners, particularly those from minority groups. A multiple cultural model applied to the present study of synchronous technology and Aboriginal communities enabled the researcher to consider the connections between the five subcultures identified by Henderson. The subcultures are; the dominant culture, global academic culture, ethnic and minority cultures, workplace culture, and other factors including gender, class, and religion. Further, implementation of the model enabled assessment of the importance of each of these subcultures within the realm of this particular study.

By combining the three theoretical underpinnings of this study, Vygotsky (1978), Lave and Wenger (1991) and Henderson (1996), the researcher aimed to develop a framework to be applied to this research at the local Aboriginal community level and provided an extension from these theories to be considered when applying a similar type of research project on a national or global level.

### 1.8 STRUCTURE OF THE THESIS

This thesis is divided into seven chapters that are reflective of the four phases of the design-based approach to research. Chapter One describes the established research base and formed the foundation for the subsequent six chapters.
Chapter Two represents the first part of Phase One of the design-based approach; analysis of the problems as illustrated through previous research as evidence through an extensive literature review examining literacy levels of Aboriginal adults on a global level, and Indigenous learning, including Indigenous Knowledge and Indigenous ways of learning. The chapter also summarises the literature supporting wholistic learning practices, reviews literature supporting Aboriginal community learning, and also examines literature that describes projects that blend Indigenous learning and computer technology. Further, Chapter Two describes the theoretical frameworks on which the research project has been built. This chapter brings together some guiding principles drawn from the literature that included examples of working with synchronous technology, and instances of successes and barriers in the process, including working with technology in remote communities. From this review, a gap in the literature was identified, thus presenting the need for research in this area.

In Chapter Three, the research paradigm is discussed in conjunction with the design-based research approach implemented during this project. Descriptions of the qualitative methods employed at each phase of the research are also included. The methodology used in each phase of the approach is explained in detail with descriptions and diagrams of the community and participant selection process, as well as the data collection methods and analysis. This is an important step in the design-based research approach as applied to this particular study, for without the appropriate ethical procedures taken from the university perspective, the first phase of the design-based approach inclusive of practitioners and community members could not take place. This chapter concludes with measures of trustworthiness, validity and the timeline, ethics and limitations of the study.

Chapter Four, the results and findings, revisits Phase One and discusses the views of two distinct focus groups and their perceptions of the literacy needs of the adults in Aboriginal communities. The first group consisted of literacy practitioners who were working in the field of Aboriginal adult literacy at the time of the research. These practitioners met in an online environment to discuss what they viewed as the needs in the Aboriginal communities, as well as their personal best practices and barriers to teaching and learning in remote areas. The practitioners also shared their experiences with the various technologies used in adult literacy learning contexts with Aboriginal
learners. The data collected from these practitioners further informed the guiding principles based on the literature review through the perspective of the front-line literacy worker. This chapter also presents the findings from the discussions with the community focus group members and details the needs, desires, hopes and reservations about learning as an adult Aboriginal community member. The current technology available to the community is also discussed. The data are used to further inform the revised draft-guiding principles, supplying the perspective from adult Aboriginal community members to complete the draft-guiding principles for this study. These principles are then used to guide the process of the research, and are revised a final time in Chapter Seven. The creation of the draft-guiding principles based on the three stakeholders of this study completes Phase One of the design-based research approach.

In Chapter Five, the collaborative community engagement process begins to unfold as the results from Phase Two are revealed. In this chapter, the author describes the processes in which a solution was created, in collaboration with the community members, to address the issues, needs and concerns identified in Phase One of the project. This chapter describes how the community decided on a topic and a theme for their project and the training they completed to become competent users of the online synchronous platform and details how the draft-guiding principles were applied in this phase.

Chapter Six discusses the iterations of the collaborative community engagement project or Phase Three of the design-based research approach and presents the results of the community’s online sharing experiences. This chapter also discusses the reflection upon draft-guiding principles undertaken during this phase.

Chapter Seven reflects on Phase Four of the design-based approach and contains the conclusions, principles and recommendations arising from this research. This chapter draws the research project together and offers suggestions as to how the theoretical frameworks employed for the project supported the research. Considerations of the weight of the criteria and specifications of parts of the theoretical framework and models are made. Additionally, a new model for future work in this area is presented.
Design-based principles evolving from the draft-guiding principles that were reflected on throughout the process are also established.

The chapters are followed by several appendices and a CD-ROM placed in the back cover of the document. Within the appendices are letters of information and consent, the technology information guides with which each participant was provided at the end of the researcher’s time in the community, a copy of the collaborative community engagement project and the PowerPoint slide presentations used for training purposes on the synchronous platform. The CD-ROM contains the completed online project presented by the Aboriginal community members.
CHAPTER 2 – LITERATURE REVIEW

2.1 INTRODUCTION

This chapter provides an overview of the current literature that addresses global perspectives and case studies that involve Aboriginal perspectives on knowledge, learning and literacy practices, and ways in which these practices have been supported from a wholistic perspective. The literature also describes Indigenous learning communities and how Indigenous knowledge and learning has been blended with current day Information and Communication Technology (ICT). The chapter continues with a detailed account of how the researcher combined existing theories to create a framework for the research, as well as suggested best practices indicative of successful synchronous learning experiences for Aboriginal learners. Finally, potential challenges related to implementing synchronous learning technologies are explored, and a summary of the literature that led to the identification of a gap in current research is presented.

Current literature is limited in reporting international statistics pertaining to literacy levels of Indigenous people globally. In 2006, UNESCO estimated that 300 to 350 million Indigenous people accounted for approximately 5 percent of the world’s population (United Nations Educational Scientific and Cultural Organisation [UNESCO], 2006). Studies confirm that Indigenous populations are clearly disadvantaged in their access to basic adult literacy services, mainly due to limited opportunities in formal education and the lack of economic growth in Indigenous communities (Battiste, 2008; UNESCO, 2006). This lack of services impacts directly upon the low literacy levels of this population. Globally, Indigenous women, for example, are rated as having the lowest literacy skill levels in the world (McCaffery, Merrifield, & Millican, 2007). Yap and Biddle (forthcoming) estimate that while Australia ranked fourth out of 179 countries in the United Nation’s Human Development Index (HDI), if the same index were applied solely to Indigenous Australians, the rank would be ‘slightly higher than the Syrian Arab Republic and the Occupied Palestinian Territories, but slightly lower than Fiji and Sri Lanka.’
In 2006, the Australian Census indicated that 19 percent of Indigenous adults had completed high school (Year 12) compared to 45 percent of non-Indigenous adults (Australian Bureau of Statistics [ABS], 2006). Of these adults who have acquired their Year 12 education, most are located in urban areas, suggesting that Aboriginal adults living in remote and rural areas of Australia have had limited opportunity to access the same level of education compared to the rest of Australia (Biddle, et al., 2004). This gap in adult literacy competency indicates a need for literacy services for Aboriginal Australians who experience limited access due to geographical barriers.

In a similar comparison, New Zealand statistics also indicate a significant number of Maoris scoring below the basic literacy levels compared to non-Maoris (UNESCO, 2004). In Canada, the education gap between Aboriginals and non-Aboriginals is also comparable and disconcerting (Sisco, 2010). Canadian statistics indicate that 53 percent of Aboriginal adults aged 25 to 64 years have less than a high school diploma, compared to 15 percent of the non-Aboriginal population (National Indigenous Literacy Association [NILA], 2006). In 2000, the Auditor General of Canada reported that at least twenty years of tailored “accelerated and restorative education programmes” (Auditor General of Canada, 2000, p. 8) would be required for the Aboriginal population to be on par with the mainstream Canadian school system.

Findings from the 2003 International Adult Literacy and Skills Survey (IALLSS) have confirmed that unequal distribution of literacy proficiencies is likely linked to social and economic inequalities among societal groups. These inequalities are expected to widen as the maintenance and acquisition demands of new literacy competencies for Indigenous populations continue to increase. This increasing disparity is, in part, due to technological advancements in the current workforce (Bougie, 2008; Greenall, 2005; Greenall & Loizides, 2001; Miller, 2006). As employment skill requirements reflect the growing technology trends of the global market, there looms a significant threat to under-skilled Aboriginal people who will be excluded from new economic and employment opportunities, thus being pushed further to the margins of society (Greenall & Loizides, 2001; Miller, 2006).
Despite these challenges and inequalities, the literature included in this review indicates that Aboriginal communities have the capacity to lessen the margins, given the opportunity and access to adequate resources. The increase in access to ICT has resulted in greater access for those living in remote areas and has the potential capacity to deliver literacy services to those who may not have had the opportunity previously.

2.2 ABORIGINAL PERSPECTIVES OF KNOWLEDGES, LEARNING AND LITERACY

2.2.1 Indigenous Ways of Knowing

Battiste (2005; 2008) defines Indigenous Knowledge as a multifaceted system of knowing which encompasses “the complex set of languages, teachings, and technologies developed and sustained by Indigenous civilizations” (2008, p. 87). Warner (2006), using the term Native Ways of Knowing, describes Indigenous Knowledge as “acquired and represented through the context of place, revolving around the needs of a community and the best efforts to actualise a holistic understanding of the community’s environment” (p. 150). Encompassing the ways in which communities pass on information between generations, Indigenous peoples have used this form of education since long before the colonization of their nations. For the Yolngu people of northern Australia, for example, their personal identities are based on “the preservation of knowledge which depends crucially on identifying, acknowledging, and actively maintaining the differences of language, dance, art, etc. among various contributing totemic groups” (Christie, 2003, p. 2).

It is a common practice in Western educational, social and political systems to mistakenly juxtapose Indigenous knowledge with Indigenous culture, and to incorporate it into current curriculum and teaching methods, when the two are distinct concepts. Advocating that Indigenous knowledge and culture are completely separate entities, Battiste and Henderson (2000) caution academia against blindly amalgamating the two, emphasizing that Indigenous knowledge delves more deeply than cultural systems, encompassing “the expression of the vibrant relationships
between people, the ecosystems, and other living beings that share their land” (p. 42). Expanding from the individual notion of Western thought and intellect, Indigenous knowledge challenges the individual to view relationships in the context of the community, natural environment and global perspective (Cajete, 2000). Warner (2006) cites the main difference between Indigenous Knowledge and Western perspective of acquiring knowledge as “the emphasis of Native Ways of Knowing on knowing as a verb and Western educational practices that emphasise the accumulation of knowledge, a noun” (p. 150).

Regarded as much more than an instrument implemented to fulfil one’s innate sense of curiosity, Indigenous knowledge bears a specific and significant role in Indigenous communities. Brady (1997) writes: “The desire to ‘know’ is not sufficient reason in Aboriginal societies for receiving knowledge” (p. 418). Within Indigenous communities, there are often specific rules governing the passing of knowledge, specifically in relation to spoken and unspoken knowledge (Brady, 1997). Within the protocols of knowledge transfer is the understanding of the importance to preserve the uniqueness of local knowledge, which aids in the preservation and social order of the culture and community (Brady, 1997; Des Jarlais, 2008; Kinuthia, 2007; Kinuthia & Nkonge, 2005).

### 2.2.2 Indigenous Ways of Learning

While Western techniques of educating citizens mainly focus on developing the mind, the Indigenous perspective of learning involves a much deeper process. While valuing the importance of the acquisition of formal thinking, Indigenous societies have long valued the development of survival skills such as observation and memory to ensure continuation of culture, language and citizenship (Des Jarlais, 2008). Friesen and Lyons Friesen (2002) describe the use of legends by Indigenous groups in Canada as “the intricately-devised deliberate process of verbally handing down stories, beliefs, and customs from one generation to the next” (p. 64). Oral tradition has been used similarly by other Indigenous peoples throughout the world. For Aboriginal Australians, the Dreaming has been an integral part of sharing information and teachings over multiple generations. Traditionally believed to be the rules and values
of Aboriginal society passed down from Ancestral beings (Pascoe, 2009), stories of the Dreaming remain prominent for Australian Aboriginal communities.

Through projects undertaken in traditional Indigenous societies, educational researchers have determined that Indigenous learners exhibit several commonalities in their methods of learning, in comparison to non-Indigenous learners. For example, Cajete (2000) suggests a “shared body of understanding among many Indigenous peoples” (p. 183) which acts as a reservoir to an ancient way of transmitting and acquiring information. Hughes and More (1997), the Australian National Training Authority (2002) and Dyson (2002) include the following learning strategies and preferences for Indigenous adult learners:

- Learning through doing, rather than observing;
- Learning from real-life experiences;
- A focus on skill acquisition for specific tasks;
- Careful observation before practising new skills;
- Trial and feedback approaches;
- The interest of the group taking precedence over the individual;
- A wholistic approach of comprehending the entire concept before putting it into practice;
- Strong representation of visual-spatial skills;
- Deployment of imagery;
- Contextual learning as opposed to abstract concepts;
- Unprompted learning;
- An aspect of personal, face-to-face instruction; and,
- Emphasis on people and relationships.

Hughes and More (1997) concur with the above considerations, and more specifically suggest that learning for Indigenous adults is best achieved through trial and error occurring in real-life circumstances, in direct contrast to the traditional Western perspective of requiring verbal instruction by an expert (the instructor) accompanied by a demonstration in a setting engineered by the facilitator/learning institution. In Yolngu society in Western Australia, Aboriginal learning is traditionally taught by Elders through imitation and observation that is congruent with the societal value of
maintaining traditional customs (Dasen, 2008; Verran & Christie, 2007).

Contrary to the common perception that the traditional teaching methods of Western civilization are being rejected by Indigenous communities, many Indigenous learners have indicated a desire to receive instruction in English to improve their speaking and writing skill in order to function more effectively in English society (Ellis, 2004; Kral & Falk, 2004). Many Indigenous societies are advocating the incorporation of traditional learning methods into Western education frameworks in a way which both honours and maintains Indigenous identity (Hughes & More, 1997). Similarly, in their recommendations for government policy regarding the education of Indigenous people, Asian South Pacific Association for Basic and Adult Education (ASPBAE) is encouraging the Australian government to “consider adult literacy as a crucial part of education for the whole human character and not just in an economic framework that views literacy as critical to increasing one’s productivity in the labour market” (Asia Pacific Association for Basic and Adult Education [ASPBAE], 2009, p. 29).

Advocates of Indigenous learning strategies advise against approaching the perspective with a one-size-fits-all attitude. Although commonalities have been represented in regards to Indigenous Ways of Learning, Battiste (2008) cautions researchers and literacy practitioners against the tendency of viewing the Indigenous learner as “the homogeneous ‘other’” (Battiste, 2008, p. 179). It is recommended that practitioners utilise an individual approach specifically designed to assess the learning style of each adult learner to guard against the stereotyping of Aboriginal learners under a specific learning strategy or group of learning strategies (Australian Flexible Learning Framework [AFLF], 2003; Battiste, 2008; Eagles, Woodward, & Pope, 2005; Hughes & More, 1997).

Dasen (2008) uses the term traditional education which contrasts with the concept of instruction being delivered in a specific place, within a certain timeframe and facilitated by specialised professionals. Synonymous with Indigenous learning, and similar to Lave and Wenger’s (1991) concept of informal learning, traditional education “is provided everywhere, all the time, and by everyone” (Dasen, 2008, p. 27). As with Indigenous learning strategies, this style of learning and teaching considers the collective goals and needs of the community, rather than the Western
Despite discrepancies between Western philosophies and Indigenous knowledge systems, there are instances in which there is a successful blending of the two cultures to create a positive learning experience. Wall (2006) shares her enriching experiences with a Yolngu clan of north Australia in what is referred to as *two-way learning*. Evolving from the Australian Government’s bi-lingual education policy established in the early 1970s to preserve distinct cultural attributes within a multicultural society, two-way learning is also referred to as *two-way Aboriginal schooling* (Harris, 1990) and *both-ways learning* (Hughes, Fleet & Nicholls, 2003).

The general philosophy of this approach to education within the Indigenous community involves the integration of two cultures within the learning environment to “provide a broader cultural context for learning and problem solving” (Wall, 2006) with both instructors and learners having the opportunity to “explore and exchange cultural perspectives” (Hughes, et al., 2003, p. 71). Observing two-way learning schooling during her time immersed within a Yolngu clan community, Wall (2006) writes:

> Aware of globalization and development outside Nyinyikay Outstation, the family wants the next generation to be able to choose and pick what is best for their community. But they do not want to lose their language and tradition in the process. They see the answer to this dilemma in ‘two way learning’ - a combined Australian/European and Yolngu approach to education (para 13).

Kral (2010) also presents examples of projects in which traditional knowledge and Ways of Learning are being combined with new age learning to create novel cultural productions (p. 10). These include projects such as Ngaanyatjarra Media where youth are exploring with GarageBand© - free music recording software on Macintosh computers to record and produce local music. The Dijilpin Arts project supports Aboriginal women in making soaps and products using traditional bush plants and medicines. In this way, these women continue to be connected with cultural practices and Ways of Knowing while linking them to modern roles in society. Similarly, Indigenous adults accessing synchronous learning technologies in remote communities are experiencing this concept of two-way learning. Two-way learning provides content relevant to the learner’s cultural context while providing vocational
and educational resources that engender skills viable in the current global market. When implemented in this way, utilizing a bi-cultural philosophy for literacy instruction for Indigenous adults may offer opportunities similar to those advocated by Harris (1990) for in the integration of two-way Aboriginal schooling:

(It is) a strategy to help make the matter of choice real in both worlds; to provide opportunity for the primary Aboriginal identity to stay strong, though changing, and these continue to be the source of inner strength and security necessary for dealing with the Western world.... Aboriginal people today are increasingly interested both in being empowered in terms of the Western world and in retaining or rebuilding Aboriginal identity as a primary identity (p. 48).

2.3 SUPPORTING INDIGENOUS LITERACY FROM A WHOLISTIC PERSPECTIVE

Indigenous communities place an intrinsic and collective value on education that is woven into the present and future needs of its people. Battiste (2008) writes: “Aboriginal scholars and writers have recognised that education is the key matrix of all disciplinary and professional knowledge and central to alleviating poverty in Aboriginal communities” (p. 176). More specifically, other authors agree that through increasing the literacy capacity in Indigenous communities, the current pandemic of poverty prevalent among Indigenous people may also be alleviated (Des Jarlais, 2008; Kim, 2009).

Congruent with the Indigenous learning perspective previously described, literacy in the Indigenous community is viewed as a process and not the final outcome. Incorporating various learning styles, Indigenous literacy is viewed as a multi-faceted progression that continues throughout an individual’s lifespan and can benefit the learner at any stage of life (Antone et al., 2002; Donovan, 2007; George, 1997; McMullen & Rohrbach, 2003; National Aboriginal Design Committee [NADC], 2002). In the Indigenous community, increasing one’s literacy skills is recognised as more than a means to increase one’s education and obtain viable employment. The Indigenous perspective of literacy encompasses a broader scope that includes the objectives of striving to maintain cultural identity, preserve language and achieve self-determination (Paulsen, 2003; Antone, et al., 2002; Battiste, 2008; Kral & Schwab,
For many Indigenous people, “your embodiment in time and place, and your language – your stories, place names and species names, songs, designs, dances, gestures etc – together, produce your identity” (Christie, 2005, p. 32). These aspects to which Christie (2005) refers constitute the wholistic interpretation of literacy.

Priscilla George/Ningwakwe, a well-known and highly respected advocate for First Nations literacy in Canada and a founding member of the National Indigenous Literacy Association (NILA), describes Indigenous literacy in this way:

Native literacy is a tool, which empowers the spirit of Native people. Native literacy services recognise and affirm the unique cultures of Native Peoples and the interconnectedness of all aspects of creation. As part of a life-long path of learning, Native literacy contributes to the development of self-knowledge and critical thinking. It is a continuum of skills that encompasses reading, writing, numeracy, speaking, good study habits and communication in other forms of language as needed. Based on the experience, abilities and goals of learners, Native literacy fosters and promotes achievement and a sense of purpose, which are both central to self-determination (George, 1997, p. 6).

In this passage, George (1997) refers to the wholistic nature of literacy which encompasses mental, emotional, physical and spiritual attributes. She speaks of the importance of recognising the prior learning of adults through life experience, while considering the acquisition of skills required for functioning in a modern society.

Similarly, Henderson’s (1996) multiple cultural model suggests a learning environment that endorses equality for all learners. Especially suitable for adults from Indigenous groups, this model integrates three cultural logics and five subcultures. These five subcultures; the dominant culture, global academic culture, ethnic and minority cultures, workplace culture, and other factors including gender, class, and religion, are explored in this research.

The support of, and connection to, a multiple cultural model of literacy instruction and learning is strengthened in George’s (1997) recommendations for working with Indigenous learners, developed through consultations with Indigenous literacy practitioners throughout Canada. Those recommendations include the following:
1) Ensure that programs are community-based and learner-centred, incorporating the strengths of the community and learners, not the deficits.

2) Consider the unique needs and aspirations of individuals and communities.

3) Use the wholistic approach to literacy/education, which recognizes that each and every person has the aspects of spirit, emotion, mind and body, and the need to include and nurture all four parts.

4) Place literacy into culture, rather than fitting culture into literacy. This means using culture-based and/or culturally-relevant resources and methodologies to develop the program rather than simply adding cultural components into a ready-made system based on non-Aboriginal approaches.

5) Use the dual forces of language and culture to help First Nations communities sustain and maintain a positive cultural identity.

6) Develop and use materials/methodologies that are relevant to the learners’ lives rather than employing resources that are based on concepts foreign to First Nations communities.

7) Empower learners in relationship to self, family, community and nation so they are able to interact meaningfully with other people rather than isolating themselves from people and events.

8) Contribute to community development (economic, social, educational, political and spiritual) so that people can make informed decisions to participate in all areas that affect their lives.

To ensure success for the Indigenous learner, literature suggests that adult literacy practitioners must learn to incorporate a wholistic and authentic perspective into learning activities for remote Indigenous learners. This includes the development and implementation of curriculum and delivery techniques which are congruent with the cultural beliefs and practices of the learners’ geographic regions (George, 1997;
Zepke & Leach, 2002). Keeping this in mind, non-Indigenous practitioners are cautioned to refrain from instilling personal judgements on the community that are based on their own values and beliefs and may be incongruent with the community values and practices (van Broekhuizen, 2000).

Through their work with Aboriginal and Torres Strait Islander people in Australia, the Australian Flexible Learning Framework (AFLF) (2003) also determined that education and training in Indigenous communities were most effective when learning was flexible to the needs of the learner. Similar to experiences in Canada, it was determined that Indigenous learners in Australia tend to prefer a curriculum that is designed to be relevant to their cultural backgrounds and taught by Indigenous instructors, or at least taught by those who have had experience with, and are sensitive to the needs of, Indigenous learners.

In stressing the individual nature of Indigenous learning perspectives, Ramanujam (2002) emphasises the need for organizations to recognise and create Indigenous models of distance learning that will prove more relevant to current social and cultural conditions of learners and “have greater relevance and strength than the copied versions of adopted models” (Ramanujam, 2002, p. 37). Incorporating the teaching methods of storytelling and utilising Elders as teachers, as previously mentioned, provides learners with a connection to their culture and community.

Through her research with Indigenous peoples and workplace literacy in Australia, Taylor (1997) describes the traditional skills which are deemed valuable to employment in Indigenous communities and not included in the typical framework of adult literacy practices: personal autonomy, decision-making, authority and leadership, and evaluation and critique. Miller (2005) and Young, Schaber & Guenther in (O’Callaghan, 2005) similarly document the following key elements that have been noted to produce positive outcomes for Indigenous people when used simultaneously for vocational training:

- Community involvement and ownership.
- Aboriginal identities, cultures and knowledge.
- Working in true partnerships with key stakeholders.
Being part of a group of learners, especially with other Aboriginal people.
Access to adequate technology.
Flexibility in course design, content and delivery.
High quality staff who are committed advocates.
Extensive student support services.
Appropriate funding that allows for sustainability.

2.4 ABORIGINAL LEARNING COMMUNITIES

The inclination towards kinship and community over individual isolation is consistent among many Aboriginal groups, indicating that Aboriginal learners have a preference to work collaboratively; traditionally valuing kinship and the aspects of community over individual isolation (Facey, 2001; George, 1997; Taylor, 1997; Zepke & Leach, 2002). Viewed in an Aboriginal context, learning communities have the capacity for being “vehicles for the local development of social capital and tools for the construction of local capacity” (Schwab & Sutherland, 2001, p. 3). Research involving practitioners working with Aboriginal adults has demonstrated that, as the knowledge base is increased within the learning community itself, the process of problem solving within the group accelerates through the shared learning experiences of others within the group.

2.5 BLENDING INDIGENOUS KNOWLEDGE AND ICT

In this time of technological advancement, it is evident that many Indigenous groups are using ICT for educational purposes and to embrace and incorporate some aspects of modern society into their own community structures. The Yanomami tribe of Brazil, for example, have incorporated ICT to strengthen their knowledge of English and access information from the Western world, while living in a traditional Indigenous society (Goodwin Gomez, 2007). Similarly in Australia, where it is estimated that over 30,000 Aboriginal people live in remote regions, it has been suggested (Young, Schaber, & O'Callaghan, 2005) that those having limited access to formal education are embracing the use of technology for “cultural maintenance, sharing local information and accessing basic services like banking” (p. 7).
For many Aboriginal groups living in remote locations, the Internet has become an acceptable platform through which to communicate public or shared community information to its members (Christie, 2005). An example of this is Canada’s Kuhkenah Network (K-Net), a program of Keewaytinook Okimakanak (KO), a First Nations Tribal Council serving six First Nations in remote locations. Directed by the Chiefs of these communities, the objective of K-Net services is “to develop and address local needs and priorities as well as transfer skills and capacity to the First Nations whenever possible” (O'Donnell, Perley, Walmark, Burton, Beaton and Sark, 2007, p.1). Appropriately named, Kuhkenah is an Oji-Cree term which translates to “everyone, everywhere” (Beaton, 2004, p. 5).

In addition to providing videoconference and online video production services, K-Net supports partner First Nations in developing and operating locally owned telecommunication networks using cable, wireless, fibre-optic and satellite technology. Delivering online learning sessions on various topics, services also include access for members of 44 remote Indigenous communities to create their own web pages, free of charge.

In a research project to determine the effectiveness of services to the communities it serves, community members indicated that K-Net’s broadband video activities contributed positively to community development by providing access to activities throughout the region and through encouraging “interaction between sites and groups that may not have connected previously” (O'Donnell, et al., 2007, p. 8). By developing systems of ICT access for remote Indigenous communities, K-Net has become an important system of communication for people living in isolated areas, not only facilitating access to the same training opportunities as those in urban centres, but also enabling connections to friends and families who live significant distances from community.

Sisco (2010) suggests that online learning provides opportunities to bridge the gap and move towards equal access to education for Aboriginal learners, resulting in overall improved educational outcomes. This will lead to improvements in socioeconomic conditions within communities. In her report, Sisco focuses on distance learning for school-aged individuals and claims that First Nations
participants have improved by a full grade (year) of schooling through the use of e-learning (p. 11).

Although the literature provides evidence of ICT as an effective method with which to instil teachings of Indigenous knowledge, caution is expressed against its use as a replacement for traditional knowledge instruction. Speaking to this, Christie reflects from his time spent with Yolngu society of the Northern Territory region of Australia:

Aboriginal people have traditional ways of understanding knowledge: what it is like, where it comes from, how people make it, how it is remembered, celebrated, and made new, how knowledge belongs to people, and how secret and sacred knowledges relate to public knowledge (Christie, 2005, p. 1).

This quotation refers to the common perception of the Internet by Indigenous groups as an inappropriate place to share sacred knowledge. To address this concern, the Aboriginal groups of Australia, for example, have restriction guidelines to accessing information, based on “sensitivity (‘sorrow’), gender (‘men’s and women’s business’) and seniority (initiated or not)” (Hughes & Dallwitz, 2007, p. 152). To enforce these guidelines, awareness and respect of these restrictions in the development and implementation of any learning software containing cultural information is recommended (Hughes & Dallwitz, 2007).

Despite some reluctance to embrace ICT and the Internet within Indigenous communities, there are other instances of curiosity and a desire to advance technological capacity within Indigenous communities, as individuals experiment “for their own purposes, such as sharing information and preserving culture and language” (McDonald, O'Callaghan, Walker, & Fyffe, 2006, p. 6). With the creation of a web of communication has emerged the ability for people, in even the most remote locations, to access “web sites and electronic chat rooms where Indigenous people’s language, history, art and aspirations can be recorded, shared, and learned” (Gmelch, Daniels, Ramira, Arkie, & Bobiwash, 2001, p. 8).

Blending of Indigenous knowledge and ICT is exemplified in a project of the Anangu (Pitjantjatjara and Yankunytjatjara peoples of Southwestern Australia) named Ara Iritija. This is translated to mean “‘stories from a long time ago’ and this is understood
by Anangu to be *their* stories, in *their* words, about *their* people and *their* places” 
(Hughes & Dallwitz, 2007, p. 147). Ara Iritija is a virtual electronic database which is used “to electronically store photographs, art and craft works, traditional objects, diaries, journals, manuscripts, films and sound recordings; making these available to the traditional owners as well as the broader Australian community where appropriate” (Dyson, 2004, p. 65).

Another example is Ngapartiji Ngapartji, an online language preservation project begun in 2005. The intergenerational language and arts project is based in Alice Springs and works with Pirjantjatjara community members engaging youth in multimodal literacy projects such as digital storytelling, film-making, and recording projects (Kral, 2010).

### 2.5.1 Mobile learning

Defined as “the delivery of electronic learning materials on mobile computing devices to allow access from anywhere and at anytime” (Ally, 2004, p. 1), mobile learning (m-learning) is gaining more popularity on a global level with the increased access to cellular connectivity and user access to mobile phones. Usage estimated to be more than three times that of personal computers (PC), mobile phones are predicted to become the technology of choice for digital communication of the future (Attewell, 2005). In relation to utilizing mobile computing devices to enhance literacy development for Indigenous populations living in conditions of poverty and isolation, m-learning has the capability to “achieve a large-scale impact due to the portability, low cost, and versatile features” (Kim, 2009, p. 417). Promoting the movement towards innovative use of mobile wireless technology, is the lower cost in the use mobile devices compared to installation and maintenance of desktop computers (Dyson, Hendriks, & Grant, 2007).

Wireless technologies are gaining popularity for many Indigenous groups due to the migrant nature of the Indigenous population, the lack of basic telephone infrastructure and the absence of formal education institutions in remote areas (Dyson, et al., 2007; Kim, 2009). As a result, Indigenous people are increasingly implementing mobile
technologies for “language learning and both formal and informal literacy development” (Kim, 2009, p. 417).

Aderinoye, Ojokheta, & Olojede (2007) propose the use of an m-learning platform to deliver basic literacy skills instruction to nomadic populations in Nigeria. Perceived benefits of this mobile learning initiative include nomadic people acquiring interactional skills while developing their literacy skills “with little disruption to their nomadic lifestyle and livelihoods” (Aderinoye, et al., 2007). As previous strategies implemented to address the literacy challenges of nomadic people in Nigeria have been ineffective, the authors are requesting governmental support to initiate this concept of low-cost m-learning for an Indigenous group that comprises approximately 6.8 percent of the population of Nigeria.

Despite its successes, m-learning does pose some challenges in the delivery of synchronous learning to adult learners. Utilizing small interface designs and limited memory capabilities, m-learning technologies still pose their own set of challenges for curriculum developers (Dyson, et al., 2007).

2.5.2 Videoconference technology

Language has been identified as a barrier for Indigenous learners, with many learners lacking both the confidence in, and knowledge of, English to communicate effectively. In these instances, an online text-based learning platform will present its own set of challenges, making it essential to incorporate as many audio and visual elements as possible (AISR, 2006; Daniels, 2003; Sawyer, 2004). Videoconferencing then becomes an ideal teaching tool in communities possessing adequate Internet capacity and appropriate hardware (McGlusky & Thucker, 2006).

Through a partnership between the National Research Council Canada, Keewaytinook Okimakanak and Ryerson University, researchers developed a project to demonstrate the effectiveness of videoconferencing to aid in the use and restoration of local dialects in remote Canadian First Nation communities (O’Donnell, Beaton, & McKelvey, 2008). Hosted in the remote location of Muskrat Dam First Nation, the
organizers facilitated a focus group via videoconference. Twenty individuals from eight communities participated in a discussion regarding the use of videoconferencing locally to share language resources throughout the region.

Organisers and participants were in agreement as to the success of the event. The primary objective to demonstrate videoconference technology as an effective method with which to share language resources was met, and further, the technology was demonstrated as a feasible method with which to connect people from remote locations. One participant shared in her evaluation of the program:

“One of the major advantages I do see in using videoconferencing to share information is (that) it saves a lot on money (and) travel costs. A return flight from here to Sioux Lookout to attend a meeting is about $500, and then on top of that, you have to consider meals and everything. Today, had we flown out all the participants here today, to fly to Sioux to attend a meeting... that would have been up to about $5,000, I would think. Whereas sharing through videoconferencing... we’re still at home, we can still do our daily thing, run home, go back to our kids. We don’t have to leave our kids behind, and our families are still intact” (p. 10).

Although videoconferencing has potential as a viable learning platform for Indigenous adults living in remote locations, there are attendant challenges. A reliable broadband infrastructure supported by continuous technological support from trained technicians is a necessary prerequisite (O’Donnell, Beaton, & McKelvey, 2008). Included in their recommendations in support of their effort to increase the efficiency of this technology for remote Indigenous communities, O’Donnell, Beaton and McKelvey (2008) advocate for increased funding and policy development to “support the more widespread diffusion of broadband networks capable of supporting videoconferencing, and to support funding resources for community capacity building to use this technology effectively” (p. 5).

2.6 USING SYNCHRONOUS TECHNOLOGIES IN INDIGENOUS COMMUNITIES

As exemplified throughout the literature review, ICT in general are gaining overall acceptance in remote Indigenous communities, on a global level. Understanding the diversity and complexity of a community, their previous experience with technology,
and their attitude towards computers, are crucial steps towards positive technology experiences for learners (Wenger, 2009, p. 104). Yanomami communities in remote areas of Brazil, for example, view the Internet as “a potentially very powerful tool in their struggle to preserve their economic, political and cultural autonomy, and ultimately ensure their survival in a rapidly changing, globally interconnected world” (Goodwin Gomez, 2007).

Through a program called *The Yanomami Intercultural Education Program (PEI)*, Indigenous people living in remote areas of Brazil have been able to access online instruction in subjects such as applied computer skills, mathematics and history (Goodwin Gomez, 2007). Commencing as a native literacy pilot in a village of 100 people, the project has developed into “a regional, Indigenous teacher-based program that currently serves over 400 students in 32 village schools” (Goodwin Gomez, 2007, p. 118).

Despite expressed scepticism that technology could effectively service remote learners, online learning programs have been documented to offer potential solutions to effectively address the unique learning and skills development needs of Indigenous learners when researched, designed and delivered in a culturally-apposite and community-relevant manner (ANTA, 2002; Battiste, 2002; Battiste, 2005; Greenall, 2005).

Greenall & Loizides (2001) document examples of several First Nation communities in Canada who are embracing ICT for literacy and essential skills training to:

- Create employment and economic development opportunities;
- Promote the acquisition of knowledge and development of essential skills and attitudes in order for individuals to become self-sufficient, and valued and contributing members of their knowledge community;
- Preserve language and culture, and to exchange with other cultures; and,
- Enable Aboriginal people to participate in the knowledge and
In combination with adequate technological capacity and the hiring of qualified instructors trained specifically in the methods of curriculum development and course delivery, it is suggested that Indigenous learners could potentially gain much through the implementation of synchronous technologies (Daniels, 2003; Greenall & Loizides, 2001). Current literature indicates that there are specific aspects of synchronous learning technologies that concur with the learner-focused, personal interface and co-operative group aspects valued in adult learning within Indigenous populations (AISR, 2006; Greenall, 2005; McMullen & Rohrbach, 2003; O'Lawrence, 2006). Research suggests that online learning platforms typically achieve higher success rates than previous methods of print-based distance learning, which demands all learners, regardless of cultural considerations, utilise identical materials based on Euro-centric principles (Brescia & Daily, 2007; Facey, 2001; Zepke & Leach, 2002).

Through their work with Indigenous learners in Canada, Eady (2007) and Greenall (2005), have identified the benefits of creating synchronous cyber-classrooms utilizing programs such as CENTRA© and ElluminateLive!©. Such softwares enable learners and instructors to socialise in real-time; creating a learning community which Indigenous learners have responded to positively (Eady, 2007; Greenall, 2005).

The Teacher Assistant and Career Training (TACT) Program was offered to learners in 18 remote First Nations communities in Ontario, Canada (Eady, 2007). Through a partnership with an adult literacy organization and a community college, the program was designed to help northern residents who work as teacher’s assistants acquire work skills. The curriculum taught online included classroom assisting, educational programming, child development and learning exceptionalities. Upon completing the course, 80 percent of the participants indicated that they experienced better job performance and felt that they could obtain a better job following the training. Forty per cent of the participants went on to complete additional training in an online environment.

Another project created to enhance success in education for Indigenous adults, The Sunchild e-learning Community is an online learning project developed to address the
lack of literacy skills for residents living in Northern British Columbia First Nations in Canada (Greenall, 2005). In the final report of the project’s initial implementation, Greenall (2005) reported a successful completion rate of 62.5 per cent of Sunchild learners situated in First Nations communities who completed their courses using an online format, compared to 34 per cent of non-Sunchild learners who used strictly print-based distance learning materials.

The Sunchild project utilises a polysynchronous learning platform, which combines both synchronous and asynchronous methods. Learners are provided with a blend of a real-time instructor supported e-learning which involves audio, whiteboard, and chat capabilities, enabled by compressed software (WebCT© and Elluminate Live©) operating over a common phone line in the community. This mix provides learners with a high-quality education experience that, in particular for adult learners, fits with their work and family situations. High success rates are attributed to use of on-site mentors who provided administrative functions, technological support and student encouragement, both academically and emotionally. Greenall (2005) reflects from the learner feedback in the final evaluation report:

Learners also cited the sense of confidence and pride that they felt having achieved success. For many, the traditional classroom was an uncomfortable environment, one where they had trouble learning. Sunchild offered them a different way to learn, conducive to their own needs, learning styles and personal circumstance (Greenall, 2005, p. 24).

McDonald, O’Callaghan, Walker and Fyffe (2006) provide an evaluation of four e-learning projects funded by the Australian government to increase Indigenous engagement in employment and small business. The online learning projects examined include prevocational skills for mining and associated trades, entrepreneurial skill development for micro-business and education in governance skills for Indigenous communities. In addition to providing the intended skills to participants, McDonald et al. (2006) indicate the following social outcomes achieved for individuals and communities:

- Improving self-confidence;
- Drawing people back to employment and training;
- Allowing families to stay on traditional land; and,
Increasing awareness about Indigenous history.

In support of its mandate to increase access to the acquisition of vocational skills relevant to the needs of the current economy, the Australian Flexible Learning Framework (AFLF) has developed several online “toolboxes” with content specific to the needs of Indigenous learners. Defined as “a collection of resources, suggested learning strategies and material to support online delivery of qualifications from recognised Training Packages” (ANTA, 2002, p. 5), current toolboxes accessible to Aborigines in remote locations include the use of web-based resources in conjunction with asynchronous supplements such as CD-ROMs to provide skill instruction in such vocational areas as horticulture, mining and maritime operations (Australia Flexible Learning Framework, 2002).

In 2005, AFLF undertook a specific project to determine the effectiveness of its toolboxes by conducting delivery trials in a range of locations, with different groups in a variety of educational settings including learners of different ages, cultural backgrounds and language groups. It was determined that Indigenous learners especially benefited through engaging with AFLF toolboxes that contained Indigenous content and were tailored towards the interests and realities of Indigenous adults. Bamblett (2005) makes several recommendations to improve employment of AFLF’s toolboxes for Indigenous learners, which include many of the elements previously mentioned in this literature review, such as:

- Cultural inclusion;
- Importance of using graphics in delivery and content;
- Provision of instruction in basic computer skills for learners;
- Staff knowledge and ability to use the technology; and,
- Implementation of community-based mentors and technological support.

In addition to using synchronous technology to enhance education levels and achieve work-related outcomes, synchronous technology is also being implemented in the areas of original knowledge and language continuation. As Indigenous knowledge is traditionally transferred through an oral tradition of speech, incorporation of cultural components into lesson design that include storytelling, song, and dance, and the
inclusion of audio and visual curricula are essential components into lesson design and delivery for Indigenous learners (AISR, 2006; Christie, 2005; Daniels, 2003; Eagles, et al., 2005; Paulsen, 2003; Sawyer, 2004). Current literature reflects the use of audio and visual elements such as videoconference equipment and web-based voice applications to implement the synchronous delivery of first language instruction to Indigenous learners who are challenged by use of text-heavy curriculum materials (Aderinoye, et al., 2007; AISR, 2006; Daniels, 2003; Eagles, et al., 2005; Sawyer, 2004).

Use of synchronous technology to provide Aboriginal language instruction is illustrated by the collaboration of researchers and online content specialists at the School of Australian Indigenous Knowledge Systems at Charles Darwin University (CDU) who are working with Indigenous groups to develop Aboriginal language and cultural databases to be delivered in an online format. By utilizing multimedia formats of sound and visual graphics in web-based applications, Christie (2005) is optimistic that “there may be a chance for people to make a much richer representation of themselves, and to do it using their own traditional rules about how to go about it” (p. 8).

Also using synchronous learning technology, an Indigenous group in the United States, the Choctaw Nation of Oklahoma, has created a 16-week community language program which encompasses “literacy, vocabulary acquisition and conversation” (Haag & Coston, 2002, p. 72). Running four consecutive sessions between February 2000 to Spring 2001 consisting of three separate classes per day, the Rotor Learning System attracted nearly 350 learners per session (Haag & Coston, 2002). The curriculum of Beginning Choctaw and History and Culture was delivered live by instructors through streaming audio and video teaching components, while the students communicated by typing text. In reaction to the enthusiastic response by Choctaw Nation members throughout the region, and cognisant of the limitations of a one-way communication system, creators of the training program began to explore ways to enhance the learning. Enhancing technology to provide a two-way system of instructors and students communicating, the Choctaw Nation of Oklahoma’s School of Choctaw Language continues to offer language instruction in three different levels using synchronous software called Avacaster (School of Choctaw Language, 2009).
When working with Aboriginal learners in particular, practitioners need to be mindful of methods Aboriginal people have used to process information throughout history (Antone, et al., 2002; Donovan, 2007; George, 1997; McMullen & Rohrbach, 2003; NADC, 2002). Christie (2005), in reflection of his research with the Yolngu society of the Northern Territory region of Australia explains this in the context of language:

> Of course many new words and ideas are added into languages all the time, but in Aboriginal society, new knowledge is not valued above old knowledge. New knowledge only has meaning and value through its ability to be tied to received knowledge and identity (Christie, 2005, p. 2).

Cultural curriculum included in lessons must be reflective of the ownership of the community from which it originated and to which it is being delivered (ANTA, 2002; Christie, 2005).

Similarly, Vygotsky’s (1978) sociocultural theory proposes that social interactions develop higher order functions when they take place in cultural contexts (John-Steiner & Mahn, 1996; Scherba de Valenzuela, 2002; van der Veer & Valsiner, 1991). Based on this philosophy, adults will learn more effectively when they socialise with other learners in a positive environment. Instruction is deemed more effective when it is connected to cultural learning relevant to the learner (Scherba de Valenzuela, 2002).

Lave and Wenger’s (1991) theory of situated learning shares this view of Vygotsky’s theory and argues that it is the context in which knowledge is obtained and applied in daily situations that governs the cognitive retention of the information being taught (Lave & Wenger, 2006; Lave & Wenger, 1991; Lave & Wenger, 2006; Stein, 1998).

### 2.7 COMBINING THEORIES TO CREATE A FRAMEWORK

As shown through examples in the previous sections, three main theories have exemplified some important characteristics of positive teaching practice with Aboriginal communities. The researcher has assembled the three theories to provide both a foundation to support this research and to create a lens through which this project can be viewed. The combination of three theories provides an original
framework. These theories/models include: sociocultural theory (Vygotsky, 1978), situated learning (Lave and Wenger, 2001) and the multiple cultural model (Henderson, 1996). The framework for this research is diagrammed conceptually in Figure 2.1. Although the theories are shown to overlap in some way with each other in the diagram, the overlap does not represent an interaction between theories for the purpose of this research.

![Figure 2.1 Pictorial Representation of Theoretical Framework](image)

### 2.7.1 Sociocultural theory

The overarching theme is Vygotsky’s sociocultural theory (1978) illustrated by the large circle in Figure 2.1 (created by the researcher). Based on the work of Vygotsky (1978), the premise of sociocultural theory is that social interactions can facilitate development of higher order functions when they take place in cultural contexts (John-Steiner & Mahn, 1996; Scherba de Valenzuela, 2002; van der Veer & Valsiner, 1991). The premise, therefore, as stated earlier, is that adults will learn more effectively when they socialise with other learners in a positive environment, and
instruction is deemed more effective when it is connected to cultural learning relevant to the learner (Scherba de Valenzuela, 2002). Vygotsky’s theory also shows that guided social interactions serve a cognitive function when they occur in the ZPD. The key to the ZPD for guiding learning is to build activity upon what the learner is able to do independently and to scaffold more challenging cognitive tasks with appropriate support from more knowledgeable others (van der Veer & Valsiner, 1991).

2.7.2 Situated learning

There are contemporary interpretations of Vygotsky’s sociocultural theory, one of which suggests that it is the relationship between the everyday actions of individuals and recent societal activity that can be generated collectively and potentially embedded in every day actions (Engestrom, 1987). In Figure 2.1, the second, smaller ring within Vygotsky’s (1978) theory represents Lave and Wenger’s (2001) theory of situated learning. This theory is built upon the premise of Vygotsky’s theory and suggests that it is the context in which knowledge is obtained and applied in daily situations that governs the cognitive retention of the information being taught (Chin & Williams, 2006; Lave & Wenger, 1991; Stein, 1998). Rather than being an action of the learner acquiring knowledge from an academic body, learning is a “sociocultural phenomenon” (Stein, 1998, p. 7), which considers the “situations, values, beliefs and environmental cues by which the learner gains and masters content” (Stein, 1998, p. 3). Thus the learning environment should be informed by social contexts rather than imposed upon them.

Lave and Wenger (2003) have developed a model of situated learning that is based on a process of engagement in a community of practice in which learners commune through mutual participation in activities related to their learning. Building relationships over time, participants in communities of practice continue to develop meaningful relationships that contribute to both the group’s and individuals’ knowledge base (Lave & Wenger, 1991; Stein, 1998). Grounded in situational learning, this co-operative and participatory research with Aboriginal community members has the ability to show the importance of a community of practice within the specific context of the Aboriginal community.
2.7.3 Multiple cultural model

In addition to Vygotsky (1978), and Lave and Wenger (1991), a third model that provides further detail to this framework is Henderson’s (1996) multiple cultural model. This model endorses multiple cultural realities or zones of development similar to that described by Vygotsky (1978). In the multiple cultural model, Henderson (1996) has identified five cultures which impact e-learning design in Indigenous contexts. This model is represented within the larger framework as shown in the Figure 2.1 and is depicted by Henderson (1996) as five equally proportioned and interlocking rings. The primary function of the multiple cultural model (Henderson, 1996) is to design a learning environment that promotes equality for learners, particularly those from minority groups. The multiple cultural model applied to the study of e-learning, works towards clear connections between these cultures which include:

1. Dominant culture,
2. Workplace culture,
3. Global academic training and entrepreneurial culture,
4. Gender, religion and class, and,
5. Ethnic minority and Indigenous culture.

In Figure 2.1, the multiple cultural model is depicted as the inner sets of circles that fit into Lave and Wenger’s (2001) situated learning theory and Vygotsky’s (1978) sociocultural theory. The framework resulting from these combined theories will provide the basis on which the research with the Aboriginal community members takes place and through which the literacy learning activity is created and presented through the use of synchronous technologies. In this research, learners will interact with each other and the researcher; while applying the logics identified and indicated by the theories outlined, with the aim of successfully achieving a literacy goal of the community.

Utilizing this theoretical lens will allow for trial of the use of a synchronous platform as a tool to assist the process of moving the learner from assisted performance to
greater self-assisted and self-regulatory competence (Henderson & Putt, 1999; van der Veer & Valsiner, 1991). This will engage the learner in authentic computer literacy learning activities embedded in real-life, culturally appropriate and meaningful situations (Lave & Wenger, 2003).

2.8 POTENTIAL CHALLENGES IN IMPLEMENTING SYNCHRONOUS LEARNING TECHNOLOGIES

As demonstrated throughout this literature review, many Indigenous communities have embraced and utilised synchronous technologies for literacy enhancement, the sharing of knowledge and cultural traditions, and the acquisition of vocational skills. However, this is not always a simple undertaking, as there are factors to consider which may delay or prohibit the implementation of synchronous learning technologies in remote Aboriginal communities.

2.8.1 Technological insufficiencies

Although great strides have been made in using technology to advance both the education levels and economic potential for Indigenous communities, isolation, limited financial resources, lack of human and ICT resources, and inadequate technological infrastructures remain challenges for adequate delivery of synchronous learning platforms (AISR, 2006; ANTA, 2002; Daniels, 2003; Greenall & Loizides, 2001; McMullen & Rohrbach, 2003; Miller, 2006; Wesley-Smith, 2003).

Indigenous communities are falling behind the rest of the world in regards to technological capacity. Currently there is a global digital divide between Indigenous communities as a whole and the rest of the world, resulting from limited access to quality Internet services and a pattern of minimal access of computer technologies in Aboriginal homes and communities (AISR, 2006; Brescia & Daily, 2007; Crossing Boundaries National Council [CBNC], 2006; Downing, 2002; Dyson, 2002; Hodson, 2004; Hunt, 2001; Miller, 2006; Smith, Biemmi Beurteaux, & Trinidad, 2008; Young, Roberston, Sawyer, & Guenther, 2005). For Indigenous people globally, geographical and social isolation, poverty and political factors jointly contribute to the lack of
adequate technology required to develop and implement appropriate online learning programs (AISR, 2006; Brescia & Daily, 2007; CBNC, 2006; Ellis, 2004; Hodson, 2004; Hunt, 2001; Miller, 2006).

While mobile phones, digital cameras, MP3 players, Touch ipods and some laptop computers are becoming more affordable (Kral, 2010), isolated Aboriginal communities tend to have less availability to ICT resources required for online learning. Research indicates that by simply being Aboriginal and living in a remote location, individuals are less likely to have access to a computer and Internet connectivity (AISR, 2006). In many cases, the control of technology has laid with institutional locations and authorities that are not community based (Kral, 2010). The Northern Adelaide Social Inclusion Survey in 2005, for example, determined that the number of Aboriginal residents having access to the Internet in their homes was half the number of the non-Indigenous population (AISR, 2006). Additionally, the 2002 Indigenous Social Survey indicated that Aboriginal Australians living in remote locations are half as likely to have had access to a computer during the past year in comparison to Australian residents as a whole (Young, et al., 2005). While we see the presence of technology increasing in many communities, we cannot make a blanket statement that technology and access to the Internet is readily available in all Indigenous communities.

The lack of ICT support and knowledge available in many Aboriginal communities has proven to be a challenge in implementing distance-learning programs utilizing synchronous methods. In addition to limited service, there is an absence of properly trained technicians who are available to assist learners and staff to address the various technological issues that come with any synchronous learning platform (AISR, 2006; Brescia & Daily, 2007; Daniels, 2003; Greenall & Loizides, 2001; McMullen & Rohrbach, 2003; Miller, 2006; Ramanujam, 2002; Wesley-Smith, 2003; Young, et al., 2005).

A low level of computer literacy among Aboriginal adults is also a barrier to implementing synchronous technology in remote communities. Besides having limited availability to technology in remote communities, Indigenous people who have not had instruction and access to ICT experience a lack of technological skills
(Ramanujam, 2002; Young, et al., 2005). The combination of the lack of individual skills and lack of awareness of the capabilities of computer learning technologies results in little demand for Internet learning services in many remote Indigenous communities (McDonald, et al., 2006).

The harsh environmental conditions in remote, undeveloped areas pose another set of challenges for ICT advancement. Heat and dust from desert regions in Australia and Africa, for example, can cause substantial damage to computer technology if proper measures are not implemented to protect sensitive equipment (Dyson, et al., 2007; Hughes & Dallwitz, 2007).

2.8.2 Literacy in Aboriginal communities

International reports indicate a significant difference between Indigenous and non-Indigenous literacy rates on a global level (Australian Bureau of Statistics, 2007; National Indigenous Literacy Association (NILA), 2006; United Nations Educational Scientific and Cultural Organization, 2004). Researchers and educators concur that this variation is due mainly to limited access to formal educational opportunities in Indigenous communities (UNESCO, 2006). It has been reported, for example, that Australian Aboriginal adults living in remote communities have a lower rate of high school completion than those living in urban locations due to the limited presence of secondary schools in Aboriginal communities (Biddle, et al., 2004). From a positive perspective, Biddle (2010) reports:

…there is a higher rate of participation in education for Indigenous females from the age of 33 and onwards, and for males from the age of 40 and onwards. Looking at the total population aged 15 and over, Indigenous males are in fact 6.4 per cent more likely to be attending education at a given point in time than non-Indigenous males and Indigenous females are 12.6 per cent more likely… (p. 16)

Research also indicates that there is a direct correlation between levels of education achieved and environmental factors interfering with the well-being of individuals and the community as a whole (Battiste, 2005; Kral & Falk, 2004; Young et al., 2005). To learn effectively requires emotional stability, and as long as remote Aboriginal communities are facing conditions of poverty, high suicide rates and an over-
representation of Aboriginal children and youth in the child welfare and justice systems, literacy levels will continue to stay well below the national average (Hughes & More, Battiste, 2005; 1997; Lucardie, 2003; Rigney, 2001). Thus equity of access requires consideration of factors beyond those of technology.

It is evident that many Indigenous learners desire instruction in English and to improve their speaking and writing skills to function more effectively in English society (Ellis, 2004; Kral & Falk, 2004). However, an increase in exposure to ICT learning platforms brings increased challenges for lower literacy level functioning adult learners, as they are expected to be “multi-literate beyond basic literacy and numeracy” (AISR, 2006, p. 6). The 2001 Australian Census indicated that Aboriginal adults with low language skills were less likely to use computer technology in their homes (AISR, 2006). For non-English speaking Aboriginal learners, the challenge multiplies as the vast majority of electronic resources for adult literacy learners are in English only (AISR, 2006; Lucardie, 2003). When language is a barrier for Aboriginal learners, with many lacking both the confidence and knowledge in English to communicate effectively, an online text-based learning platform will present its own set of challenges, making it essential to incorporate as many audio and visual elements as possible (AISR, 2006; Daniels, 2003; Sawyer, 2004).

2.8.3 Lack of fiscal resources

Current literature reflects an absence of dedicated government funding to provide the necessary infrastructure, such as technologies, learning facilities and trained staff, to create sustainable synchronous learning platforms for adult learners in remote Indigenous communities (Brescia & Daily, 2007; Ramanujam, 2002; Young, et al., 2005). Government funding models often lack commitment to the continuity of computer-based learning in Indigenous communities; a factor which is also important to community leaders who will either support or prevent the introduction of outside learning tools to the community (McGlusky & Thucker, 2006; Sawyer, 2004; Young et al., 2005). Project reports also indicate such external bureaucracy which often prevents the ability of communities to direct their own learning strategies, causes
reluctance by Indigenous leadership to accept invitations to create partnerships with government funded literacy agencies (Greenall, 2005; McMullen & Rohrbach, 2003).

In the past, the federal government of Australia has pressured remote Aboriginal communities to increase their capacity for vocational and educational training “to build sustainable communities with a social, cultural and economic capital base, and share responsibility for community well-being and capacity building” (Kral & Falk, 2004, p. 7). Likewise, the Canadian government has initialised national strategies to have all First Nations communities connected to the digital world, mainly for the purpose of addressing the low employment rates and limited skills base in remote communities (Hodson, 2004).

Self-determination, when imposed from government bodies outside the community, often lacks the cultural and community considerations necessary for Aboriginal people to determine the path of their communities (Hodson, 2004). In order for ICT to be an effective strategy for improving the economic and social conditions of remote Aboriginal communities, there needs to be increased local control of education and training, ensuring standards are relevant to local needs (Greenall & Loizides, 2001; Hodson, 2004; Sawyer, 2004). Government supported participatory determination of self-directed learning may offer a more sustainable model for self-determination.

2.8.4 Lack of human resources

Lack of community human resources, either on-site mentors or technology support staff, continues to be a global challenge in Aboriginal communities (AISR, 2006; Biddle, et al., 2004; Ellis, 2004; Greenall & Loizides, 2001; Smith, et al., 2008; Swanson, 2003). Sustaining an ICT system that will support high quality learning environments requires continual monitoring at the community level by professional staff and recurrent training to remain informed of the constant changes in technology (CBNC, 2006; Hunt, 2001).
Young, et al. in (O'Callaghan, 2005) expresses concern over the lack of Aboriginal instructors and tutors for Aborigines living in remote areas, indicating that the presence of such teaching staff validates community ownership and involvement.

### 2.8.5 Western pedagogies and educational models as barriers to Indigenous learning

Although the literature indicates that synchronous learning technologies have the ability to contribute significantly to Indigenous communities, there also lingers, within the communities, the reminder of the turbulent history of formal education which inflicted, on a global level, “damaging practices of indoctrination, assimilation and colonization” (White-Kaulaity, 2007, p. 561). Biddle (2010) reports that historically, one of the downfalls of schooling in Indigenous communities is the issue that the Indigenous Australians are not directly involved in the education system themselves. Systems of formal education and attempts of assimilation to Western values have historically denied Indigenous people access to Ways of Learning which reflects their unique ways of living, tradition and knowledge (Battiste, 2008; Des Jarlais, 2008; Friesen & Lyons Friesen, 2002; UNESCO, 2006). In its attempts to assimilate Indigenous people to European culture and social systems, the European model of education resulted in “great linguistic losses worldwide” (Battiste, 2008, p. 86).

Due to the substantial damage sustained to language, and culture loss resulting from residential and industrial school strategies implemented worldwide, learning institutions and education in general continue to symbolise “agents of disempowerment, and dismantlers of cultures and traditions” (Schwab & Sutherland, 2001, p. 5) in many Indigenous communities. The literature suggests that this is often the reason many adults alienate themselves from formal educational systems due to their own negative childhood school experiences (Schwab & Sutherland, 2001).

On a community level, continuing impacts of colonization remain a barrier to learning through intergenerational after-effects resulting in the mistrust that persists regarding the Euro-centric influence on education (Battiste, 2005; Ellis, 2004; Friesen & Lyons Friesen, 2002; Hodson, 2004; Kinuthia, 2007; NADC, 2002; Neal, Barr, Barrett, &
Irwin, 2007; van Broekhuizen, 2000). In Canada, for instance, the residential school experience has been linked to multiple intergenerational effects for First Nations people; including denial of cultural identity, effects of racism (both individual and systemic), sexual abuse, family of origin dysfunction, alcoholism/substance abuse, and lateral violence in communities (NADC, 2002). In Australia, historic legislative controls and denial of rights to equitable education and employment perpetuate commonly held perceptions of Indigenous people being incapable of achieving success (Brady, 1997).

Similarly, synchronous learning technologies proposed from non-Indigenous sources are often viewed with suspicion by local leadership. Often equated to dominant educational practices associated with past colonisation/assimilation systems, these scholastic measures are likely viewed as potential threats of a mass invasion of mainstream education practices and materials contrary to local values, traditions and customs (Facey, 2001; Hodson, 2004; Hunt, 2001). Similarly, current models of distance education being implemented for Indigenous learners are largely representative of the technology, heritage and scholastic traditions of the developed Western nations, and lack culturally appropriate learning components which have been proven a factor to the success of adult learning (AISR, 2006; Ramanujam, 2002; Sawyer, 2004) Young, et al in (O’Callaghan, 2005). There remains the concerning factor that along with synchronous learning technology, comes the introduction of “mass media and popular culture” (Kinuthia & Nkonge, 2005 p. 2) that Internet technology brings, which often causes conflict with local Indigenous traditions in remote communities.

To address this challenge, Ramanujam (2002) cautions against blindly copying Western models of distance education, and instead creating Indigenous models which, “will have greater relevance and strength than the copied or adopted models” (Ramanujam, 2002, p. 37). Such models will likely gain acceptance through the blending of Western technology and Indigenous learning styles, since prototypes with curriculum and learning objectives based on Western perspectives are often rejected in Indigenous communities (Taylor, 1997).
In many Indigenous communities, members are refusing to sacrifice their original languages for the sake of personal success and gaining literacy skills relevant to standards of mainstream society (Taylor, 1997). In these communities, Western models focusing on demonstrated English competency in workplace language, which is primarily English, are neither accepted nor suitable to the local needs of adult learners. Additionally, Western consultants who promote the implementation of learning strategies based on Western pedagogies, and are delivered via Euro-centric techniques of teaching and curriculum development, are often viewed with caution by members of Indigenous communities. The literature links this reticence to a fear that the use of Western models could likely create a dependence on a system that is irrelevant to the learning realities and social conditions of Indigenous learners, which would result in lower retention rates for adult learners (Ramanujam, 2002). Thus to gain trust and participation of the community, a bottom up, consultative and organic process of curriculum development that respects and responds to the concerns of the community members in relation to language and culturally empowering pedagogy is warranted.

The literature also suggests that many Indigenous societies view literacy competency measures as another method of assimilation; forcing citizens to abandon their own identity and join mainstream culture (Battiste, 2005; Taylor, 1997). Based largely on a deficit based system of the weaknesses of Indigenous people rather than their strengths, Eurocentric literacy initiatives have not always been successful in remote communities (Kral & Schwab, Battiste, 2005; 2003). To many Indigenous people, reading is not recognised as a requirement to gain knowledge (Kral & Schwab, 2003; White-Kaulaity, 2007).

2.9 DRAFT-GUIDING PRINCIPLES FOR OPTIMISING SUCCESSFUL SYNCHRONOUS LEARNING EXPERIENCES FOR ABORIGINAL LEARNERS

According to literature reviewed for this research, there were nine common elements that emerged relating to the successful implementation of online learning technologies with Aboriginal people. The reader must bear in mind that, although the following
criteria have been published as effective in the scope of practice, the list is by no means exhaustive nor inclusive of all Indigenous groups and communities. From this point in the research these nine elements will be called the draft-guiding principles (DGP). These principles will be enhanced and refined during the process of the research and include:

**DGP1 Practitioner skills and awareness of Aboriginal literacy levels**

In order to provide superior instruction to learners, practitioners who deliver literacy sessions via synchronous platforms must acquire additional skills than those required by their onsite counterparts. Teaching in a distance format requires practitioners who are willing to invest additional time and effort to build rapport and trust with their learners Young et al. cited in O’Callaghan (2005). Along with a willingness to incorporate learning methodologies congruent with learning styles of Aboriginal adults, instructors must also be well versed in ICT curriculum and troubleshooting (Lucardie, 2003). Instructors must also have an awareness of the low levels of literacy skill as indicated in the literature. The Australian Bureau of Statistics data collected from the 2006 Australian Census indicated that only 19 percent of Indigenous adults had completed high school (Year 12) compared to 45 percent of non-Indigenous adults.

**DGP2 Opportunities to participate in a community of learning**

Despite common perceptions of an impersonal learning environment, online learning platforms have been documented to have a greater capacity than the traditional classroom setting to create interpersonal connections between participants (AISR, 2006; Brescia & Daily, 2007). Having the capability to bring together, simultaneously, individuals from various regions, skilled instructors are able to develop a cyber-community that can alleviate any perception of a cold, faceless learning environment. Within the online learning environment, practitioners often encourage positive interpersonal relationships and, if collaborative work is an important aspect of learning outcomes, early interventions of peer interaction are used to build positive learning partnerships among learners (Dixon, Crooks, & Henry, 2008). Battiste (2008), Christie (2005), and Warner (2006), all acknowledge that
learning communities must take into consideration the unique, shared environmental contexts of that community. In the case of Indigenous communities, this includes a specific set of languages, and Ways of Learning and knowing that are different from mainstream learning models. Strategies to achieve such include the sharing of family photographs, personal narratives and instructor-facilitated group activities to encourage community mindedness and cohesiveness amongst the group (Porter & Sturm, 2006; DuCharme-Hansen & Dupin-Bryant, 2005; Eady, 2007; Greenall, 2005; Wesley-Smith, 2003).

As previously mentioned, isolation for Indigenous adults in remote locations is important to consider as a barrier to successful learning. In addressing this deficiency of many educational structures, online learning communities have the capacity to generate meaningful relationships, networks and trust that enable community development and capacity building (Schwab & Sutherland, 2001, p. 16). By providing synchronous learning technology and learning opportunities to remote communities, a means is created to address the impacts of social isolation on adult learners in remote communities. Rather than struggling in an atmosphere of isolation and segregation, Indigenous adults are offered an opportunity to participate in various learning activities and social networking in a culturally affirming learning environment (McDonald, et al., 2006; Smith, et al., 2008). Additionally, the use of real time participant interaction offers an acceptable alternative for Indigenous adults who are not typically comfortable in a face-to-face classroom in a Western-based learning institution (AISR, 2006; Brescia & Daily, 2007; Eady, 2007; Facey, 2001; Greenall, 2005).

**DGP3 Relevant content**

In addition to positive relationships in an online learning environment, relevant content is indicated as a substantial aspect of a positive and successful learning experience. Projects with Indigenous learners demonstrate that the use of curricula containing relevant content which proves meaningful and applicable to the lives of their learners is directly related to learner retention and learning outcomes achievement (AFLF, 2003; George, 1997; Greenall, 2005; McDonald, et al., 2006). It is important to note that literacy is more than the mechanical skills of language, but
provides a sense of ownership and a means of power of position in society that can also result in an authentic voice for Indigenous learners. This is evident in the work of George (1997), Miller (2005), Young et al. cited in O’Callaghan (2005) and Taylor (1997), suggesting literacy learning is a tool that empowers learners to ‘interact meaningfully’ with others and allows for community involvement and ownership. It is through taking the time to acquire a grounded knowledge about the literacy and training needs of the Indigenous communities from where the learners originate, that curriculum developers and instructors are able to provide relevant learning experiences for those with whom they are working (AISR, 2006; George, 1997; McMullen & Rohrbach, 2003). This is exemplified in a TACT program delivered to 18 remote Indigenous communities. The content was selected by the community councils as meeting a training need for local community members who were working with children experiencing learning disabilities. The trainers had never received any on the job training. The content developed was relevant to the work and also produced and presented in a culturally relative and sensitive manner (Eady, 2007).

**DGP4 Cultural inclusion**

 Relevant content in the curricula for Indigenous adults includes the consideration of culture in its instruction and implementation. The reviewed literature indicates a need for learning technologies to support and enhance Indigenous traditions, values and practices, with online content which is easily translated, if required, and curriculum which includes cultural content relevant to the geographical area and cultural context of the learner (AFLF, 2003; AISR, 2006; CBNC, 2006; Donovan, 2007; Hunt, 2001; Kral & Schwab, 2003; O’Callaghan, 2005; Wesley-Smith, 2003). This was also seen in the literature and supported by Harris (1990), Hughes et al., (2003), and Wall (2006) who suggest an integration of cultures within learning environments to provide a better-rounded context for learning.

Cultural competence of literacy practitioners, including the understanding of the culture and living conditions of Indigenous people, has been cited as a necessary element when delivering any type of learning programs to Indigenous communities (AFLF, 2003; Hodson, 2004; McGlusky & Thucker, 2006; McMullen & Rohrbach, 2003; Swanson, 2003). Through learning about the communities on an individual
level and adjusting the curriculum accordingly, program staff are able to offer courses which accurately reflect the socio-economic and political realities of each community (AISR, 2006; McMullen & Rohrbach, 2003).

**DGP5 Accessible, suitable and reliable technology**

Technology implemented for synchronous learning must be suitable for the conditions of the community in which it is being used. Some of the considerations which impede the availability of ICT resources in Indigenous communities include: social issues (i.e. only given to the privileged), cultural considerations (i.e. inappropriate content) and fiscal constraints (AFLF, 2003; Brescia & Daily, 2007). Technological support is also a relevant factor. If there are not technical skills to maintain and operate the most current forms of ICT equipment, it will have little use to the community (AFLF, 2003; Brescia & Daily, 2007)

In response to the challenges associated with acquiring ‘the best and fastest’ of ICT equipment, the literature does suggest that complicated technological methods are not a necessary requirement to develop a successful learning infrastructure for Indigenous learners. Rather, communities are encouraged to utilise existing resources, while taking the methodology implemented in further developed nations as a reference point in relation to their own social and political structures (Ramanujam, 2002).

**DGP6 Intergenerational community involvement and consultation**

Indigenous literacy advocates emphasise the need for increased local control of education and training in order for learning technology to be an effective strategy to improve the economic and social conditions of remote Indigenous communities (AFLF, 2003; Greenall & Loizides, 2001; Hodson, 2004; Sawyer, 2004). It has been suggested that the inclusion of Indigenous people at the community level during the development and delivery phases of synchronous learning initiatives through the presence of instructors, curriculum developers and program administrators could ensure standards relevant to local needs and technical capacity (AFLF, 2003; ANTA, 2002; Daniels, 2003; Facey, 2001; McGluskys & Thucker, 2006; Sawyer, 2004; Tankard & O'Kelly, 2009). Young, et al. cited in O’Callaghan (2005) cites community
involvement as the most important element in achieving outcomes stating, “The more control and authority a community has in training, the more successful that training will be” (p. 7). Christie (2003) writes about the need to acknowledge and respect the community’s ownership over its Indigenous knowledge when it is shared through ICT, stating: “its architecture and structure, its search processes and interfaces, its ownership and uses must also reflect and support context specific Indigenous ways of being and knowing, and people’s control over their own knowledge” (p. 5). These guidelines and monitoring procedures ensure that the cultural integrity of the content is maintained while preserving the value system of the people it represents intact.

Each community has its own definition of literacy, despite the commonalities in which Indigenous cultures define literacy and learning. Some researchers have suggested that involving community Elders allows project staff to learn the cultural elements unique to individual communities. This approach which respects the various cultural, social and linguistic aspects of individual communities can help to prevent the one-size-fits-all programming that often results when incorporating Aboriginal culture into learning programs (AISR, 2006; ANTA, 2002; Eagles, et al., 2005; McMullen & Rohrbach, 2003; Sawyer, 2004). The 2005-2006 Australian Flexible Learning Framework’s Indigenous Engagement Project has suggested: “Drawing on the expertise of community members, and involving them in troubleshooting as problems arise, facilitates ownership of projects by communities and leads to better outcomes for learners” (McDonald, et al., 2006, p. 19).

Hughes and Dallwitz (2007) state: “Any IT strategy dealing with cultural material must avoid any perception of technological colonisation and loss of local ownership” (Hughes & Dallwitz, 2007, p. 156). Involvement of the Indigenous community from the inception of a project ensures the cultural integrity of the educational materials and delivery mechanism (ANTA, 2002; Downing, 2002; Greenall, 2005).

From his work in Indigenous communities in Australia, Christie (2005) has observed:

When new perspectives come into a community, as when white Australians come and introduce new systems, new ideas or new technologies, these are assessed, valued and embraced in the context of community sharing and working together (Christie, 2005, p. 2).

Similarly, consultations with local Elders assist in educating non-Indigenous project
staff in the cultural elements unique to individual communities, including the
language and traditional knowledge. This could potentially prevent the application of
a blanket solution that often results when incorporating Indigenous cultures into
mainstream learning programs (AISR, 2006; ANTA, 2002; Battiste, 2005; Eagles, et
al., 2005; McMullen & Rohrbach, 2003; Sawyer, 2004; van Broekhuizen, 2000).
Ramanujam (2002), and Taylor (1997), suggest that promoting the implementation of
learning strategies based on Western pedagogies while using Euro-centric techniques
of teaching and curriculum development are often viewed cautiously by Indigenous
community members. As George (1997) suggests, some Indigenous cultures take into
consideration every aspect of a person from child through to Elder, in the teaching and
learning process.

**DGP7 Positive relationships, mentoring and technical support**

When possible, it is recommended to have a student mentor onsite throughout the
learning process to provide tutoring and technological support as needed, and to act as
a community liaison for the delivery agency and resource person for referrals for
additional community support, if required (Bamblett, 2005; Greenall, 2005; Porter &
Sturm, 2006). Due to the identified challenges that Indigenous learners in remote
locations often face (i.e. lack of previous training/education, technological
incapacities, social and personal issues) there is an identified need to have additional
staffing to reduce further retention issues. Such an individual would have to be highly
skilled in ICT, as there will likely be no other technological support in the community
(Lucardie, 2003). Sunchild has led the way in this area in their program in Alberta,
Canada (Greenall, 2005). One of the first steps in the development of their online
learning program to remote communities included sending a community member
from each remote site to an ICT support training program so that before their online
programs even began, there was someone with technical skills to support learners in
each community.

The interaction of Indigenous learners with each other is not the only incentive
indicated in achieving success in relation to learning outcomes. Learner retention and
motivation being directly related to the relationship between students instructor,
particularly in the distance-learning environment have also been proposed (ANTA,
This relationship becomes especially important in an environment where literacy services are limited in the community and the instructor often becomes a learning lifeline to the Indigenous learners in remote locations. Through their involvement in teaching Indigenous adults in a synchronous learning milieu, many instructors have reported higher levels of learner success when they invest time and energy in learner engagement, including taking the time to educate themselves in the geographical obstacles which might complicate the learning requirements of adult learners living in remote locations (AISR, 2006; Eady, 2007; McMullen & Rohrbach, 2003).

Using Vygotsky’s theory and the ZPD, the added importance of the instructor’s role is emphasised when teaching the Indigenous adult learner at a distance. Van der Veer and Valsiner (1991) describe the ZPD as the difference between what a learner can do independently and what can be accomplished cognitively with guided support from more knowledgeable others. Dasen (2008) refers to Vygotsky’s theory as scaffolding, or a method through which the teacher provides support from a distance and intervenes only when the task has become too difficult for the learner (Dasen, 2008). Similarly, the adult literacy practitioner who uses a synchronous platform with Indigenous learners is engaged in a comparable process. Through orchestrating an intervention which consists of the instructor being available only when needed, the learner will likely develop the skills necessary to achieve the self-competence and self-directed learning desired for independence (Henderson & Putt, 1999; van der Veer & Valsiner, 1991). This allows learners to take control of the learning experience and engenders a culture of increasing interdependence and confidence in self-directed learning.

The literature clearly states that it is important to have as much support as possible for learners in remote communities. Bamblett (2005), Greenall (2005), and Porter and Sturm (2006) suggest there should be a student mentor who is available onsite for learner and technological support. Greenall (2005) says that mentors provide both academic and emotional support for learners. Bamblett (2005) makes several recommendations to improve employment of the Australian Flexible Learning Framework toolboxes for Indigenous learners, including implementation of community-based mentors and technological support.
**DGP8 Promoting community-based learning**

Learning within one’s community has been suggested as one of the predictors of educational success for Indigenous adults. Facey (2001), George (1997), Taylor (1997), Zepke and Leach (2002), suggest that there is an inclination towards kinship and community over individual isolation in Indigenous groups. This indicates that Indigenous learners have a preference to work collaboratively, traditionally valuing kinship and the aspects of community, over individual learning contexts. Research validates accessing learning opportunities from their home communities can assist in overcoming the isolation factor often experienced as a deterrent to successful completion of academic studies by Indigenous adults in urban settings (Alberta's Commission on Learning, 2008; AISR, 2006; Greenall, 2005).

This being said, studying at home is not the perfect solution to learner success. Indigenous learners who stay in their communities also face the challenges of family, work and cultural commitments that may impede their studies (Eady, 2007; Lucardie, 2003). It is due to these challenges that a combination of synchronous and asynchronous platforms is recommended to enable learner access to recorded class sessions and the ability to contribute to discussion groups at his/her own convenience (AISR, 2006; Eady, 2007; Greenall, 2005; McMullen & Rohrbach, 2003; Sawyer, 2004).

**DGP9 Genuine partnerships with the government and bottom-up learning**

The literature provides strong evidence that substantial genuine partnerships between the government and Indigenous communities are not in evidence. Sisco (2010) explains that in Canada, the education system of First Nations (Indigenous) communities is the responsibility of both the Federal and Provincial governments however, despite the fact that these governments both provide funding to the education system, there appears to be too little financial support to provide a successful education system. To add insult to injury, in 2004 the Auditor General of Canada stated, “At present, the Department does not know whether the funding provided to First Nations is sufficient to meet the education standards it has set and whether the results achieved, overall and by the different delivery mechanisms, are in
line with the resources provided Mendelson (2008), p. 7. McGlusky and Thacker (2006), Sawyer (2004), and Young and colleagues cited in (O'Callaghan, 2005) all discuss the lack of fiscal dedication from the government level to support literacy training in Indigenous communities in Australia as well, stating that “ongoing financial support is essential for literacy services in the Aboriginal communities.” Young et al. (2005) p. 2. The literature also suggests that the external bureaucracy often impedes communities taking charge of their own learning strategies which has caused hesitation in communities to partner with government funded literacy agencies (Greenall, 2005; McMullen & Rohrbach, 2003). In her report, Sisco’s (2010) primary recommendation is to better engage First Nations in the development of online learning programs, placing the communities central to the development of curriculum and pedagogy working from a bottom-up approach which will in turn, leverage engagement and build community capacity. When effective communication and collaboration are partnered and address the education and training needs of community and business, positive change will arise.

2.10 IDENTIFYING A GAP IN THE RESEARCH

Despite the evidence of positive impacts of synchronous learning technologies on learner skill attainment in general, significantly less research has been focused on the impacts and outcomes of Aboriginal initiatives specifically for adult literacy in remote areas (AISR, 2006; Greenall & Loizides, 2001; Kral & Schwab, 2003). In Australia, for example, the focus has been on Indigenous literacy centres around curriculum in schools with little attention paid to the cultural and social aspects of Aboriginal literacy (Kral, 2007). There remains a lack of peer-reviewed academic research, with extant literature largely in the form of project reports, which offer a biased collection of documentation written by private consultants and service providers (Kral & Schwab, 2003).

Research-based literature regarding Indigenous adults and literacy acquisition generally tends to focus on the deficiencies Indigenous communities experience in achieving the normalised standards of literacy. This falsely supports the notion that non-Indigenous institutions hold the panacea which will raise this population to equal
literacy and employment standards of the dominant Western world (Battiste, 2005; Kral & Schwab, 2003; Ramanujam, 2002).

The literature suggests that some Indigenous communities have been treated as experiment subjects, rather than being actively involved in the research, development, implementation and evaluation of literacy initiatives (Battiste, 2005; van Broekhuizen, 2000). While acknowledging the theories and research stemming from Western perspectives, scholars, government funding agencies and program developers require a willingness to “create a new space in which Indigenous people’s knowledge, identity, and future is factored into the global and contemporary equation” (Battiste, 2008, p. 182). Academic research and extensive evaluation from sources without a vested interest in existing projects could offer insight in determining best practices and to ensure quality assurance when implementing effective synchronous learning services to Aboriginal adults (Ellis, 2004; Hunt, 2001).

This research project aims to provide guiding principles for future work and research in the area of literacy learning, synchronous technologies and Aboriginal communities.

The research questions that arise from the identified gap in the literature include:
1. What are the literacy needs of an Aboriginal community?
   1.1 What are the perceived needs and approaches to these needs as documented in the literature?
   1.2 What do literacy practitioners perceive to be the literacy needs in Aboriginal communities?
   1.3 What are the literacy needs of an Aboriginal community as perceived by community members?

2. What types of literacy support and technology are being implemented by practitioners, in the context of Aboriginal adult literacy learning?
   2.1 What types of literacy support and technology are available to the Aboriginal community in question?
3. What underlying principles, when applied in these contexts can support the use of synchronous technologies in Aboriginal communities?

3.1 What model can be developed for use in similar contexts to support Aboriginal adult learners’ literacy needs?

These questions, and the research method and approach, are described in further detail within the subsequent chapters.
CHAPTER 3 – METHODOLOGY

3.1 INTRODUCTION

The purpose of this inquiry was to research and develop best practices in supporting adult literacy learning in Aboriginal communities using synchronous technology and as a result, developing design-based principles for using synchronous technology in these contexts. These principles take the form of a scientific or evidence-based set of guidelines, based on a supporting theoretical model and a societal based outcome.

This chapter begins with a description of the research paradigm used in the study and justification of the research paradigms used to frame this research. It describes the participants and their demographics, and how they were selected. This is also covered in more detail in subsequent chapters. The chapter also describes the methods of data collection and data analysis and a summary of the approach used to ensure trustworthiness and validity of the research. The chapter concludes with an overview of the specific ethical considerations that were made to protect the rights of the participants and the community involved in the research.

The following research questions form the basis for this study:

1. What are the literacy needs of an Aboriginal community?
   1.1 What are the perceived needs and approaches to these needs as shown in the literature?
   1.2 What do literacy practitioners perceive to be the literacy needs in Aboriginal communities?
   1.3 What are the literacy needs of an Aboriginal community as perceived by community members?

2. What types of literacy support and technology are being used by practitioners in Aboriginal adult literacy learning contexts?
   2.1 What types of literacy support and technology are available to the Aboriginal community in question?
3. What underlying principles, when applied in these contexts can support using synchronous technologies in Aboriginal communities?

3.1 What model can be developed for use in similar contexts to support Aboriginal adult learners’ literacy needs?

3.2 RESEARCH PARADIGM

This research follows a constructivist paradigm which argues that to understand the meaning of a concept, one must be actively involved in and interpret that concept (Guba & Lincoln, 2000; Schwandt, 2000). The following table represents the characteristics outlined in the literature (Guba & Lincoln, 2000; Mertens, 1998; Schwandt, 2000) and presents the characteristics of constructivism in relation to ontology, epistemology and research methodology (Table 3.1).

Table 3.1 Characteristics of Constructivism
(Based on Guba & Lincoln, 2000; Mertens, 1998; Schwandt, 2000)

<table>
<thead>
<tr>
<th>Ontology (nature of reality)</th>
<th>Reality is socially constructed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relativist</td>
<td>Multiple intangible mental constructions</td>
</tr>
<tr>
<td>Relativist</td>
<td>Socially and experimentally based</td>
</tr>
<tr>
<td>Relativist</td>
<td>Local and specific in nature</td>
</tr>
<tr>
<td>Relativist</td>
<td>Perceptions can change over course of study</td>
</tr>
<tr>
<td>Relativist</td>
<td>Dependant on the person(s) holding the construction</td>
</tr>
<tr>
<td>Relativist</td>
<td>Alterable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Epistemology (nature of knowledge)</th>
<th>Investigator and those investigated are intertwined and reflect on one another so that the findings are created as the investigation happens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transactional and subjectivist</td>
<td>Personal, interactive mode of data collection</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Methodology (methods employed)</th>
<th>Individual constructs can only be defined by the interaction between and among the investigator and those investigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hermeneutical and dialectical</td>
<td>Interviews, observations, document reviews</td>
</tr>
<tr>
<td>Hermeneutical and dialectical</td>
<td>Multiple perspectives and better interpretations of meanings</td>
</tr>
<tr>
<td>Hermeneutical and dialectical</td>
<td>Informed and sophisticated</td>
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</table>
This study is consistent with these beliefs and characteristics as it is immersed in a relationship between the investigator and those investigated, it takes into account several different perspectives about a complex issue and uses thorough, detailed, and personal forms of data collection.

3.3 DESIGN-BASED RESEARCH

This study employs an educational design-based research approach (van den Akker, et al., 2006). The design-based research approach is implemented by researchers who desire a product-focused outcome to a research problem (Reeves, 2006). Design-based research can be used as a vehicle to promote making a difference in education through research that often includes employing the use of technology to enhance learning opportunities. Amiel and Reeves (2008) suggest that there must be two things in place in order to inform research in educational technology: (1) an understanding of technology and technique as a process rather than artefacts; and, (2) a resolute concern for the values, and principles guiding educational technology research (Amiel & Reeves, 2008). Once clearer educational principles and foundations guiding the project are established, a technological solution may be needed in order to carry out the research. Executing research in this manner will result in the attainment of a stronger connection between educational research and real world problems, which is the ultimate goal of design-based research (Amiel & Reeves, 2008).

For the purpose of this research, the real world problem focuses on one specific Aboriginal community. Honing in on the needs of this community as a case for this research provided a valuable opportunity for refining the theories employed and for reflection on a personal and particular human experience (Stake, 2000). Using a particular community enabled the researcher to take into account time, people, events, space and context (Miles & Huberman, 1994; Stake, 2000) and allowed for an in depth experience of real-life situations involving many different perspectives (Lincoln & Guba, 1985).

The community could be seen as an instrumental case study, which is used when a particular case is studied to provide insight into an issue (Mertens, 1998). Involving
the Aboriginal community afforded the researcher to focus in on a specific group of people and learn from what could be drawn from multiple perspectives in this specific context (Lewis, 2003; Stake, 2000).

For the purpose of this research, the focus is not on the type of technology used, but the approach to using synchronous technology and the content of the deliverables when using the synchronous technology. A design-based research approach is synonymous with active involvement and intervention, and allows for tangible outcomes that help to change and improve educational practice and opportunity (Anderson, 2005). This approach was an appropriate choice for this research study as it connected well with the qualitative approach and allowed for thorough collection of data over a long period of time, ensuring reliable and feasible solutions to the research questions (Reeves, 2006) while the design and construction of instruction was situated in a naturalistic setting (Linn, Davis, & Bell, 2004).

Joseph (2004) identifies the three characteristics of design-based research. Design-based research creates opportunities for focus on key questions, supports design progress, and shapes research methods and design. Moreover, when combined, these characteristics create through the process, a powerful engine for driving innovative work in education. The design-based research approach incorporates four phases. These include a primary research stage that addresses a problem of interest through reading and discussion with practitioners. In stage two, the researcher, through further discussion and collaboration, designs an intervention, with the goal to solve an identified problem. Through an iterative cycle of data collection and analysis in the third stage, the researcher refines the principles of the intervention according to the information interpreted from the data collected and supported by identified guiding principles from the literature reviewed and collaborations, and implements the solution again, to further refine the solution. In the final and fourth stage, the researcher then contributes the concluded design principles to be disseminated to the field; offering suggestions for future research and practice in the area of the study. The four phases that characterise the design-based research approach are outlined in Figure 3.1.
There are many examples of research projects that have used a design-based approach (Ashford-Rowe, 2008; Oubenaissa-Giardina & Bhattacharya, 2007; Stephan et al., 2010). For example, in his study, Ashford-Rowe researched the outcome of a number of vocation and education post course evaluations of the Australian Army’s Computer Based Learning Practitioners course. Students transitioning from this course into the workplace were found to be without the necessary pre-requisite skills required to perform the role successfully, or lacking in confidence in applying the skills learned from the course. To address this problem, Ashford-Rowe’s study reviewed, revised, and re-designed the final module of the course using design-based research. The focus was on the iterative and reflective design and development process. Design-based research was seen as the most appropriate way in which the education and training problem could be addressed by iterative stages of design and re-development through gathering feedback from each stage from expert practitioners in the field, prior to the delivery of the revised solution in the classroom. Furthermore, in their book Authentic Learning Environments in Higher Education (2006), Herrington and Herrington conducted a design-based research study with colleague Glazer in which they used a design-based research approach to evaluate how pre-service and early career teachers were using multimedia to learn assessment strategies for teaching mathematics. In these examples, design-based research offered an advantage as it integrated practice and theory, while valuing the interactive relationships between researchers and practitioners (Oubenaissa-Giardina & Bhattacharya, 2007, Stephan et al. 2010).

In the case of this research study, the researcher has added a further step to enhance these interactive relationships by incorporating the views and input of the Aboriginal community members who were to benefit from this project. In her book, Decolonizing
Methodologies, Smith (2006) advocates for Indigenous methodologies in research which, “tend to approach cultural protocols, values and behaviours as an integral part of the methodology” (p. 15). While the present research did not use a specific Indigenous methodology, the researcher does acknowledge that while the research was an idea reflective of the cultural practice and beliefs of the researcher, moreover, it fully embraced the ideas and beliefs of the community and it was those ideas and beliefs that were always at the forefront of the research (Wulff, 2010). As a result, from the onset of this project, the community members became a third and most important contributor to this research along with the previous literature and the literacy practitioners, to shape the direction of the study.

This combined theory connected with the practice of iterative cycles of the solution and refinement of the draft-guiding principles, resulted in the design-based principles and the contribution of a model that will benefit other Aboriginal communities and further research in the field. While Amiel and Reeves (2008) suggest, that during the process of research, practitioners are rarely involved in the design process although they are meant to benefit from the research when it is complete. In the case of this research, the Aboriginal community members are also to benefit from the results of this research and therefore are considered by the researcher as a vital component. As a result the research presented provides a meaningful wholistic approach encompassing the views of all relevant stakeholders.

3.4 OUTLINE OF USE OF DESIGN-BASED RESEARCH APPROACH IN CURRENT STUDY

Just as important as ensuring the community members involved in this research were seen as partners in the process, a research approach was needed that identified the importance of the practitioners’ input, as well as ample opportunity for cyclical trials of possible community-based strategies. As outlined earlier (Chapter 3.3), design-based research approach (van den Akker et al., 2006) guided this investigation of synchronous technologies and their support of adult literacy needs in Aboriginal communities. The following is a detailed description of each phase and the research methods employed in each phase.
In the design-based research approach of Reeves (2006), the approach to the research can flow in a variety of ways. Reeves shows in his diagram (Figure 3.1) that the phases of the research can be revisited throughout the process in a variety of combinations and directions as shown by the arrows at the bottom of his pictorial representation of the design-based approach. For the purpose of this research, Reeves’ model was applied as shown in the diagram below (Figure 3.2). This section will guide the reader through the phases of this design-based research approach as first presented by Reeves, (2006) and adapted by the researcher. The following paragraph will provide the reader with an overview of the process followed for this research. This is then followed by an in-depth description of the steps taken in each of these phases.

Phase One of the research has the aim of analysing the adult literacy learning needs in Aboriginal communities and the technologies used as a solution to those needs. This phase of the research is done in six steps. In Phase One A, an extensive literature review encompassing the use of technology and adult literacy learning in Aboriginal communities was completed. In Phase One A1 a series of draft-guiding principles were drawn from the literature reviewed. In Phase One B an online focus group with literacy practitioners who work in the area of adult Aboriginal literacy learning took place. In Phase One B1 the draft-guiding principles that were drawn from the literature were revised to be inclusive of the insights from the literacy practitioners. In Phase One C, a community focus group took place in an Aboriginal community. The results of this phase helped to revise the draft-guiding principles a second time that resulted in the final version of the draft-guiding principles for this research.

Phase Two of the research approach involved the development of a collaborative community engagement project which was created with the Aboriginal community member research participants and informed by the draft-guiding principles and existing uses of technologies in Aboriginal communities. In Phase Two A, the collaborative community engagement project was created to address some of the concerns of the community and to help strengthen the low level literacy levels while using synchronous technology as identified in Phase One of the research.
Phase Three of the research is the testing, reflection and revision of the collaborative community engagement project and the refinement of the draft-guiding principles. This process takes place in six steps. The first iteration of the project takes place in a static format Phase Three A, and the focus group members watch the static version of the presentation. The focus group members then meet to discuss, reflect and revise the project in Phase Three A1 and the draft-guiding principles are refined as a result of this iteration. A second iteration of the project takes place in the online synchronous platform in Phase Three B, and the focus group members meet to discuss, reflect and revise the project in Phase Three B2. The draft-guiding principles are then refined as a result of the second iteration. A final iteration of the project takes place in the online synchronous platform in Phase Three C and a final reflection and discussion towards further uses of the technology takes place in Phase Three C3.

In Phase Four of the design-based research approach, a final reflection on the research takes place. In Phase Four A the draft-guiding principles are revised a final time to create a set of design-based principles to be used as a guide for working with adult Aboriginal literacy learners and technology. A model arising from the research process is offered in Phase Four B.
Figure 3.2 Phases of the Research Approach
3.4.1 Phase One – Analyse the adult literacy learning needs in Aboriginal communities and the development of draft-guiding principles

Phase One of this study was divided into three parts. First, a literature review of previous studies and case examples of the subject area was completed. From this literature review a gap in the research was identified and the problem on which to build this research was established. From this literature review a collection of nine draft-guiding principles were created. These draft-guiding principles provided a starting framework to guide practitioners and researchers when working with Aboriginal learners and using technology as well as guided this research. The second part of Phase One involved an online focus group with literacy practitioners who work in the area of adult Aboriginal literacy learning. The data derived from the focus group of literacy practitioners were then added to revise and enhance the draft-guiding principles. Finally, the third part of Phase One included a focus group with Aboriginal adults from an Aboriginal community. The data collected from the community members were added to the draft-guiding principles that were refined once again to ensure that all stakeholders’ inputs were incorporated into the draft-guiding principles. These principles helped to identify and create the collaborative community engagement project that was created as a possible solution to the identified gap.

3.4.1.1 Phase One - Practitioner recruitment

Phase One included an identification of literacy practitioners who work in the field of adult Aboriginal literacy. These practitioners were from various geographic regions of Australia (see Figure 4.1) and were of varying ages and experience however, all had worked with Aboriginal communities, community members and/or with Aboriginal literacy issues, in either a face-to-face or computer-based capacity. Literacy practitioners often have diverse and often multiple roles in the delivery of literacy programs. This includes the role of instructor, advocate, counsellor, administrator, and coordinator to name a few. The professional requirements, and responsibilities for every literacy practitioner are unique to each learning context (Battell, Gesser, Rose, Sawyer, & Twiss, 2004; Sault College, 2006). In total, eleven literacy practitioners
participated in the online focus group. They represented nearly all of the States in Australia and filled a variety of roles in the literacy field from and Registered Training Organizations literacy practitioner, to TAFE program coordinator, and from an art literacy specialist to Army Captain in charge of Aboriginal recruitment education. All had spent time in their capacity assisting the literacy needs of Aboriginal adult learners.

In Phase One of this design-based research, literacy practitioners who had worked in or with Aboriginal literacy learners were recruited from regions around Australia. The literacy practitioners were recruited for the project in four different ways through several events hosted by ACAL, the Digital Bridge Unit of the South Australian Government, invitations to community-based literacy program workers and by word of mouth. These are described in further detail below:

\[ a. \] Australian Council of Adult Literacy (ACAL)

ACAL was contacted by the researcher as a result of an Internet search for Adult Literacy Organizations in Australia. ACAL promotes adult literacy and numeracy policy and practice by:

- Providing leadership in Australian debate on adult literacy and numeracy practices and policy,
- Building understanding of adult literacy and numeracy issues,
- Advocating on behalf of equitable adult literacy and numeracy provision for all Australians,
- Building links between people, organisations and systems; the participants and stakeholders in the adult literacy and numeracy field, and,
- Working with other organisations on issues of mutual concern (Australian Council for Adult Literacy).

After discussion about prior project experiences in Canada, and current research interests, it was suggested that the researcher connect with ACAL affiliated literacy practitioners through an online professional development forum and at the ACAL annual conference:
i) ACAL Online Professional Development Forum

ACAL invited the researcher to do an online presentation for literacy practitioners about the distance literacy practices in place for Aboriginal learners in Ontario, Canada. This session was advertised on the ACAL website for three weeks and an email went out to ACAL affiliated literacy members inviting them to register for the event. The session ran in the evening, and had six people attend, all of whom were literacy practitioners and all had worked with Aboriginal communities or community members in some capacity. All six of the practitioners were from different areas of Australia. At the end of the presentation, the researcher discussed the research project and asked for the session attendees to contact the researcher if they would like to volunteer to be participants in the research study. The participants were given contact information as to where to reach the researcher and were asked to contact the researcher within one week if interested. Five of the six practitioners responded in interest of being participants in the study.

ii) ACAL Conference

In September 2008, ACAL held their 34th Annual Conference. The conference theme was ‘Catching the Wave, Avoiding the Rips’ and coincidentally when the researcher initiated conversation with ACAL, the call out for conference presenters was nearing an end. ACAL asked for the researcher to follow up the online professional development forum with a presentation at the conference. Again, there proved to be great interest in literacy practices for Aboriginal learners in Canada. Over 25 ACAL members attended the presentation, which concluded with the researcher explaining the current research project and asking for practitioners who might like to be involved in the study to contact the researcher. The researcher also handed out copies of the presentation with contact information and some asked for business cards as well which the researcher provided. Another five people contacted the researcher after the conference and volunteered to be part of the literacy practitioner online focus group.

b. Digital Bridge Unit

The Digital Bridge Unit is a part of the Information Economy Directorate in the Department of Further Education, Employment, Science and Technology of the South
Australian Government. The researcher made contact with the unit manager several months prior at a conference in the United States. The Digital Bridge Unit, as part of the Information Economy Directorate, has a primary focus of the use of technology for disadvantaged groups; including but not exclusive to Aboriginal communities. At the onset of this research it was suggested that the Digital Bridge Unit would have some contact with literacy practitioners who would be interested in participating in the online focus group. It was through conversations with these individuals that provided some interest for the online focus group.

c. Community-based Literacy Program Workers

A community-based agency called “Relationships Australia (RA)” was introduced to the researcher through both the Digital Bridge Unit and the community members themselves. RA is one of Australia’s largest community-based, not-for-profit organizations providing relationship support to people regardless of age, religion, gender, sexual orientation, lifestyle choice, or cultural or economic background. They are committed to enhancing the lives of communities, families and individuals and supporting positive and respectful relationships and have had ongoing programs within the community of Point Pearce, where the research took place. The practitioners who worked in the community provided some interest in the online focus group.

d. Word of Mouth

The final method of reaching literacy practitioners who work with Aboriginal communities and community members was through discussions, conversations and suggestions. Interested members of the desired group would approach the researcher and say, “I know someone who would be really interested in this” or, “Could I have your card? I would like to pass it on to a colleague of mine.” This kind of interest arose within the adult literacy community as a whole and resulted in much interest in the project.
3.4.1.2 Online environment

For the purpose of the literacy practitioner gatherings, the researcher opted to use an online platform called iVocalize© Web Conferencing, developed by iVocalize© 2008 LLC. iVocalize© develops online communications software for the global marketplace. The iVocalize© Web Conference product enables interactive web conference meetings, online seminars, e-Learning classrooms and presentations to an audience otherwise hindered by geographic distance. ACAL has purchased site licenses for use of this synchronous platform. ACAL members use iVocalize© for professional development, meetings and interest sessions. ACAL found iVocalize© a very convenient tool as practitioners, participants and visiting guests were very far apart in terms of geographic area yet could gather together without the expense of travel, time and resource constraints.

Burns (2000) suggested that the setting chosen to do research should be a place that is inhabited regularly and consistently and since most of the practitioners involved in the research had used iVocalize©, it seemed like the most practical tool to use for this part of the study.

3.4.1.3 Timeline

The recruitment, organization and facilitation of the focus group with the literacy practitioners took two months mid-October to mid-December, 2008. The focus group all received a copy of the literacy practitioner participant information sheet (see Appendix 1a) and signed the literacy practitioner participant consent form (see Appendix 1b). Continued contact between the voluntary members of the focus group and the researcher happened over a period of four weeks via email and phone calls. Dates and times for the focus group were set. The focus group itself lasted approximately two hours. Figure 3.3 below provides a pictorial representation of the strategy employed to recruit literacy practitioners for the online focus group.
Figure 3.3 Sampling Strategy of Literacy Practitioner Online Focus Group Participants
3.4.2 Phase Two – Development of collaborative community engagement informed by existing design principles and technological innovations, literacy practitioners and community members

In Phase Two, an intervention process was established. The researcher preferred to use the term collaborative community engagement project rather than solution or intervention and therefore this term will be used synonymously with intervention throughout this study. This phase employed a focus group of 10 members in the collaborative community engagement project process. This collaborative community engagement project was built around the draft-guiding principle framework that was compiled from the revisions of the draft-guiding principles based on the literature, the data collected from literacy practitioners, and the self-identified literacy needs from within the community identified in this phase. The collaborative community engagement project was created together with the community focus group.

3.4.2.1 Phase Two - Community recruitment

The second group of participants that became involved in the research in Phase Two of the design-based approach consisted of community members from the Aboriginal community of Point Pearce in South Australia. This community was found through a partnership that was already in place between the community and the working team of the Digital Bridge Unit (DBU). In practice, using technology requires a degree of literacy and the DBU promotes digital literacy as a core skill for participation in society. The DBU had promoted their services to many remote communities in the past; however, there seemed to be a lack of interest or participation from a few of the communities that fell under the DBU program jurisdiction. The DBU saw this research project as a means to elicit response and participation from the communities in question.

The manager of the DBU first approached the communities in question, bringing awareness of the project. The DBU manager inquired if any of the communities would be interested in participating in a research project about learning at a distance and working with a researcher on a project to show best practices in supporting Aboriginal learners. In the meantime, the researcher awaited ethics approval from the
University. Three of the communities that were approached came forward as interested parties.

Once ethics had been approved, the researcher visited each of the three communities to define their interests and needs, to discuss with the communities the depth of the research and the commitment required on behalf of the community and to leave information and contact details. This introduction promoted a partnership-based approach where community council members discussed issues that their community members faced, as well as discussed the benefits of involvement in the research to both their community and other Aboriginal communities as a result. Each of the communities showed interest in being involved in the research and shared some of the areas of literacy need within their communities.

In the first community the interest and need involved early childhood educators and school related issues as there were community members interested in starting a daycare in the community. In this community, five community members, including school staff and council manager attended the meeting. This community expressed support of the research and the researcher should their community be chosen.

The second community was very remote and the interest there seemed to be driven by the non-local literacy practitioner. Once the practitioner made some calls, two community members attended the meeting. Their focused need seemed to be on mining employment, especially for men. There was a mine built on Aboriginal land not far from the community, however, not many Aboriginal people were being employed at that mine due to lack of education and training in the field.

The third community discussed their active participation in farming and youth programs and the exponential growth in the area of farming. Four community members, the council manager as well as a TAFE representative attended the information session. Although interest was exhibited, there was question of who would be able to commit their time to such an undertaking as many people were involved in training programs and youth were travelling overseas for a bi-annual school trip to visit gravesites of Aboriginal soldiers who served in the World Wars. The community manager took the researcher aside and suggested that their
community was doing well; however, if this research could help in one of the other communities that were visited, he hoped that the research could be focused in that community. It was because of that suggestion, the topics of interest, and the verbal support that was given that the researcher chose to work with the community of Point Pearce.

Point Pearce is an Aboriginal community located approximately 280 kilometres Northwest of Adelaide in South Australia. The language group of this community and its people is Narungga. Originally, the community was a mission that was established in 1868. The community of Point Pearce and the people who lived there have gone through many hardships and troubled times. However, the approximately 100 members of the community remain strong and committed to their language and their land. Figure 3.4 below provides a pictorial representation of the strategy used to select the community where the research took place.
Figure 3.4 Community Sampling Strategy
3.4.2.2 Phase Two - Community member participant recruitment

In the second phase of the research, the researcher worked with a group of community members from Point Pearce. They were asked to participate and collaborate with the researcher in finding a solution to a problem that was identified through an extensive literature review and community practitioner input.

Now that ethics approval had been granted and the community chosen, the researcher proceeded to approach the community, and ask permission to speak with the council to gain the council’s support of the research project. The researcher took great care in ensuring that she was allowed, and welcomed, into the community and treated the privilege with great respect. A meeting with the council was granted within the next four days and temporary permission to be present in the community was granted by the council manager.

The principal of the school was instrumental in accepting the researcher into the community. The principal’s mother, a respected community Elder, took the researcher around the town and introduced community members. These meetings took place in busy local venues such as the health building, the school, the TAFE and included knocking on other Elder’s doors and being invited to tea. The Elder also shared stories of the land, history of the area and the people.

The researcher asked for a meeting with the community council as an act of gaining support from the council members. During this meeting the researcher showed the council type of work and similar projects that had been done in Canada and explained the purpose of the research and explained how this could only be done with the help of the community. The council was very supportive with one man saying, “I think that this is a great idea for our people, to give them the opportunity to learn like this is important.” Two women on the other side of the table whispered to one another for a bit, shook their heads and one said to the researcher, “You have our full support.” The council members were asked to spread the word around about the first focus group and perhaps suggest to some people who they think would be good additions to the
group. The Council also asked the researcher to draft a letter that they could all sign to show support of the project.

After the Council meeting, the researcher hung signs around the town advertising the focus group and welcoming anyone to join. The community members were asked to volunteer their time for a period of two months, during which time they had the opportunity to work together to create a meaningful literacy experience and learn to use a synchronous platform which was available for their community to use through the Digital Bridge Unit. All community focus group and council members received a copy of the community members’ participant information sheet (see Appendix 4a) and the researcher read the sheet aloud with the group. All the community focus group members and council members signed the community member participation consent form (see Appendix 4b). Figure 3.5 below depicts the strategy for the recruitment of volunteer community members.

Figure 3.5 Sampling Strategy of Community Focus Group Participants
3.4.2.3 Phase Two timeline

Nine weeks of observations occurred in the community between October 13 and December 15, 2008. Although most of the observations took place in the Bookayana community, there were other observations that occurred at various meaningful locations during the period of the study. During this time the community members were asked to participate in a focus group meeting or activity two or three days per week for approximately three hours each day.

3.4.3 Phase Three – Iterations and revisions of collaborative community engagement project and refinement of the design-based principles

The proposed collaborative community engagement project had been designed, and the focus group trained on how to use the synchronous platform on which the project was to be delivered. Phase Three of the design-based research approach allowed for the solution to be practiced and delivered through several trials. After each trial, the solution was then evaluated by the focus group; revised and delivered again these trials are termed iterations in the context of design-based research.

3.4.3.1 Implementation of first iteration

The implementation of the first iteration was the first presentation of the solution that the community focus group created. This presentation was done in a face-to-face situation at a community gathering. The presentation included recorded voice-overs that were added to the presentation and the presentation was shown in a slide show fashion.

The occasion was the 140th anniversary of the community and formal invitations were sent out to anyone affiliated with the community over the years. There were many presentations and activities during the day and one of these was a presentation of a Dreaming story in the Years One and Two class room. Once their presentation was complete, the community collaboration project was shown using a laptop and a projector.
This first iteration allowed the participants to see their work in a static form and allowed them to see how their presentation would come together in a synchronous live-time arena. Approximately 45 individuals including community members, visiting guests and government officials viewed the presentation. After the first iteration, the focus group sat down and discussed what they wanted to change, what could be better and what additional. This led to the changes to be made to the presentation, in preparation for the second iteration. At the end of this iteration, the draft-guiding principles that guided this research were refined in reflection of the process up to this point in the research and the data collected at this stage.

3.4.3.2 Implementation of second iteration

The second iteration was presented on the synchronous platform to a group of community Elders and visitors at a community language centre in a neighbouring community. This was the first time the presentation was made using the synchronous platform. The researcher made contact with the community centre and explained what they community collaboration group wanted to do. A meeting was set up so that the researcher could visit the centre and show the presentation to the coordinator and discuss a date that could work as well as test the equipment set-up.

The organization of these stages also incorporated the expertise and cooperation of the Digital Bridge Unit to create the session in the online platform, create the user accounts for the session and place those users into the appropriate session. The unit also supplied much needed technical support and testing of the presentation; further detail in following chapters.

There were approximately 15 individuals at the community centre watching the live presentation. After this second iteration, the focus group again discussed what they thought could have been improved upon and this led to a working group to make the changes to the presentation for the third iteration. Some comments from the group who watched the presentation were also taken into consideration when these changes were made and this will be explained further in the findings chapter. At the end of the
second iteration the draft-guiding principles were refined further as the analysis of the data collected in this phase took place.

### 3.4.3.3 Implementation of third iteration

The third and final iteration in this research study was a final presentation to a group of faculty members and students at an Australian University. This presentation was advertised to the staff and students through an email invitation. This session was created and supported through the Digital Bridge Unit but also through the technical staff at the university. The technician set up the equipment needed before the session and did a test run with the researcher before the actual presentation took place. Nine student and staff at the university attended the live session delivered by the collaborative community group in the Point Pearce community. A final focus group took place after the final iteration for two reasons:

a) To gather final thoughts on changes that could be made in future presentations of the collaborative community engagement project.

b) As a debriefing session of the entire project and to gather data on the impact of learning these skills through a collaborative community engagement project of an issue that was identified by the community itself in relation to the theoretical framework presented in Chapter One.

This data collected after this iteration and the final revisions to the draft-guiding principles will be shared in the findings in chapter five.

### 3.4.3.4 Participants in Phase Three

The community participants that were described in Phase two of the research were the same individuals who worked together to create a collaborative community engagement project to the problem that they identified specific to their community.

### 3.4.3.5 Phase Three timeline

The iterative cycles of Phase Three occurred over a six week period in November and December 2008.
3.4.4 Phase Four – Reflection and identification of draft-guiding principles for designing and implementing synchronous literacy experiences for Aboriginal communities

The fourth and final stage of the research reflections once again on the revised draft-guiding principles and enhances them further in response to the iterations of the collaborative community engagement project. These principles are now called design-based principles and are the result of the draft-guiding principles refined through the iterations of the collaborative community engagement project. This phase also suggests a preferred model to be used when working with technology in Aboriginal communities.

3.5 QUALITATIVE METHODS

While design-based research is the vehicle that drives this study, the methodology and tools of research that have been utilized are of a qualitative nature. There have been many attempts to create a working definition of qualitative research. Perhaps one of the best known is that of Denzin and Lincoln (2000, p. 3) who offer the following:

Qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that makes the world visible. These practices…turn the world into a series of representations including field notes, interviews, conversations, photographs, recordings and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them (p. 3).

There are also key elements that are commonly attributed to qualitative research. These include:

- learning about the social and material circumstances, experiences, perspectives and histories of research participants;
- purposefully chosen small sample sizes;
• data collection which involves close contact between the researcher and the participants;
• detailed and informative data;
• data analysis which is flexible to embrace ideas and result in patterns and explanations; and,
• results that focus on the interpretation of social meaning.

(Denzin & Lincoln, 2000; Snape & Spencer, 2003).

Qualitative methods afforded the researcher an understanding and an interpretation of the research in a social setting, with a small group, collecting data in many ways and resulting in an interpretation that reflected social meaning of the context. A qualitative methodology also allowed a perspective from within the culture itself and permitted the researcher the development of a framework that saw the community members become more than the informants of this research, but the partners of the research (Denzin & Lincoln, 2000; Guadjarro, Guajardo, & Casaperalta, 2008).

3.6 QUALITATIVE DATA COLLECTION TECHNIQUES

The circuitous nature of the design-based research approach resulted in elaborate and intricate data collection. The data collection techniques, explained in detail throughout this chapter, are summarized in Table 3.2 below:

As evident from this table the data collection techniques were uniform and consistent apart from the slight modification of the online focus groups that was put in place as a solution to the geographic barriers between practitioner focus group participants. The approaches employed allowed for comparisons and connections between phases to be made in an ordered and consistent fashion throughout the data analysis.
Table 3.2 Overview of Data Collection Techniques

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<th>Data Collection Techniques Employed</th>
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<td>Iterative Cycles of Testing and Refinement</td>
<td></td>
</tr>
<tr>
<td><strong>Phase 4</strong></td>
<td>●</td>
</tr>
<tr>
<td>Reflection to Produce Design-Based Principles</td>
<td></td>
</tr>
</tbody>
</table>

Many different qualitative data collection techniques were used throughout this research as summarized in the table above. These techniques are defined in the section below.

### 3.6.1 Focus groups

The hallmark of focus groups is their explicit use of group interactions to produce data and insights that would be less accessible without the interaction found in a group. (Morgan, 1997)

Group interaction and oral tradition are important factors in Aboriginal society (George, 1997). It is for this reason that the researcher used focus groups as a strategy for research in the chosen setting. Focus groups rely on the interaction of the group members arising from participants’ points of view and guided by the researcher’s semi-structured questioning (Mertens, 1998; Morgan, 1988).
These open-ended questions initiated the discussion of pertinent issues, however, allowed the group to reflect, respond and further explore their answers to the posed questions together (Mertens, 1998). Using guidelines suggested by Mertens, questions were asked during a 1.5 – 2 hour session with two groups of individuals totalling twelve people.

### 3.6.2 Online focus group

Traditionally, focus groups, regardless of purpose, have been conducted in a face-to-face situation. But today, electronic communication technologies have enabled researchers to utilize new approaches to this form of research. (Rezabek, 2000)

An element of the first phase of the design-based research was to collaborate with practitioners who have worked in the identified field and who could contribute to the analysis of the problem identified (Reeves, 2006). The collaboration model in this case took the form of an online focus group.

Online focus groups were selected based on a need to involve individuals from many different geographical areas (Anderson & Kanuka, 2003). In this case, the researcher thought it important to consult with literacy practitioners who have a common thread of working with Aboriginal adult literacy learners but who work in various locations around Australia. The Internet provided the means that this could be done in a cost effective manner.

There are different ways that focus groups can be connected over the Internet. There are asynchronous and synchronous tools that are available and because of the variability of the tools themselves it is difficult to make generalizations about them (Anderson & Kanuka, 2003). However, the following chart (Table 3.3) highlights examples of some online forms available at the text-based or audio-and/or video-based features of them:
Table 3.3 Samples of Internet-Based Systems to Support Focus Groups
[based on Anderson & Kanuka, (2003)]

<table>
<thead>
<tr>
<th></th>
<th>Synchronous</th>
<th>Asynchronous</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Text-based</strong></td>
<td>CENTRA©</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NetMeeting©</td>
<td></td>
</tr>
<tr>
<td></td>
<td>iVocalize©</td>
<td></td>
</tr>
<tr>
<td></td>
<td>WebCT©</td>
<td>WebCT©</td>
</tr>
<tr>
<td></td>
<td>First Class©</td>
<td>First Class©</td>
</tr>
<tr>
<td></td>
<td>ICQ©</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Email groups</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Majordomo©</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moodle©</td>
</tr>
<tr>
<td><strong>Audio- and/or Video-Based</strong></td>
<td>CENTRA©</td>
<td>CENTRA©</td>
</tr>
<tr>
<td></td>
<td>NetMeeting©</td>
<td></td>
</tr>
<tr>
<td></td>
<td>iVocalize©</td>
<td>iVocalize©</td>
</tr>
<tr>
<td></td>
<td>Wimba©</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Latitude©</td>
<td>Latitude©</td>
</tr>
</tbody>
</table>

The predominant forms of asynchronous focus groups have been text based (Anderson & Kanuka, 2003) meaning that the discussion takes place by means of typing back and forth. This typing can happen over time where one participant types and hours, or days later other participants will respond (asynchronous) or in a forum where live-time discussion through text based means takes place with immediate feedback and real time exchange (synchronous). In a recent study by Duggan (2009), the author explores ways the ways of learning and learning strengths of Aboriginal pre-undergraduate students using an asynchronous platform called Moodle©. Duggan found that asynchronous technologies like Moodle© align well with Aboriginal Ways of Knowing and can present relevant content in cultural contexts.

The ever growing capabilities of the Internet and for high speed and well connected and supported broadband widths both at home and in the office, there are increasing numbers of richer and more natural forms of communication available for use over the Internet (Anderson & Kanuka, 2003). Programs that can be used in these situations allow for audio and video based opportunities that can be accessed by the participant in the form of down-streamed past events that have been recorded and can be replayed (asynchronous) or live-time, interactive sessions, where participants can converse.
with one another, receive immediate feedback and also see each other live-time during the online sessions (synchronous).

For the purpose of the online collaboration with literacy practitioners in the first phase of the design-based research approach, the researcher opted to use iVocalize© Web Conferencing, developed by iVocalize© 2008 LLC. For this study, the program was used as a synchronous platform tool; however sessions can be recorded for asynchronous use as well. Although there opportunity for both typing and talking, there is no component for video with this program.

An employee of ACAL helped the researcher set up the focus group session and gave some direction and a quick tour of the system. The system was very similar to other online tools the researcher had mastered and so once shown how to upload the content into the session, navigate through the slides and to record the session, the researcher was ready to moderate the session.

The online focus group lasted approximately one hour. The participants were asked a variety of questions (see Appendix 2). Participants took turns answering questions and responding to each other’s responses. The iVocalize© platform allowed for all sessions to be recorded. The online focus group recordings were then transcribed.

### 3.6.3 Individual interviews

Interviewing is one of the most powerful ways we use to try to understand our fellow human beings.

(Fontana & Frey, 2000)

In some situations during this research, the method of individual interviews was employed by the researcher. Interviews were chosen as a tool as they allowed the researcher to interact with and better understand the participants’ perspectives (Fontana & Frey, 2000). In particular, focus group members were at times, unavailable during scheduled focus group discussions, whether it was due to medical appointments, travel, illness or otherwise. In these cases, the researcher met with the focus group member to conduct an interview to ensure that all focus group members’ perspectives were taken into account.
The semi-structured interview guide that was used in the focus group setting served much the same purpose for the individual interviews while maintaining the focus, allowing the researcher to extend on the participants' answers (Mertens, 1998).

### 3.6.4 Participant observations

For as long as people have been interested in studying the social and natural world around them, observation has served as the bedrock source of human knowledge.

(Adler & Adler, 1994)

For the purpose of this research study, observation played a key role in the data collection process. Observation allows the researcher to watch people as their actions occur naturally in a way that provides information that will in turn help to answer the research question at hand (Adler & Adler, 1994; Mertens, 1998). The nature of the observations for this research was largely unstructured but focused on the participants and the concerns that they had, the communication between them, the group interaction, the cultural factors influencing their learning experience and the actions of the participants during the study.

The researcher in this case took the role of active participant in the observations. This role describes the researcher who becomes involved in the research activities and takes on the part of support and guidance that helps the group move forward, however, does not commit fully to the groups’ beliefs and goals (Adler & Adler, 1994) and tries not to blend in completely (Mertens, 1998). During most of the three months of the research period, the researcher participated in community activities along with the participants, but even though the researcher spent most days in the community, working with the focus group and guiding the project along throughout the design-based research phases, she stayed in accommodations approximately 10 minutes away in order to provide some distance from the ongoing work of the project, and to distance the risk of becoming too involved with the members’ lives outside of the focus group activity.
3.6.5 Field notes

During the observation periods, field notes and daily diary entries were detailed and recorded by the researcher as factually as possible (Stake, 1995). To address the issue of validity of these notes, a research assistant, who assumed the role of active participant of observations, was used. The second collection of field notes allowed for comparisons and collaborations of observations to take place before the stages of data analysis took place and resulted in a more complete and sound observation.

3.7 ROLE OF THE RESEARCHER

Fine and Sandstrom (1988) suggest the researcher can place him/herself into three possibilities:

1. Supervisor: an authoritative figure, in which case it would be difficult to witness a wide range of behaviours,

2. Leader: still assumes an authority role but have an added dimension of positive effect and can still focus on the researcher’s frame of mind, somewhat restricting observations,

3. Friend: where the researcher assumes no specific authority over participants, but only attempts a positive relationship with them.

As the researcher in qualitative research is the main instrument of data collection (Mertens, 1998), the researcher in this case had to be flexible to accommodate to the two focus groups presented. In the first, the online focus group setting, the researcher took the role of the leader and as a facilitator, helped to manage the focus group, pose questions and guide responses in active conversations.

In the second case, the community focus group, the researcher maintained the role of leader, however, also incorporated an element of “friend” into the role. An example of this would be participating in a birthday celebration, a community anniversary and hosting a thank you dinner at the end of the data collection period.

As well as all of the roles played, the researcher also took responsibility for maintaining accurate field notes soon after observations took place and kept a
personal journal to record situations that affected the research but may not have been direct observations.

3.8 ETHICAL CONSIDERATIONS

Aboriginal knowledge and heritage are sacred gifts and responsibilities that must be honoured and held for the benefit of Aboriginal peoples and their future generations. It is a researcher’s responsibility to be aware of and act consistently with the laws of Aboriginal peoples. All research procedures for this study were conducted taking account of the ethical considerations of research involving Aboriginal peoples as outlined in the document “Keeping research on track: A guide for Aboriginal and Torres Strait Islander peoples about health research ethics” (Government of Australia, 2006). This research aimed to bring awareness to the community and introduce the capabilities of synchronous technologies through self-identified literacy skill attainment. This research was used as a starting point to a better understanding and use of these tools for the attaining the goals of the community and the community members.

As all Aboriginal communities respect the six core values of reciprocity, respect, equality, survival and protection, responsibility, spirit and integrity, these values were adhered to in every facet of the research. The researcher relied on an Aboriginal Cultural Mentor through the Digital Bridge Unit who knew the community and its people and acted as a liaison to help guide the researcher through the appropriate steps to ensure the six core values are always respected and cultural norms and traditions recognised and adhered to. The Aboriginal community members who participated in the research were made aware of their rights in the research process as outlined in the *Keeping research on track* document. Intellectual property rights were kept in the forefront of all pieces of this research and care was taking conducting the research in a manner as to not violate these rights but instead to validate them and encourage use of these rights using synchronous technologies.
3.8.1 Informed consent

All of the participants in this study were informed of matters of this study prior to the research being undertaken. Since the nature of this research was working with low-level literacy learners, the researcher took extra precautions in reading the information letter and consent forms out loud with the participant volunteers, defining any higher level literacy based sentences and answering any questions that the participants might have.

The consent from the literacy practitioners was reviewed together in the online environment. The community participants read the letter and had a question and answer period together face-to-face with the researcher. The community council itself also asked if they could provide a letter of support that could be included in the research to show that the community was working with the research with whole community consent.

As the research progressed, the researcher shared rough drafts of the thesis with the focus group and community council members. At the time that the original members of consent were signed, one focus group member asked that the language group name of the people involved be included in the title of the thesis. It was important to the participants that their language group and community were identified.

Near the end of the process, the researcher revisited the community again and shared the findings and final rough draft with the community through an open invitation PowerPoint presentation at the community school. It was during this visit that the community council members and community focus group members chose to be named and consented in writing that their full names be revealed in the Acknowledgements section of the thesis. The community was very proud of their efforts in the process of this research and creation of their presentation and while did not see the need to have their names attached to each quotation that they had made, they did want to be acknowledged and for the audience to know who they were and what community they came from.
3.8.2 Confidentiality

Confidentiality of the participants was maintained throughout the process of gathering the data. In the transcription of recordings pseudonyms were used for all of names and initials of the participants. Access to recordings, interviews, and observation notes were confined to the researcher, transcribers and supervisors. All records were securely stored in the researcher’s office and it is intended for them to stay in secured storage for the next five years.

3.8.3 Possible risks to the participants

There were no apparent risks to the research participants in this study. Focus groups, both face-to-face and online were conducted at a time that was most suitable for the participant’s schedule. During longer sessions, refreshments such as juice, fruit and ice blocks were provided. During some of the discussions and collaborative work times, there was deeply emotional and personally sensitive stories, recollections and photographs were shared. All participants were reassured that they had the option of withdrawing from the research study at anytime, though no one chose to withdraw.

3.8.4 Payment for participation

There was no financial reimbursement offered as payment to the participants of the research. Everyone agreed to be a part of the research on a volunteer basis. The researcher did send letters of thanks and a token of appreciation to the online focus group. A dinner was held for the community group to thank them for their participation. Small tokens of appreciation and binders with all the instruction for using their new skills were also provided. The small grant from the South Australian government resulted in the community acquiring a new scanner and laser printer which was purchased for the researcher’s use with the understanding that it would be left for the community. No community members knew that this would happen until after the data collection period had concluded.
3.9 LIMITATIONS

3.9.1 Community involvement

The community focus group was limited to the community members who volunteered their time and showed interest. Although many people were introduced to the researcher and the researcher took efforts to advertise to all community members, only those who heard about the study and were interested attended the information session.

3.10 ENSURING VALIDITY AND TRUSTWORTHINESS

The issues of validity and trustworthiness are of great importance in any research project undertaken. In the case of this research that has resulted in a portrayal of an Aboriginal community and its members sharing momentous occasions in the history of their land, their people, and their culture, it is very important for the researcher to ensure the validity and trustworthiness of the data collected and the interpretation of that data. This research has followed Creswell (1998) and his validation and trustworthiness strategies for qualitative research practices.

3.10.1 Validity

According to Creswell (1998) there are eight strategies that are used most commonly amongst qualitative researchers. For this project each of these eight strategies were considered and six of them applied in the case of this research.

3.10.1.1 Prolonged engagement and persistent observation

The bulk of this study and data collection took place over a four-month period in 2008 during which the researcher and an assistant lived in very close proximity to the Aboriginal community and travelled in to spend nearly every day with the community members over that period. The research assistant stayed with the research for the
entire period and helped at each stage. A very important piece of this research was building a relationship with the participants, gaining their trust and learning about the community and the culture through mutual respect (Creswell, 1998). The observations and relationship with the community continued over the two years following the initial data collection period with many trips and visits back to the community.

3.10.1.2 Triangulation

During the process of this research, there were a variety of different methods, theories and people involved in the data collection that resulted in many different sources contributing to the themes of the research. This included the design-based research approach, the qualitative methods employed, the formation of the theoretical framework, and the use of a research assistant.

3.10.1.3 Peer review and debriefing

As a PhD research student, the process of having someone who is asking tough questions about the methods, meanings and helping the researcher through the process (Lincoln & Guba, 1985) is evident in the role of the supervisors and colleagues who are supporting the researcher. In the case of this research there was also a research assistant who was willing to discuss the daily events in the data collection process and acted as an external check of the process throughout the research. For example, after a day of looking through photographs and hearing stories from the participants, the research might have questioned the research assistant as to her interpretation of one of the stories that had been told to discuss, clarify and reflect. This method of debriefing was very helpful and relevant to the research.

3.10.1.4 Clarifying researcher bias

Merriam (1998) suggests that it is of high importance for the researcher to clarify any bias from the onset of the research. This includes past experiences, biases, prejudices and orientations that might result in a slanted view of the research (Creswell, 1998). The one bias that could have potentially interfered with this research project was the fact that as time went on in the research process, the researcher became increasingly
attached to the focus group and other community members. The researcher ensured on several occasions throughout the research process and writing of the thesis that the personal relationships with community member and the research itself were kept separate as much as possible. However, as a result of this project, the researcher will continue to foster the relationship with community and has a welcome invitation to return whenever possible.

3.10.1.5 Member checking

In every stage of this research process, the participants, both the literacy practitioners and the members of the Aboriginal community, have been involved in reviewing the data. The literacy practitioners were asked to read over the interpretations so that they could judge the accuracy and credibility of the account (Creswell, 1998). The Aboriginal community participants as well as the community as a whole were consistently given opportunity to see the data as it was analysed as well as the findings and write up. The community was also given opportunity to view the process through power point presentations on several occasions, where they could ask questions and discuss the results and findings as a group.

3.10.1.6 Thick description

Thick and detailed description allows for readers to determine the transferability of the research. This research is meant to produce outcomes that can be transferred into other settings for use. The model outlined in the final chapter as well as the design-based principles provide opportunity for other practitioners and researchers to consider using a similar model and principles when working with learners and communities. The thesis is written in a thick and detailed manner to allow the reader to consider using the same or similar outcomes and apply them to other communities of learners.
3.10.2 Trustworthiness

The trustworthiness of the qualitative study was addressed in a variety of ways. The researcher used a high-quality recording device to record the conversations, focus group meetings, and interviews. In the online focus group setting the platform iVocalize© allowed for a recording of the focus groups. All of the recorded data were sent to a professional transcriber who diligently transcribed the pauses and overlaps in the recordings. The transcriptions were also coded and themes emerged from the collaboration of the transcriptions and the breadth widened as more data were added. As a result of the ongoing process of data collection and theme formation, a codebook emerged and was followed throughout the data analysis stages. Once all of the themes where identified, a process of reducing the themes and amalgamating similar areas to common themes for reporting took place.

3.11 CONCLUSION

This research was situated within the constructivist paradigm and used a design-based research approach that included both practitioners and Aboriginal community member contributions, while applying a variety of qualitative methods for data collection purposes. This chapter has described the paradigm, research approaches, guiding theoretical framework, participants and participant selection procedures and the consideration of ethics, limitations, validity and trustworthiness. The analysis of the data collected and the subsequent discussions and findings are presented in the following three chapters.
CHAPTER 4 – RESULTS AND DISCUSSION FOR PHASE ONE

4.1 INTRODUCTION

The study is presented in four phases consistent with the DBR approach. This chapter presents the first phase of the study which addresses the issues surrounding the use of synchronous technology for literacy learning based on the literature (as discussed in Chapter 2) and on the opinion of two groups of stakeholders; literacy practitioners who work with Aboriginal learners in a literacy learning capacity, and community members from a remote Aboriginal community. Consideration of stakeholder voice, in addition to an extensive literature review in the first phase of design-based research approach, allows for a comprehensive picture of the issues and provides development of the guiding principles gleaned from the literature review.

The present chapter provides a general description of Phase One data management and then highlights the specific analysis, results and discussion of the research in the first phase of the design-based research approach. These data were divided into two sections, the first section focusing on the literacy practitioners and the second on the Aboriginal community focus group. The conclusion of the chapter elicits the commonalities of the three data sets: the literature review, the literacy practitioners and the Aboriginal community focus group, to form the draft-guiding principles for the design of a solution that aims to provide effective support for adult Aboriginal literacy learning through the use of synchronous technologies.
4.2 MANAGING AND INTERPRETING THE DATA

Data analysis in the constructivist paradigm involves making sense of the data collected and interpreting it for the reader (Miles & Huberman, 1994; Stake, 1995). This section provides an overview of the way in which the data were handled, sorted, and organised for analysis.

4.2.1 Data management

Qualitative data management or the way in which the researcher collects, stores and retrieves data, should be at the forefront of consideration throughout any research process (Miles & Huberman, 1994). The first stage of data collection for this research involved audio taping participants’ involvement in focus groups, whether in an online or face-to-face capacity. These audio files were then transcribed and the less relevant introductions and small talk were edited from the transcriptions. These electronic transcriptions were then organised chronologically.

4.2.2 Content analysis

Content analysis involves establishing categories into which data are organised for analysis (Lincoln & Guba, 1985). In the present study, content analysis was used to organise the transcribed focus group data and to establish themes. The first step in this process was an informal data analysis that used a constant comparative method for coding. This term, coined by Silverman (2000), was first introduced as checking accuracy of fit (Glasser & Strauss, 1967; Ritchie & Lewis, 2003). For this study, the process involved reading through the transcribed data to discover pieces that fit together in a particular evolving theme and noting these instances in the margins of the document. These themes evolved with increasing occurrence of the identified themes. Data were then placed into tables of the recurring themes under the appropriate heading. The data were constantly checked against other pieces of data, times, places, and participants to provide direction of the study as suggested by Ritchie and Lewis (2003).
4.3 PHASE ONE – SECTION ONE – LITERACY PRACTITIONERS

4.3.1 Data analysis for Phase One – Section one

Data analysis for Phase One began following the collection of data in the online focus group. These initial data were transcribed and then read through and a research journal created, using coding to identify common categories between and among the participant responses and observations of the participants (Marlow, 2005; Ryan & Bernard, 2000; Stake, 2000). The emerging relationships between the identified categories resulted in the formation of themes, which when combined and placed in order of frequency, led to categories. These categories, when reflected upon in combination with the guidelines from reviewed literature, provided the guiding principles for the next phase.

The primary goal in the analysis was to find commonalities in the data since a thorough and organised system of analysing the collected data is important to ensure validity of the study (Marlow, 2005; Ryan & Bernard, 2000; Stake, 2000). The transcriptions of data collected were shared with participants to ensure accuracy and reviews of the analysis by the participants to verify correct transcription and translation of meaning.

4.3.2 Phase One – Section one – Literacy practitioners’ results

The focus group questions (see Appendix 2) were presented on power point slides (see Appendix 3) for the participants in the online session.

4.3.2.1 Phase One – Section one – Literacy practitioners’ demographics

The first question that was asked of the online focus group concerned the demographics of the participants in the focus group. The practitioners held various different positions in literacy-based areas, as listed below with their locations. The
average number of years working in the field was 11 years, 6 months, with the least experienced person having 2 years experience and a veteran of the field with 25 years experience in the field. The following chart (Table 4.1) details the positions of employment that the literacy practitioners were undertaking at the time of the research.

Table 4.1 Positions of Employment of Literacy Practitioners

<table>
<thead>
<tr>
<th>Position</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturer of language, literature and numeracy programs</td>
<td>Northern Territory</td>
</tr>
<tr>
<td>Vocational Literacy and Numeracy Facilitator</td>
<td>Tasmania</td>
</tr>
<tr>
<td>Coordinator of Certificate in General Education for Adults</td>
<td>Northern Territory</td>
</tr>
<tr>
<td>Lecturer of Certificate in General Education for Adults</td>
<td>Northern Territory</td>
</tr>
<tr>
<td>Curriculum Officer for Literacy</td>
<td>Western Australia</td>
</tr>
<tr>
<td>Trainer/Educator</td>
<td>South Australia</td>
</tr>
<tr>
<td>Senior Manager, Primary Education Training</td>
<td>South Australia</td>
</tr>
<tr>
<td>Community Development Worker</td>
<td>South Australia</td>
</tr>
<tr>
<td>Senior Lecturer and director of social partnerships</td>
<td>Queensland, Western Australia, Northern Territory</td>
</tr>
<tr>
<td>Captain and Education Officer – Australian Defence Force</td>
<td>Northern Territory</td>
</tr>
<tr>
<td>Art and literacy specialist</td>
<td>New South Wales</td>
</tr>
</tbody>
</table>

The volunteer practitioner focus group was located in various areas of Australia depicted on the map below (Figure 4.1):
The practitioners involved in the online focus group presented with a variety of backgrounds and skill sets. The qualifications of the individuals represented various training courses including:

- Advanced Diploma in Fine Arts, Certificate IV Training and Assessment, Masters of Education,
- Bachelor of Arts, Diploma of Education Secondary, Certificate IV Training and Assessment, Certificate in English Language Teaching to Adults (CELTA),
- Certificate IV Training and Assessment,
- Bachelor of Science, Graduate Diploma Education, Certificate IV Training and Assessment, Advanced Diploma Language Literacy and Numeracy (LLN) in Vocational Education,
- Graduate Diploma of Adult Education, Graduate Diploma of Aboriginal and Intercultural Studies, Bachelor of Arts, Certificate IV Training and Assessment,
- Bachelor of Arts, Vocational and Adult Education,
· Bachelor of Education,
· Masters of Professional Education and Training,
· Doctor of Philosophy in Education (PhD), Bachelor of Education, and Diploma of Workplace Assessment and Training,
· Social work degree, communication studies and post graduate social work, and,
· Diploma of Community Development.

The main reasons for being involved in literacy issues in Aboriginal communities varied between the practitioners depending on personal views of their motivations for work in their chosen career path. Examples of reasons are listed below:

· I love working with the community. I want to assist in self-dependence and empowerment for the next generation whilst working with community members now to keep the Aboriginal culture healthy and strong for the next generation to inherit and have the skills to keep their country healthy. OPFG_Kandy_24/09

· I have fun in going out to communities. I enjoy my job and get paid. OPFG_Robert_24/09

· I have developed a connection to different communities and families. I really like the way Aboriginal people “are”. Being of migrant heritage myself, I think I have always been drawn to Indigenous people who are “original Australians.” OPFG_Amy_24/09

· I had skills and training that I was told would be useful in the communities, and so I came. OPFG_Sandra_24/09

· My main interests are about developing and implementing better approaches in vocational education and link them to workforce outcomes. My current interest is about enterprise development and approaches that engage Indigenous peoples in being trainers, leading Indigenous content, and informing future developments of vocational training. OPFG_Ruby_24/09

· I am interested in community capacity building and making community services equitable, so we do training and capacity building activities with communities. Jette_OPFG_24/09

· I have married into this community. All my interests are here. Kyana_OPFG_24/09

While the reasons given by the practitioners for their working in Aboriginal Communities varied, it was evident that they were all were invested in making a positive learning difference for Aboriginal communities.
4.3.2.2 Phase One – Section one- Literacy practitioners’ view of literacy needs in Aboriginal communities

The next questions focused on the needs in Aboriginal communities in which the practitioners had first-hand experience. Collation of data resulted in identification of four categories of literacy needs within the communities:

a) Need for a better understanding of the complexities of the Aboriginal learner from both a language and a personal perspective.

b) Need for improvement of all literacy skills.

c) Need to help better support the children in the community.

d) Need for literacy to provide a voice for the community.

4.3.2.2.1 Need for a better understanding of the complexities of the Aboriginal learner from both a language and a personal perspective.

Many of the practitioners agreed that before literacy needs can even start to be addressed in Aboriginal communities, the complex nature of the language and underlying layers of personal experiences and barriers that are faced by the Aboriginal learners must be understood. In most cases, literacy practitioners are teaching literacy in a Western literacy framework, from a Eurocentric perspective, using the English language. For many Aboriginal people in Australia, there may be many different dialects of their first language to master, before English is even introduced:

For some of the communities, we need to recognise that English is their fifth language and to realise the sophistication of their knowledge for knowing, and for being so bilingual, speaks to many different Aboriginal languages, so I think that that's something that a lot of practitioners face. OPFG_Kelvin_24/09

This is not to say however, that Aboriginal learners are not able to function in their own language. The practitioners agree that learners have the capabilities to embrace the literacy tasks and all they entail:
There's no doubt that people can communicate and communicate successfully, and they can negotiate. And they can do all of those high-level thinking things in their own language. And then when it gets transferred to English it makes people look like, you know... they don't know what they're doing, or that they're not intelligent which I think is quite deceiving. OPFG_Amy_24/09

A concern of the practitioners is that there is not a strong link between the Aboriginal literacies or languages; with the obvious second language issues and the English language coupled with Western literacy expectations. There is currently a strong movement toward bi-dialectical learning in which Aboriginal language curricula are developed as unique and authentic documents from a ground-up approach, rather than infusing a Westernised curriculum with cultural aspects:

    Literacy needs in Indigenous communities are to recognize Indigenous literacies, understand the ESL [English as a Second Language] needs of students in literacy development and make links between those and Western literacies. OPFG_Ruby_24/09

Another component of the first of these categories was an understanding of personal experiences and barriers that have impeded and will continue to impact literacy skills of Aboriginal learners. Many of these learners have started out with negative early schooling experiences that led them to leave school without completing their education. For some Aboriginal learners, there seems to be a lack of motivation and a lack of confidence when resuming their education. One practitioner explained:

    It’s a lot to do with inter-cultural confidence for understanding how to relate to the mainstream white system. OPFG_Jette_24/09

Many practitioners also agree that Aboriginal learners do not see sufficient reason for continuing their education through literacy upgrading or employment up-skilling:

    When you talk to the people in the communities, a lot of them don't see any reason why they need anything more, which reflects...have you seen the Australian Literacy Survey which said that... I can't remember...it is about 56 percent of Australians at level 2 or less but that 78 percent of those could not see any reason why they needed. [It is] the same in Aboriginal communities. OPFG_Robert_24/09

Acknowledging the linguistic complexities, and incorporating a level of empathy and understanding of a learner’s personal history, are elements to be taken into consideration when working with Aboriginal learners. The practitioners agreed that
these factors should be considered carefully by a practitioner when proceeding with a literacy program in an Aboriginal community.

4.3.2.2 Need for improvement of all literacy skills

The next category that emerged from the data was an overall need to improve the literacy skills in Aboriginal communities. The skills of these learners are often very low, as described by one practitioner:

I have just spent the last nine months doing NRS [National Reporting System for Literacy and Numeracy programs] surveys through most of our communities, and the average level was around about NRS level 1 for all of those. OPFG_Robert_24/09

Another practitioner explained:

They (the learners’ skills) do range from Year Two to Year Eight (primary school) standards. We’re having to deal with their obviously poor reading literacy as well as their numeracy. Some of them still are unable to do even an addition sum. OPFG_Sandra_24/09

These literacy skills include skills needed to be successful at current everyday tasks, such as learning how to fill out forms and negotiating with service providers or corporations from outside the community. There is also a need for digital literacies, learning how to use computers and increasing proficiency with the language of technology and the tasks associated with computers.

For many of the learners with whom the practitioners work, it is thought that a combination of the linguistic complexities, personal schooling experiences and a lack of early literacy strategies that has resulted in these low literacy skills. Despite this, many learners have developed coping strategies in learning situations:

I think they’ve learnt habits and ways of managing or getting by, or having somebody to help them, but my observation is, especially some of the people in (our program), their literacy is...you know... it’s not enough to enable them to access the learning program really easily or really well. OPFG_Kandy_24/09

These practitioners would want their learners to develop ability that would allow them more than simply ‘managing to get by.’ Moreover, they would like them to develop the ability to access any learning program, obtain any job, and fulfil any personal
learning goal with confidence and strong literacy skills. With this in mind, a need for practitioners to strengthen their own skills in these areas may be required.

4.3.2.2.3 Need to help to better support the children in the community

The third category that emerged focused on the children of the learners in Aboriginal communities. The practitioners have seen a direct connection between the adult’s learning experiences and strengthening the interactions with the children in the community:

Many of the programs work from adults to kids, so supporting adults to support kids’ learning, basically. So there’s learning for adults and from that, there’s more interactions with children. OPFG_Jette_24/09

For many of the adults who attend literacy classes and up-skilling programs, a large part of their participation directly relates to their desire to help their children with school and learning how to deal with parenting issues:

…they want to help their kids to learn, and for us, just being able to help them learn the basics that they don’t know so they can teach their kids is important. Part of our project, we basically spend our time just talking about children and how they can, you know, help with different issues around their kids. OPFG_Kyana_24/09

This emerging theme also reflects on the data presented earlier that relate to past experiences and poor early literacy strategies. Strengthening the skills of adult learners in Aboriginal communities may have a direct effect on preventing the same deficit in skills for the children of these learners. As one practitioner stated:

Many programs work in a positive way from adults to kids. OPFG_Ruby_24/09

4.3.2.2.4 Need for literacy to provide a voice for the community

The final need identified, was a need for literacy skills to be able to provide a voice for the community. The communities in question face a need for English language and Westernised terminology so that the community and its members are able to negotiate
for their community and represent the community’s stance on issues that they feel are important to the well-being of their people and their society:

It’s about inter-cultural confidence for understanding how to relate to the mainstream white system for which you need language skills, basically, and an understanding of how that system functions. And that’s what literacy is actually, in that context. OPFG_Jette_24/09

Focusing literacy up-skilling programs on areas of importance to a community cannot only strengthen skills but also provide a platform for that community from which to feel confident about getting their message across using Western terminology and language use:

Literacy needs are about the fact that people need language for, for example, negotiating with non-Indigenous people and representing community views. This should be the focus of literacy skills. OPFG_Ruby_24/09

This section focused on the literacy needs in Aboriginal communities and was presented in the four areas identified as needs in Aboriginal communities as seen by the literacy practitioners. The next question asked the practitioners to share some of the ways that they have worked in Aboriginal communities to help learners meet these identified needs.

4.3.2.3 Phase One – Section one - Literacy practitioners’ current approaches to meeting literacy needs in Aboriginal communities

When asked how the needs in Aboriginal communities have been met and the current approaches taken to meet these needs, the practitioners identified three categories of approaches that they have taken:

a) Using culturally-relevant approaches and culturally-relevant material.

b) Community/learner ownership and community development focus.

c) Facilitating a mentoring program.
4.3.2.3.1 Using culturally relevant approaches and culturally relevant material

The practitioners who were involved in the focus group suggested that the best approach to take, when working with Aboriginal learners, is to use culturally-relevant approaches and culturally-relevant materials when facilitating literacy programs for Aboriginal communities. Some of the approaches include:

i. Oral language, talking, reading aloud, and story-telling

Oral language and story-telling are a cultural means of sharing and passing down stories through generations. In one way, using this method ensures a continuation of this sharing and passing down stories through to future generations. Employing this method in a learning context allows learners to feel more comfortable with the learning process:

With the people that (sic) I knew literacy would be challenging for, I’ve never asked to write anything or to read anything. So I would make sure in class, if there was something that needed to be read, then I would read it out and in small chunks that they could remember. I do a lot of group discussion work, I scribe the answers and I found that that worked really well with the learning group, they liked talking anyway … so they found it easy to describe the things that I was asking for, and I would then write it down. OPFG_Kandy_24/09

ii. Learning through song

Another method that is often employed by these practitioners, is to facilitate learning through song; another culturally relevant approach to some learners:

We use lots of song-based work. The connection of singing and sounds and literacy are really important and are one and the same languages (sic). Learning words can be through song. OPFG_Kelvin_24/09

iii. Learning through nature

Practitioners have also used the connection of some Aboriginal learners and their land to facilitate literacy learning experiences that are meaningful to the learner:

…connections to country and the connections to literacy through art through Bush food and medicine, and things in the natural environments that they [the learners] are actually in contact with all the time. OPFG_Ruby_24/09
iv. Using visual language

Many of the practitioners indicated that they use visual language to help teach literacy programs. Such media include photographs, artwork, and video to both describe and initiate the learning experience, but also to document competencies through visual representation:

There is the importance of visual language. When working with Aboriginal communities, knowing that a lot of the ways that they did document their own experience of life and things is through visual language… and visual designs all interlink and the patterns in nature as well, correspond to that same sort of understanding of literacy and a much for a broader sense than I think that most Anglo-Saxon peoples used the term literacy. OPFG_Kelvin_24/09

v. Seeking Elders’ advice

Finally, one practitioner in particular, noted that an important aspect of literacy learning in the communities with whom she works, involves the Elders in communities. The programs that are negotiated include the Elders who offer advice about how the programs should evolve and how those involved in the program, practitioner and learner, should work together.

In conclusion, everyone agreed that no matter what approach a practitioner decides to take, it is very important to use culturally relevant material with Aboriginal learners. One practitioner described the process:

…the other thing is keeping the material really relevant to the culture so that you may be using English but about subject and content that is to do with caring for country, things that are of great interest to those Aboriginal people. OPFG_Kelvin_24/09

4.3.2.3.2 Community/learner ownership and community development focus

The second category identified in the area of approaches to teaching literacy in Aboriginal communities, was that of community/learner ownership and community development. One practitioner, who runs several different programs in many regions of Australia, described an assessment tool for learners and communities as a starting point for literacy education:
We have developed a literacy assessment tool that gets people thinking about what they need and want, and (in) negotiate(ing) the program. This gets more buy in and connection than just the idea that you will lose your dole [if you don’t participate in the literacy lessons]. OPFG_Ruby_24/09

Focusing on the topics that are relevant to the needs and interests of the learners and the community is important for the success of the learner. It is important to help a learner or a community determine what they are trying to achieve with their literacy learning, and then help people move in the direction they have identified:

Essentially, what we do is, we conduct our training or our programming to suit the needs of the course that they [the learners] are going to be taking. So, for example, if they’re going to be doing a small boat handler’s course, we would look at the literacy, numeracy and reading that they need to do for that course. So, for example, for numeracy; we would start looking at fuel mixing, you know two parts this type of fuel and one part this type of fuel, and working out ratios and things. So, we target the specifics for them according to the training they want to complete. OPFG_Sandra_24/09

By embedding the literacy and numeracy skills into content that is of interest and relevance to the learner and or community, the practitioners believe that the results are more encouraging then when offering material in a manner that has no relevance to the learners.

Literacy learning can also focus on community development and representation of community views. The practitioners offered several examples to illustrate this focus. The following two examples best describe literacy supporting community enterprise:

We also tried to make their learning more vocationally-based and it had some simulated workplace type activities. In one case it was based on a local Aboriginal enterprise, it was a local Aboriginal childcare centre. So the students went out with the teacher and looked at the centre and how it operated and then put a lot of the business-type skills that would support that community project into practice back in the classroom. OPFG_Sandra_24/09

We have identified programs in the communities for literacy that are a local priority. For example, in a community there was a catering program, in another a shop, in another an Elders care program, and we get people to actually work in these programs and then all literacy support is about these activities, and therefore is place and context specific/situated. OPFG_Rowena_24/09
The practitioners agreed that using curricula or programs that are learner-focused, in which the learner has a sense of ownership of what they are learning, and a context in which the community benefits and develops as a result of the learning, are superior to any other approaches.

4.3.2.3.3 Facilitating a mentorship program

The third approach suggested by the literacy practitioners, was facilitating a mentorship program, not just for learners, but also for practitioners. For practitioners, it is important to be mentored when first arriving to work with Aboriginal learners. As one practitioner explained:

We have lots of high-level experts involved who teach at a high-level expert level. So we have a literacy expert work with them to advise them in how to implement, assess and integrate their expertise to our learner comfort. OPFG_Ruby_24/09

It can also be important to have a mentoring program for learners as well. A mentoring program enables a monitoring of learners as they go through their learning process:

Community members are in that program and they’re getting mentored while they’re in that, so they’re learning [course material] but they’re also learning…to address kind of life issues really, while they’re doing that. So it is sort of employment, service delivery learning and what we call case work, you know, but in an integrated way. This provides platforms for people. Rather than feeling like they’re a receiver of literacy teaching, they’re actually part of a core service delivery and alongside that, by the way, they’re getting literacy teaching, they’re getting support with family relationship issues, they’re getting whatever but they don’t have to be seen as a client of a service. OPFG_Jette_24/09

These experienced practitioners described many exemplary approaches. Firstly, they mentioned using culturally relevant approaches and culturally relevant material. Moreover, the experienced practitioners stated that focusing on community and learner ownership as well as community development was of great benefit. Finally, the practitioners explained that the facilitation of mentorship programs for both practitioners and learners is valuable in sharing first-hand knowledge and experiences. The practitioners stated that this warrants consideration in the process of creating
curricula and teaching methods for Aboriginal literacy programs. Too often the practitioner, the front line worker, is not consulted and this shared knowledge allows us to move towards lessening the literacy gap in positive, constructive and meaningful ways.

### 4.3.2.3.4 Identified barriers to meeting needs

The practitioners also offered unsolicited information concerning barriers to meeting the literacy needs in Aboriginal communities. This included:

a) Government requirements and funding issues

For the majority of literacy organizations, acquiring appropriate levels of funding to achieve desired goals is an ongoing concern. Lack of funding places restrictions on how, what, and when practitioners are able to teach. This leads to many literacy practitioners being inadequately remunerated. The Australian Government and each Australian State also have curriculum regulations and guidelines. Therefore, when trying to implement the teaching approaches described earlier by the practitioners, the governing regulations and guidelines make it difficult for the practitioners to use their successful teaching approaches, as they are not acceptable methods according to curriculum guidelines:

You work with the students on what the students want to do, which isn’t necessarily what the document requires you to do, or the government wants you to do. I think that is the biggest problem that we face because of Nationally, accredited training, and sometimes it's just too hard and, you know, you can't fit it into any money bucket so you are not going to get paid for the work you do and that happens a lot. OPFG_Amy_24/09

b) Organizational capacity

Another issue that was discussed in the focus group was that of limited organizational capacity in communities. Some organizations have a practitioner visit to communities on a weekly or even bi-weekly basis. Others have practitioners working, and in some cases living, in Aboriginal communities. Many of these organizations have only one practitioner assigned to each community and a small rented space where the literacy courses take place. In most cases, the needs of the community members and the scope
of training that is requested, is much larger than can be achieved by a single person in such small physical learning spaces.

c) Question of meeting needs at all

Finally, one practitioner honestly posed the question of meeting needs. When I asked how he was able to meet the needs of the learners with whom he works, and what approaches he took to meet those needs, he answered with a question himself:

Good question, I wonder if I have met their needs at all? I would think basically, I haven't. We’ve, ....the program that I’m working under is a contract with the feds [federal government] and its structure makes it almost impossible to help the ones that actually want to learn, but with the students that I have had, um…its… well, I would question the value of what I've given them at all. OPFG_Robert_24/09

Perhaps with more support from governing bodies to further explore the suggested approaches used by practitioners like these who work directly with Aboriginal communities and learners, there would be less reason for statements like this one.

4.3.2.4 Phase One – Section one – Literacy practitioners’ current use of technology

The next question involved computer technology experiences with the communities and learners in those communities. Out of the 11 practitioners, ten have used computer technology with learners in some form, and only one of the 11 practitioners had not, stating:

No, we haven’t used it [computer technology] because it’s not part of the requirements that we need them [the learners] to do so they don’t actually access a computer, not during our courses. There’s not really room at this stage for computers just due to the nature of the courses. They’re out in the field, so there’s no real requirement for computers. OPFG_Sandra_24/09

Some practitioners brought their own computer to share with learners, explaining:

In my present job, most of the communities I work with, the training rooms didn't have ability to put in any computers, even if I had computers, but I used to take my own computer. OPFG_Robert_24/09
In most cases the practitioners had used computers with their learners. Some other hardware accessories mentioned included data projectors and digital cameras. In the case of software applications however, the practitioners have employed several different types of software for various purposes as shown in Table 4.2.

Table 4.2 Employment of Types of Software

<table>
<thead>
<tr>
<th>Type of Software</th>
<th>Examples of Software Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Computing/Networking Software</td>
<td>Blogging, Facebook®️, Email, Skype®, Elluminate®️</td>
</tr>
<tr>
<td>Presentation Software</td>
<td>PowerPoint, Microsoft Publisher®️</td>
</tr>
<tr>
<td>Websites</td>
<td>e-books, Google Groups®️</td>
</tr>
<tr>
<td>Various games</td>
<td>Online pinball machine</td>
</tr>
<tr>
<td>Digital Story Software</td>
<td>PhotoStory®️, MovieMaker®️</td>
</tr>
</tbody>
</table>

The practitioners also reported that these computer applications incorporated literacy skill building opportunities such as:

· Language skills,
· Word processing,
· Driver’s license preparation,
· Reading,
· Researching,
· Writing,
· Oral presentation,
· Communication skills,
· Mentoring opportunities,
· Tax filing skills,
· Digital photography,
· Job searching,
· Banking, and,
· Opportunity for higher education courses.
Some of the skills listed are very practically-based, and when the technology was seen by the learner and community as ‘useful’, the learners readily became proficient in the use of that application. One practitioner described how the women in one particular community had identified a computer skill they needed so much that they taught themselves:

…the women there use Internet banking, and I didn't teach them this but it was so successful because they could pay their bills and all sorts of stuff and not have any cash in their hands. They weren't humbugged by other people for the money. They are amongst the best Internet bankers that I've seen anywhere. So I was really impressed with (how) when the technology is useful, how quickly it was grabbed on in the communities. OPFG_Robert_24/09

### 4.3.2.4.1 Barriers to using computer technology

While there were clear indications that the learners enjoyed using the technology, the practitioners also shared some frustrations when using technology with learners in Aboriginal communities. The recurring themes in the discussion included the lack of computers in the communities and the absence of Internet services in many of the communities where the practitioners work. This shortfall in using technology with Aboriginal learners again comes from the funding issues described earlier. Another frustration to using the technology was the lack of basic computer skills of the learners:

People need a basic understanding of computers to do many of the applications and it’s very frustrating because it’s quite a slow process if you’re not computer savvy. And so people have had to learn how to, um... you know, use a mouse and figure out how to move the thing and make it do what they want to do. OPFG_Amy_24/09

Despite some of the barriers to using computer technology in Aboriginal communities, there is much evidence to suggest that computers are being incorporated in many aspects of literacy learning in these communities. Practitioners were also eager to share some of the near future applications of their programs including reaching more students at a distance with online technologies such as an online ‘cultural café’ where artists and learners can come together to share their artwork and their stories and enrich each other’s lives while bridging great distances through the use of computer technology. These innovative ways that practitioners are thinking about using technology with learners were a good example to lead the focus group
into the next question that asked how the practitioners felt that computer technology could change the way we support Aboriginal learners.

4.3.2.5 Phase One – Section one – Practitioners’ views on how computer technology is changing the way learners are supported

Computer technologies have afforded us many flexible communication and learning applications. While many mainstream and urban city centres have enjoyed these privileges for many years, some more remote and isolated communities in Australia have yet to experience easy access to computers, the Internet and other hard/software applications. The practitioners were asked how they felt that computer technology could change the way they support their Aboriginal learners and these answers resulted in four categories of benefits in which practitioners felt that, through computer technologies, they could better meet the needs of their learners. The first benefit related to how computer technology could be utilised while implementing learning activities that build on both cultural and learner strengths. With the aid of computer technologies, Aboriginal people’s strengths, such as visual literacies, oral memory and spatial relations, can be brought to the forefront and used to their advantage (Christie, 2005). Through the use of technology, people can work in culturally appropriate and supportive transgenerational groups and focus on sharing their knowledge. The importance of ownership was also mentioned again:

The implication of the technology is that people can manage, control and lead their learning for their purpose and integrate their purpose into its use and control the relevant cultural and IP protocols.

OPFG_Ruby_24/09

Computer technology could also help to provide literacy and learning services in a learner’s own environment and lessen the isolation that many learners feel. It would be great if they could access that sitting in their own, familiar, comfortable space where they feel confident and powerful. They can have their kids around their legs or whatever needs to happen, but they can still be part of that. I would really, really love that to happen. I think that would be hugely beneficial. OPFG_Kandy_24/09

The participants indicated that access to computers and related technologies would also mean accessing a variety of resources that result in better services for learners.
The resources mentioned included online activities or curricula for learners, contact with various instructors who can teach a wider spectrum of skills, and reaching more young people who are currently engaged in reaching their personal education goals.

Computer technology also allows for multilevel independent learning. This means many people can be working at one time without singling out faster or slower members of the group. In the case of this focus group, there was one particular member who had some previous computer experience:

It was important for me to be able to share with other people in the community and have helped to build some capacity. Kammie_CFG_12/12

Other focus members agreed:

It was important, and we needed someone who knew something about computers. We need to have someone that we are able to trust and that we can rely on, that can help us. And so I know that I can lean over and say I'm not sure about this and I know that she's not going to make fun of me. Julie_CFG_12/12

Learners can also engage in creating their own resource materials and in doing so, learners have a sense of ownership of their learning:

…Indigenous people can lead the use [of computer technology] and be an expert too; not a recipient of literacy, but a co-creator of knowledge. This means we can do useful work and focus on purpose. OPFG_Ruby_24/09

A second benefit that the practitioners identified was that computer technology can provide more accessibility to higher education opportunities and job/work readiness training programs for learners. As discussed earlier in the chapter, a limitation for small organizations is capacity building and trying to fill more roles than can be supported financially. As discussed in Chapter Two, computers can provide easy access to courses, lectures, and workshops and have the potential to open many doors for isolated Aboriginal learners. This does not take away from the face-to-face support and the physical community learning space. In fact, the technology can strengthen these programs by drawing in more learners but with fewer demands placed on the face-to-face practitioner. Computer technology can also provide a platform for learners through which to receive individual support, perhaps one to one tutoring, to
assist with the literacy and numeracy aspects of their vocational training. An added strength in this area is the availability of job/work readiness training programs. One practitioner gave an example of what is happening in his area:

The [area where I work] has just amalgamated all its little shires into super-shires. I was at a meeting a few weeks ago where the new CEO [Chief Executive Officer] of [the] Shire, which is our area; about the size of England…had recognised…something like 700 jobs which need training; language literacy training, and there's no way that we can get out to that but if, if the online learning comes in that is, it will change the whole game of delivery. OPFG_Robert_24/09

Using computers as a means to train for positions for which there are jobs but under-skilled potential employees, as in this case, is another strong argument for better services and more access to computers for these communities.

The third benefit observed by literacy practitioners is the improved social networking and communication opportunities that will arise from using computer technology. The benefits of such networking opportunities have been documented in communities in Northern Canada where community members are able to build relationships with members from other communities, when in the past; most Aboriginal communities were quite isolated from one another. A practitioner also gave an example of how one family used email to help family members who had moved away from close-knit communities to reconnect and maintain more frequent contact with friends and family members to ‘stay connected’ to their home community. As discussed in the literature review, forms of mobile technology such as iPods and mobile phones have also been introduced to remote and isolated learners. These technologies can be used for social capacity building as well as learning opportunities.

The fourth area of benefit recognised by the focus group in relation to the benefits of computer technology in supporting support learners was a discussion of the opportunities for professional development of practitioners who work in similar fields but are separated by distance. Professional development opportunities for remote practitioners are often few and far between, however, with computer technologies, the practitioners could access workshops, conferences, online sharing circles etc. One practitioner described using an online tool with which practitioners can upload stories,
recipes, and articles, for example, and share them with other practitioners, all of whom have access to the portal within the platform.

4.3.2.5.1 Realities and concerns of using computer technology in Aboriginal communities

The four areas of benefit in changing the way practitioners can support learners through technology identified above are both promising and exciting. However, practitioners also identified some challenges in working with computer technology. A factor to consider when attempting implement computer technologies in Aboriginal communities is access, and for the majority of these communities there are logistic challenges in finding a workspace, purchasing equipment, connecting to the Internet, and that is just the beginning. Cost is always an issue, especially when it comes to literacy projects and thus, access becomes a barrier to the computer technology. Secondly, there is a need for technical support once the hurdle of gaining access has been overcome. One practitioner expressed her feelings:

My concern is 'dumping' people with a tool that they may not have the skills to access/maintain/repair without support. OPFG_Amy_24/09

And another practitioner rebutted:

I agree computers are frustrating for all of us. However access to them, at least some of the time, is enormously valuable. OPFG_Chantal_24/09

In one case, when a community found itself in financial trouble, the locally owned computers became a commodity easy to liquidate. In consequence, the community seemingly lost their opportunity to receive support to purchase computer equipment again.

Opportunity for effective training was the third potential barrier to effective computer use identified by the practitioners. Training opportunities would be needed for the practitioners who would be using the technology with learners. Competent and confident online instructors tend to engender similar attributes in their students. The topic of effective training also includes the training that would be provided to the learners:

The next thing we have to do is to make it effective training so we have to find a way of making the training work in the communities. If we are giving training to six or seven different communities using online
training at the same time; which is what one assumes that we'll be doing, we also have to make sure that what we're saying has relevance to each community and I reckon that would take a whole lot of relevant research in that area. OPFG_Robert_24/09

Although the practitioners identified these three potential barriers, they also shared hope for future applications. One practitioner mentioned the use of mobile technologies, in the form of phones, and while the use of mobile phones as communication tools is already widespread, the practitioner hoped that one day soon it would be commonplace for remote Aboriginal learners to be communicating with each other and learning together virtually and with mobility as well. Despite the obvious concerns of implementation, costs, maintenance and training, the positive implications for effectively supporting Aboriginal learners using technology was clearly summarised in saying:

I feel as though that the experience that you can have through computers is that there is incredible immediacy [active and creative products of media]...and that it's a little bit like drawing, that you have that sort of impact... and even though it never...it won't replace being in front of a person and hearing the vibrations and the sound of their voice and looking into someone's eyes, it enables to cut through a lot of layers that you know...through books or through distance can isolate people. So using computers and technology can spark creativity and a sense of hope that starts a little kindling of fire within people that they want to go and meet those people that they want to go to those places and actually move towards exposing themselves to something new. So I think you know this is what the technology can do. OPFG_Kelvin_24/09

4.3.2.6 Phase One – Section one - Literacy practitioners’ role in the Aboriginal community

The next set of questions posed to the literacy practitioners focused on the literacy practitioner as part of the Aboriginal community. The question asked the practitioners what role they believe that they held within the community and for the Aboriginal learners that they work with.

The answers not only describe a varied and unique set of roles but also lead to guidelines and attributes that must be incorporated into those roles. First and foremost literacy practitioners see their role as someone who is providing a service to the
Aboriginal community. These service providers described their roles in various forms and titles as shown in Table 4.3.

Table 4.3 Literacy Practitioners’ Roles in the Aboriginal Community

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Broker</td>
<td>In the community I am a knowledge broker and I have useful stuff that people can use/access. It is my job to bring that knowledge and negotiate how that could be used.</td>
<td>OPFG_Ruby_24/09</td>
</tr>
<tr>
<td>Social Interpreter</td>
<td>My role is to work beside Indigenous people helping to interpret the non-Indigenous world.</td>
<td>OPFG_Chantal_24/09</td>
</tr>
<tr>
<td>Conduit</td>
<td>..there’s a role that has to be played because a lot of mainstream organizations don’t know how to relate to community and they feel more confident when there’s somebody else there who is a little bit more comfortable and confident on community, and they can relate to that person. So if we’re a bit of a conduit for other services... to actually feel comfortable.</td>
<td>OPFG_Jette_24/09</td>
</tr>
<tr>
<td>Empowerment Coach</td>
<td>My aim is for someone else to take on my role, so to be able to educate someone on community and others on community to do the things that I do,... just have that capacity to do it and so that’s with each of the people that I do work one-on-one with. I spend my time helping them to learn to do something rather than me doing it for them.</td>
<td>OPFG_Kyana_24/09</td>
</tr>
<tr>
<td>Community Member</td>
<td>Living in a remote community where your students and colleagues are your friends and neighbours, you are part of the community.</td>
<td>OPFG_Janet_24/09</td>
</tr>
<tr>
<td>Advocate</td>
<td>My role is affirming that Indigenous ways of living/thinking/being are just as important and not to be 'unlearned' by learning white fella ways.</td>
<td>OPFG_Amy_24/09</td>
</tr>
<tr>
<td>Liaison</td>
<td>I would see myself as the go-between perhaps in ensuring that those communities are heard through other Aboriginal contact people</td>
<td>OPFG_Rowena_24/09</td>
</tr>
</tbody>
</table>
within (our organization).

Facilitator | We’re going to be acting more as facilitators for the learning that’s ongoing through a nine-month course.... that they’ll be learning additional things other than literacy, but literacy will be the background. | OPFG_Sandra_24/09

Team Leader | I suppose my role has been more as a team leader for a literacy program. | OPFG_Kandy_24/09

Negotiator | My role is to work out ways to overcome barriers that are erected by ignorance, prejudice or lack of resources. | OPFG_Chantal_24/09

Literacy practitioners wear many hats, and these various roles practitioners play can be interchangeable and result in daily multitasking. No matter what role is being played, it was suggested by the practitioners that three guidelines be kept in mind when working with Aboriginal communities. The first guideline was to ensure that you are respectful of the community. It is important to build a relationship with the community and ensure that you act with respect for the community, the land, the people, culture, traditions and Aboriginal ways.

The second suggestion put forth by the practitioners is to be yourself and let community members do the same. It is not favourable to try to change individuals or even more so, to try to be someone that you are not. There is nothing more insulting than trying to become one of the community members, or act as though you belong. “Treat each student as an individual and ensure that you do not make blanket statements about the learners that you work with,” one practitioner suggested. “Taking small steps will get you places.” OPFG_Ruby_24/09

Finally, and possibly most importantly, practitioners should be approachable. One practitioner stated: “being approachable” as their only role. Another practitioner explained:

Most of my time is spent in making the community people feel comfortable with me and luckily, in communities in the Centre, the Aboriginal people get a lot of white fellas coming in, and they [the Aboriginal people] are very polite, and they think basically that most of us [practitioners] are slightly troublesome children and so they deal with us as such... the main thing is that you've got to sort of spend a lot of time getting people to know you getting them to understand that you
don't bite and that you might be of some passing interest or use. OPFG_Robert_24/09

The multiple roles that practitioners play and the careful, ongoing professional guidelines that practitioners working with Aboriginal communities follow, can often result in a feeling of being over worked or ‘burnt out.’ Many practitioners feel that they are unable to have any ‘down time’ away from their work and that they always have to be ‘on’ when in the community:

The problem is, this is a burnout town because you could be just down supermarket just doing shopping and you’ll end up talking you know school with students. It happens all the time down the roadhouse, down the shops where ever you are. So you’re never really… I mean in reality, you’re really never part of those people’s lives in entirety but you can't escape it either, so you're constantly talking shop with students. I suppose what I'm trying to say is even though you're not considered in the community, you’re always part of the community and people will always see you that way and grab you at any opportunity they can. I don’t know if that’s clear; it's not meant to be a negative thing, it’s just a reality of living in a town where everybody knows each other and you bump into your students, everywhere, all day, every day. OPFG_Amy_24/09

These multiple roles, ongoing professional guidelines and episodes of ‘burnout’ are not uncommon among many types of educators who live and/or work in Aboriginal communities and rural areas in general. Professional development, training, purposeful ‘downtime’ and collegial support are all important elements in providing effective services to learners. The following question tried to determine if the practitioner’s role was in any way altered or affected depending on the time the practitioner spent working with the Aboriginal community.

4.3.2.7 Phase One – Section one - Literacy practitioners’ evolving roles

The practitioners were asked if they thought their role had changed over time and if so, how. Seventy –five percent of the practitioners said that their roles had changed, while the other 25 percent said that in principle, their role has not changed:

I started as a government agent in about 1991, and it surprising how much my true role hasn't changed… that as far as I can see my true role is to have people in communities sort of accept me and be willing to use my services, and then I facilitate as much as I can to make my duties fit in. with the community um and that basically hasn’t changed from 1991 until now. OPFG_Robert_24/09
The researcher asked the practitioners who said that their roles have changed over time, to explain further how the roles have changed. The following categories of change emerged from these discussions:

a) Developed relationships,
b) New employment focus,
c) Role evolvement, and
d) Focus on community involvement and direction.

4.3.7.2.1 Developed relationships

The biggest change that most of the practitioners saw over time was that they were able to develop relationships in the community. It often takes time for learners to realise that the practitioner is actually going to ‘stick around for a while’ and once they see this, they keep re-enrolling for programs sometimes four or five years in a row. According to practitioners, with relationships comes respect and this positive combination has a great impact on learners’ experiences in a classroom setting.

4.3.7.2.2 New employment focus

Other practitioners felt that their roles had changed in respect to the requirement of their employment. For example, one practitioner explained that recent focus for her organization was less about Aboriginal culture and more towards gaining employability skills. The practitioners will still try to respond to the interests of the learners, however, there is a push for a pathway of vocational training. As practitioners explain, unfortunately, these bureaucratic changes can negatively affect the relationships that practitioners have built with their learners. Some practitioners have also seen their employment role change in respect to the people that they work within the community:

I’ve worked with young people, with the women, with the old people and now I’m sort of working with the kids and families, so my role has changed focus. OPFG_Kyana_24/09
4.3.7.2.3 Role evolution

While many practitioners have seen many institutionally driven changes, other practitioners have seen their roles evolve in other ways. As relationships strengthen and learners begin to trust the practitioner, the role incorporates new facets including mentor and friend. Learners have asked for advice, opinions, and have shared personal stories. Practitioners also reciprocate this relationship and support community members through these relationships and mentoring roles, to have a voice in the decisions about training opportunities. According to practitioners, some start to see their roles evolve to include improving access for learners and acting to facilitate discussion about how the community can use the available technologies.

4.3.7.2.4 Focus on community involvement and direction

The fourth category of change involved the addition of community involvement and direction to the practitioners’ initial role. Practitioners indicated that they have seen some changes towards feeling more ‘accepted’ in the communities where they are working. One practitioner explained it as, a feeling that their ‘opinion counts now’ and because of that, she felt like part of the community. Once accepted by the community, there is a tendency for practitioners to grow to incorporate the communities’ direction for the practitioner and the programs the practitioner can offer to the community. The practitioners also suggested that the Elders in communities have actively guided them, and as the practitioners’ skills and relationships change, so do the expectations from the Elders. Having the community become involved in the literacy programs, and reciprocating that involvement within the community, results in a real sense of purpose and belonging for a practitioner. These relationships can take many years to develop and grow as one practitioner explained:

When I think of answering that question for a broader lot of educators and facilitators like myself who are non-Aboriginal and working in communities, I think that the political climate that is around now is fostering… there seems to be sense of sensibility within the air that is starting to brew. And there's a sense of wanting to celebrate Aboriginal community within the community and their knowledge of their pride in their country. In terms of my own personal experience, out of the 16 years that I've been working with communities... have changed for me personally because I have become more and more a part of the
community, and that time has sewn some seeds for me … it has [my role] changed a lot. OPFG_Kelvin_24/09

As with any relationship, roles change over time. Dedicated literacy practitioners who work with and live in Aboriginal communities may have to wait to build trust with the community, its members and learners within the community. However, the benefits of the dedication and persistence to the job can be returned in many positive ways.

4.3.2.8 Phase One – Section one – Literacy practitioners’ views on computers as an agent of changing the literacy practitioners’ role

The practitioners had a variety of answers to the question of computer technologies changing their roles. The most prominent answer was centred on the fact that using computer technologies would result in a widening of the teaching and training arena. The technology would allow for practitioners to reach more students and for students to broaden their perspective of the world. In the past, students’ experiences outside their communities lay within a radius of 400 to 500 kilometres or to wherever they could travel, but the implication of technology means an expansion of that area to include a broader more global community of learning.

Technology would also change a student’s learning experiences beyond that which single practitioner might be able to offer, and to open the doors to further training, workshops and conferences at their fingertips. In the past, the cost incurred to send learners to workshops and conferences was far too great for literacy agencies; however, computer technologies can relieve much of this expense. Practitioners’ roles would place more focus on being flexible online teachers and sharing their knowledge and experiences in an online capacity, as well as requiring practitioners to become facilitators and guides to their learners to access other training opportunities. Technology was also seen as beneficial for practitioners to attend training sessions and workshops together with community mentors to strengthen services in communities and to build relationships with other remote literacy practitioners.

The teaching and training activities that practitioners now use would have to be adapted to incorporate new capabilities offered with computer technology.
Practitioners would have to experiment with ways that learners could share their work online and the setting up of discussion forums and chat rooms that could showcase learners’ work would become a priority. Practitioners would also have to become comfortable with the technology and be willing to spend some time mastering the ‘new tools of the trade.’ An example of this would be the recording features of technology. Many communities would be excited to record cultural stories, information, artwork, and traditional activities (albeit cognisant of copyright), that could be handed down to future generations in a very articulate and easily accessible manner. However, this might be a task for the practitioner to master, and a skill to pass on to learners in the community.

In this category of widening the learning arena is the idea of more practically-based learning experiences for learners. Some practitioners mentioned many things that are done and taken for granted when it comes to computer use, for example, emailing, online banking, paying bills, and applying for a social security number. In many cases community members have to wait for certain business hours or days in order to fill out their CentreLink (unemployment insurance) paperwork. However, the online environment could provide greater freedom of access while providing privacy to the learner. A practitioner’s role then would have to incorporate practical online application training so that they can teach learners how to access everyday online tasks.

The practitioners identified a second component to their roles changing in that their role would become much more technical in nature. Although they were certain that technology would continue to improve and become more reliable, they feared that they may end up spending more time fixing technical problems than facilitating learning experiences. It was agreed that with technology needed to come technological support preferably in the form of an Information Technology (IT) support unit. Not only do the practitioners see their roles changing to incorporate technological support issues but, as mentioned earlier, a new area of skills would be required for the learners to ease into learning with technology. Practitioners would also be responsible for teaching these digital literacy skills. Though seemingly a daunting task, these technological skills can still be approached in the same manner as any other skills practitioners would teach:
You know being used to the computer is only is another tool. Just like a paintbrush, pencil or other mediums that we use it really does get back to your purpose and content and having a very wholistic approach to teaching and passing on knowledge. OPFG_Kelvin_24/09

Some of the practitioners hoped that the implementation of technology would allow the learner to take more control of their learning with less reliance on the practitioner to provide a service to them. These practitioners saw technology as a tool of empowerment and confidence building as well.

Even though most of the practitioner focus group made connections about how they saw their roles change in light of technology, some members of the group felt that their role would not change much at all. This smaller conglomerate felt that in many ways their roles would stay the same: being a facilitator and supporting people in their learning. One practitioner explained:

Computers are great but they won’t change our role. I still think you have to have a person frankly. We could do much more distance learning…but I don’t think it would work just to say to some of the people in our learning group, go to the computer centre and I’ll talk with you at 10 o’clock, you know, online, I don’t think that would happen, you’ve still got to have a presence of a human being, a facilitator. OPFG_Jette_24/09

The practitioners also reiterated their concern about some of the barriers to using technology and accessing online training opportunities. Access is still a key focus; without free and easy access, it will be difficult to reap rewards from computer use. There is also a concern that technology may take away hands-on practice of skills and face-to-face experiences that are so valuable for learners. Being able to travel and experience things outside communities has often enabled learners to envision themselves into situations, careers, and work placements that may be possible for them. Although computer access is important, there would still need to be room for those experiences as well. Another practitioner expressed concerned about how difficult it might be to make relationships with learners in an online environment. In the past, he had found learning experiences most successful when the practitioner was able to first build a relationship with the learners.

The results show that practitioners understand how the technology could change their roles in the communities, and the barriers and implications of the technology that led
to questions from a practitioner’s perspective about how the community itself might react to technology.

4.3.2.9 Phase One – Section one – Literacy practitioners’ views on the acceptance of computer technology in Aboriginal communities

When the practitioners were presented with the question relating to acceptance of technology in regards to the community, they determined that it would depend on two factors:

a) The approach taken to introduce the technology to the community.

b) Community needs.

4.3.2.9.1 The approach taken to introduce the technology to the community

Some practitioners have seen technology widely accepted in communities, however, it was the approach that was taken that made the difference in the process:

…if it is another form of telling people what to do and respond to others’ mandated ideas and programs then it’s not going to work. It must be negotiated and focused on a community priority. OPFG_Ruby_24/09

It was affirmed by many in the group that Aboriginal community members are incredibly open-minded and versatile and have the ability to adapt to many environments and situations and that these people will embrace the technology as they embrace positive changes all the time. Another practitioner elaborated:

I don't think there is much reservation and it's all about a new approach and how facilitators work with this technology and how it gets introduced and that the community has ownership of it and they have ownership about what they want to share about their community they can actually choose. They need to have those skills that enable them to make positive choices so they can actually steer the use of the technology and what's said about them. I think, for too long media and the use of technology has had more of a negative effect for Aboriginal people, but now the technology and computers is very much driven by the person behind the computer and their voices are being heard. OPFG_Kelvin_24/09

“No adult learns anything until they want to learn it or need to learn it. Then they will,” continued another practitioner. “The process will be a selective one, but when
computer technology is found to be useful, it will be taken on quickly” OPFG_Robert_24/09. The practitioners felt that part of its usefulness would be the social aspect of being online as learners would quickly realize how the potential to extend their social networks and learn at the same time.

4.3.2.9.2 Community needs

The idea of a needs-orientated acceptance formulated another direction of acceptance according to the practitioners. When a community realizes a need to make use of the technology and the “right people” in the community support the idea, the community will become responsive to using the technology. There is a certain element of fear and lack of self-confidence that prevents some people from trying something new, but with the right guidance and support from a well-trained practitioner, learners will adapt to the new mode of learning:

I think that it would be accepted by some community members and definitely not by others and partly that’s because that’s the way with everything new and partly it will be the fear factor, you know, ....confidence or lack thereof about their own literacy skills and their being able to use equipment. But I certainly think that if it’s approached in a way that is acceptable to the people that you’re presenting it to then it can and if all the right consultation is done and all the right people in the community say yes then it will happen. OPFG_Kandy_24/09

Being a former literacy practitioner herself, the researcher was aware of the fact that literacy practitioners do not often have a voice that is heard in the negotiations and decision-making around curricula and approaches to literacy learning in their own field. The last question presented was an opportunity to hear the front line workers express what they would like to see changed in the way that they deliver literacy services to Aboriginal communities.

4.3.2.10 Phase One – Section one – Literacy practitioners’ views on the changes in approaches to literacy and learning practices in Aboriginal communities

The answers were clear and supported by the majority of the group for each response. These practitioners presented big picture hopes for positive and needed changes at
many levels of literacy learning in Aboriginal communities. The changes that the practitioners would like to see in order of highest to least priority were:

**4.3.2.10.1 Culture saturated throughout the learning process for Aboriginal learners**

These practitioners felt the need for a more culturally-based curriculum for their learners. A curriculum that embraces oral language, music, singing, performance and integrating literacy learning through these enjoyable, cultural and relevant past times. It is not contingent that the learning process be seen as something happening inside a classroom; learners can be outside, sitting under a tree, going down to the water and learning at the same time. Another aspect of cultural learning experiences would be a whole family learning approach as explained by one participant:

…what I’ve noticed from the adults in my programs is that they do learn a lot through their children. They are very connected with what their children are doing and they feel if their child is having trouble with something at school they would feel that themselves so I think that if, they work hand in hand with what’s going on for their children and if they can get success and confidence in their own literacy learning then that’s going to have a positive influence on the kids at home and at school because the parents will feel more supportive of what’s going on at school, they’ll become engaged in the programs, they’ll be supportive of the programs, they’ll encourage the children to do it and they’ll be doing it exactly the same themselves. OPFG_Kandy_24/09

These intergenerational and whole family approaches are often a familiar and wholistic approach to learning together as a community. Within each community, as in any community, there are strengths that each member possesses. The practitioners also suggested better recognition of the skills that community members already have and incorporate those local strengths into the learning process.

**4.3.2.10.2 Bottom-up approach to learning**

The second change that practitioners would like to see is a bottom-up approach to literacy learning activities in Aboriginal communities. Ruby shared an explanation of this term:

I would like to see us identify a key activity in the community and link learning to that…I would like to see us develop a community of practice that supports teachers to then think about integrating the literacy into
If practitioners approach communities and impose an education that has very little relevance to what is actually needed for the community, learning will not take place as openly as when we approach communities first, and ask them what it is that they want to learn and then teach those skills instead. Practitioners feel the need to respond to what communities need. Along the same vein of thought is the idea that the assessments that are done with learners should also fit the needs of and be appropriate to each community.

4.3.2.10.3 A change in practitioners’ approaches to teaching

The practitioners also suggested that more confident practitioners are needed to fill the role of facilitator. They described a literacy practitioner as someone who is not afraid to integrate literacy and culture and who will look at innovative ways to teach literacy skills. These practitioners also need to be multi-skilled and willing to wear the many hats that were spoken about earlier in this chapter. Sometimes practitioners need to be teaching literacy, but there is also counselling duties, running a sports group, supervising a music practice and have skills to have conversation, be a listener and find the ‘literacy learning moments’ during those times. Practitioners also need to be culturally aware and flexible. Beyond cultural awareness training, when the service provider comes across as too formal it is difficult to build relationships with community members. Practitioners have to learn to work side-by-side, build a relationship and form an identity within the community.

4.3.2.10.4 Change in curriculum and approaches to learning

There was also an identified need to change the curriculum so that it has more pre-vocationally-based literacy skills, so that learners do not struggle as much when entering into higher-education courses. There is also a need for more practically based learning opportunities:

Learning that's always practical... it should be a practical-based thing you know, not the old-school theory chalkboard style thing but actually
out in the bush. Technology now is becoming so advanced that we can actually go into the bush with a computer or laptop and a camera and we can engage in the environment, and I think that that breaks those barriers down and will speed up the process of literacy in terms of use of English and expressing oneself… think the changes that we need to adopt is to be really creative in our Western mind thinking to interpret it through Aboriginal eyes, and I think if we can do that as practitioners to look at the world out through Aboriginal eyes and think in that context that we could have a great impact. OPFG_Kelvin_24/09

This category was rounded out with a suggestion for increased mentoring opportunities for learners in a way that learners can take their skills from their programs and become mentors for other community members and learners.

4.3.2.10.5 Change in Government’s approach to literacy

The final change that was identified by the practitioners was a hope for change in the Government’s approaches to literacy. The literacy practitioners felt that there should be less bureaucracy and more funding. Practitioners would like to feel that dedicating their careers, and in some cases their lives, to the betterment of Aboriginal communities should be reflected in the Government’s trust in their skills as teachers and the life experience that they have:

I would like to see better recognition of literacies that people have and work from local strengths… but need to have policy and funding support that. OPFG_Ruby_24/09

It would be great not to have the time constraints of the curriculum in terms of hours allocated. OPFG_Janet_24/09

…I’d love to be able to teach and not worry about sticking to the curriculum or training package, but I suppose the reality for funding and accredited training is that’s what we are pretty much stuck with, and just trying to sort of look for different avenues of funding and to provide different types of teaching and learning. OPFG_Amy_24/09

The practitioners also felt it important that they had a stronger and more direct voice in the decisions that the government was making around policy and curricula development for literacy learning in Australia.
4.3.2.10.6 Change in students’ attitudes towards learning

The final comments that were made to this question were perhaps the most difficult to address. The practitioners would like to see students more motivated and confident in their approach to their learning. Many practitioners indicated that it would be nice to be able to change the process so that people are less scared of getting involved and less worried that they are not competent and to have them focus more on the life experiences and strengths that they bring with them to a literacy program.

4.3.2.11 Phase One – Section one - Summary of literacy practitioners’ results

The literacy practitioners, who were well-trained and experienced in working with Aboriginal communities and community members, expressed various reasons for their work in these contexts. They identified four categories of literacy needs with the communities they work with including understanding complexities of the learners, improvements for all literacy skills, support for children in the communities and the need for literacy strengths to provide a voice for the community. The practitioners also identified three categories of successful approaches used in Aboriginal contexts including using culturally relevant approaches and materials, a focus of community development and the facilitation of a mentorship program. Some barriers to meeting the needs were also identified. Several types of technology that are currently used for several different literacy activities were identified by the practitioners, as well as the flexibility to learning that technology can bring. Literacy practitioners each have their own unique role that they play in the communities in which they work. The practitioners who participated in this focus group identified the roles that they felt they played in the communities as well as how their roles might change with the continued influx of computers and the increased use of technology. These well-experienced practitioners also offered suggestions for changes to be made in the way that we approach literacy learning in Aboriginal contexts.
**4.3.2.12 Revisions of draft-guiding principles as a result of practitioner input**

Nine draft-guiding principles were created from the literature in Chapter Two (section 2.9). In the design-based research approach, the draft-guiding principles are to be used as a guide through the process (van den Akker, 1999). According to the model, iterations are intended to result in design-based principles. In this research, iterations led to refinements of the draft-guiding principles to create design-based principles that support effective and successful synchronous learning experiences for adult Aboriginal learners. The input of the literacy practitioner, an important stakeholder in this research, is a critical step in this process. From the data collected in the section above, revisions of the draft-guiding principles created from the literature are listed below. The completed draft-guiding principles that evolved from the literature, the data collected from the practitioners and community members can be viewed in Chapter 4.5. The list below highlights any revisions that will be added to the initial draft-guiding principles as a result of the data collected from the literacy practitioners in this section. These revisions, unique to what was derived from the literature, will be used to create the design-based principles for the research:

**DGP1 Practitioner skills and awareness of Aboriginal literacy levels**

Practitioners indicated that an awareness of literacy levels of their learners was an important step to providing meaningful learning experiences to learners. While the literature indicates that the literacy levels of adult Australian Aboriginal levels are well below the levels of non-Aboriginal adults, the practitioners suggest that the levels are lower than statistics indicate, with most of their learners assessed between a Year Two and a Year Eight primary school level in literacy skills.

The need for practitioners to feel competent and confident in their skills was also indicated and in order for that to take place, the practitioners felt that more training opportunities were needed. This need is heightened by ever-changing technology and continuous changes in government foci for adult learning.
Practitioners also reported the many roles they filled within the Aboriginal community setting, and suggested that practitioners needed to be adaptable in order to be effective in their jobs.

**DGP2 Opportunities to participate in a community of learning**

While the data collected from practitioners concurred that that opportunities to participate in a community of learning are important, they did not hesitate to mention that people working with Aboriginal communities must have a heightened awareness about the history of learning experiences for Aboriginal learners. Many personal experiences and hardships that Aboriginal adults have endured may have impeded and will continue to impact how well Aboriginal adults connect with the learning environment.

**DGP3 Relevant content**

While the literature discusses that using relevant content allows for learners to ‘interact meaningfully’ with others, the literacy practitioners suggested that content that is used for learning should help community members to negotiate for their community. The learning content should help community members feel confident to represent their communities’ needs and issues.

The practitioners also suggested that content must also be adaptable for computer use. If synchronous technology is going to be used as a means of literacy upgrading and training for example, the content that is being taught should be made adaptable for computer use.

**DGP4 Cultural inclusion**

Practitioners agreed with the literature, that practitioners who are using technology for delivering learning content must consider the inclusion of content that is culturally relevant to the geographical area. More than that however, the practitioners felt it important to use Aboriginal curriculum, built from the within the community itself, instead of massaging an existing westernised curriculum to fit into the Aboriginal community context. This also would suggest the creation and implementation of Aboriginal created learning materials and resources.
DGP5 Accessible, suitable and reliable technology

Practitioners view technology as a tool that can foster Aboriginal strengths such as oral language, memory, visual learning and spatial relationships. The practitioners felt that one of the most important steps of using technology for learning purposes in Aboriginal communities was to carefully think about the approach that would be taken to introduce the technology. If for example, the community saw technology as something that they needed, the idea would be much more readily accepted.

Furthermore, practitioners indicated the importance of the social networking and communication that technology afforded in connecting Aboriginal community members with family who had moved away from the community or with other Aboriginal communities.

Finally, practitioners also felt that technology could be used as a powerful tool for professional development and training for Aboriginal literacy practitioners who may be too far away to attend sessions in a face-to-face context.

DGP6 Intergenerational community involvement and consultation

Literacy practitioners felt that intergenerational community involvement should involve more opportunities to work together and build stronger relationships with one another within the community, through learning experiences. While these experiences should be learner-focused as well, working together could help strengthen the community in many ways.

DGP7 Positive relationships, mentoring and technical support

While mentors were highlighted in the literature reviewed, the practitioners added the importance of different types of mentoring. Mentoring from within the community, peer mentoring between community members and mentors from outside the community can all play important roles in the learning process.

Practitioners also added depth to this principle by discussing the importance for mentors for the literacy practitioners themselves for both support in teaching and in learning new skills including computer technologies.
In creating positive relationships with Aboriginal community members, practitioners suggested that it was very important to ‘be yourself’ and to allow the community to be themselves as well. It was important not try too hard and come across as trying to ‘be’ a community member. Practitioners felt it was important to be approachable, with one practitioner suggesting that this was their only job; to be approachable. Practitioners also felt that showing respect for the community went a long way in creating positive relationships in Aboriginal communities.

Part of creating positive relationships with community members included finding time for practitioners spend time away from the community and recharge themselves. Many practitioners have seen colleagues ‘burn out’ by working so hard to fill so many roles in the community setting.

Finally, the practitioners felt time was a critical aspect of ensuring positive relationships with Aboriginal community members. Building relationships, trust, learning environments, understanding and respect are all matters of time.

**DGP8 Promoting community-based learning**
While the practitioners’ views coincided with the literature reviewed, they provided more detail in the concept of community-based learning by suggesting that specific Aboriginal strengths such as story-telling, the Dreamings, song, and shared experience created an important atmosphere of comfort for Aboriginal learners. While the activities can be learner focused, the community as a whole should see the benefits in the idea of learning from technology.

**DGP9 Genuine partnerships with the government and bottom-up learning**
The practitioners suggested that the financial commitments suggest in the literature could support more relevant and real-life learning opportunities.

**DGP10 Community goals, directions and development**
The data collected from the practitioners suggest that as a starting point for synchronous learning, one must understand the community’s goals and directions. The use of technology can be seen as a tool of development for the community and help to better link the community to the outside world.
4.4 PHASE ONE – SECTION TWO – COMMUNITY PARTICIPANTS

The community participants involved in this research are members of an Aboriginal community in South Australia. The sampling strategy can be found in Chapter 3.4.2.3.

4.4.1 Data Analysis for Phase One – Section two

This section presents the results of focus group of community practitioners who were participants of the study. The community focus group members met in a face-to-face setting, in a comfortable environment for everyone involved. The researcher collected data using a focus group type-setting called a sharing circle (Hart, 1996; Restoule, 2006). The researcher travelled back to the community on four separate occasions after the research data were collected to share and review the transcriptions with the focus group. The community focus group members accepted the transcriptions and then transcriptions were also read by a proof reader to ensure minimal researcher bias.

In conventional ways of doing academic research, Aboriginal values are not always well represented. Restoule (2006) suggests that the sharing circle method provides more familiarity and comfort to the Aboriginal community members and elicits stories and narrative that demonstrate contexts and processes to balance out definitional approaches.

The sharing circle starts with a thank you and welcome, invites a prayer or words of wisdom from Elders and basically reflects a sharing time for community members. While these particulars were offered to the members of the community focus group, they preferred not to initiate the meeting with traditional customs, however, did like the idea of a sharing circle environment for this first meeting. The sharing circle helped to ensure that time was taken to build relationships with the participants, where a sense of trust began to form. Unstructured observations also took place throughout the course of the research and this combination of the measures of data including focus groups, interviews, observations and field notes enriched the study and ensured
that a large number of dimensions were observed (Marlow, 2005; Ryan & Bernard, 2000; Stake, 2000).

The data management, analysis and content analysis as described in this chapter remained consistent throughout the second part of Phase One.

4.4.2 Phase One – Section two – Community participants’ results

4.4.2.1 Phase One – Section two – Community participants’ demographics

Thirteen people came to the community focus group meeting, two were university graduates, five had taken some form of a TAFE (Technical and Further Education) training course and the other six had not completed Year 12. These participants were selected as outlined in Chapter Three and ranged in age from 17 through to 67. There were eight women and five men.

4.4.2.2 Phase One – Section two – Community participants’ views on the meaning of literacy

The first question that was asked of the focus group was concerned with what the community group thought literacy meant to them. After some hesitation the conversation began and two categories of the understanding of literacy, the mechanics of language and the authentic voice, were portrayed.

4.4.2.2.1 The mechanics of language

Most of the community focus group members focused on the mechanics of language when they described what they knew as literacy. The most frequent answer described literacy as being about talking and stated:

   It is communication with others. Penny_CFG_10/13

   It helps us get a clearer understanding of what others are talking about. Eden_CFG_10/13
While another member stated:

It’s the snobbish way of talking. Pete_CFG_13/10

The focus group also agreed that literacy involved writing and reading skills and commented:

…reading and writing texts and stuff like that and how to write in a manner as if you were submitting an essay. Tina_CFG_13/10

Crossing the ‘t’s and dotting the ‘i’s. Linda_CFG_13/10

These discussion points of the mechanics of language prompted many members shaking their heads in agreement and started some conversation.

4.4.2.2.2 Authentic voice

A few of the focus group members had been through a formal western education system and they reflected on another category of data collected in relation to the question, a category the researcher has called ‘authentic voice.’ This category took into consideration two subthemes the first being the ‘power of position.’ The focus group discussion started to take a turn towards discussing how literacy can empower a person, and a community to rise above an oppressed state and speak up for one’s rights. One member explained:

Literacy to me means power because it’s a power of language that will get you where ever you want to go, so that’s what literacy means to me, it’s a power base and if you don’t have it you’ve sunk, you know, and I’ve actually seen people without literacy go into to CentreLink and fill in a form and they can’t do it, they can’t even write their own name. So it’s a shame job, it’s a shame thing, they feel very embarrassed and they’re told quite categorically that, you know, you’re an idiot because you can’t write and you can’t read and you can’t, you know, compute. So it’s a deep shame that people feel because they do not have the literacy, and so literacy in my book is a power base. Aboriginal people come from another language base, and we have to learn the literacy and the language of a dominant group because we want to work in a world that’s not of our own making and to do that you have to have the literacy in the dominant group but I like to believe that it can be. Ally_CFG_10/13

Another participant discussed that since the continued destruction of Aboriginal culture by the invasion of non-Aboriginal people, the Aboriginal culture has always been suppressed. Literacy education provides a platform to position oneself in a better
place in the hierarchy of the global community. It is also a strong belief of the participants that literacy and education need to incorporate a strong Aboriginal component. In fact one participant described this as education needing to be ‘immersed in culture’. The participant suggested that in doing this, while a person has the power of literacy to position themselves to be heard, they will also be strong in whom they are and their identity as an Aboriginal person:

... you know like I’ve always grown up with this belief that you know the government make decisions they make laws and it’s all about keeping people in their places. And you know I did say that education empowers Aboriginal people to then stand up... because we do need those freedom fighters to stand up and say, ‘Hey we won’t be putting up with this anymore’. And you know this is what needs to happen and, and you know and I guess ninety nine point nine percent of the time ...um .....it’s only a very few that stand up. …those people that do stand up and be counted are the ones that make a difference. And if an Aboriginal is strong in their (sic) identity they know where they come from... they know where they belong, they know who they are, then everything just falls into place. And you know, it doesn’t matter what sort of background... how dysfunctional families are um whether they... or how supportive families are, if they know who they are then they can achieve anything. And that’s why it’s really important that through education we teach about the culture and we teach about the language and we strengthen that and then we teach them the curriculum. And it does go hand in hand. Like I said the only way out of poverty and the only way to make changes is if we have that strong foundation of education [literacy] and culture. Eden_CFG_10/13

The second identified sub-theme in the category of authentic voice was critical thinking, and again it was the more advanced educated focus group members and the ones who had more life experiences outside the community that shared the thoughts that formed this sub theme. Critical thinking allows someone to accommodate information and make appropriate decisions, observations, and statements based on the ability to sort out, categorise, and then use the information in a productive and useful way. Literacy skills play a big part in critical thinking. One needs to have a toolbox of skills such as reading, communicating, decoding, analysing, sorting, questioning, creating, writing, speaking in order to actively and effectively participate in critical thinking. This was reflected in one participant’s comment:

...I used to think [literacy] was all about reading and writing. But I don’t know.... as I’ve gotten older I think it’s more important that we teach to be able to challenge and question and understand what’s being said to them and having the confidence to be able to do that. So literacy is having the ability to do public speaking, having the ability to be
confident in challenging someone else. Or know that it’s okay to clarify any questions you know for your own understanding. So that’s what I think literacy is. Ally_CFG_10/13

As an Aboriginal person, an important piece of critical thinking is being able to converse in your own language and understand your culture, traditions and community values and explain, share, defend and uphold them. As one participant explained:

Literacy like to us is, is being literate in your own language. Because I think if you’re literate in your own language and you have a good understanding about the culture and the way [our] people do things, then I think you’re confident to be able to tackle anything. Eden_CFG_10/13

The culmination of the mechanics of language, such as reading, writing and communicating and the authentic voice which incorporates the power of position and the skills of critical thinking in Australian English, Aboriginal English or one’s own native language reflect a well rounded understanding of what literacy means to this Aboriginal community. One must consider however, the potential disconnect between what the less formally educated community member understands to be literacy and how the worldly community member views literacy and one must take into account the powerful potential that awaits when this gap of skills, understanding and shared vision is spans this divide in understanding.

4.4.2.3 Phase One – Section two – Community participants’ views on literacy needs in the community

The following question posed to the community focus group was about the perceived literacy needs in the community. This discussion opened with a comment from participants about the community’s past. At several times in the community’s history, community members have been given opportunities to run businesses within the community. Many of these businesses fell apart due to mismanagement of funds and lack of skills to manage books or effectively sustain projects:

[Our community] used to be really self-sufficient - we used to have our own farm, and used to have people - a business here, making trailers. We had our own building team as well. Tina_CFG_13/10
There was also a welding shop and our own community stall. We used to be self-sufficient though government funded. Julie_CFG_13/10

In revisiting these comments during the analysis of the data, it was further explained,

We were given money by the government to set up these businesses. The trouble was that the council of the community didn’t know how to manage the monies properly. So we went into a bankruptcy situation and lost everything. Tina_P_12/07/09

It was like we were set up to fail. How can they expect to give money to a community who has not managed their own monies on such a large scale before and expect that to work? Eden_P_11/07/09

When asked if they thought that having some kind of literacy skills or training available to them would have made a difference in the outcome, the response was:

Yes, definitely, if we had the literacy skills, the money management, the basic accounting skills and maybe some support and guidance…we would have done much better. Tina_P_12/07/09

Three categories have been identified in the data collected to answer the question of literacy needs:

- a) Support for learning,
- b) Technology skills, and
- c) Employability skills.

a) The first category is ‘support for learning’. This category contains three sub themes the most prominent being literacy and basic skills. Many in the focus group agreed when one person stated:

We have no specific needs…we just need all of them. Julie_CFG_13/10

The community focus group felt that there were many adults in the community who needed learning support for basic skills such as reading and writing:

We need support. There is (sic) a lot of people who live here that can’t read properly and can’t write properly. They need support more than anything else. Julie_CFG_13/10

We need help with the basics – like you would consider it easy work that they’d do in school, some people take for granted because they don’t know how to do it. We need some of that stuff that you call early intervention for our kids. Tina_CFG_13/10
b) The next theme that was identified in these data was technology skills. The community focus group seemed to understand how important technology has become:

…[the world is] high-tech now, you know, the computer has changed the whole world and so the technology that you’re using is just magic and to be able to teach people if they don’t know it, in the comfort of their home community… Eden_CFG_13/10

We need typing and computer skills. Pete_CFG_13/10

c) The final subtheme for this category was employability skills. In this particular community only a fraction of the people have jobs and the frustration of ongoing unemployment and impoverished conditions was evident in the discussion:

We need skills to help us get work. There are only 2 out of 100 residents who have jobs. What is that? Less than 1 percent of us? Julie_CFG_13/10

Basic skills, technology skills and employability skills were the most prominent literacy needs discussed in the community group, however, two other categories evolved as part of this discussion. The first point that came up was money and infrastructure. The community seems to be caught in a ‘catch 22’ since the liquidation of assets that they faced several years ago. They know that they need funding and infrastructure in order to access support and learning opportunities, however, without the skills needed to apply for and manage that support, they failed to meet the requirements to be reinstated funding, and so the circle continues. The community focus group suggested that support, technology and even something as simple as a library were things that could help improve their literacy skills:

We know we need money to bring support. Money speaks all languages and breaks down the barriers to the support that we need. Pete_CFG_10/13

We don’t have enough computers to start with. The ones we have are old and useless. You know... it’s so frustrating why do we have to put up with second-rate equipment? You know, why do we get handed the crap equipment...if the government’s genuine about Aboriginal people you know, learning and improving well then we need equipment that works and we need enough equipment for everybody not having to have...two to five people sharing one computer. Eden_CFG_10/13
There was a final milieu of thoughts and discussion points that the researcher has coined ‘community empowerment’. There were eight subthemes that made up this category, each seemingly as important to the groups as the others. No community focus group member disagreed with the comments being made and most shook their heads in agreement and support.

The first three subthemes were presented with an air of concern for the community. The first was a concern that was raised about whether literacy was even a priority for the community:

Literacy in this community is like any other depressed community or oppressed community. Sometimes it’s not even there, you know, and we have to ensure that what we put into the community is what the need is going to be fulfilled in the power base that we aim for, for ourselves… Ally_CFG_10/13

Another part of the discussion involved ensuring the protection and privilege for future generations to be able to learn their language and culture while learning literacy. This language and culture preservation issue seemed pressing one as the community focus group worries about the loss of their language and culture:

As Aboriginal people, we need to ensure that we get the learning but that we get the other side of the coin, the Aboriginal Literacy Programs that are necessary. As an educator, I’ve managed the literacy base of the curriculum and the literacy base of my community. I bought the Dreaming culture into the school, we’ve looked at the literacy of the Dreaming and it was just magic. I brought the language in too because I also believe that we need, you know, the literacy in language as well along with the cultural aspects of Dreaming. So it can be done, you know, you just have to have the commitment and the passion to be able to commit to that. Ally_CFG_13/10

Concerns for the community’s mental well-being were also shared:

When people are fighting for years and years and years and getting nowhere through an oppressed state, they became depressed, you know like, and that’s what’s happening here because these mob have been fighting for years and years and getting nowhere. So at the moment they’re really depressed and depressed people turn on themselves, you know, and that’s what’s happening at the moment so, therefore, you put all your energies into trying to claw your way out of this depressed state,
that you don’t have time for anything else…we must be able to encourage and we must be able to get support to people who can’t do it for themselves because we all share in that and it’s just up to us to be able to manage that and ourselves and give the support where it’s necessary because it’s a shocking place to be. Ally_CFG_13/10

…in this district for the last twenty years we’ve only had three Aboriginal kids that are successful [in school]. Like, we’re talking about the sixteen year-olds that (sic) have been successful at achieving their HSC [High School Certificate] in [the next town over]. Three kids in twenty years… and we were lucky if a lot of our kids made it to... you know passed Year 9. There wasn’t that support there. A lot of our kids struggle... the families... regardless of the background of families every single family wanted their children to be successful. And it was... you know we were set up to fail, our kids were set up to fail. And so what’s happening now is that we’re having to deal with the fall out of that aren’t we. You know because all of our kids are coming out of school still illiterate. And well that leads to you know unemployment and I guess some of them turn to drugs because you know they have low self-esteem they’ve got no confidence. And so you know so there’s huge impact or there’s huge implications on our kids if they’re not successful in school. But it’s a shame that comes with it. Like if you can’t write your name and you haven’t got the words to you know be able to talk to somebody on the telephone or, feel like you’re confident to do that. You know the shame that comes along with that is ... I think that’s what a lot of the families are struggling with. Eden_CFG_10/13

But in light of those three subthemes: lack of literacy, loss of language and mental well being that showed concern for the community, came suggestions of how the community could think about using their strengths to work through these issues. Please note that it was the two members with the highest level of Western education that made most of these suggestions.

**4.4.2.3.1 Positive role modelling**

While some community focus members felt that perhaps it was too late to revive the state of literacy in their community, one member suggested that it was their duty to stay positive and learn about literacy and education for the sake of the children in the community:

A lot of people don’t see the school system as something that they’ve aspired to, you know, whereas I see it as, I used to run away to school, you know, so, I used to absolutely love it and that’s what I’ve taught my
children and the kids that I’ve come in contact with, a love of schooling, a love of being tuned on to education and tuned onto things that will get me further than the boundary gate, you know, because it’s important that our kids have role models out there with the skills that are necessary to get them wherever and we have to forge our way through the system, not only the education system but the workplace as well and it’s like a minefield. Ally_CFG_10/13

4.4.2.3.2 Working together

Another part of the process was described as reconciliation and in order for that to happen the community needs to be open to working together with non-Aboriginal people as well:

I always try to bring Aboriginal and non-Aboriginal people together because it does have strengths that can contribute and our kids have to see us working together because they know then that it can be a possibility, it can be done for both of us to work together in unity and, you know, they talk about reconciliation maybe that’s a process too and part of that togetherness and the sharing. I always like to show that through this role modelling that the practice can be done but literacy is something that will be, can be achievable and you can have success in it. But for those that don’t have it when they really need it, we have to build it in there somehow… Ally_CFG_10/13

4.4.2.3.3 Mentoring

Another suggestion in how to counteract the state of the community at the moment was through mentoring. This could come in the shape of outside agencies working with community members or peer mentoring and sharing skills within the community:

…and you don’t have to be ashamed about making mistakes, as long as you have a person who is sitting next to you will help and not put you down because a lot of [our people] have gone through schools and they have been traumatised by the school system and because we were always being put down, you know, and if you’re put down often enough you tend to believe that after a while and because I had some people come to me and they were very traumatised by school settings. So it is our job then to build them up to be able to take on the world. Eden_CFG_13/10
4.4.2.3.4 Family involvement

Another important aspect of community empowerment emphasised by the focus group was to involve families as much as possible, particularly at the early stages of literacy development:

Getting the families involved in the [traditional Aboriginal] language programmes. And having the families take ownership and determining you know what aspect of the language and culture that they’ll take on board and share with the children is really important. Eden_CFG_13/10

4.4.2.3.5 Genuine government partnerships

The final suggestion for community empowerment and repossession of self-worth and strengths was a genuine government partnership with the community:

Literacy also starts with attitudes. You know... and it also starts with legislation. You know since dispossession I think the Aboriginal people have been oppressed for that long and we haven’t had the rights or the advantages that non-Aboriginal people have had. And you know and it still continues to happen where money’s being poured into, into communities but without actually thinking about how it’s being spent or, or... Aboriginal people having a say about how it needs to be spent and what’s important you know for our community. Until we start gettin’ away from bureaucrats making decisions for us and not allowing us to… self-determine what our own needs are - then nothing changes. You know we’ll always be struggling with people with attitudes and fear of the unknown. And quite often, you know, I think about the cultural awareness it’s always up to Aboriginal people... even, just the words reconciliation with Aboriginal people were decided. It’s never done in partnership. So until attitudes have changed and non-Aboriginals are prepared to... and governments are prepared to work in genuine partnership nothing much changes. Eden_CFG_10/13

4.4.2.4 Phase One – Section two – Community participants’ views on adult learning support available in the community

The next question was asked to determine what types of support were now in the community to try to help adult learners meet the needs identified. The first and most overwhelming response was “none”. Most members agreed that they would have to
travel outside of their community to get the literacy support or training that they were looking for:

Many of our people would have to leave the community to move forward. Even for the most basic skills support we have to go to a bigger community. Tina_CFG_10/13

I started auto mechanics but to start I had to spend 10 weeks away from home, and I didn’t want to leave home. I also needed a driver’s licence and I didn’t have one of those and that was a setback. I guess it is a skill as well, I still don’t have one. Baron_CFG_10/13

A few of the members were taking a course offered by the community TAFE however the unenthusiastic comments suggested the learners were being forced to take the course:

We are taking [this] course but we are only taking that because that is all that is offered to us. If we don’t take the training that is available then we don’t get paid through CentreLink. Kane_CFG_13/10

It’s not that I don’t find what we are doing not interesting but it isn’t what I really want to do. But it is either this or the dole. Baron_CFG_13/10

There were other comments made about the level of courses and the physical space that the TAFE has to offer:

TAFE is more around providing courses that people can apply for. And they’ll help them with their courses, but not with … you know, getting their reading and writing skills up to standard. And that’s what’s lacking. There actually needs to be a programme to support families with the reading and writing. But, as such, there isn’t (sic) any that I know of. Eden_CFG_10/13

Well, they have the TAFE programs and you know, they go to this crappy little place around in one building, but eventually, apparently, they are going to have a building rebuilt there. They used to have a bigger place but that had asbestos in it, so they knocked that down and they’re building a new place there, so they’ll have the facility there to be able to get adults involved in education if they wish, you know, and you have to make the choice yourself. You can’t be pushed into it and the choice must be yours because then it’s successful. Ally_CFG_10/13
One other point that was brought up in the sharing discussion was that of employment after training. As one of the younger members explained:

What I am doing now…it’s really not what I want to do. What I want to do is metal fabrication, and I tried for a few years but there was another problem, ‘cuz there was nothing around here to do for work. There was no business around that could have given me a job. Baron_CFG_10/13

4.4.2.5 Phase One – Section two – Community participants’ views on computer use in the Aboriginal community

The next two questions that were posed to the community focus group were in relation to technology in the community. The first asked about the computers in the community and how many individuals in the focus group had used them, or why had not they used them. The majority of the group had attempted to use the computers available in the school or in the community women’s centre but identified three major barriers to using the technology:

a) Technical issues,

b) Accessibility barriers, and,

c) Lack of technology training.

4.4.2.5.1 Technical issues

Although there are and have been computers in the community at different times, the quality of the hardware available and the consistency of Internet capabilities have been limited. The community sits in a natural dip in the land and as a result, the Internet has always been problematic. In some cases there are computers available, however no Internet to use with the computers. As one focus group member explained:

There are computers at the TAFE however there is not Internet. There used to be but they must have decided that we’re not important enough, I suppose. It has been like that for nearly a year now. Julie_CFG_13/10

One of the focus group members discussed how difficult it was to try and work through a TAFE training course that they were attempting to complete because of the fact that there was no Internet to find resources on the computer:
It is hard to do research for the course that we are doing now because we have to go back to the books. They are old books and we cannot access the Internet. Baron_CFG_13/10

The technical issues around reliable and consistent Internet service for the community remained an issue throughout the study.

The community focus group also identified the second sub-theme of there being technical support available within the community, as a barrier to using the computers as well. At one point the community had computers for public access. While these computers were eventually sold to help the community out of a state of bankruptcy, even when the computers were functional, there was no one within close proximity to maintain the computers or to be of service if the computers should break down. As one focus group member explained:

The computers were new ones, but when they broke down we would have to wait for someone to come [a long way from the city] to fix them. Julie_CFG_13/10

These technical issues, lack of connectivity and maintenance and repair services for the community were to areas of technical issues identified by the community focus group members.

### 4.4.2.5.2 Accessibility barriers

The second category identified was the barrier to accessibility of technology for the community members. While the technical issues have been solved at times in the past, there continues to be challenges with public community access. During the time of this research a new TAFE building was being constructed, there was an older TAFE building in the community the access which housed computers however, the building’s access was limited to two mornings a week and was used primarily for TAFE students during those hours. As one focus group member explained:

The computers are used only for people who are taking TAFE courses too. So that meant a lot of people did not have access to them. Julie_CFG_13/10
There also was a computer lab in the community school. This lab was also going through an overhaul during the time of this project. While there were new computers being installed, the community focus group explained the lack of enthusiasm from most community members stating:

There are computers in the community school however, they are only for school students and the Internet is unreliable. Tina_CFG_13/10

The issue of community computer access is a growing concern. It is understandable that TAFE would want to protect their building and their equipment. The school is open to the idea of having some computers for community access housed in the lab, however, they would only be accessible during school hours. Who would maintain and repair the computers? How would that person be paid? If there were computers set up in the community, who would be responsible for them? How would the Internet access be paid for? These are all questions that will have to be considered for the future of the community’s computer access.

4.4.2.5.3 Lack of technology training

The final category identified was the lack of technology training for community members. The first subtheme was that the participants felt that they did not have enough skills to be able to use computers. The group had already identified technology and typing skills as a literacy skill that they would like to have, and a participant further explained her situation:

I’ve tried to use them [computers] but people get impatient with me. My grandkids say, “But Nan I showed you the other day” and I say to them, “But this is another day.” So they are impatient with me and I give up. Penny_CFG_13/10

Others in the group agreed that there was a fear of technology and failing at something new. One participant stated,

I might as well just say it - I have a real fear of computers, but I would be willing to learn. Ally_CFG_13/10

This fear of computers could be easily overcome and with the right equipment, access, connectivity, mentoring and ongoing support, these community members could be confident computer users.
4.4.2.6 Phase One – Section two – Community participants’ views on how computers could support learning in the community

The next question asked how the community focus group felt that computer technology in their community could meet some of the literacy needs that they had identified early in the circle discussion. Many mentioned the fact that first there would have to be proper community access, but with access and training, they thought that computers could open so many doors for the community:

Yes, there are a lot of people who would like to do courses but do not want to leave their community and I think this would be important to us. Julie_CFG_13/10

Yes but we need access. Not only can they write letters or, they can play games on it. They can have access to the world on it, you know. Ally_CFG_13/10

Oh yes for them to be able to do training? Unemployment is really high in our community and it’s really important and you know and it costs people quite a bit of money in petrol to be able to leave the community and travel to training. And sometimes training isn’t available or else it is far too expensive. To have this ability, not to be ridiculed if you make mistakes, and in the comfort of our own community, would be great. Eden_CFG_13/10

4.4.2.7 Phase One – Section two – Community participants’ views on specifically desirable learning opportunities for the community

The final question for the community focus group asked what literacy skills they would like to have developed through the use of technology for their community. The answers were as varied and unique as the individuals themselves. They fell into four categories of courses. Employment-related skills were at the top of the list, followed by interest courses, high school qualification courses and sharing opportunities between Aboriginal people worldwide. The data collected are represented in Table 4.4.
## Table 4.4 Community Participants’ Views on Desirable Learning Opportunities

<table>
<thead>
<tr>
<th>Skill</th>
<th>Types of Courses Mentioned</th>
<th>Audit of Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employment Related Skills</strong></td>
<td>I would like to see Metal fabrication Food and Hospitality Course Auto mechanic courses. I’d like to take building and construction. Early childhood education. We all need basic computer courses. Oh having training opportunities you know having online training. And we talked about before there is a mining boom at the moment in this country. But Aboriginal people aren’t seeing the benefits of that. And you know mining is happening in their own countries. So the training should be... they should be given the opportunity to do online training rather than having to leave their community to do it. I mean I understand they have to do the practical side of it. But you know surely that can be worked out and, and have it on their communities.</td>
<td>Baron_CFG_13/10 Tina_CFG_13/10 Trey_CFG_13/10 Twin_CFG_13/10 Kammie_CFG_13/10</td>
</tr>
<tr>
<td><strong>Interest Based Courses</strong></td>
<td>Entrepreneurship, landscaping, driver’s license all of those.</td>
<td>Trey_CFG_13/10</td>
</tr>
<tr>
<td><strong>High School Qualifications</strong></td>
<td>Year 11 and 12 if you haven’t done it.</td>
<td>Kammie_CFG_13/10</td>
</tr>
<tr>
<td><strong>Sharing Opportunities</strong></td>
<td>Because [our] people are spread right across the world you know, we’ve even got some in Germany but we can share language with them wherever, and you can do it through the computer, through Internet and I reckon it’s a magic thing to do, yeah. You could do some of the stories and legends, you could even do a field trip out to the Dreaming world, you know, that kind of thing.</td>
<td>Ally_CFG_13/10</td>
</tr>
</tbody>
</table>
4.4.2.8 Phase One – Section two - Summary of community participants’ results

The volunteer community member focus group gathered to share their views of the literacy needs in their Aboriginal community. The members identified literacy to be the actual mechanics of language and how language works, as well as a voice for the community, where literacy skills can be used to empower communities. The needs for the community identified included support for learning activities, technology skills, and employability readiness. Community empowerment was also highlighted in the discussion with the focus group.

4.4.2.9 Revisions of draft-guiding principles as a result of community participants’ input

The nine draft-guiding principles that were created from the literature in Chapter Two (Chapter 2.9), will have revisions made to them according to the additional data provided by the literacy practitioners (Chapter 4.3.2.12), as well as further revisions as a result of the data collected from the Aboriginal community member focus group. While Reeves (2006) suggests developing draft-guiding principles from the literature and the practitioners, in the case of this research, data from the Aboriginal community members are also seen as a critical addition from another important stakeholder. From the data collected from the community members, further revisions to be made to the draft-guiding principles are listed below. The completed draft-guiding principles, evolved from the literature, and the data collected from the practitioners and community members can be viewed in Chapter 4.5. The list below highlights the further revisions to be made to the revised draft-guiding principles that were created from the literature and revised by the data collected from the literacy practitioners. These additions add new components to the draft-guiding principles, as provided by the community focus group members:

**DGP1 Practitioner skills and awareness of Aboriginal literacy levels**

The community focus group added to this principle by suggesting that the practitioners’ skills also must include the capability to connect technology learning to future employment opportunities.
**DGP2 Opportunities to participate in a community of learning**

It was made clear by the focus group that it was very important that a community of learning was inclusive of culture, traditions and community values.

**DGP3 Relevant content**

Relevant content, according to the focus group, is content that empowers people and empowers communities. Content is most relevant when it helps a person understand their identity as an Aboriginal person. Relevant content also helps learners to understand cultural traditions, community values and explains, shares, defends and upholds these.

The community was clear that relevant content meant something that was interesting to them and that could help them to gain employment after they had completed the training, unlike courses that they were forced to take, but were uninterested in.

**DGP4 Cultural inclusion**

The community members indicated that there was a need for consistent and vigilant care to be taken that will ensure that there are opportunities for Aboriginal learners to practise their language and culture while learning about technology.

**DGP5 Accepted, accessible, suitable and reliable technology**

The community members felt that technology first had to be accepted into the Aboriginal context. Once the community accepted the technology, it was important to the community that they would receive computer training for the community as a whole.

While they concurred with all the previous parts of this principle, they also would like to see technology expand personal growth, education and employment opportunities.

**DGP6 Intergenerational community involvement and consultation**

The community focus group members indicated that learning something new together, and learning something that can involve whole families in the process could only make their community stronger as a whole.
DGP7 Positive relationships, mentoring and technical support
Part of the positive relationship building for community members included sensitivity from the practitioner and an understanding of the feelings of shame and self doubt; amongst others that Aboriginal learners tend to go through when trying to learn something new.

The group also discussed having positive role models in the area of mentoring and technical support, preferably someone from their own community.

DGP8 Promoting community-based learning
Community-based learning would result in the creation of positive role models from within the community that the focus group thought would also bring the community closer together.

DGP9 Genuine partnerships with the government and bottom-up learning
The community focus group echoed the previous components of this principle. They suggested that these partnerships would bring about empowerment and help to rebuild self-worth in the community.

DGP10 Community Goals, Direction and Development
This community felt that learning technology could help their future generations and assist them by helping to preserve language and culture. They also saw technology as a means for the community to become more self-sufficient.

4.5 FINAL DRAFT-GUIDING PRINCIPLES

The data collected in Phase One included a review of the literature as laid out in Chapter Two, the online practitioner focus group results in the earlier part of this chapter and the community focus group results. In collective summary, previous researchers and authors in this field as shown through the literature, the data collected from a focus group with Aboriginal community literacy practitioners and the data
collected from Aboriginal community members have been brought together and result in the ten draft-guiding principles to guide this research:

**DGP1 Develop skills and awareness of Aboriginal learners’ profiles**

In order to provide successful environments for effective use of synchronous technology with Aboriginal learners, practitioners need to develop additional technological skills. These include ICT curriculum knowledge and troubleshooting abilities. It is important for practitioners to become competent, confident and adaptable through training opportunities. Of equal importance is an awareness of the literacy levels of Aboriginal learners and their preferred methods of learning. Gaining an awareness of Aboriginal learners enables practitioners to connect and make the learning relevant to the community’s needs.

**DGP2 Create opportunities to participate in an online learning community**

To create successful and effective opportunities to participate in online learning communities for Aboriginal learners, an awareness of the participant’s past learning experience is necessary. These past experiences can impact on how well Aboriginal adults connect with the learning environment. Facilitators should encourage and build positive interpersonal relationships, provide opportunities for capacity building and foster social networking for learners. These opportunities must be culturally relevant and include local cultural traditions and community values. These should take place in the context of unique, shared environments which incorporate local language and Aboriginal Ways of Knowing and learning.

**DGP3 Utilise relevant content**

In order to create successful learning experiences using synchronous technologies for Aboriginal learners, relevant and computer adaptable content must be utilised. Relevant content is meaningful and applicable to the lives of the learners. More than just mechanical skills and mandated curriculum, relevant content must be created in consultation with the community to result in empowerment, ownership and authentic voice for the community. Examples of relevant content include:

- Aboriginal adults better understanding their identity as an Aboriginal person
- Connecting content to cultures and traditions
- Encompassing community values
- Learning that grows from community knowledge
- Helping to gain employment

As a result, relevant content can help community learners negotiate, explain, defend, share, and uphold what is important to them.

**DGP4 Value cultural inclusion**

In any synchronous learning setting there should always be consideration of culture in the instruction and implementation. Understanding the culture, geographic area, living conditions, socio economic status and language are critical steps in considering cultural inclusivity. It is important to have a relationship with the community on an individual basis. More than culture, it is important to understand the Aboriginal Ways of Knowing and learning in each community. The most favourable scenario would include the implementation of an Aboriginal curriculum that is created from within the community, involving community members, delivered by community members for community members. The learning material and resources would also be community centred and include many opportunities to practice local language.

**DGP5 Support implementation of technology that is accepted, accessible, suitable and reliable**

A first step in employing the use of any technology in an Aboriginal community setting is ensuring that the technology is accepted into the community. The approach to introducing the technology is critical part of online learning. The technology itself must be suitable with considerations taken into account such as:

- Cultural values,
- Social issues,
- Fiscal constraints, and,
- Technological support.

The technology must be viewed as a benefit to the community and this can be approached in a variety of ways:

- Social networking and family connections.
- Community capacity building.
- Links to other communities.
- Professional training for community mentors.
DGP6 Foster intergenerational community involvement and consultation
It is important to ensure that there is a locus of control by the community when using online technology. Aboriginal Ways of Knowing including the perspective that learning is something that belongs to you that starts before you are born and continues through your life must be considered. Learning together should be promoted to build stronger relationships within the community and strengthen the community itself. The development of online learning tasks should include Elders and children alike promoting a whole family approach.

DGP7 Build positive relationships, mentoring and technical support
There are several types of mentors that are needed in the synchronous learning process and sustainability of programs:

- Onsite mentors: may travel in from out of community to come and work to support community learners;
- Peer mentors: follow learners who work together to support one another;
- Community mentors: mentors who are community mentors that can provide support and up-skilling for fellow community members;
- Technical support: to provide technical help within the community;
- Tutors: employed persons from outside the community who come into support learners or that learners go outside of the community to see;
- Liaisons: work towards building better relationships between communities; and,
- Practitioner mentors: provide support and assistance to practitioners who work within Aboriginal communities.

The relationships between these mentors, practitioners and others should play a vital role in the retention and motivation for the learners. Instructors must be able to:

- Make time for relationship building and gaining trust;
- Have energy to put into engaging learners;
- Be approachable;
- Support academically and emotionally;
- Scaffold computer skills;
- Show respect for community and members;
- Be sensitive towards learners;
- Take time to understand the community; and,
- Ensure down time for themselves to avoid burnout.

**DGP 8 Promote community-based learning**

It is important for community-based learning to provide opportunities to bring community members together in collaborative ways. Aboriginal culture in general values kinship and togetherness and learning something new such as computer technology within the community promotes these values. Promoting community-based learning enables benefits to learning with technology to be seen firsthand by community members. Using blended approaches to learning such as asynchronous, synchronous and face-to-face opportunities within communities will allow for self-directed, comfortable and convenient learning environments. Using Aboriginal strengths in these contexts such as oral storytelling, song, the Dreamings, and language is suggested and creates an atmosphere of familiarity for learners.

**DGP9 Cultivate genuine partnerships with government**

Working with technology in general requires funding for purchase of capital as well as maintenance, training and support. In order to provide opportunities for synchronous learning that is meaningful, relevant, empowering and situated in real life settings, more work must be done in developing meaningful communication with stakeholders. These relationships can help community members to rebuild a sense of worth and power of position in the wider community.

An additional draft-guiding principle was added at this point in the research. This draft-guiding principle was one that was derived from the data collected from the practitioners and the community but was not clearly identified in the literature.

**DGP 10 Understand community goals, directions and development**

Synchronous learning tools should be used as community development support systems. When employed effectively these tools will provide links to the outside world and have shown to make communities more self-sufficient. It is important to understand the goals, direction and development issues that are valued in the
community on an individual level so that synchronous technologies can support those visions.

4.6 CONCLUSION

These ten draft-guiding principles, started from the literature reviewed, with data added from the literacy practitioners interviewed, and data added from the community focus group members, guided the research process through the next three phases of the design-based research approach. The researcher ensured that the draft-guiding principles were reflected upon at each step of the inquiry. The data collection in Phase One that resulted in the initial draft-guiding principles and the support of the theoretical framework chosen for this study, aided in the creation of the collaborative community engagement project. This is further explained in Phase Two and the iterative cycles of that engagement project detailed in Phase Three. After each iteration, we will revisit the principles and discuss any revisions or additions to the principles based on the iterations of the project. The next chapter explains the creation of the collaborative community engagement project, how it was developed and the iterations of the project.
CHAPTER 5 – RESULTS AND DISCUSSION FOR PHASE TWO

5.1 INTRODUCTION

This chapter presents the second phase of the research, which is the development of a framework and solution, informed by existing principles and technological innovations (Reeves, 2006). For the purpose of this study, the researcher has used the term ‘collaborative community engagement project’ instead of the term ‘solution’. This choice of terminology was made to alleviate any negative connotation associated with the word ‘solution’ while working in an Aboriginal setting.

A collaborative community engagement project was built on the foundation of the ten draft-guiding principles drawn from the findings of Phase One of the research. These draft-guiding principles began from data collected from the literature. The principles were then refined to include data collected from the literacy practitioners, and refined a third time to represent the data collect from the Aboriginal community members themselves. These ten draft-guiding principles to create effective literacy learning environments using synchronous technologies in Aboriginal communities are:

DGP1 Develop skills and awareness of Aboriginal learners’ profiles
DGP2 Create opportunities to participate in an online learning community
DGP3 Utilise relevant content
DGP4 Value cultural inclusion
DGP5 Support implementation of technology that is accepted, accessible, suitable, and reliable

DGP6 Foster intergenerational community involvement and consultation

DGP7 Build positive relationships, mentoring, and technical support

DGP8 Promote community-based learning

DGP9 Cultivate genuine partnerships with government

DGP10 Understand community goals, directions, and development

These draft-guiding principles were used to guide this research and were refined based on the process of the iterations in Phase Three. In the final refinement the draft-guiding principles evolve to become the design-based principles for effectively supporting literacy learning using synchronous technologies in Aboriginal communities.

5.2 DATA MANAGEMENT FOR PHASE TWO

The analysis was of the data collected from focus groups, interviews, observations, and field notes of time spent in the community. Audio recorded conversations and interactions were transcribed and analysed. A research journal was created and the constant comparative method was used to identify common categories that connected the participant responses and the researcher’s observations of participants (Marlow, 2005; Ryan & Bernard, 2000; Stake, 2000). The relationships between the identified categories resulted in the formation of themes; these developed themes are discussed in detail throughout this chapter.

In Phase Two of the study, the ten draft-guiding principles from Phase One were refined as the community collaborative engagement project was developed. These refinements were considered as part of the first iteration of this research and will be discussed in detail in Chapter Six. The refinement of the principles helped to guide the creation of a favourable environment that provided an opportunity for the community focus group to work together and create a collaborative community engagement
project. The final design-based principles aim to assist in the design of optimal learning environments using synchronous technologies within Aboriginal communities.

5.3 TECHNOLOGY

The ‘existing technological innovation’ (Reeves, 2006) employed during this phase of the research was the application of an online synchronous tool called CENTRA©. As described in Chapter Three, many studies that employ a design-based research approach show the results of the creation of a new technological advancement that is changed, and principles that are refined at each iteration. This study discusses the method used in the creation and refinement of a project that utilises a pre-existing and widely implemented technology, and refines the draft-guiding principles at each iteration. CENTRA©, an online, live-time platform has been used in various educational contexts from early years to tertiary education worldwide. It is user friendly and has a range of features, including the ability to share various forms of content such as documents and websites as well as options to talk, text, and work in small groups (Eady, 2007; Porter & Sturm, 2006). This software is currently being used to implement learning opportunities for children in South Australia as well as adult literacy learners across the province of Ontario in Canada (Eady, 2007).

The community involved in this research had access to the CENTRA© platform through Digital Bridge Unit (DBU), as described in Chapter Three; however, they had not previously used the platform. The reason for this was that the community had not had a stable Internet connection. The timing of this project was favourable, as the community had just solved Internet connectivity issues at the onset of the project. The community council offered a room for the project to take place during the stages of the research that were carried out online. This was due to the school computers not having a reliable Internet signal and the computers being all firewall protected and locked so that only administrators could download software which would have made it difficult to use the platform. Some community members helped to clean out one of the rooms in the council building and set up tables and chairs so that the focus group would have a place to work. The focus group borrowed four laptop computers and
headsets from the DBU of the South Australian government for the duration of the project. During the times when the platform was utilised, the researcher would bring the four laptop computers, and headsets, and set the computers up on the tables in the room which resulted in a make-shift computer lab for the purpose of this research.

The online platform (CENTRA©) was introduced to the council members in the initial meeting through a PowerPoint presentation. This PowerPoint included photographs of the Aboriginal learners from the project in Canada where the research had previously worked and detailed the types of courses that they had taken and how these opportunities had impacted them. The initial focus group meeting also included this presentation so that the group had an idea of the kinds of things they and the researcher would be doing. This furthers draft-guiding principle one (develop skills and awareness of Aboriginal learners’ profiles) and encourages practitioners to introduce new technologies with examples of how they have impacted similar groups of Indigenous learners.

The introduction of technology to the community was welcomed by the community members, and there was great anticipation regarding the opportunity to learn more about the Internet and computers in general. As a result of taking the time to share with the council and the community members, the researcher was welcomed into the community. This refines draft-guiding principle number seven (build positive relationships, mentoring, and technical support) in that, it is necessary to gain respect from the community, and show respect by asking permission to be on the land. Moreover, it was also necessary to gain approval to meet and gain support from the council. The community members who attended the initial meetings were very interested in the way in which the researcher had utilised the technology with other Aboriginal cultures and the council was eager to participate in the project that would see similar results for their community.

5.4 MEETING PLACE

The researcher spent time talking with community members and getting to know people who had shown an interest in being involved in the research. It was observed
that there were certain areas in the community where people met and for the most part, felt comfortable meeting. These included the school, the health centre and the community council building. It is important to Aboriginal learners that they feel comfortable in learning situations and safe within the community to learn. When speaking to community members about where a good place would be to meet on a regular basis, it was suggested that they would feel most comfortable working in the school meeting/library/computer lab area. As one participant explained:

The school is the central meeting place for the community. If anything is happening, it is happening here. This is the best place to meet besides [other focus group members] are working in the community room at the far end of the school and they will be able to help us better if we work here. Tina_CFG_24/10

The school principal gave her consent for the group to use the space at the school and the meeting place of the group was confirmed. Allowing the focus group members to choose where they wanted to work on the project also provided a sense of ownership. This further refined draft-guiding principle eight (promote community-based learning) in that it is also important to allow Aboriginal participants to choose where they are going to work. In allowing the community focus group to choose their working area and ensuring that it was a safe and comfortable place to learn fostered the participation of the group.

5.5 SELECTION OF TOPIC

Of the 13 community focus group members who attended the first meeting, there were six steadfast members who would come rain or shine, and even cancelled doctor’s appointments to ensure they did not miss a focus group session. By the time the focus group was back together after the initial meeting, it was obvious that people were excited and talking about the project to others:

There seems to be a real excitement in the air about the project, people will stop me in the street to ask me more about it, or I would come into the library at school and overhear people talking about what the community collaboration could be about. RJ_10/27

There was a lot of activity in the community the first week the researcher was present. One day the principal was away, some of the staff (and some focus group members)
was at a training course for a few days, so the researcher stayed away from the community and the focus group until there was some routine restored and the focus group scheduled meetings began. In refinement of draft-guiding principle one (develop skills and awareness of Aboriginal learners’ profiles) it is important for someone outside the community to be flexible to meet the community’s needs and changes, and be adaptable to them.

The initial conversation coming back as a group reminded the focus group what had been spoken about at the last meeting:

So one of the things that we talked about is (sic) – we talked about a bunch of things that we would like to see in the community. We talked about the computers in the community and the kind of support that like, it would be good to have some – having a technology person here would be very helpful, so if something breaks down – and how we want to stay in [our community] and still being able to go to school…those kinds of things. Julie_CFG_11/05

We also talked about stuff that we would like to do and like to learn about and stay here too Trey_CFG_11/05

The researcher then explained that the next step in this process was to try to identify an activity that the focus group would like to do as a group, suggesting it might be something the group identified in the first meeting, an activity, or a need. The researcher made it clear that there might be some limits, for example, if they chose lessons in sheet metal fabrication, it would be difficult for the researcher to come up with material in an area that she was not familiar with herself. In regards to draft-guiding principle seven (build positive relationships, mentoring, and technical support), researchers and practitioners need to know their limits in these contexts and be open to learners. The lessons chosen needed to be in an subject about which they were confident. However, it was suggested there might be something of specific importance to the community, or something that the community focus group thinks is a strength to teach others about. The decision about what the strength would be centred around was not a difficult one for the group. At the time that the researcher came into the community, preparations were underway for a celebration in the community:
Well, our 140th is coming up, the 140th celebrations that is. Our community is 140 years old. This is a really important time for our community. It’s just the time that we’ve been here… it’s important. Julie_CFG_11/05

140 years is the time that we have been here. The community wants a celebration; it’s coming from the community that they want to commemorate the time…our community’s existence I suppose. Tina_CFG_11/05

Even though all the pressures we have been under, we still survive…survival in our own land… with all the deprivation and humiliation and suffering, we’ve still come through. Pete_CFG_11/05

It is a celebration of our land, and our country and the survival of our race. That’s a good enough reason to celebrate. Karen_CFG_11/05

It was agreed within the focus group that this was a very good reason to celebrate. Some of the focus group members had engaged in ongoing conversations about the research project since the initial meeting and discussed how they could share some of the celebration with people who might not be able to travel all the way to their community on the actual day of the celebration. This would include those people who had moved away from the community, who were sick and shut in, or people who were now living in aged care facilities and would not have the opportunity to travel to the community for the celebration. One community focus group member also suggested sharing with the university as well:

We could share with the University that you are working from so we could show them who we are and how we have created something. Julie_CFG_11/05

One of the council members had mentioned how the council had borrowed photographs from the National Library and from the Women’s Centre and that some council members were putting together a presentation on the stages of the community’s development through the years. However, one of the community focus group members, who was also employed at the school, had put together many old photographs of the school and the history of the town from an educational perspective. A focus group member asked if a story like that with some photographs
would be something that they could share in the online platform. The researcher explained that was what the group chose to do, they would gain knowledge of new computer skills by learning how to scan and put a PowerPoint presentation together. They would also learn how to use the online platform and put their PowerPoint presentation into CENTRA© so that they could share with others who are at a distance and might not have the opportunity to attend the celebration.

I would like to help with that. Yes, that would be good. I think that then we wouldn’t have to rely on a few people who know something about computers but we could all have the chance to learn if we wanted. Karen_CFG_11/05

One area of particular importance for the researcher was to ensure that a sense of ownership was maintained throughout the project. As the focus group identified in Chapter Four, literacy is more than the mechanical skills of language, but provides a sense of ownership and a means of power of position in society that can also result in an authentic voice for Aboriginal learners. Directed by this, the researcher also suggested to the community focus group that the presentation would be created from within the community. The topic choice, direction and creation of the presentation would be managed by the focus group and the result would be something that the group created together. One focus group member responded:

That would be good because it’s always been like that in the past, that we’ve always had to rely on these – no offence – but white fellas to come in and show us how to do them and then they’re still doing things for us, instead of us learning how to do it and then do it on our own. And I think that’s the skills we need to build on. Julie_CFG_11/05

The researcher observed that the notion of the group creating something together that focussed on their community and would benefit their community was a very positive aspect of the research. From this point in the research, there was a sense of ownership and thus commitment to work together to get the project complete.

As the council was doing a presentation for the celebration that was focusing on the history of the community as a whole, the community focus group discussed doing the presentation with a small section describing the community and where it is located,
and then talk about the school and how it came to be and how it has changed throughout the years. One focus group member reminded the rest of the group:

Can I just say too, that with the issues that we’re facing around the school at the moment, about kids and their attendance and the possibility that the school might close ... we don’t have that many kids, that if something’s done around the school that we can then also online present to the Education Department about the importance of the school, that might help with keeping the school here. Kammie_CFG_11/05

We were just talking about it the other day and something that is really important to our community is this school. There are not many kids that go here and it is always being said that they [the school board] might close it down. We thought maybe we could do a presentation for the school board or something and we could learn some skills on the computer to do that. Julie_CFG_11/05

Some of the focus group members alluded to the fact that this was a really important issue because they had attended school in this community and it was all their memories about education.

We attended school here didn’t we Pete. Julie_CFG_11/05

Yep since about 1966 – that is about right. Pete_CFG_11/05

So, this is a really important issue then, because we have lost enough of this community as it is. Julie_CFG_11/05

That’s it – without losing the school. Pete_CFG_11/05

I went to school here up until Year 3, and you know it used to be that they would go to school here until Year 7 and then that changed and now they are only here until the end of Year Two and then they have to go to the next town over. We just don’t know why and now there is talk about our school closing. Karen_CFG_11/05

It is important to highlight that the social struggles that some communities face must be considered when taking on new learning experiences, which refines draft-guiding principle one (develop skills and awareness of Aboriginal learners’ profiles). The researcher observed that the focus group in agreement about the choice of topic. They
nodded in agreement and voiced sounds of approval. The group decided that this was a valid topic and something that was really important to them all.

The researcher also reminded the group that computers would be used in the creation of the topic. Although there were some old computers in the school meeting area, it was evident that the community had not had much exposure to new technologies. As outlined in draft-guiding principle five (support implementation of technology that is accepted, accessible, suitable, and reliable), while computer technologies have been an accepted method of learning in most Aboriginal communities, this type of learning faces many challenges. It is important to know the current status of technical equipment in the Aboriginal community and be aware of the barriers to online learning including the lack of computer hardware, IT support and Internet connectivity issues that were apparent in this community. The idea that computer technology would be used for the project was of great interest because the group in general felt that they were really not up to speed with computer usage and skills. Some focus group member comments that showed this included:

…with computers these days, it is so far advanced that in about 10 years time, so then another research is going to need to be done for a period of time again, just to be familiar with what everybody knows, and at the moment we’re in a level so we’re about 10 years back this way. And so by the time we get to this stage here, 10 years down the track there, we’ll probably be just slowly moving on. And with the research that you’re going to do, it’s going to facilitate us to learn faster and maybe we can catch up with the rest of the world. Pete_CFG_11/05

Others indicated the usefulness of computers in the following terms:

…it is very painful for us when an Elder passes because with that person goes all the history and stories as well. This computer thing sounds like something where we can have some of those stories, and histories shared together and saved to share with future generations and that sounds good. Karen_CFG_11/05

Overall, there were high levels of interest in computers and computer technology from the community focus group members. The literacy levels of the Aboriginal population are well below the expected average level, and some of the skills of focus group members involved in this project were reflective of this. The topic chosen was
one that was meaningful to the community and would involve the strengths and Aboriginal knowledge from within the community. It is important that the learning objects are culturally inclusive and the context of the learning that would take place as a result of this project was culturally and community-based. The results of this research provide opportunity for an authentic voice for the community. This project would also involve many community members who have direct connections to the school. These include children who are currently attending school right through to respected Elders from within the community. In this way, there are learning opportunities and support for the entire population through the process of this project that supported the recurring theme of intergenerational involvement.

5.6 CREATION OF COLLABORATIVE COMMUNITY ENGAGEMENT PROJECT

Over the next several weeks, the community focus group met on a regular basis to create a presentation that would be shared on the online platform with those who might not be able to attend the community’s 140th anniversary celebrations in person.

5.6.1 Creation of the presentation

The meetings of the focus group for the next few weeks took place in a building adjacent to the main school building called the ‘cultural building’. This small community building was extra room for the school and had a small kitchen and work area, as well as some comfortable chairs. Upon entering the building, it was evident that people were working on sorting photographs, and there were boxes filled with photographs, yearbooks, and school memorabilia in general. Two of the community Elders and focus group members were trying to sort the photographs. The focus group started with a review of our previous meeting and the goal they were trying to achieve, and then the researcher asked about the photographs and why they were so important to the community and the community celebration. Some responses included:
It’s, it’s like um, like ... really you start from one end and go all the way through. And it’s the growth of the community or the school as it goes on. So it’s like this vast um you know river of knowledge you see a vast amount of people that go through it. It’s like it’s stages that we all have to go through. Pete_CFG_11/11

This is a very important part of the community. Um, hard to sort of express I mean I think it’s going through it and we who did it understand the importance. So those people who will see this, who did this, will remember and understand and have that view. Judy_CFG_11/11

It’s a journey...in there’s the wisdom of the people that are here. So people that um have grown, realise that they’re part of the establishment within the community it’s basically the heart of the community. Pete_CFG_11/11

The group decided that a great starting point for the creation of the project would be to sort the photographs and to start thinking about categories into which the photographs could be organised.

5.6.1.1 The history of the physical school structures

The focus group then began the process of sifting through the photographs and finding photographs of the school and documents that told about the school’s history in the community. The researcher observed the focus group sitting in chairs around three large tables that had been pushed together. They were looking at the photographs and sharing with each other and with the researcher. In reflection of this process, the group showed evidence of social learning, intergenerational learning, and a sense of mentoring. The conversation between focus group members was ongoing and fruitful. Some of the conversations that took place are outlined below:

Here is a picture of the first school do you remember that one? Pete_CFG_11/11

Gosh I was just a little kid then...that [photograph] must’ve been in the early 1900’s. Julie_CFG_11/11
There was that school and then three wooden buildings... oh remember this one before that, it was the one that got burnt down in the 80’s remember? Pete_CFG_11/11

The question of the number of children who attended school when some of the focus group members attended the school was also discussed.

When I went to school here there were heaps of kids. All the families that lived here...there were lots and remember, we had the bigger kids in the school back then. So there were probably twenty to thirty kids in each class... so about 90 kids. Julie_CFG_11/11

One of the focus group members found a school report that had been done by a child from the community in years past. In this conversation the focus group discussed the school buildings and the physical location of the sites in the community:

This says, ‘On the 2nd of February 1868 was when the Commission actually was started in white years.’ Um, that’s in the... this report and it says, cause originally this fella, he established the mission had people living up in Moonta. And it says, it doesn’t say what actual year it was or anything like that. But it says, ‘In the meantime Mr Kuhn had transferred his mission to the area from Moonta. Initially he lived in a tent for four months and produced quarried stone and carted water for building a school room and dwelling.’ So the first buildings on the place were the schoolroom and his house. Kammie_CFG_11/11

I remember where that was. Over there. Julie_CFG_11/11

1868...then this other bit says that, um just trying to think where I found that. ‘In the 1920’s a State school was built on the western outskirts of the settlement.’ Kammie_CFG_11/11

So where is that? Tina_CFG_11/11

Over there. Across the road from the church...it was on that route. Julie_CFG_11/11

That’s an old stone building that one. It would take more than a fire to get rid of that. Karen_CFG_11/11

So there was an original one in 1868 and then there was the stone one across from the church. We don’t actually know where the original one was built but it might have been close to his house and there was a
hospital here too. The state school came next then the one that burnt down in the 80’s. Kammie_CFG_11/11

The focus group continued to sift through photographs and memorabilia together for hours. This is a refinement to draft-guiding principle one (develop skills and awareness of Aboriginal learners’ profiles) in that it is also important to allow the group to decide the length of time that they work on particular parts of their project. While in Westernised cultures, times are often set and adhered to, in some Aboriginal communities, this might not often be the case. Conversations continued about the physical structure of the school and where they had been located in the town. Many memories were evoked during this process for example, in looking at one photograph that showed many trees in the town at one stage, one of the focus group members stated:

Look at all the trees. Remember when we used to hide Easter eggs in and around all them (sic) trees? That was a long time ago… Julie_CFG_11/11

The physical structure of the school and the many buildings that the school had been housed in was a starting point for the community collaborative engagement project.

While much of the conversation did not revolve around the lack of genuine partnerships with the Government, the researcher observed an unspoken yet common understanding shared by the focus group. Genuine partnerships with the Government are needed. An example of a communication break down between the community and governing bodies was touched on when one focus group member made a discovery. In and among the information and documents, they found an article that spoke about one of the old schools being a dedicated Heritage Site, which no one seemed to have known about:

[This document]…is talking about the council particularly concerned with the need to repair the community hall roof. National and State funding may be available for this…. It says, ‘It is recommended that this item be included on the register of State Heritage Items.’ So if the hall is on the State Heritage Act the hall then…well the Government should be paying for maintaining it. Kammie_CFG_11/11
The group nodded their heads in agreement, but the researcher noticed that they seemed to take little notice. No one mentioned that they would follow up on this or that they should take it to the council. The researcher observed that the group seemed to be disheartened to the point of disinterest. It was quite obvious to the researcher that this community had been negatively affected by past interventions and dealings with the Government. A Narungga Elder clarified:

They may seem as if they are uninterested…but they heard, they are listening. They will think about that for a while and when the time is right, it will come up and it will be addressed. Ally_CFG_11/11

Further refinement to draft-guiding principle nine (cultivate genuine partnerships with government) suggests that a possible third party could negotiate and build a line of communication to better connect the community with government services. This also reinforces draft-guiding principle one that practitioners need to understand the learners, their history and the ways in which they approach new information.

While looking at the photographs, there were a few occasions when the group made comments about asking Elders in the community about certain photographs. An Elder would come into the room to see what was happening and a focus group member would ask them a question. In this way, there was evidence of generational support and learning opportunities that included all people in the community. In this case Elders were seen as having strength and a gift in remembering faces and places of times gone by:

Focus group member one: Who is that in the picture...?
Focus group member two: Which one?
Focus group member one: This one here what was her name?
Focus group member two: Old girl down the Port, not Auntie Peggy
Focus group member two: Oh here is [community Elder] let’s ask her
Focus group member two: [Community Elder] who is this?
Community Elder one: Oh that is Nancy’s grandmother, Auntie Karen.
Focus group member one: Oh, I didn’t recognise any of them, I wouldn’t have a clue if it hadn’t been for you. CFG_11/11
This type of interaction took place several times over the course the project. The group often made impromptu decisions to involve more Elders in the process and pull them into the room or sometimes call them on the phone to clarify points showcased in the presentation. In refinement of draft-guiding principle seven (build positive relationships, mentoring, and technical support) it is important to include Elders as a specific and specialised type of mentor to support and scaffold the learning processes. This ongoing involvement of the Elders in the community added depth to the presentation as well as provided a sense of security to the focus group, and ensured that the information they were putting together to share with others was accurate and historically sound, and approved by the Elders involved.

5.6.1.2 The emotional connections to the school

Besides the discussion about the physical structures of the school building over the years, the researcher asked why the focus group thought that these pictures were so important to the community and what place the education system plays in the community. The focus group identified the school as a safe, neutral learning place for everyone in the community:

The school plays a big part in our community. It’s always been the one thing that’s always been there. Karen_CFG_11/11

It was the first thing and it will be the last thing…hopefully. Kammie_CFG_11/11

Yeah it’s always from the inception it’s always been a structure that everybody’s been associated with. From where it was now or the old stone building where it was. Tina_CFG_11/11

It’s the ground roots isn’t it? Julie_CFG_11/11

It is. No matter what conflicts go on, on the place it always seems to bring people back here and together. And no matter what the differences are elsewhere and out they’re all put aside when people come back to the school. And they work as one for the school, for the school and for the kids. Tina_CFG_11/11
Yeah, it’s neutral ground. Pete_CFG_11/11

And first I think that it’s important because like for the children that they come first. And it’s very important. Julie_CFG_11/11

Well looking at our school it’s like any community. You go there whether there’s black, white or brindle. It’s a learning place for all. Pete_CFG_11/11

It doesn’t distinguish black from white. Tina_CFG_11/11

These emotional ties to the school have resulted in a strong sense of ownership and pride in the school that was evident in the focus group’s decision for the project to focus on the community school.

5.6.1.3 Transition struggles

There is a strong pull towards kinship and community in relation to learning environments for Aboriginal groups. In this case in particular, the focus group continued discussions about how difficult the transitions can be for the children to go to the local area school in the next town. Since the community school closure of Years Three through Seven, the community children must attend a local area school nearly 25 kilometres from their home community. This distance brings issues such as the cost of fuel and transportation to get the children to the school, as well as the emotional pressure on the small children to make such a huge change by attending a large school where they really do not know most of the people.

I think most of the parents that live close here…the community, I think they’d like their children to be taught here you know up to a certain grade and then out. They didn’t even want the children to go when they more or less shipped them off to [a neighbouring town]. They didn’t want that then. Karen_CFG_11/11

They’re in their own environment at a young age until they do that transition and they can feel safe and secure within themselves when they go to the schools out. Karen_CFG_11
They need to be given the opportunity to learn more about themselves and their culture, which they won't get in an outside school.

Kammie_CFG_11/11

The more that the group discussed this, the more adamant they became about the importance of their presentation. One community focus group member explained:

The school is very important to the community because it’s the very first stepping-stone for the kids. And rather than just bus them out of here to the school [in the next town] which is the next closest, this is their building blocks, this is their foundation, this is where it starts. So with no school they would be expecting a five year old... a four year old to get on a big bus and go out elsewhere for Kindy.

Tina_CFG_11/11

It was discussed that even three year-olds are expected at school at times when they are born late in the year but three year-olds are not allowed on the bus, so those children would have to be driven in or miss out on the early months of school. The group talked about how this was not fair to the young children and strengthened their need to get the message across that their community school was very important to the community.

As a result of the discussion, the community decided to use a photograph of a small child from their community, waiting to get on a big school bus. They felt this photograph was an image that would add impact to their presentation:

We can show all these goods things; we’ve shown all the ways and all the importance of the school and the importance of education. And then maybe show a few pictures of a three year old or a picture of a three year old and say, ‘Doesn’t this child deserve that too.’ Or something like that you know? Or doesn’t this child deserve the same foundations as the children before? Pete_CFG_11/11

You take a picture of a three year-old standing in front of the big yellow school bus that they get... that they have to catch every day. Yeah that would be a huge... Tina_CFG_11/11

That’s a fantastic image. Kammie_CFG_11/11

That would be daunting for anybody. Julie_CFG_11/11
We can do that. Think of that kind of an impact...
Kammie_CFG_11/11

At that age too they’re not even… they’re not aware of the differences in you know what white people are like and whatever. You know that would be so scary. Suddenly being placed in a school when five year old and having had little contact with white people, really. And everyone there you know, ninety percent of the kids in the class and the teachers, would all be white. I mean that would be so daunting for a five year old. Besides, the fact that the whole school thing is new, as well. Kammie_CFG_11/11

This discussion highlights the specific ways of learning that must be considered for Aboriginal communities and the cultural saturation of learning environments that are crucial to Aboriginal learners. The conversation turned to the importance of cultural aspects of living and having a start that included the language group’s culture:

Actually, can we say on that thing too, that one of the... um... like, just emphasising on the importance of culture for the little kids. Like all my kids came to kindy here as well. And I did... I was living in [the next town over] at the time but I brought my kids to Kindy here rather than going into Kindy in [a neighbouring town] with other kids so that they would get to learn some of their culture with and get yeah with the kids here. We need to get that point across in the presentation. Kammie_CFG_11/11

The school is like roots to the place. Like a tree if you move it it’s going to be hard to rekindle it again. Pete_CFG_11/11

The discussion about the transitioning of children from the home community school to the local area school sparked a sense of urgency in the community focus group and helped the group to feel confident about their choice of topic for the presentation.

There was a renewed sense of meaning for the project and the focus group seemed concrete in their decision to talk about the community school in their presentation.

This topic was culturally relevant, which is relevant at all levels of learning in Aboriginal settings. As this project was an intergenerational concern and brought
forth opportunities for the entire community to learn together, it was becoming clear that this literacy learning opportunity would bring about a sense of ownership and an opportunity for the community focus group members to present their concerns from an authentic voice of the Aboriginal community members.

5.6.2 Building a theme

The next step in the process of creating the presentation was to bring some focus to the project. The researcher asked the community focus group to think of a theme that they would like their presentation to be based on. There had been previous discussions about the journey of education, suggesting that education and learning was like a river. Other words that had been mentioned in previous discussions were connection and community. These discussions described learning in community, connecting with others, as important to Aboriginal community members.

The conversations lead to an agreed theme from the group. One focus group member suggested ‘unity in education’ would be a good theme. Everyone thought that this was good because as one member confirmed:

It is all about everyone doing stuff, working together for the kids for the future...for their future and the future of the culture.

Kammie_CFG_11/11

In refining draft-guiding principle ten (understand community goals, directions, and development), the focus group went beyond the goals and directions of the community as a whole and identified the importance of their children and their children’s, children’s future. The group decided that there was really nowhere else in the community that people gathered for these reasons. There was the health centre; that that was not really a gathering place, and the church, which is held in the community every other week and not many people go:

Church isn’t as important as it used to be. Um, well like we were saying, we used to always go through on a Sunday. And then do Sunday school um yeah Sunday school. And you go through from there to the church. And um I remember going to church because it
was when I was young. Once you move out from... well when I moved out from [this community] here. Um, we, we basically never gone back to church. I found doing everything else came and I had no time for going back to church. Pete_CFG_11/11

The group decided that education and unity was a good focus and that they would look for photographs that showed the different school buildings through the years to start the presentation and then look for photographs that showed gatherings, special events and teachings that have happened at the school over the years. Although the group was worried that some photographs might have been burned in the school fire in the 1980s, they discussed where they might find more pictures, such as at the district council’s website and books that they knew of where photographs that might support the project could be found.

As the theme started to develop and the focus group shared their thoughts, it became evident that there was a real sense of social learning, peer support and learning together.

5.6.2.1 Creating specific headings

In order to best sort through the photographs and to organise thoughts, one of the group members thought it might be a good idea to create some headings or categories for the photographs to be organised into. The cultural room, adjacent to the school had big walls that had been prepared for painting so they were perfect for hanging pictures. Working together, the group created headings to write on slips of paper and stick to the wall with sticky tack. Then the key photographs that the group found relevant to the heading were stuck up under the appropriate category label. The process of creating the headings and revising them, as well as sifting through all of the photographs and placing them under the correct heading took nearly two weeks to complete. The headings that the group agreed on were:

- Gatherings,
- Connections,
- Differences then and now,
The focus group sorted through boxes of photographs, articles, student reports, newsletters and other memorabilia. The researcher observed that the process was taken on as an important project in itself and the group appeared to learn so much from each other during the process. This demonstrates the importance of peer support and learning. Some community Elders who often visited the project working space, would point out members of the community in the photographs and were able to name them and share with the rest of the group who they were. This showed that there is a recurring theme for opportunities for intergenerational learning that strengthens the community as a whole.

Throughout the process, significant school events and gatherings were fondly remembered. The project provided opportunities to support specific ways of learning that work best in some Aboriginal communities, and learning opportunities that are saturated in the culture of the community. Moreover, relevance is important for effective learning and social learning and feeling comfortable in one’s environment is also important to Aboriginal learners. As the group found interesting pieces they would call out to share for example:

What about this, listen to this everybody, ‘the school was bursting at the seams when three hundred students and teachers from the area and other schools visited our community to take part in an Aboriginal cultural experience on the 18th of May. Workshops were set up comprising storytelling and history, art and dance and Didgeridoo, face painting, artefacts, spear throwing and traditional food. Authentic Narungga signs and symbols for objects, places, animals and people
The photographs that were found included cooking kangaroos and butterfish in traditional ways, athletic awards that the community had won, Aboriginal debutantes ball, old buildings, community shearers, and the first petrol pumping station. Perhaps one of the most important documents that the group found was an old version of a school mission statement for the community school:

It says, ‘Our school exists for the students. We want to develop as more than just a school but a community school with a warm, caring environment. An environment that values openness, honesty, trust, communication and a stable place in a changing world with a dedicated staff and happy students. With parent involvement and lots of interaction between the school and the community to promote better understanding and working together. We want to develop pride in children, own specific culture and awareness of their own Aboriginality and to help develop an objective understanding of the world outside the Aboriginal community for the development of Narungga cultural studies, collaborative learning strategies, positions programmes with [a local] Area School. Excursions, trips and camps, student participation, taking more responsibility and making choices, staff modelling relationships, honesty and respect; [Our] Aboriginal School aims to keep children alive to learning… for children to see the school as an interesting part of their lives. To develop the taking of responsibility and making choices and to encourage children to aim for excellence in whatever field they choose.’ Julie_CFG_11/12

The group agreed that this was a great statement to keep in mind when creating the presentation as this was the way they felt about the school and why they thought it should remain open for the children. These instances of sharing and learning from one another in the comfort of the community, and for a cause that was culturally relevant and important to the focus group members, were consistent throughout this phase of the project.

5.6.2.2 Elder input

The focus group continued to meet until all of the photographs had been sorted through and important photographs identified by the group were discussed and categorised. All of the photographs were taken down and put into folders according to
their categories to get ready to scan into the computer. While taking the photographs down, the researcher gave the group a pad of paper and a pen and asked them to start writing down what they wanted the commentary for the presentation to say. The discussion was around the first part of the presentation focusing on the first school building and the history of that building. No-one in the group thought he/she knew enough about the first building to write anything about it and felt they needed help to get the history correct. The focus group decided to call on community Elders for their input. Two Elders came to the building and spoke to the group for a while about the history of the community. Aboriginal communities in general have specific cultural Ways of Knowing and learning and this was reflected in the Elders’ comments. One Elder talked about the history of education in the community and said:

There are different types of education and there is Elder education that is given to you as an Elder. When an Elder teaches the information they share it is called “learning your own history.”

This refines draft-guiding principle six (foster intergenerational community involvement and consultation), for not only is it necessary that Elders play a part in the intergenerational learning, but they are considered to be a unique sub-culture, having been given Elder education. The group explained the project to the Elders and they decided it would be good to have some time to prepare a script that needed to be written down. The Elders suggested some more time to talk to others who might have more knowledge about the history of education in the community. The group worked well collectively and recognised they needed information from other people and were willing to go outside of the community to make that happen. Cultural integrity proved a very important part of the project as it centred on the community’s history and cultural continuity.

As a result of turning to the Elders for advice, the focus group decided that they wanted to ensure that they were including Elders in the preparation of the presentation, providing intergenerational learning experiences. The group also wanted to ensure a saturation of their culture in this presentation that supports using culturally relevant topics and information in the learning process.
5.6.2.3 Project visioning

The group gathered several times to discuss the vision for the project. Some members discussed pictures flashing on the screen with commentary behind the pictures as a finished product. Some specific pictures were mentioned, for instance, the picture of the small child with the yellow bus. The final group visioning exercise took place with the group to set out the way they wanted the final presentation to look. As a group they decided that there were things that were important to incorporate:

a) Narungga language – spoken orally in the presentation,
b) The Narungga history,
c) The mission school history,
d) Blending the past, present and future throughout the presentation,
e) Transitions in both culture and language,
f) Language revival,
g) Cultural continuity,
h) Sharing culture with others,
i) Learning from others, and,
j) Contain a message for the government about the importance of the school in the community and the directive to keep it open.

The ongoing group work process resulted in decisions about this presentation that were collaborative, and created with intergenerational learning opportunities.

5.6.2.4 Scanning the photographs

The next step in the process was to scan the photographs into the computer. Part of the funding for the project allowed the purchase of equipment for the community, and one of the items purchased was a scanner. During this process, peer mentoring became evident. One of the community focus group members had used a scanner before and volunteered to be a mentor and provide peer support to those in the group who had not used a scanner before. There was one focus group member in particular who was very interested in learning how to scan and while the researcher watched over the process, the focus group peer mentor did most of the teaching and the focus group member
who was the new learner ended up scanning the photographs that she wanted to scan. This refines draft-guiding principle seven (build relationships, mentoring, technical support), indicating that peer support is a necessity for success, however scaffolding within that support was evident.

There is something to be said here for the time that it takes to scan photographs and to teach people how to properly learn the skill. At the time in the process that the photographs needed to be scanned, there were several other community activities going on in preparation of the 140th celebration. Although many of the focus group members showed an interest in learning how to scan, many of them did not have the time to put into learning this skill. In the end, the researcher and the community focus group volunteer who had experience scanning photographs in the past, worked together to scan all the chosen photographs into the computer. In this way, the researcher became an active member of the focus group. This led to refinement of draft-guiding principle seven (build positive relationships, mentoring and peer support), as the researcher needed to be willing to take extra time and effort to scaffold in the creation and development of the community-based project.

5.6.2.5 Choosing photographs

At the next meeting, the researcher set up a computer and the school’s projector and each of the photographs were opened on the screen one-by-one in efforts to help the group choose the most effective photographs for their presentation. In total, there were 70 photographs chosen from the hundreds of photographs available.

5.6.2.6 Putting together PowerPoint

In earlier meetings the group had done some visioning of the presentation to work together and imagine how they would like their presentation to look in the end. This process showed the importance of social learning. A list of the photographs was handed out the group and together they decided which pictures should come first, second, etc. and together the group decided the order of the photographs. While they
decided as a group, the focus group volunteer who had a lot of experience in this area electronically cut and pasted the scanned photographs onto PowerPoint slides so that the group could start to see the flow of the presentation. In this way, the focus group member acted in the capacity of mentor and peer support to the other focus group members. As they went along, they shouted out titles for the slides and worked together to have a rough draft of the presentation completed after three group meetings. Every member in the group did not leave this experience knowing how to create a PowerPoint presentation on their own. However many of the literacy levels in the group were perhaps weak and unpractised. It was good to see that everyone refreshed their literacy skills in organization and sequencing. As a result of this process and by the end of the project everyone had some understanding of what a PowerPoint presentation was and who in their community could help them achieve a presentation if this was a future goal.

5.6.2.7 Creating commentary for photographs

Once the slides were put into the order that the group wanted, it was suggested by the researcher that group members would create commentary for the slides. Each group member volunteered to create commentary for a few slides that were meaningful to them. The focus group members went away to think about what they wanted their slides to say. At one meeting some of the focus group members tried to talk about their thoughts and what they wanted to say with their slides and the group members took turns in discussing what they thought the commentary should say. For instance, a few people tried to put words to one particular slide but had trouble expressing it in writing. This reminds us of the reports of the low level literacy skills of many Aboriginal learners however encourages the use of Aboriginal Ways of Knowing, learning and teaching through the use of oral language and sharing. The community focus group talked out their thoughts about certain photographs:

As the picture displays it is hard for a child this size and age to get on a school bus alone. Once they get past that first stage, the hurdle becomes even more complex when they have to enter the school. Even if they learn a part of their culture… oh, this is hard to put words to a picture. I guess it is hard to take a child away from its mother and in the case of our school the community is the mother. However, within another community it is hard to put our values and beliefs in, so
basically they are putting in a false… or mock culture and this does make it hard. If the culture is here then why can’t we keep the child here until they really know themselves? And the government must know this, they may not show support but they know this. Pete_CFG_8/12

The kids and their opportunities to learn about their culture in the place that is significant to their culture so being able to be taught in the school, to be taught on the community. There are a lot of Elders who come into the school but they don’t feel comfortable coming into the bigger schools so our kids will miss out on the sharing with their Elders. Parents feel safe coming into our school but if we put them into the area school then the families do not become part of the process. Kammie_CFG_8/12

Having the opportunity to talk out what they wanted to say for that slide was very beneficial to the focus group members, especially those who had a lot to say but had trouble writing down what they wanted to say or who were having difficulty expressing themselves effectively. The researcher also observed this as further evidence to support the need of mentors and peer-support situations, and noted this as another example of mentoring and supporting each other in a social group where the members felt comfortable:

It was great to see the more experienced willing to teach. The people with skills are willing to share with others and willing to teach others how to work with some of the technology for example and people were working and learning together. RJ_3/12

This example of peer support and scaffolding also reflects Vygotsky’s (1978) ZPD which is the difference between what someone knows and what they can do with the help of a person who possesses stronger skills in that area. This was seen several times with Kammie in particular, who was able to scaffold skills for her fellow learners.

Working together in social groups, having a peer mentor and allowing for learning to happen in a cultural way, allowed the focus group to complete the commentary for the presentation and rehearse, and add transitions and audio files to the presentation.
5.6.2.8 Adding audio files and custom animation

Once each of the focus groups had completed the commentary for their slides, they had a few mock sessions in which they sat around the table as a group and the focus group practiced the commentaries for their slides in sequence, as if they were presenting the completed presentation. Again, this experience was very valuable in building confidence and gaining an understanding of what the final product would sound like. It gave each focus group member an opportunity to show ownership in the project that is an important part of literacy learning in Aboriginal settings. Each focus group member was recorded reading their part of the script (see Appendix 8b) separately, so that their audio file could be added to the slide. This process took place over a few days.

The recordings are turning out wonderfully. I even found an online program that we can edit out mistakes or lengthy gaps in the speaking parts. The focus group members are really starting to get excited about the final product! RJ_26/11

At one point, the group decided it would be great to have some of the children from the community school singing in the background of some of the slides. The group commented on the songs that the children had learned to sing in their cultural language. The addition of these types of songs was seen by the group as an important addition as well including an important cultural aspect to the project. Luckily, a regular casual teacher was coming into the community and he played the guitar and sang cultural songs with the children on a regular basis. Once the focus group project was explained to him by the researcher, he was keen to sing with the children and the music was recorded to add to the presentation.

All of these extra features added up to extra work and although it was the hope of the researcher to have some of the focus group members learn the skills as described in this subsection, in the end, the researcher realised that within a three month timeframe, the focus group had learned what a PowerPoint presentation was, how to scan photographs and work together to put together a presentation. In summary, there were a lot of successes in a small amount of time. The focus group member, who had
experience with computers, again volunteered her time to help to finish with the fine-tuning of the draft of the presentation:

The researcher explained that:

This evening, one of the focus group members came home with me. As it turned out some of the scanned photographs and articles were very large, and we needed to minimise their size for use on the online platform. Seeing as that there were over 70 photographs, this took quite some time. As the focus group member was working on that job, I was cutting and pasting the sound files and choosing the final draft of the sound files to save. These proofed versions of the sound files were then renamed with the name of the slide that they were to be attached to. Once reducing the file size was complete, for the slides of the session, that job was finished for now. Together we added the sound clips to the appropriate slides, timed the transition, adjusted the slide transitions, and tried our best to work out the kinks so that the presentation was almost complete. This process took nearly five hours. When the focus group member took the presentation home that evening, she continued to work on it from her home. She continued, adding photographs that she had stored on her own computer and continued tweaking the presentation as she's quite a perfectionist. She worked for hours on this project. RJ_26/11

The researcher, research assistant and focus group volunteer were very pleased with the outcome of the extra time put into the project. The efforts of everyone involved resulted in an amazing first attempt at assembling a PowerPoint presentation for use on the synchronous platform.

5.7 CONCLUSION

Phase Two of the research was a process of creating the collaborative community engagement project. The participants learned new computer skills as well as literacy skills in the process, and rekindled a passion for what was important to them and their community.

In Chapter Six, Phase Three of the research, the participants took part in synchronous platform training sessions to prepare for the presentation of their work in the online environment. Three iterations of the presentation occurred and, at the end of each
iteration, the draft-guiding principles were refined. The first iteration was a static version of the collaborative community engagement project (see Appendix 8a) that was presented to the community. The second and third were iterations in which the collaborative community engagement project was presented on the online platform.
CHAPTER 6 – RESULTS AND DISCUSSION FOR PHASE THREE

6.1 INTRODUCTION

This chapter presents the third phase of the research which comprises a series of iterative cycles of the proposed solution (Reeves, 2006), or in the case of this study, the collaborative community engagement project. Through the iterative cycles, the researcher, together with the participants, refined the collaborative community engagement project according to the information interpreted from the data collected at the end of each cycle, and implemented the project again, to further refine the community’s project. In this phase further refinement of the draft-guiding principles, as a result of each iteration, also took place with the aim of producing a set of design-based principles that can be applied in contexts where synchronous technologies are implemented in adult Aboriginal learning arenas.

In Phase Two (presented in Chapter Five), a collaborative community engagement project was created. The topic chosen by the community was ‘unity in education’ and the project was created using photographs from the community. The photographs were scanned and put into a PowerPoint presentation to which the focus group members added commentary and audio files. In Phase One of the research, 10 draft-guiding principles were drawn from the literature, and data collected from a focus group with literacy practitioners, and from the community members themselves. These draft-guiding principles steer the project and are revised throughout Phase Three of the research.
6.2 DATA MANAGEMENT FOR PHASE THREE

The methods implemented in the third phase of this research were much the same as those used and described in detail in the second phase of the research and included, focus groups, interviews, observations, and field notes. There were three cycles of the collaborative community engagement project, created by the community focus group towards meeting the literacy needs identified by the community.

The first cycle was a presentation of the static version of the completed project. Following this first cycle, the focus group gathered together to discuss the outcomes of the presentation, comments arising, and suggestions for improving and refining the presentation. These data assisted in the refinement of the project that was then modified accordingly in preparation for the second cycle. At this point in the research the draft-guiding principles were further refined to clarify and subsequently produce design-based principles to be applied in similar learning contexts.

The second cycle included the first implementation of the collaborative community engagement project in the online environment. The collaborative community engagement project presentation was made to a neighbouring community’s Elder care centre, where many members are of Narungga descent. After the second presentation, a second meeting with the community focus group who participated in the development and delivery of the project took place and the successes and improvements to be made to the project were identified with the group. The data collected from this group helped to create the final revised version of the project. At this stage of the research the draft-guiding principles were also further refined to enhance the effectiveness of the principles.

The third cycle of the project was delivered again using the synchronous platform and the audience in the third cycle included a group of University academics including a Narungga community member, in another state in Australia. After the third cycle, the focus group met a final time to discuss the success of the modifications applied to the solution. Questions about the future of using synchronous tools for self-identified literacy learning needs were discussed to determine the validity of using such a tool to meet that the needs of the community. At the end of the third cycle the draft-guiding
principles were revised a third and final time to produce the design-based principles that are discussed in Chapter Seven.

These three cycles of iterations are discussed in detail in the present chapter and in turn, this third phase and the iterations of the collaborative community engagement project, and the draft-guiding principles, aim to answer the third research question of this study: What underlying principles, when applied in these contexts can support use of synchronous technologies in Aboriginal communities?

### 6.2.1 Data analysis for Phase Three

Data analysis for Phase Three included data collected from focus groups, interviews, observations and field notes during each of the iterative cycles of the collaborative community engagement project. In some cases the material data were recorded using digital audio recordings and recordings on the synchronous platform. These data were then transcribed and read and analysed. A research journal was then created, using a constant comparative method to identify common categories between and among the participant responses and observations of participants (Marlow, 2005; Ryan & Bernard, 2000; Stake, 2000). These data provided opportunities at the end of each of the iterations for the community focus group to reflect on what had been discussed, and to work together to make the changes they felt their presentation needed.

### 6.3 THE THREE ITERATIONS OF THE COMMUNITY COLLABORATIVE ENGAGEMENT PROJECT

#### 6.3.1 Iteration one – Static presentation at community celebration

As mentioned in the Phase Two findings and discussions, the researcher suggested that the group put the entire presentation together in a static format so that the community focus group members could see what the presentation would look and sound like once completed. The idea for this was derived from the researcher’s
previous experiences with Aboriginal learners as well as from the literature that suggests Aboriginal learners have specific Ways of Knowing and Learning. Battiste (2008) and George (1997) discuss the importance of oral traditions and storytelling in Aboriginal Ways of Knowing and Learning and recommend incorporating them in these contexts. The static version of the collaborative community engagement project provided a visual experience with the strong component of oral language, and incorporated story-telling, and was observed to be a very meaningful experience for the focus group. It gave the group an opportunity to fully appreciate all the hard work that they had done. Moreover, it gave them an opportunity to witness the story that they had created and take pride in what they had accomplished. The researcher noted that an important part of acquiring technical skills was to allow time for reflection at different stages throughout the learning process. This, in turn, refines draft-guiding principle five (support implementation of technology that is accepted, accessible, suitable and reliable) by suggesting that the benefits of technology can be better understood by the community if time is taken to share and reflect through the learning process.

6.3.1.1 A final draft

The final draft of the collaborative community engagement project; a static version of the presentation, with attached photographs, recorded commentary and files of the children singing, was presented to the focus group on the 27th of November. The group gathered in the school library/meeting room to view the presentation. The school principal viewed the presentation as well and decided that it must be shown to the community at the 140th celebrations. Although this was not part of the original research project, it was a great honour, and the focus group members were very excited about their presentation being shown to the community as part of the celebration. This static version of the project became the first iteration of the collaborative community engagement project.
6.3.1.2 The static presentation

The focus group were very excited at the decision to show their presentation at the 140\textsuperscript{th} celebrations and thought it would be a great way to share their message and demonstrate their newly acquired abilities. The 140\textsuperscript{th} celebration day was very well organised and the community’s population easily tripled on the day. After the event, the researcher wrote in her journal:

Today was the 140\textsuperscript{th} anniversary celebration of [the community]. The community pulled the celebration together in a very collaborative manner. The schoolyard was decorated with balloons and streamers. One of the focus group members had worked very hard to get some funding from [a university in the state] to prepare an honour board. The morning started with a speech from the school principal, followed by [other dignitaries] and the unveiling of the honour board. There was also a speech from the minister of education for [the State]. The children had used movie maker to put together a presentation of artwork. After they had showed their story, the focus group’s presentation was shown to the people gathered in the classroom.

It was very exciting for the focus group that the Minister of Education for the State was in attendance at the celebrations and viewed the presentation in its entirety:

There were about 40 people present in the room, including the Minister of Education, who had a front row seat. The presentation was shown on the large interactive white board in the classroom. There are many comments that were made about the presentation, and it was very positively received. Many people were unaware that the school was in jeopardy. Many visitors were even unaware that the school only went to grade two. So this was a great opportunity for the focus group to show their presentation. Everyone clapped and cheered after the presentation was complete and the focus group members beamed. This was a really proud moment for them!

At the end of the day, one of the focus group members came to say goodbye. She had to travel to a conference and would not return before the end of the project:

I presented a token of appreciation to Ally, as it was her last day in the community and I would not be meeting her again before the end of my time in [the community]. She is an excellent mentor, friend, and advocate for this research. She returned my gift with a gift of her own. A beautiful wooden carving of a shark, the totem for her people which she said stands for strength and unity. A great ending to a great day!
This gesture was a very humbling experience for the researcher. To have such a respected Elder offer a gift, as well as being offered the privilege to call her Auntie, was a very humbling and reassuring gesture, and validated the support of the focus group and the community.

This first iteration of the collaborative community engagement project gave the opportunity to present the completed PowerPoint and was important for the focus group members. It allowed them the opportunity not only to see their completed work being formally presented, but also, to witness the reaction of the people who viewed it. As shown in Chapter Five, the process of creating the presentation was guided by many of the draft-guiding principles. In reflection of the process of the creation of the project and the first iteration of the presentation itself, the draft-guiding principles were refined. This project produced a presentation that was culturally relevant and meaningful and incorporated the participants’ showing community strength. Perhaps most importantly, the presentation provided a sense of ownership for the community members in which literacy learning activities helped to provide a voice for the Aboriginal community. Once the excitement of the celebration had ended and the routine of the community resumed, the focus group gathered to reflect on this first iteration of their presentation.

6.3.1.3 Focus group reflection of iteration one

The community focus group met in the usual meeting place and the researcher observed that they were still excited about the presentation from the previous week. Many of the focus group members asked the researcher if they could have a copy of the presentation. They said that the people who had watched their work were very impressed and the focus group members had many people mention to them what a great job they had done. The researcher noted that there was an overall sense of excitement and pride in the completed project.

The researcher explained to the group that at this meeting, the goal was to evaluate how the presentation went, what things should be changed and how the presentation could be improved. The researcher also discussed with the group that this static
presentation allowed the participants to see how the presentation should be delivered when it was time to do the live-time presentation on the CENTRA© platform.

As in Chapter Five, the social learning aspect was always at the forefront of the project and this was validated again in this process. The researcher started the conversations about changes that needed to be made because she had received a phone call over the weekend from one of the focus group members:

   Over the weekend, I received a call from one of the focus group members, who called because her daughter had seen the static version of the presentation and she was worried that her mom was going to sound “stupid” because she had troubles saying one of the words in the recording of the presentation. She asked if I could please fix that so that it wouldn’t sound that way. RJ_30/11

As a result of this comment, and in discussion with the group, it was decided that it would be best to go over the sound files to fix them up before distributing a copy of the presentation to anyone. The local community schoolteacher who had helped with the sound files initially agreed to meet with the researcher to fix up the files using an open source online sound-editing program. It took approximately four hours to go through this process.

The focus group was generally happy with how the presentation sounded and looked, and felt that they got their message across the way they had hoped. As a result of the time that was taken to create the project and the careful application of the draft-guiding principles, the community focus group felt that once the audio files had been fixed, the static presentation was a solid first iteration. The group was now ready to proceed through the training sessions and learn how to facilitate on the online platform.

6.3.1.4 Refining the draft-guiding principles – iteration one

Throughout the process of creating the collaborative community engagement project and the first iteration in its static form, observations were made which led to refinements of several of the draft-guiding principles. The original draft-guiding principles created to guide the research in finding the most effective ways to create
environments to successfully support the use of synchronous technology in Aboriginal learning contexts can be reviewed in Chapter 4.5 and a summary of the refinements made to these principles is listed below:

**DGP1 Develop skills and awareness of Aboriginal learners’ profiles**

This draft-guiding principle suggests that practitioners must develop technological skills and present themselves in confident, competent and adaptable ways. An awareness of literacy levels and Aboriginal Ways of Learning is needed to connect to learners and to make learning relevant to the community’s needs. The analysis of the first iteration of the collaborative community engagement project demonstrated that further to being adaptable to the needs of the learners, practitioners must also be flexible in regards to time management and scheduling. Some Aboriginal communities do not always adhere to strict westernised timetabling methods and practitioners must be prepared to allow the learners to direct time management of projects and lessons. Lessons therefore must be both learner focused and learner driven.

**DGP2 Create opportunities to participate in an online learning community**

Draft-guiding principle two suggests that it is imperative to understand Aboriginal learners’ past learning experiences in order to assist them in effectively participating in an online community. These opportunities should include social networking, interpersonal relationships, be culturally relevant and include local cultural traditions and values. During the first iteration of the collaborative community engagement project, it was also evident that in addition to a learner’s past learning experiences, the learner’s and the community’s current social struggles should also be considered when creating opportunities to participate in an online learning community.

**DGP3 Utilise relevant content**

This principle stresses that relevant and computer adaptable content is needed in order to create successful learning experiences using synchronous technologies for Aboriginal communities. This content must be created in consultation with the
community to result in empowerment, ownership, and authentic voice for the community. As the analysis of iteration one of this project showed no refinements of DGP3 were needed, this principle will remain unchanged.

**DGP4 Value cultural inclusion**

This guiding principle suggests that in any synchronous learning setting there should always be a consideration of culture in the instruction and implementation stages. This includes geographic area, living conditions, socioeconomic status and language group. It is also important to understand the Aboriginal Ways of Knowing and Learning in each community and have an individualised relationship approach to each community that involves those within the community. While this principle is affirmed through the process of the iteration, there were no refinements at this stage.

**DGP5 Support implementation of technology that is accepted, accessible, suitable, and reliable**

Accepted, accessible, suitable and reliable technology must take into consideration cultural values, social issues, fiscal constraints and technological support. The technology must be introduced appropriately to the community and seen as a benefit to the community. During iteration one, it was apparent that helping community members to understand the benefit of technology included sharing and reflection during the learning process. Moreover the first iteration indicated that it is also important to be aware of the current state of technical equipment and of the barriers to computer learning.

**DGP6 Foster intergenerational community involvement and consultation**

Draft-guiding principle six suggests that there must be a locus of control by the community when using online technology. Aboriginal Ways of Knowing and Learning must be considered and learning together should be promoted to strengthen the community. Online learning tasks should promote a whole family, whole community approach. This principle was refined in iteration one as Elders were seen as more than just playing a part in this process, they are considered to be a part of a
unique subculture and should be involved in all stages of new learning environments and opportunities.

**DGP7 Build positive relationships, mentoring, and technical support**

There are several types of mentors needed in the learning process including onsite mentors, peer mentors, community mentors, liaisons, technical support and practitioner mentors. These mentors play an important role in the retention and motivation for the learners. These mentors have many roles listed in the original draft-guiding principles (see section 4.5). These roles were refined during the first iteration to include:

- Gain respect of the community through obtaining permission to be on the land, meeting with the council etc.,
- Know your limits in these contexts and choose lessons in areas that in which you know you are confident,
- Include Elders as a specific and specialised mentor to support and scaffold learning processes,
- Scaffold opportunities within peer support must be present, and
- Be willing to become an active participant yourself in the creation of projects and through learning tasks.

These refinements will be added to the final version of DGP7.

**DGP8 Promote community-based learning**

Community collaboration is key in community-based learning environments. This approach allows the community to see the benefits of new technologies in a wholistic kinship approach. Using Aboriginal strengths in these contexts promotes familiarity and a feeling of comfort for learners. This draft-guiding principle was refined to suggest that it is also important to allow the learners to choose the location and setting of where they would like to work on learning projects.
DGP9 Cultivate genuine partnerships with government

Funding is required in all aspects of online learning environments. More work must be done to develop relationships with key stakeholders in order to promote these meaningful, relevant, empowering and real-life online learning opportunities. One suggested refinement that arose from the iteration was the possibility of a third party that could better connect the community with Government services.

DGP10 Understand community goals, directions, and development

Draft-guiding principle ten suggests that synchronous learning tools should be used as community development support systems. These tools can provide links to the outside world and can help to make communities more self-sufficient. Iteration one of the collaborative community engagement project resulted in a revision to this principle that suggests that this principle is more than looking at the community as a whole but focuses on a specific and deep concern for their children and future generations. This concern is at the core of the community’s desire to learn about technology.

6.3.1.5 Iteration one summary

The purpose of this first iteration was to present the collaborative community engagement project, and through reflection with community members refine the project to present again. During the creation of the project and through the initial iteration and static presentation of the project, there were several refinements of the draft-guiding principles. These refined principles will be used to guide the collaborative community engagement project and will be further refined through the data collected in the second iteration.
6.3.2 Iteration two – Online presentation to Elder Care Centre

6.3.2.1 Online synchronous platform training

Alongside the creation of the presentation, the focus group was offered the opportunity to take training on the online platform CENTRA©. The Digital Bridge Unit owns seat licences for the CENTRA© platform and allowed for five seats to be available at given times for the training of the community focus group. Eight of the 13 focus group members indicated their interest in learning how to use the platform and share their presentation with others at a distance. This participation rate suggests that the Internet is becoming an accepted method of learning in most Aboriginal communities. The training was created by the researcher to be delivered in three parts (see Appendix 7) over a six hours, as shown in Table 6.1:

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td>An overview of the platform from a participant’s perspective. Part A takes the trainees through the different parts of the interface and allows them to use some of the online tools available in the classroom environment. There is ample time given to practice using the tools and the microphones during the training.</td>
<td>2.0 hours</td>
</tr>
<tr>
<td>Part B</td>
<td>Introduces the participant to the online platform from a leader’s perspective. All the session leader tools are introduced and participants have opportunity to explore these more advanced and robust tools.</td>
<td>2.0 hours</td>
</tr>
<tr>
<td>e-Essentials</td>
<td>A review of all the tools, managing and facilitating sessions with time to practice some of the application sharing features. Question and answer period.</td>
<td>2.0 hours</td>
</tr>
</tbody>
</table>

The training took place over a three week period in the temporary computer lab that was set up in the council office for the focus group:
At 3 pm the four volunteers to learn about the platform gathered in the council building to take the first part of training. There were four computers that were set up in the council building. These computers were donated for our use by Digital Bridge Unit. The computers started up and away we went. The community members all stayed for the full two hours of Part A training and it seemed to go very well. Everyone understanding and showing enthusiasm of the computer literacy skills employed. RJ_11/11

The researcher was often not sure if the focus group members would give more of their spare time to attend the sessions:

Today, the second training session with [four more focus group members] was scheduled from 3:30 – 5:30 pm. I was certain that these folks would not show up as it is shopping day and there is a bus that takes people to the larger town to go shopping. But I did drive into the town to the council office to see if anyone would come… there were no cars but I went into the building and… there they were, all four of them sitting at the desk waiting! I was really surprised and happy about that! I really thought that they might not come. It is great to see everyone so enthusiastic and committed to the project! That is now 8 people who have been trained in Part A. RJ_12/11

The second part of the training, Part B, is a much more involved part of the training. The participants learn how to start a session as a leader, how to import their PowerPoint slides into the session, and how to generally manage a session on their own as a leader. In the first group of participants, the focus group member who had some computer experience played an important peer mentor role throughout this part of the training:

This evening, there was Part B CENTRA© training with [the first group]. This training is a longer piece that is much more involved and complicated than the Part A. The group seemed really interested and keen. There was evidence of people helping each other in the session that shows again that it is helpful to have a mentor in these learning situations. RJ_19/11

The second group of four participants had two from the group missing. One did end up returning a few days later and completed Part B however the other did not return. He ended up travelling away from the community and did not return until the project had ended.
Of the eight participants who began the training, seven completed the six hours of training to become capable leaders in the online synchronous platform:

As of today there are seven community members who are trained to use the platform. Not only to attend CENTRA© sessions but to facilitate them as well. These focus group members have gone through six hours of training using this system. I have also provided for these trainees, a set of slides, and information documents around to scanning, PowerPoint presentations, and the three levels of training that they have completed. Each focus group member will be provided a copy of these documents in a training binder. After the training was completed today, we had a short debriefing and recording of people's thoughts about the training, how this can impact the community, etc. RJ_03/12

When reflecting on the training that took place, this intergenerational group of community focus group members was able to access the online platform and learn how to lead their own sessions on the platform. This use of Internet and computer technology suggests that computer technology is becoming widely accepted in this Aboriginal community. The community focus group was able to do this project from the comfort of their community in a safe and culturally appropriate place. This suggests the community environment is a preferred location for learning.

### 6.3.2.2 Comments from training participants

Once the training was complete, the focus group members who had completed the six hours of training were asked questions about their experience in the training. The first question was about the length of the training. The group answered that they thought that the training length was fine:

I actually thought that it would take longer than it did. And it was nowhere near as hard as I thought it was going to be. And now that I’ve learnt some of this stuff I realise now that when we get our... because I’m buying a laptop for [my kids] for Christmas that I’m not going to be so afraid to go near it now. Knowing that you’ve taught me all this sort of stuff. And I’m actually going to be able to use it. Tina_AT_3/12

Yeah it was quite good. At times it was a little bit difficult to understand some of it. But yeah once you started getting the feel of it, it was pretty good. Pete_AT_3/12
The group was then asked about the usefulness of this platform for the community and if they could think of ways that it might be used in their community. The group discussed how the platform would be a good way to run literacy courses for the community:

> There are a few people here who are illiterate... like who can’t read and write. And that’s adults and maybe that maybe a form of, you know, way of learning for them, to learn. Because it is rather private and they can get away from the shame thing… the shame about not being able to do it. Karen_AT_3/12

This refines draft-guiding principle one and suggests that appropriate expectations of low level literacy learners in Aboriginal communities be considered. For many, technology has a stigma attached that suggests a need for a certain level of literacy skills and experience. However, there is no need to underestimate the skills that Aboriginal learners bring to a learning community.

The group also discussed the intergenerational opportunities for learning that the technology could bring, which presents a need for learning activities that support the entire community population:

> Yeah, like Elder people that have got no idea how to work around a computer and getting them actively involved in something like this would benefit them. And it would be also an asset to the community because then they can say, ‘Well, our community has taken time out and they’ve taught us this. And this is the sort of stuff that they’re now doing.’ Tina_AT_3/12

With the younger generation coming up and the technology advancing each time, it’s best to have something like this in place. They’re learning, the old people are learning, so interconnecting as, and with, .... um generations getting further advanced, you don’t really want to get left behind, you know, within the community itself. Pete_AT_3/12

The group also discussed further learning opportunities using computer technology such as TAFE courses and Open University, because there are no courses of choice being offered in the community. However, access to learning on the computer could change that for everyone. Some Aboriginal communities have accepted the Internet as
a learning tool, and different learning applications have been tested in several communities.

Another identified area of teaching that could happen using this platform was teaching the Narungga language itself. It is important to use as many culturally relevant learning materials as possible, and the discussion of teaching the local language online was identified as one way to do this:

There is a wide group of people who would like to learn our language, and being able to connect everyone together because of our language, using the Internet would be great. Pete_AT_3/12

The group was also asked about some of the barriers that they felt would hinder the use of a program such as CENTRA©. It was suggested that working with computers also brings challenges including accessibility issues, cost factors and technical support needs. Everyone in the focus group agreed that the lack of community accessible equipment was by far the biggest issue:

Well there are no computers, for starters. If they had a place where there were laptops and they were readily available, that would be wonderful. But they haven’t got that sort of stuff here. And that’s what they really would need. Tina_AT_3/12

Without computers, it would be difficult to sustain the project in the community and continue learning opportunities like this project. Peer support from within a community; especially in the case of technology was an important factor to consider. This was echoed in a request to have trained peer support, preferably someone from within the community to act as a liaison for people who do not have a lot of confidence in accessing the program or fixing computers if they break down:

…it would be good to have someone here I... I mean you’ve got a room full of computers and we need someone showing people how to use that. I think what would be good is to have somebody within the community. Train people in the community so that we don’t have to rely on these white fellows you know. Yeah I think so. Because we need to step up and you know... Karen_AT_3/12

It would be wonderful if it was someone within the community but if they didn’t have the expertise and the knowledge then someone from out would be the option to go with in the beginning. Tina_AT_3/12
The group concluded by saying that they thought the training was great and they really enjoyed it. One focus group member said enthusiastically, “The only other thing I’d say is if there was another follow up course to this I’d be the first one to put my hand up to do it” Tina_AT_3/12. It was quite evident that technology is widely accepted within this Aboriginal community and this has been verified in the process of the online training for the community members. Moreover (and a refinement to draft-guiding principle five), is the implication that Aboriginal community members would benefit from having a choice in the types of computer technology that are implemented.

6.3.2.3 Summary of online synchronous training

The online synchronous training was offered to help the learners understand the mechanics of the online synchronous platform and in completing the training process to become proficient leaders on the platform. The participants proved to be dedicated to this task and understood that learning these skills would allow them to both participate in further learning opportunities and present their knowledge and strengths to others using the platform. Once the training was complete, the participants were ready to upload the finished project into the online environment and present it to others at a distance.

6.3.2.4 Online presentation to Elder care centre

Now that the community focus group had seen the completed version of their project and had the opportunity to discuss improvements and changes to be made, they were ready to present the collaborative community engagement project in the online synchronous platform environment.

6.3.2.4.1 Practice and set-up

When the community focus group first started creating the commentary for their project, they discussed whom they would like to present their work to in the online
classroom. One of the suggestions was an Aboriginal community Elder care centre in one of the neighbouring communities. It was an easy process to partner with this organization. The manager was contacted by phone and the researcher explained what the group would like to do. A date was set and one of the focus group members created a small poster to hang in the centre, which was emailed to the manager and she hung them up around the centre. The week of the presentation, the researcher travelled with a volunteer research assistant to the community centre and tested the Internet and sketched out the set-up and timeframe for the presentation:

The manager at the [community centre] was extremely helpful and excited at the prospect of being involved in the community project. She was readily naming clients who would be in attendance for the presentation. RJ_5/12

Back in the community, the first practice session using the online session was not without technical challenges. Not everyone was able to make it to the practice, at that time of year. So close to Christmas, there was a lot of activity, and it was explained to the researcher that tensions could be quite high. Some Aboriginal communities face social struggles and the researcher was careful to note that the focus group was coming to the end of a very long working period and everyone had been very committed and dedicated to the project for nearly three months. At this point, the research would finish with whoever turned up, and the researcher was satisfied to understand and respect the decisions focus group members would have to make at this time. This refines draft-guiding principle one (develop skills and awareness of Aboriginal learners’ profiles) furthering the concept of adaptability to include the understanding that learner numbers and attendance are likely to fluctuate.

The researcher observed the members of the focus group assembling in the make-shift computer lab in the council building. The researcher had inserted the presentation into the online classroom and initially, it seemed as if the online session was going smoothly. Since one of the focus group members had left the community, the group worked out who would do the dialogue for her part in the presentation. At that point the group did a practice run through of their presentation in live-time. Each person had a microphone and headset on and sat at their computer station. The dialogue was
printed out and the group took turns to read their script and facilitated the slides in the class. Everything seemed to work fine, however, there were some questions about the sound and some of the photographs not coming through in the online classroom. This suggests that there are many technical barriers to online learning. One of the features of the platform, called the ‘mark-up tool’ was also not functioning properly:

There is something not right here. I think I should be able to make mark-ups on my slide pictures and it isn’t working. It also seems that our pictures are coming up at different times. Why is it doing that?

The group decided that this might be time to call for some help from the Digital Bridge Unit technical team. The technical team had a toll free number that was called from the makeshift lab:

The technical team was very helpful in answering questions and many focus group members clapped (a clapping tool is available in the platform) in approval of the help that the tech team offered. One focus group member also verbally asked a question and interacted with the team.

It is important to note that the technical support was a critical factor in both ensuring that the session would run smoothly as well as offering a sense of reassurance for the focus group members. This confirms that there is a need for technical support and mentoring in Aboriginal communities. It was as if the focus group felt that they would be able to do this presentation online because if something was not functioning properly, the technical team assistance was only a phone call away.

After the session ended, it was agreed to meet one more time to go through the presentation and the members in attendance would make sure that the missing focus group members would come for the actual presentation. This peer encouragement and support was evident, especially in the final phases of the project. Once the focus group members left and the researcher waited an hour for two missing members who needed to finish training and who had said they would meet her to complete it. However, no one came. The two group members were facing some personal challenges and the researcher had to take these aspects of personal issues into consideration with the project as social struggles and personal issues are part of the process when working in Aboriginal communities (draft-guiding principle one).
The day before the first online presentation, the focus group did one more trial of the presentation. Two members came to the practice session. Even though it seemed that the technical staff had resolved the part of switching the music with the slides, the songs still looped and interfered with the person speaking. The technical team did call to let the researcher know that they had not had time to fix all of the problems. They were also going to make the slides downloadable on the client side:

Making the slides downloadable on the client side means that each user downloads the slides onto their computer and thus would take away any issues with the music being choppy or the pictures taking a lot of time to show on the screen. [The technical team leader] suggested that I try to download it onto my computer that evening and see how that worked. The slides seemed to work much better. He explained that the slides were very large for the platform with all of the photographs and music embedded into them. [One of the focus group members] also tried it on her computer at home, and that worked fine as well. So we seemed to be set for the big presentation day. RJ_8/12

Despite the technical glitches and personal issues, the group seemed to be in good spirits although a bit nervous about their presentation. Taking the time to practice using the online platform and having the technical team a phone call away were both important factors which provided confidence to the community focus group in preparation for their presentation.

### 6.3.2.4.2 The first online presentation

The second iteration of the collaborative community engagement project was set up so that the community focus group was gathered in the community council building’s makeshift computer lab. The focus group agreed that they would meet at a specific time and get ready to do their presentation. A research volunteer went to the neighbouring community to set up a laptop and projector at the community care centre so that the clients there would be able to watch the presentation.

### 6.3.2.4.3 The community focus group’s perspective

The week leading up to the presentation had brought about many practice questions and technical problems that had been worked out and the day had come to present for
the first time on the online platform. Although the researcher arrived an hour early to get everything set up, there was a technical problem because the Internet in the community was slow, it took just over an hour to download the slides and even then there were problems. Once again computer-based learning was shown to face many challenges in the process of this project. In the end, one of the borrowed computers worked, the researcher’s personal computer worked and one of the focus group member’s borrowed computer worked. This technical glitch could have ruined the presentation and negatively affected the group’s confidence but the focus group members took the technical issues in stride and solved the problem together. The focus group members knew they would have to be flexible and so it was decided that they would set up with two people to a computer. The group also shared a microphone that would be passed around to the person speaking and they unplugged the headsets so they could all hear what was happening through the laptops’ speaker systems. One focus group member also volunteered to advance the slides for the presentation as each person did not have their own computer to do so. The focus group thought that would be great and this demonstrated further evidence of peer support and social learning.

The sound levels were tested and the research volunteer tried her microphone from the community care centre. The community care centre group could all hear the presenters and so they welcomed them and began the presentation. As the live session started, one of the slides was moved ahead too quickly by the focus group member in charge of moving the slides:

Everyone looked at Kyana as if to say, “What did you do?!?! That wasn’t the right slide!” There was a moment of silence and a bit of tension however, other than that, the presentation went smoothly.

Throughout the presentation, the researcher sat in a separate room to the focus group on a separate computer. The reasoning behind this was so that the researcher could introduce the presentation and would be there to support the focus group if need be, however, in this first attempt on the synchronous platform, the focus group acted independently.
At the end of the presentation, the community focus group was buzzing with excitement and nervous energy. They were obviously very proud of their accomplishments and excited to have come this far. Many of the participants had indicated that they came to work on this project knowing little or nothing about computers and never had completed school, however they were able to accomplish presenting their own creation in an online environment. It was really great to see everyone congratulating each other and feeling so happy together! There was evidence that the Internet was becoming an accepted mode of learning and sharing in this community.

6.3.2.4.4 The Elder care centre perspective

The research volunteer went alone to the neighbouring Elder care centre with a laptop computer, a borrowed school projector, speakers and connection hardware. She set everything up there and signed into the session, and downloaded the content. Twelve individuals came to see the presentation at the centre. Most of the people in attendance were Elders and this highlights the importance of learning experiences that can support learners of all ages. The research volunteer facilitated the laughter and clapping icons in the platform as she observed the community groups’ reactions throughout the session. The presentation at the community care centre was well received by people who attended:

They especially enjoyed hearing the children singing. Many positive comments were made and compliments were given to the group for doing such a good job. The presentation also sparked some discussion in the group about the importance of bringing back all the languages of Aboriginal people in Australia. Comments were made about it being a time to unite and work together regardless what language group people belong to. RJ_9/12

6.3.2.4.5 Focus group reflection on iteration two

The following day, the community focus group met at the regular meeting place to discuss the second iteration of the collaborative community engagement project. The researcher observed that the core group of individuals who presented was in attendance. There were a few things that were discussed in reflection on the presentation. Three main areas of discussion emerged from the data collected. The
first was in regards to the presenters themselves. Some of the focus group members felt that perhaps they had spoken too fast:

I am going to have to slow down a bit when I am talking. I know that and I am going to try to really slow down next time. Pete_CFG_12/9

I think I need to do that too. I just need to calm down and not be so nervous and just enjoy telling my story. Julie_CFG_12/9

The peer mentor who took charge of moving the slides, moved one too quickly, and apologised for that “mess up.” The group quickly corrected her and said it was only a “hiccup” in the presentation. The group was very thankful that one person took over the job of progressing the slides for everyone:

It was great that Kyana moved the slides for us, that way I could really concentrate on what I had to say and saying it clearly and slowly. So that was a good idea, even if we had our timing off a little bit in the beginning. Julie_CFG_12/10

The group’s discussions and support for one another highlight the strength in peer support and mentoring during this phase of the project.

The second area of discussion was in regards to the online classroom environment and the software components of the program. One focus group member mentioned that they were still disappointed that they could not use the mark up tools to draw attention to the slides and the points that they wanted to make during the presentation:

I was really wanting to use my mark up tools to add to the presentation and I understand about the size of the files and why we can’t do that but I would really hope in the future we could use them. Kyana_CFG_12/09

The computer issues that arose the few days leading up to and then the day of the presentation were discussed. One focus group member mentioned the training they had received and how that impacted their reaction to the complications on the day of the presentation:

I am really glad I had all of that training on the system before we did the presentation. Even though I was nervous when we had to make those last minute changes, I felt that I could handle it and you know… be able to change things at the last minute because even if we only had two computers instead of four, I knew what I was going to do. So I was proud of that. Tina_CFG_12/10
One concern from the focus group was that they did not really know what the group who was listening thought of the presentation:

It would have been better if that group had a large microphone so we could hear what they had to say at the end. I was worried that they didn’t like it at first…when we couldn’t hear what they were saying. Pete_CFG_12/10

The audio set-up for the care centre allowed everyone to hear the presentation, but there was no freestanding microphone for the group at the elder care centre to make comments. In retrospect, and in anticipation of the next presentation scenario, the set-up would ensure that there was a microphone available to allow the audience to make comments and ask questions. The result of not having a microphone was that the focus group that presented sat quite anxious and worried that their presentation was not being positively accepted on site at the care centre, because they could not hear anything from the audience there. It was apparent that two-way learning and sharing was important in this context and this refines draft-guiding principle two (create opportunities to participate in an online learning community) by suggesting that interpersonal relationships, capacity building and social networking opportunities fostered must incorporate opportunities for all parties to share and collaborate in the online learning community.

The third area of discussion that arose about the second iteration of the presentation was the script itself. One focus group member felt that there needed to be more words, more of a story for one of the slides:

We need to say more with this slide, the picture is not enough and the words that we made are not enough. Pete_CFG_12/09

That’s right we need to tell the story, we need them to know that they are going to force our little children, the ones we still call our babies onto that huge yellow bus to go over yonder to that school…and what about our language? They are not gonna learn it over there, that’s for sure. We need to tell that story. Tina_CFG_12/09

This led to a discussion amongst the group members who took ownership of the project and made decisions about the changes. It was evident that the time spent on the project and the skills that the focus group had acquired brought about a sense of ownership. The changes to the script were discussed and written down by the focus group member who took charge of the speaking part for that slide. She also offered to
add some more information to the script and to review the revisions with the group the next day. This focus group member had completed a higher education certificate, which qualification was more than the majority of the other members, and in offering to do this for the group, displayed an example of peer support, mentoring and scaffolding.

One other suggestion from the focus group was perhaps highlighting or colour coding the script so that each person would know when it was his or her time to speak:

It would be a really good prompt to help us remember when it is our turn to say our part. Kammie_CFG_12/09

The researcher offered to highlight each person’s speaking part in the script for the next presentation. During this debriefing session, the volunteer research assistant also reported back to the group on her observations and the discussion from the group at the community care centre. The group at the care centre really seemed to enjoy the presentation; however, they wished that they could see the speaker:

The group really wanted to see the speaker; they wanted to know who was talking. Since many of them know many of you, they had an interest to know who was talking and many of them were guessing who it was based on your voice. Betty_CFG_12/10

The researcher reminded the focus group that in the training of the platform they learned that video conferencing and showing live video is something that the system has the ability to do; however for this presentation trying to be cautious because of the bandwidth that is needed to successfully launch the video component took precedence. A strong and consistent bandwidth is needed for live video and trying that from within the community, using a less than perfect bandwidth situation might have hindered the flow of the presentation. It was suggested by the Digital Bridge Unit technical team, not to risk complication at this time by using a camera, but it is something to take into consideration and test for future presentations. However, one focus group member did make a great suggestion:

Maybe we should introduce ourselves and say at least our names and who we are as people, or how we are connected to the community. Julie_CFG_12/09
Everyone agreed and it was decided amongst the group that before the first time each person started to say their part of the script they would introduce themselves to the audience.

Another point that the volunteer research assistant noted was that some of the Elders were very concerned that in the first part of the presentation when the history of the community was being presented, a person who was not from the community originally was presenting the history of the people in that area. The Elders’ involvement in critiquing the presentation was very important to the focus group members and another example of generational support in the literacy process. During the first iteration the part in question was to be spoken by the Elder from the community who had to leave to travel to a conference. The focus group member who volunteered to take the absent member’s speaking part, has married into the community and has lived there for most of her life, however the Elders at the care centre who were listening to the presentation recognised her voice:

> An Elder who was watching the presentation from the care centre said, “It isn’t right for someone who is not of Narungga descent to be sharing the story of our history. That needs to be done by a Narungga person.” Betty_CFG_12/10

The community focus group agreed and decided to switch the speaking parts accordingly. This scenario further refines draft-guiding principle six (foster intergenerational community involvement and consultation) to suggest that Elders in some Aboriginal communities play important consultative roles that should be taken into consideration during the learning process. The focus group sorted the speaking parts out amongst themselves and decided that they were ready to do the next presentation.

The importance of Aboriginal Ways of Knowing and Learning and having Elders, who are imparted with Elder education involved in the learning process, was pertinent to this iteration. This was highlighted to the extent of the consideration of an eleventh draft-guiding principle DGP 11 Embrace Aboriginal Ways of Knowing and Learning through Elder Education. This new principle further refines draft-guiding principles two, four and six as will be shown in the second refinements of the principles in section 6.3.2.6.
The researcher also observed a subtle change in the focus group. The group was showing confidence and members were taking initiatives to voice their opinions and take the lead in making changes to the presentation where they deemed it important.

### 6.3.2.5 Technical support

During the entire online presentation iterations, a great deal of technical support was required. There were many phone calls and emails back and forth between the researcher, focus group and technical team at the Digital Bridge Unit to ensure that the presentation ran smoothly. In the final chapter, the topic of support is addressed; support in the way of community, participants, mentors, and technical support. Without one of these, this research could not have been completed. This highlights the important of providing technical support for the community.

### 6.3.2.6 Refining the draft-guiding principles – iteration two

Throughout the process of the second iteration, presenting the collaborative community engagement project online, observations were made which led to some further refinements of the draft-guiding principles. The original draft-guiding principles created to guide the research in finding the most effective ways to create environments to successfully support learning through the use of synchronous technology in Aboriginal learning contexts can be reviewed in section 4.5 and a summary of the first refinements made to these principles in section 6.3.1.4. The list below provides further refinements to the principles as a result of the second iteration:

**DGP1 Develop skills and awareness of Aboriginal learners’ profiles**

This draft-guiding principle suggests that practitioners must develop technological skills and present themselves in confident, competent, adaptable and flexible ways. This is further refined in iteration two to include an understanding that learner numbers may fluctuate and time management be less structured than Westernised culture. An awareness of literacy levels and preferred learning styles is needed to
connect to learners and to make learning relevant to the community’s needs. Learning experiences therefore must be both learner focused and learner driven. Further refinement to this principle suggests that while technology often has a stigma attached that suggests that certain levels of literacy are required in order to enable a learner to experience success with technology, there is no need to underestimate the ability of Aboriginal learners and appropriate expectations of these learners must be considered.

DGP2 Create opportunities to participate in an online learning community

Draft-guiding principle two suggests that it is imperative to understand Aboriginal learners’ past learning experiences in order to assist them in effectively participating in an online community. These opportunities should include social networking, interpersonal relationships, be culturally relevant and include local cultural traditions and values. The learners’ and the community’s current social struggles should also be considered when creating opportunities to participate in an online learning community. This draft-guiding principle is refined in iteration two to create a new draft-guiding principle. This new principle; draft-guiding principle eleven, is called Aboriginal Ways of Knowing and has now be established as a stand-alone principle. Further refinement suggests that the online community fostered through the learning process must incorporate opportunities for all parties to share and collaborate in the online environment.

DGP3 Utilise relevant content

This principle stresses that relevant and computer adaptable content is needed in order to create successful learning experiences using synchronous technologies for Aboriginal communities. This content must be created in consultation with the community to result in empowerment, ownership, and authentic voice for the community. As the analysis of iteration two of this project showed no refinements of DGP3 were needed, this principle will remain unchanged.

DGP4 Value cultural inclusion

This guiding principle suggests that in any synchronous learning setting there should always be a consideration of culture in the instruction and implementation stages. This
includes geographic area, living conditions, socioeconomic status and language group. This principle was also refined as a result of the creation of DGP 11. Aboriginal Ways of Knowing and Learning are now considered a stand-alone principle thus refining DGP4 to focus specifically on cultural inclusion in consultation with the community at every level of learning.

**DGP5 Support implementation of technology that is accepted, accessible, suitable, and reliable**

Accepted, accessible, suitable and reliable technology must take into consideration cultural values, social issues, fiscal constraints and technological support. The technology must be introduced appropriately to the community and seen as a benefit to the community that includes sharing and reflection during the learning process. It is also important to be aware of the current state of technical equipment and the barriers to computer learning in the community. A further refinement arising from the data collected in iteration two, suggest that Aboriginal community members would also benefit from having a choice of computer technology to be implemented.

**DGP6 Foster intergenerational community involvement**

Draft-guiding principle six suggests that there must be a locus of control by the community when using online technology. Online learning tasks should promote a whole family, whole community approach. Elders should be considered to be an important part of this involvement. This draft-guiding principle was also refined as a result of the creation of DGP11.

**DGP7 Build positive relationships, mentoring, and technical support**

There are several types of mentors needed in the learning process including onsite mentors, peer mentors, community mentors, liaisons, technical support and practitioner mentors. These mentors play an important role in the retention and motivation for the learners. These mentors have many roles listed in the original draft-guiding principles (see section 4.5) and the first iteration (see section 6.3.1.4). During the second iteration there were no further refinements made to this principle.
**DGP8 Promote community-based learning**

Community collaboration is key in community-based learning environments. This approach allows the community to see the benefits of new technologies in a wholistic kinship approach. Using Aboriginal strengths in these contexts promotes familiarity and a feeling of comfort for learners. It is also important to allow the learners to choose the location and setting of where they would like to work on learning projects. There were no refinements made to this draft-guiding principle as a result of iteration two.

**DGP9 Cultivate genuine partnerships with government**

Funding is required in all aspects of online learning environments. More work must be done to develop relationships with key stakeholders in order to promote these meaningful, relevant, empowering and real-life online learning opportunities. A third party liaison could possibly better connect the community with government services. There were no refinements made to this draft-guiding principle as a result of iteration two.

**DGP10 Understand community goals, directions, and development**

Draft-guiding principle ten suggests that synchronous learning tools should be used as community development support systems. These tools can provide links to the outside world and can help to make communities more self-sufficient. Iteration one of the collaborative community engagement project resulted in a revision to this principle that suggests that this principle is more than looking at the community as a whole but focuses on a specific and deep concern for their children and future generations. This concern is at the core of the community’s desire to learn about technology. There were no refinements made to this draft-guiding principle as a result of iteration two.

As a result of iteration two and the recurring theme of the importance of Aboriginal Ways of Knowing and Learning through Elder consultation and education an eleventh draft-guiding principle was created. The culmination of some small parts of other
draft-guiding principles and the recurring theme seen in iteration two resulted in the following draft-guiding principle:

DGP11 Embrace Aboriginal Ways of Knowing and Learning through Elder education.

As explained in the definitions of this study, Elder Education is a term used by the Narungga community to describe the knowledge, wisdom and experience of Elders that is shared with others. Aboriginal Ways of Knowing and Learning must be considered when creating optimal environments for synchronous learning opportunities. Different from culture, Aboriginal Ways of Knowing and Learning provide a framework for how Aboriginal people view lifelong learning and knowledge as a gift that belongs to that individual that started from before they were born and continues throughout life. Elders should be considered to be a part of a unique subculture and should be involved in all stages of new learning environments. Elder education provides wisdom and reflection of the history of the people and expertise in sharing and passing down this knowledge in an Aboriginal context. It is vital to embrace this knowledge and consult and incorporate these attributes throughout the learning process.

The evidence-based decision to include this as a separate and free standing design-based principle strongly supports the literature reviewed in section 2.2.1 which overviews Aboriginal Ways of Knowing and suggests the research did not blindly accept cultural relevance and Aboriginal Ways of Knowing as one and the same (Battiste & Henderson, 2000). Cajete (2000) encourages researchers to expand from Western thought and intellect and challenges us to view relationships and deeper expressions of knowledge. Aboriginal knowledge bears a specific and significant role and the creation of this design-based principle on the basis of this research confirms that there is an importance to preserve the uniqueness of local knowledge, in turn preservation the culture and community (Brady, 1997; Des Jarlais, 2008; Kinuthia, 2007; Kinuthia & Nkonge, 2005).
6.3.2.7 Iteration two summary

The purpose of the second iteration was to present the collaborative community engagement project in its revised form on the online synchronous platform CENTRA©. After the iteration, and through reflection with the community focus group and suggestions from the attendees of the presentation, the project was refined in preparation for the third and final presentation. Throughout this iteration and presentation on the platform, there were several refinements of the draft-guiding principles as well as an addition of a new principle. These refined principles will be used to further guide the collaborative community engagement project and will be refined again through the data collected in the third and final iteration. This will result in design-based principles to be applied in creating optimal environments for synchronous learning opportunities in Aboriginal communities.

6.3.3 Iteration three – Online presentation to the University

The third iteration of the collaborative community engagement project took place two days after the second iteration. The iterations were close together due to the time constraints of the researcher and the fact that school holidays were fast approaching. This iteration was a presentation to academic staff at the University that the researcher attended; however, also included were invitations to the Aboriginal staff members on campus and at the Aboriginal College affiliated with the University. One staff member in particular had family connections to the community where the research was taking place. An invitation was also extended to an interested member of the TAFE community that provides some support to this particular community and to a representative of the Government that provided funding in order for this project to take place. This invitation was extended in the hope of continuing discussions that would lead to more of these types of partnerships. This is an example of the need of a third party liaison to help to build government awareness and concern for the community as highlighted in earlier iterations of draft-guiding principle nine.
6.3.3.1 Set-up and technical check

The process of the third iteration began with a technical check between the researcher in the community’s makeshift computer lab and the technical team member at the university where the presentation was to take place. The university technician logged into the session and downloaded the slides on the client side and the researcher and technician went through the slides to ensure they could all be seen clearly. They also measured the time between when the researcher moved to the next slide and the time it took for the technician at the university to actually see the slide. Since the focus group had discussed making an alteration to the set-up of the hardware, a freestanding microphone was made available for people who attended the presentation at the university so that they were able to make comments to the presenters after the presentation. The technician was also coached on how to interact with the presenters by using the clapping and laughing icons available in the synchronous environment and he was asked to utilise those tools when he saw positive reactions from the people who were in attendance for the presentation. This initial technical check went very smoothly and the researcher was confident that all aspects of the presentation of the third iteration at the university site had been reviewed and was ready. The technical support and practice prior to this presentation was a critical aspect to the success of this third iteration.

The researcher also took time to ensure that the slides were showing on the laptops in the community’s makeshift lab. All of the laptops were rebooted and the researcher entered into the new session for the presentation to the university. This time all of the computers functioned properly for the test run. The volunteer research assistant decided to bring her computer for the third iteration of the presentation as a back-up computer.

6.3.3.2 The community focus group’s perspective

The focus group members came in plenty of time to get ready for this last iteration of their project. There were new copies of the script provided that had each individual’s part highlighted and a reminder to introduce themselves at the start of their first speaking part in the script (see Appendix 8). A representative of the government that
provided funding for this research drove to the community for this last iteration of the project. This visit was an important step in the success of this project and in the fostering of genuine partnerships with this branch of the government. The researcher prepared the room down the hall from where the focus group members assembled for their presentation so that the government official could attend this last iteration ‘at a distance’ as well. This left nothing for the researcher to do but pace in the hallway so as not to detract from either the visitor or the presenters. Luckily one of the presenters had brought her baby that needed some entertaining while Mummy was doing her presentation. The researcher welcomed everyone and tested the microphones of both the faculty presentation room and the TAFE representative in attendance and the presentation was ready to begin.

The presentation for this third iteration went very smoothly. Each of the four focus group presenters was sitting at a computer station with a headset and microphone on. All of the focus group member presenters remembered to slow down when they were speaking and also remembered to introduce themselves at the start of their speaking parts.

For the third iteration, it was apparent that the time and practice that was put into the session was reflected in the smooth iteration. The focus group worked together in a social setting within their community and the content was community driven as well as culturally relevant.

6.3.3.3 The University attendees’ perspective

The university attendees were very impressed with the presentation from the community. The researcher observed lots of clapping both on the computer and over the microphone as well. One of the focus group members took the lead and asked the university attendees if there were any questions or comments. The TAFE representative thanked the group for the presentation and the work they had done to put it together and said he looked forward to working with the community in the coming months. At the university, one professor expressed to the presenters the positive reactions from everyone in the room:
We have all learned something about your community today and we are very impressed with all the skills that you have learned over the course of your project. Your presentation was excellent and we all want to thank you again for your efforts and for inviting us.

The government representative also spoke kind words of support and hopes to continue this learning pathway with the community. In this last iteration of the presentation, the community focus group used a bottom-up approach to create a presentation that was about a culturally relevant topic to them. The skills they had acquired through the process instilled a sense of ownership and provided a platform for the community to address the outside world in their own authentic voice. In doing so, the community helped to foster relationships with institutions of higher education and continue discussions with government representatives. In this way, draft-guiding principle nine (cultivate genuine partnerships with government) was further refined as the technology innovation introduced to the community allow for them to connect directly with government representatives and other stakeholders and voice their concerns in an authentic community context.

### 6.3.3.4 Focus group reflection of third iteration

Once the attendees had signed out of the online classroom, the researcher observed a sense of relief, accomplishment and overall pride. There were lots of smiles and everyone seemed genuinely pleased with the way that this third iteration went. As a final reflection on this iteration, the focus group members were asked if there was anything that they would like to see done differently based on the presentation that they had just completed. Similar areas of discussion arose from this data as what was stated in the second iteration. The focus group members stated that they felt more relaxed, that they were pleased with the speed of the presentation:

> This is actually fun you know. I really enjoyed it today. I feel like we could do this again and it would be fun. Tina_CFG_12/12

This refines draft-guiding principle seven (build positive relationships, mentoring and technical support) and suggests that the technical innovation introduced to Aboriginal communities should be enjoyable as well as relevant to optimise retention and motivation.
Two other common discussions emerged in the reflection of this third iteration. The first area of discussion was continued concern about the technology. There needs to be better access to reliable and updated hardware equipment in communities. As one of the focus group members explained:

My computer seemed to be slower than others. On the one slide where there was music playing, it was my turn to talk but the music was still playing. It was really hard to speak in Narungga and have that song playing at the same time. Pete_CFG_12/12

The borrowed laptops still had some trouble keeping up with the presentation. They were older, refurbished models and this definitely impacted the quality of the transmission of the presentation. The focus group did a wonderful job in continuing despite their concerns as they were presenting. Other members of the group also agreed that the slides were slow but better than the second iteration. This was due to the fact that the slides were downloaded into the session before it began so the computer was able to recognise each slide faster than during the second iteration.

The second area of discussion that arose regarded the script. One focus group member stated:

This new script was the best one. Well it is like the twelfth version or something like that. I am glad we colour coded our speaking parts. That was really helpful. Tina_CFG_12/12

However, another focus member had further ideas for improvement to the script:

I think it would be really helpful to have a little prompt in the script when it is time to switch to a new slide. Just something that tells me as the person in charge of moving on, that this is the time to move to the next slide. Kammie_CFG_12/12

The Government representative at the meeting asked about the printer and scanner that were donated to the community through the funds of this project. The community members were not sure how they would be made accessible to the community once the project was over. A focus group member mentioned how there used to be a place where the community could go to access computers. The representative stated:

It’s an ongoing problem in all of our centres. Unless we have someone there to oversee the process and to be responsible about it, it never seems to work. Winne_CFG_12/12
She suggested that perhaps when the new TAFE building in the community opened, that maybe they would have more access to computers and other hardware at that point to which a focus group member replied:

    No, not really. The TAFE is only for students of TAFE and the building is only open 3 days a week from 10 am to 3 pm and me for example, I work then, so I would never get access. Julie_CFG_12/12

The findings of this section confirm that in this community there is a lack of access to technology and no one in the community to support the use of what little technology that is made available to the community members. Furthermore, a refinement of draft-guiding principle five (support implementation of technology that is accepted, accessible, suitable and reliable) can be made to show that a further consideration to take into account is the physical space available to house the technology in the community.

6.3.3.5 Revising draft-guiding principles – iteration three

Throughout the process of the third iteration, presenting the collaborative community engagement project online for a second time, observations were made which led to some further refinements of the draft-guiding principles. The original draft-guiding principles created to guide the research in finding the most effective ways to create environments to successfully support the use of synchronous technology in Aboriginal learning contexts can be reviewed in section 4.5. A summary of the first and second refinements made to these principles can be viewed in section 6.3.1.4 and 6.3.2.6 respectively. The completed refinements will result in the creation of the design-based principles that will be presented in Chapter Seven. The list below provides further refinements to the principles as a result of the third iteration:

DGP1 Develop skills and awareness of Aboriginal learners’ profiles

As the analysis of iteration three of this project showed no refinements were needed, this principle will remain unchanged.
DGP2 Create opportunities to participate in an online learning community
As the analysis of iteration three of this project showed no refinements were needed, this principle will remain unchanged.

DGP3 Utilise relevant content
As the analysis of iteration three of this project showed no refinements were needed, this principle will remain unchanged.

DGP4 Value cultural inclusion
As the analysis of iteration three of this project showed no refinements were needed, this principle will remain unchanged.

DGP5 Support implementation of technology that is accepted, accessible, suitable, and reliable
Accepted, accessible, suitable and reliable technology must take into consideration cultural values, social issues, fiscal constraints and technological support. The technology must be introduced appropriately to the community and seen as a benefit to the community that includes sharing and reflection during the learning process and allowing the community a choice of computer technology implemented. It is also important to be aware of the current state of technical equipment and the barriers to computer learning in the community. A further refinement from the data collected in iteration three suggests further consideration of the physical space available to house the technology in the Aboriginal community.

DGP6 Foster intergenerational community involvement
As the analysis of iteration three of this project showed no refinements were needed, this principle will remain unchanged.
DGP7 Build positive relationships, mentoring, and technical support

There are several types of mentors needed in the learning process including onsite mentors, peer mentors, community mentors, liaisons, technical support and practitioner mentors. These mentors play an important role in the retention and motivation for the learners. These mentors have many roles listed in the original draft-guiding principles (see section 4.5) and the first iteration (see section 6.3.1.4). The third iteration suggests that practitioner must consider implementing technology that is enjoyable and relevant to the community as well.

DGP8 Promote community-based learning

As the analysis of iteration three of this project showed no refinements were needed, this principle will remain unchanged.

DGP9 Cultivate genuine partnerships with government

Funding is required in all aspects of online learning environments. More work must be done to develop relationships with key stakeholders in order to promote these meaningful, relevant, empowering and real-life online learning opportunities. A third party liaison could possibly better connect the community with Government services. This draft-guiding principle was further refined in the third iteration when the technology acted as an affective filter, giving anonymity and confidence, which enabled the community members to represent themselves in their own voice directly to the government officials present in the online synchronous platform.

DGP10 Understand community goals, directions, and development

As the analysis of iteration three of this project showed no refinements were needed, this principle will remain unchanged.

DGP11 Embrace Aboriginal Ways of Knowing and Learning through Elder Education

As the analysis of iteration three of this project showed no refinements were needed, this principle will remain unchanged.
6.3.3.6 Iteration three summary

The purpose of the third iteration was to present the collaborative community engagement project in its revised form on the online synchronous platform CENTRA© for a final time. After the iteration and through reflection with the community focus group and suggestions from the attendees, the process of the entire project was reflected upon. Throughout this iteration and presentation on the platform, there were some refinements of the draft-guiding principles. These refined principles result in eleven design-based principles to be applied in creating optimal environments for synchronous learning opportunities in Aboriginal communities as describe in Chapter Seven.

6.3.4 Final focus group debriefing and reflection

In this final time that the group were formally together, the researcher posed some questions in a focus group meeting that was intended to act as a debriefing session. It was an opportunity for the focus group to come together and reflect on the important aspects of the way the research was conducted as well as to encourage the community focus group to discuss the factors that impacted the research of their particular community. The researcher prepared a list of questions to ask the focus group. These questions included:

1. Was it important that the research took place in your community?
2. Do you think it was important that we did this project in a group setting?
3. Was it important to include Elders in this project?
4. Did religion impact on this project in any way?
5. Did your past education and training have any effect on your participation in this project?
6. Did it matter if men and/or women worked together on this project?
7. Did social class have an impact on this project or what you learned?
8. Why were you dedicated to see this project through from beginning to end?
The questions were informed by the theoretical framework of this study (see Figure 7.1). Questions one and two helped to reflect on the importance of social and cultural aspects of the project as determined by Vygotsky’s (1978) sociocultural theory and Lave and Wenger’s (1991) situated learning and how they pertained to this study. Questions three to seven were asked to reflect on the factors outlined by Henderson’s (1996) multiple cultural model and question eight was of interest to the researcher to try to understand the motivation of the participants and why they were dedicated to the project.

### 6.3.4.1 Group orientated research

The first question asked if the group thought it was important to work on this project in a group setting. Working in a group setting is directly connected with Vygotsky’s (1978) sociocultural theory used in the framework for this research. Vygotsky’s theory was built on the premise that effective learning takes place when learners work together in social settings and interact with one another. Although the researcher observed this happening she was curious to know if the focus group members felt that learning together within a group was important. The group responded that it was a very important part of the project and three key discussion points emerged. The first was the social and sharing aspects that working together brought:

As a group we always remembered to remind each other. Or when there is a meeting when there's a focus group we were all getting together so we were a constant reminder to one another and we made a commitment that we owe it to ourselves. We owe it to each other and we owe it to you as well. Tina_CFG_12/12

If we had to do it in isolation or by ourselves, I don't think the wealth of learning would be as rich. Eden_CFG_12/12

The best thing about working together and you can have a variety of inputs and share wealth of knowledge as well. Pete_CFG_12/12

The data collected confirm Vygotsky’s conjecture in relation to the importance of social interaction and collaborative learning opportunities that include social interactions as an important aspect of this study.
A second key point of discussion that was raised by the group was when one of the focus group members suggested that working together in a group taught the group more about the learning process and fostered courage for the Aboriginal learners to take risks:

Definitely, because what we do when working in a group is it's okay, we all make mistakes and we see that it is okay to make them. And I think we, as Aboriginal people...we also learn from all models, if we see someone else struggling to understand something and then being able to get a good understanding of whatever concept they've been taught...well that then motivates us to think okay I can do it... I can achieve that...because this person has made mistakes, and it took mistakes, and that's part of the learning process. Eden_CFG_12/12

This comment makes inference to Vygotsky’s (1978) theory and it verifies that being in an interactive group that works together and makes your surroundings more comfortable can offer opportunities to express one's thoughts, feelings and opinions openly. This also allows for the learners to feel at ease when talking and sharing ideas and helps them feel that it is ok to be wrong or different to the group.

The third part of the discussion was the notion that there was someone who had stronger computer skills than the rest of the group. In this case, it was a member of the community focus group however; the comment made insinuated that having an outside mentor could be as equally important to the working group:

It was important and we needed someone who knew something about computers. Narungga people are funny, where we are a wary people...we watch from the outside. We need to have someone that we are able to trust. It means a lot to us. We need someone that we can rely on, that can help us. And so I know that I can lean over and say I'm not sure about this and I know that she's not going to make fun of me. Julie_CFG_12/12

This comment was discussed with the community focus group, and the researcher explained there is often someone who may have stronger skills than others in the same group. The comment made supports the aspect of Vygotsky’s ZPD where someone within the group who has a higher skill level in a certain area helps to foster the skill attainment of a lower level learner (Vialle, Lysaght, & Verenikina, 2005). This was seen throughout the project and, in particular, with one of the focus group members.
The person in the group who was considered to be a peer mentor and support within the community focus group also had a comment to make about her role in the group:

It was important for me to be able to share with other people in the community and to do it so I’m not the only one in the community who knows how to do these things. I should be able to walk away from the community and have helped to build some capacity.

Kammie_CFG_12/12

This participant’s comment confirms the conceptual principle of the process of the ZPD (Yelland & Masters, 2007) where the more skilled learner helps to scaffold for the less skilled learner and in the process, brings them to the place where they are now a higher skilled learner themselves.

Working together as a group within the context of this research proved to be an important aspect of the study. Vygotsky’s (1978) theory used in the framework for this research was supported throughout this community-based learning project. The social and sharing aspects, confidence building and the opportunities for higher level computer literacy skilled learners to support lower level learners were all evident in the research and in turn the research strongly supported Vygotsky’s theory.

6.3.4.2 Community-based research

The second question posed to the group inquired whether or not it was important that the research took place in the participants’ community. This question builds further on Vygotsky’s (1978) sociocultural theory and contextualises Lave and Wenger’s (1991) situated learning theory by making the research relevant to the participants by situating the research in a place familiar and safe to them. In this context the community focus group became a ‘community of practice’ (Lave & Wenger, 1991) in which the group embodied the beliefs which increased the capacity for learning as a means to acquire the knowledge necessary to complete the task. The focus group all agreed that it was important to do the research in their community and two themes emerged from the data collected. The first theme was about the comfort and flexibility that came from the research being facilitated in the community:

It mattered that we did our learning in our community because we are relaxed here and in our environment. Linda_CFG_12/12
I think it was good to do it here [in the community] because you were able to do their research as well and that was handy to be able to be on site. Julie_CFG_12/12

Heck, I had my kids here almost every day. Baby playing on the floor, [older son] helping and being included. It was really great. If I had to leave, there was no problem. Sometimes baby got recorded on our work, but that was okay. Tina_CFG_12/12

Within this discussion it was also pointed out that the physical space in the community where the research takes place was also important. It was actually because of a lack of Internet connectivity that the group ended up setting up the makeshift computer lab in the community council building:

And it was good that the Internet didn't work at the school, because it forced us to work in the Council building and that got the Council involved. So this is like neutral ground, and that ended up being important that the Council knew what was happening. Kammie_CFG_12/12

One of the two principles of situated learning theory as presented by Lave and Wenger (1991) suggests that learning required social interaction and collaboration. There were many examples of social interaction and collaboration that were identified throughout the phases of the research. These data collected from the community focus group concur with this aspect of the Lave and Wenger’s (1991) theory and confirm that the Aboriginal learners appreciate opportunities to learn socially, working collaboratively amongst peers with a common interest.

The second discussion point that emerged from the focus group was concerned with the cultural significance that the research was completed from within the community. One of the focus group members suggested, and the others agreed that there was cultural significance in that the research was conducted within the community:

…it was culturally significant that it was done here. If we maybe had done it elsewhere we would have come up against a lot of prejudice in the community and some of the people would be asking why we did elsewhere and not at our place here. Pictures that were taken are here and not from elsewhere. We chose the right place to do it here. We were culturally aware and we didn't offend anyone…and we didn't put anyone offside. Tina_CFG_12/12
The second principle of Lave and Wenger’s (1991) situated learning theory states that knowledge needs to be presented in authentic contexts. The community members’ community provided the authentic setting that allowed them to feel comfortable and enabled the growth of their ‘community of practice.’ The fact that the project was culturally significant to this particular community and relevant to their self-identified needs provided an opportunity for authentic learning to take place. This resulted in the community focus members being interested in learning computer skills, creating a project together and sharing it with others. The fact that the research was done in the community, for both convenience and cultural reasons as well as it taking place in a building which represented neutrality in the community, were all identified as key factors to the success of the project as it provided the participants with an the opportunity to build a ‘community of practice’ and experience an authentic learning task together (Lave & Wenger, 1991).

6.3.4.3 Key Issues in culturally relevant research

The next set of questions posed to the focus group was created to confirm and link the views of this Aboriginal community with Henderson’s (1996) multiple cultural model. In her model, Henderson stresses that instructional design cannot be separated from the culture in which the design is created. She explains that once the design becomes a concrete object the cultural context in which the object was created is now embedded in that object. This was seen in the collaborative community engagement project presentation where the history, language, music and photographs used to create the presentation were all directly related to the culture of the community itself. As this research looked at using the self-identified literacy needs of an Aboriginal community to support a bottom-up learning experience and noting that the presentation was created by the community, in the community and for the community, it is not surprising that Henderson’s views on cultural contextuality are supported through the process of this research. This research project resulted in success for the participants as a result of the foundation of a theoretical framework that endorsed cultural context as a priority, and draft-guiding principles that guided the process of the research based
on common themes drawn from the literature, literacy practitioners and the Aboriginal community members.

The researcher was curious to know if certain aspects of Henderson’s model held particular importance by the community focus group in the specific Aboriginal context where this project took place. The research observed that perhaps some of the factors that Henderson suggests considering in her model, might not have played a direct role in the process of this project. Henderson suggests that an ongoing interplay between key cultural areas must take place in the development of e-Learning design in order for it to be effective in Aboriginal communities. For the purpose of this project, the researcher was most interested in the factors that can affect the e-learning design within the minority culture. The questions posed to the focus group were created to better understand how the community focus group itself felt about some of the subcultures as identified by Henderson that included gender, class, previous education and religion. The questions included:

a) Was it important to have Elders as part of this project?
b) Do you feel that religion played a part in this project?
c) Did your past education and training have any bearing on how well you were able to help with this project?
d) Did it matter if you were a man or a woman working on this project?
e) Did social class have any effect on this project?

These particular questions were asked to enable to researcher to reflect on the minority culture as depicted in Henderson’s model from the community members’ point of view and thus suggest the determinants of success as they pertained to this study.

6.3.4.4 Involving Elders

The first question asked was about the Elders that were in the collaborative community focus group. This question was asked because Elders are an important part of this study and several times throughout the learning process the Elders in the community were called upon for clarification and depth of knowledge. The group felt
that it was very important to have Elders be part of the focus group for different reasons. The most common theme that emerged was that the Elders were given an opportunity to share their wisdom, Aboriginal knowledge and experiences from their time in the community within the focus group setting:

Yes because they have more knowledge and it was important for the Elders to be able to share with the young ones. Linda_CFG_12/12

Definitely, because we all have different perspectives and different experiences and I guess throughout life we have had different opportunities as well. Some people can share a wealth of knowledge and experience and wisdom that comes with from living through a whole lot of changes. Eden_CFG_12/12

It's really important, because our culture is in an oral language culture. It's really important that we pass what the struggles were to be able to get better at making important changes for our children because they need to be aware of how far we've travelled in order to get where we are at the moment. If we are going to self-determine where we go, and we need to be able to tell those stories about the freedom fighters and what they fought for and what the struggles were. Ally_CFG_12/12

The group also felt that without the Elders there would have been a lot of key information missing from the project:

I think it was important because they're full of knowledge that we don't even know of ourselves. I am over 43 [years of age] and there has been a lot of stuff that I learned in this project about our culture. Julie_CFG_12/12

[Two of the Elders] were very helpful with their knowledge and they told us a heap of stuff that we never even knew existed. Without them we wouldn't have known half the stuff that we put together. Tina_CFG_12/12

The data collected from this question supports Henderson’s (1996) model which suggests that specific aspects of the culture such as Ways of Knowing and Learning must be incorporated in e-learning approaches in Aboriginal communities in more than a symbolic gesture. In the case of this research, it was important to the participants to include the Elders who were seen as keepers of history and agents of knowledge for the community.
6.3.4.5 Impact of religion

The next question focused on religious influences on the development of e-Learning objects in the community and inquired whether religion played a role in the collaborative community engagement project. The group consensus was that religion did not have any impact on the project:

Years ago there was religion in the community. There used to be a Sunday morning service and at school there was religious instruction. Religion impacted education somewhat back in the day, but not anymore and our focus group was not influenced by religion today. Linda_CFG_12/12

There are people in our community who are very strong Christians, because when the mission was established it was the missionaries that protected Aboriginal people, and I guess in a strange way, if it wasn't for some of the missionaries, a lot of us would have died out long time ago. But I think of Christianity I think of a lot of rules and regulations that have consumed our culture and denied us our language. And so there are also Narungga people who say no to religion and don't do anything to do with Christianity. There are many forms of religion that we can find and talk about like spiritual dreaming and cultural beliefs. When you think of our early days learning and literacy, it was based around religion and we used to all go to church, but it doesn't happen anymore. Eden_CFG_12/12

Religion did not influence this group work at all. Kammie_CFG_12/12

Many of the photographs that were sorted for the 140th anniversary, depicted men and women of the church with Aboriginal school children gathered at their feet. In discussion, the community focus group linked education and religion together. The focus group understood that it was through colonization and the church that the Western education system first came. They had also discussed however, that in the case of this research project religion did not play a direct role. Henderson (1996) suggests that culture is shaped by many artefacts including religion and while the community members did not think that religion affected their project directly, the way in which religion affected the community as a whole throughout history resulted in the shaping of the community culture, which indeed had an indirect effect on this learning experience.
6.3.4.6 Past education and training

The group was then asked about their past education and training and if their past experiences with learning affected their learning during the phases of this research project. This answer was divided amongst the group members. One participant, the focus group member who ended up being a mentor of sorts, did think her past training affected the research project:

We need some kind of basic knowledge and my background training helped in the case of this project. I was able to show others and help some through the steps of the project. Kammie_CFG_12/12

Another focus group member thought that his/her life experiences and strengths were showcased to foster the learning, so that perhaps it was not educational training but life experiences and strength in knowing oneself as an Aboriginal person that was the most important factor:

When we look at the word education, well whose education are we looking at, you know the thing is Aboriginal education we have all been brought up… in the same community with the same understanding of what the struggles have been, which makes us united in our thinking. So regardless of whether people have qualifications or degrees or only went to a particular year level, we all have a common understanding of what the struggles are which brings us together. Which makes us… if there's a purpose for learning… it makes us want to learn and to be able to achieve it…and it's regardless of past education. It’s the Aboriginal education that makes us strong in our identity and makes us who we are. Just because you have a degree doesn't change who you are. We've all been brought up to know who we are and where we come from and from that grows strength. Eden_CFG_12/12

In both cases, past education and training are other artefacts that influence the development of e-Learning design. Henderson suggests that prior knowledge and learning is a ‘culture shaping device’ (Henderson, 1996, p. 2) and that culture is embedded in the creation of learning objects. In this way, the community members’ opinions and Henderson’s theory concur that whether one has had prior education and training or not, the results of experience, or lack thereof, influence the e-Learning design within the community.
6.3.4.7 Influences of gender

Henderson’s theory (1996) suggests that one must take into account the gender issues that take place in minority communities. Often the gender of the community members as determined by community norms, determines who is allowed to be involved in learning opportunities within a community. The researcher posed the question to the community focus group: did it matter whether you were a man or a woman in this focus group; were men and women seen differently? The focus group was made up of 60 percent women and 40 percent men while the men in the group did not answer verbally, they were nodding their heads in agreement with the statements that were shared in answer to this question:

Quite often, what you'll find is that there's (sic) very distinct roles between males and females and generally an Aboriginal organizations and people with the executive jobs are usually the Aboriginal males. However, I am not sure if this had an impact on the group. They seemed to treat each other on the same level for this project. Eden_CFG_12/12

We are very equal in this group we all had a say. Julie_CFG_12/12

Years ago there may have been a difference between men and women, we do have different roles. Fishing has primarily for men, child rearing for women but this has changed over time and did not play a role in our project. Linda_CFG_12/12

In many Aboriginal cultures men and women play different roles. There is women’s business and men’s business and these distinct traditional roles may have some impact on learning and projects. In the case of this project, however, the community focus group felt that the men and women worked together and as equal partners in this research. The researcher observed that there seemed to be no impact on the research because the researcher was a woman. All community focus group members volunteered and there was never any indication that it was an issue that the researcher was female. Many of the significant roles within the community, such as school principal and elected council members, were held by women. Similar to the matter of religion, over time, the role of gender in this particular Aboriginal community has evolved and changed. As Henderson (1996) suggests, gender is an artefact, and therefore it develops and changes together with the culture.
6.3.4.8 Social class of participants

Henderson (1996) suggests that social class is another artefact that affects, in this case, the minority culture. Thus, the researcher examined the impact of social class and its effect on e-Learning design in the Aboriginal community. The community focus group was asked if class impacted the project in their community. There was some clarification made by the researcher that social class in this case meant who had jobs and where people were ranked in the community. The focus group members responded:

Class really doesn't play a part, it doesn't come into it. Julie_CFG_12/12

No it didn’t matter. It was about the experience and that we learned together. Class does affect our community, cuz only a few people have jobs. Some people in the community now have little [part time] jobs and then some people come back after they have training and then come back. Some people ask… what are they doing back here? So sometimes there is a bit of jealousy maybe, but this didn’t affect our learning here. Linda_CFG_12/12

In some societies and dominant cultures, social class of participants may greatly influence some learning opportunities. In the case of this research, and different from Henderson’s research, the context of the learning was not of tertiary level education, but of general literacy learning or basic adult education. The courses being offered were free of charge and there were no certificates of completion given. In other cases, social class may affect the culture and in turn affect the creation of the e-Learning design. The community focus group participants for this study, however, did not feel that the social class of the focus group members had any impact on their project.

Although all of Henderson’s (1996) suggestions of key elements which can affect e-Learning design for Aboriginal communities were not seen by the participants as directly affecting their presentation, there was no mistaking these embedded artefacts within the culture itself. For this reason, it can be said that all of the factors identified by Henderson, impacted the e-Learning design in the case of this community whether they impacted directly or indirectly and over time. The research concurs with Henderson’s (1996) suggestion that design cannot be considered a separate entity to the culture itself.
There was an interest on part of the researcher to understand the determination of the participants and to find out why the community was so committed to completing the project. All of the focus group members had other commitments, family obligations and busy schedules, yet for the majority of the group, they remained steadfast to seeing this project complete. The final focus group gathering concluded with three simple questions, why did you come, why did you see the project through to the end, and did the relevance of the project have a connection to your commitment.

The answers for the reason why people came were varied; some came out of curiosity: “I was curious to see what you had to offer us” (Tina_CFG_12/12). Some were hoping too that there would be opportunity for learning experiences that they did not usually have as an option to them: “I was hoping that I would learn something new” (Kammie_CFG_12/12).

Some participants were drawn because it was something out of the ordinary and of an issue that meant something to the community:

It was something different for them and it is because they are interested in the community and it was important to them. Linda_CFG_12/12

Some just had a feeling that something good was going to happen:

I was the one who was keen from the beginning. I knew you would bring something good to us. Julie_CFG_12/12

All of these reasons were nicely brought together in a comment from one of the focus group members when she said,

The reason why they came? Well, it’s about personal motivation. I just think with the literacy learning and the focus group… the topic that the group chose… it actually gave people a purpose for learning and it was about people’s personal learning. Quite often as adults, sometimes our mob don’t see where their learning fits into the scheme of things. But this project was something new and interesting and it meant something to the people here. Eden_CFG_12/12

The community focus group was asked why they continued to come and see the project through to the end. There were three main reasons that arose from the data.
The first was a matter of making a commitment or a promise and the personal commitment to see that through:

Because I believe that when I make a commitment in my life I will stay to the end, that's for me. Julie_CFG_12/12

When you make a commitment then you stick to it may take days or weeks years that if you commit to what you started and the end to be proud of what you have done. Tina_CFG_12/12

For other members of the group the motivation to see the project through to the end was because they felt that they were being positive role models for the others in the community:

The best point I feel is that this could be a really good role model for everybody else. If we could show that people could stay with it than other people will think they can do lots of other things. Pete_CFG_12/12

We have shown others that with a little bit of time and commitment to follow through and see something to the end. I'm proud of us because we stuck to our guns and this project is a result of our hard work and sweat and maybe others will want to try something too. Tina_CFG_12/12

The group also admitted that it was not just about the promise or being a good role model for others, but it was about the content and making a difference, being heard by the people who make decisions but also about starting people talking and thinking about what is really important in their community:

It was the commitment and the content. The main goal that I would like to see fulfilled, and that started with this project, would be the school staying open and being reopened up to Year Seven. It has been before and has just been changed back to Year Two and as the slides show it makes it a bit awkward [in our community]. We've had people, who put their children through to the different school [in the nearby mainstream town], and they may not be dreading that now...but they know that their children have been missing out on things like their culture and language. I think that this will have people thinking and talking and that starts change. Pete_CFG_12/12

The final question posed to the focus group dealt with the relevance of the project. The community focus group was asked if they felt it was important that this project was developed around a topic that the participants themselves chose as being something important to their community. The group agreed that this was a very
important part of the project’s success for a few reasons. The first reason was about being able to share something important:

   Everybody was being very open with each other, and hopefully the people on the other side viewing this will be open with their ideas as well. This was a way to share something important. Pete_CFG_12/12

   Yes, it was because it was a really important to the community and for us to share. Linda_CFG_12/12

Another focus group member also spoke about the importance of getting a message out to people so that they can hear what the community was saying. This also directly related to the commitment of the group as well:

   Because it was important we were able to stay focused and stay committed as a group of people. We wanted to get the message out there, I suppose. Julie_CFG_12/12

The final point that was brought forth about relevance was the consensus from the group that there was a specific purpose for doing this project and that helped everyone in the group learn:

   If there is a purpose for doing something people will learn something. If there is a reason behind what they were learning, like the technology then learning will happen. Eden_CFG_12/12

The commitment and dedication on the part of the community focus group was inspiring for the researcher to be a part of. Whether it was because there was a purpose for the learning, a message to be shared, a difference to be made for the community, a role to fill or a promise to be kept, these participants were at the ready from day one and saw the project through to the end.

6.4 THE CELEBRATION

In celebration of the project and the time spent in the community, the researcher attended the community council meeting to thank the council members for their support and show them the completed community engagement project. The council members were very pleased with the outcome and welcomed the researcher with an open invitation back to the community. The researcher presented each of the council
members with a Canada t-shirt and a small Aboriginal carving made by the traditional owners of the land in Northwestern Ontario.

The researcher also held a barbeque appreciation dinner at her accommodation for all of the focus group members. Each focus group member was presented with a binder that contained the training slides from the online synchronous platform training sessions, a document called PowerPoint 101 (see appendix 5), and a document called Scanning 101 (see appendix 6) so that everyone would have a resource to turn to in future applications of the program. The binder also included a copy of the script that the group had created and a copy of their static presentation, iteration one, on a CD-Rom. There was a personalised note to each participant on the inside of the binder.

6.5 CONCLUSION

Phase Three of this project involved the application of three iterations of the collaborative community engagement project. Throughout the iterations of the presentation the draft-guiding principles were used to guide the research and refined at the end of each iteration. The first iteration was a static version of the presentation that the community focus group eventually presented in the online live-time platform. This static iteration was presented at the 140th anniversary celebration in the community. The presentation allowed for the community focus group members to reflect on their work and receive some feedback from peers and visitors on the work that they had completed. The focus group met after each iteration to discuss the presentation and changes that could be made to improve the project. During this initial reflection the group decided to change the script of the presentation somewhat as well as decided that they needed more practice using the online platform before the next iteration of the presentation.

The second iteration was presented to a nearby Elder care centre to twelve adult clients of the centre. This presentation was done completely online, and despite some technical glitches that were eventually solved by the technical support team from Digital Bridge Unit, the presentation was very well received.
The reflections and revisions of the presentation derived from discussions after the presentation and included comments from the Elder Care Centre clients as shared by the research assistant who was in attendance at the centre for the presentation. The community focus group decided to add some more script to the presentation, change the speakers and their parts of the commentary for the presentation, highlight each person’s speaking part on the physical transcript, and also ensured that there was a microphone present at the third iteration of the presentation.

These changes were made by the focus group members for the third iteration. This iteration comprised a presentation to the researcher’s University Faculty of Education, the local TAFE manager and a local state government representative. This presentation was delivered, solely by the community members using the online platform, with the researcher only participating as a participant at a distance. The final reflections for this iteration were extremely positive, as were the comments from the attendees. The community focus group felt that they could run similar sessions in the future. This phase of the project ended with a barbeque celebration and presentation of gifts and binders with copies of the collaborative community engagement project on a CD Rom.

This chapter highlighted the links between the data collected in the community and each of three theories that were combined to develop the theoretical framework for this research. Vygotsky’s (1978) sociocultural theory, Lave and Wenger’s (1991) situated learning theory and Henderson’s (1996) multiple cultural model were all confirmed and validated within the scope of this research. The conclusion of the research and the proposed design-based principles created in reflection of the data collected, the theoretical framework and the refined draft-guiding principles are presented in Chapter Seven.

While there have been strong links identified between this study, and Vygotsky’s (1978) sociocultural theory and Lave and Wenger’s (1991) situated learning theory, more can be said about specific Aboriginal contexts as applied to these theories. In addition, Henderson (1996) suggests several factors that impact e-Learning design, and identifies subcultures that interplay in order to effectively create e-Learning design for Aboriginal communities. This study suggests that there must be more
emphasis placed on applying a ground up approach to e-Learning in Aboriginal communities. Emphasis must also be placed on attaining ways to encourage sustainability for continued e-Learning design and learning opportunities in the Aboriginal context. In response to this underdeveloped theme, and with the intention to foster further examination in other Aboriginal community settings, the researcher has developed a model of community strength. This model highlights the strengths of an Aboriginal community as portrayed in the participating community and suggests a model derived from these strengths to encourage optimal environments for synchronous computer-based learning within Aboriginal communities as well as presents a platform for future research.
CHAPTER 7 – PHASE FOUR CONCLUSIONS

7.1 INTRODUCTION

This chapter provides a final reflection on the research questions that were addressed in this study and the answers to those questions derived from the analysis of the data gathered. In this chapter, the initial draft-guiding principles that were established as a result of drawing common themes from three critical stakeholders, the literature reviewed, the literacy practitioners and the Aboriginal community members, are revisited. The final design-based principles that evolved as a result of the iterations of those draft-guiding principles through the process of the research are presented. These design-based principles can be applied and further refined by researchers and practitioners alike when working side-by-side with Aboriginal communities and community members. The findings from the collaborative community engagement project are related to the applied original theoretical framework that was assembled by the researcher and a model of community strength is introduced. Finally, future areas of research that could be explored using this project as a starting point are discussed.

The purpose of this research was to explore effective means of supporting the literacy needs of adult Aboriginal community members using synchronous technologies. The research took place over two years, with the researcher onsite working with the Aboriginal community for a time period just over four months. The community was chosen as a result of a relationship with Digital Bridge Unit, a part of the Department of Further Education, Employment, Science and Technology, in the Government of South Australia. The community council welcomed the researcher and the study, and
community members volunteered their time to participate over an intensive three-month period.

### 7.1.1 Research methods

The research was qualitative in nature and data were collected through focus groups, individual interviews with practitioners and community participants, and observations with field notes kept by the researcher during her time in the community. The study used the design-based research approach (Reeves, 2006) which involved four phases including several iterations of a solution; or in the case of this study, a collaborative community engagement project, to address needs identified and employ the use of synchronous technology. The design-based approach was an appropriate choice for this study as it allowed integrating the input from a variety of sources including a comprehensive literature review, the voice of literacy practitioners who have experience working with Aboriginal communities, and community members themselves, to find the gaps in the research and provide a foundation for the research questions.

### 7.1.2 Research questions

The research questions were designed to bridge the gap in the literature and focus on using technology to support adult literacy learning in Aboriginal communities. The research questions for this study were:

1. What are the literacy needs of an Aboriginal community?
   1.1 What are the perceived needs and approaches to these needs as shown in the literature?
   1.2 What do literacy practitioners perceive to be the literacy needs in Aboriginal communities?
   1.3 What are the literacy needs of an Aboriginal community as perceived by community members?

2. What types of literacy support and technology are being implemented by practitioners in Aboriginal adult literacy learning contexts?
2.1 What types of literacy support and technology are available to the Aboriginal community in question?

3. What underlying principles, when applied in these contexts can support using synchronous technologies in Aboriginal communities?

3.1 What model can be developed for use in similar contexts to support Aboriginal adult learners’ literacy needs?

7.2 ANSWERING THE RESEARCH QUESTIONS

7.2.1 Literacy levels

An important first step in finding effective ways to support Aboriginal adult learners’ literacy skills using synchronous technology, was to understand those needs. In Phase One of the research, three critical sources were accessed to determine the literacy needs in an Aboriginal community. The answers to these questions do not mean to suggest that all Aboriginal communities face all of these needs. Neither do they seek to imply that there is a one size fits all solution to the low literacy rates in Australian Aboriginal communities. The purpose was to formulate an informed perspective about the types of needs that could be present in an Aboriginal community and begin the process of finding ways to support those needs through the use of synchronous technologies. The question of defining the literacy needs in an Aboriginal community was tackled from three perspectives. Firstly, the research determined the perceived needs and approaches to these needs as shown in the literature. Secondly, the research elicited the “voice” of the literacy practitioner who works with Aboriginal learners and communities. Finally, members of an Aboriginal community came together to discuss what they perceived to be the needs in their community.

7.2.1.1 Literature

The first aspect of defining the literacy needs within an Aboriginal community at the perceived needs was articulating of Question 1.1: What are the perceived needs and approaches to these needs as shown in the literature?
As shown in Chapter Two, the adult literacy needs in Indigenous communities identified in the literature included:

a) Improved literacy levels and higher graduation rates,

In 2006, the Australian Census indicated that 19 percent of Indigenous adults had completed high school (Year 12) compared to 45 percent of non-Indigenous adults (ABS, 2006). This gap in adult literacy competency indicates a need for literacy services for Indigenous Australians.

b) Access to literacy support, despite geographic barriers,

The Indigenous adults who have completed a Year 12 education, are, for the most part, located in urban areas, suggesting that Indigenous adults living in remote and rural areas of Australia have had limited opportunity to the same level of education in comparison to the rest of Australia (Biddle, et al., 2004). Therefore, there is a need for support of Indigenous Australians who have had limited access to literacy upgrading due to geographical barriers.

c) Acquisition of technology and employment skills relevant to current job market,

As employment skill requirements reflect the growing technology trends of the global market, there looms a significant threat to under-skilled Indigenous people who will be excluded from new economic and employment opportunities, thus being pushed further to the margins of society (Greenall & Loizides, 2001; Miller, 2006).

The literature also presented approaches that have been taken by researchers, practitioners, programs, mentors and others to support those needs. These nine common elements that were drawn from the literature assisted in the formation of the first draft-guiding principles of the research that can be viewed in detail in section 2.9 and are summarized below:

1. Practitioner skills:

   Along with a willingness to incorporate learning methodologies congruent with learning styles of Indigenous adults, instructors must also be well versed in ICT curriculum and troubleshooting (Lucardie, 2003).
2. Communities of learning:

Battiste (2008), Christie (2005), and Warner (2006), all acknowledge that learning communities must take into consideration the unique, shared environmental contexts of that community. Practitioners should encourage positive interpersonal relationships and, if collaborative work is an important aspect of learning outcomes, early interventions of peer interaction are used to build positive learning partnerships among learners (Dixon, et al., 2008).

3. Relevant content:

Projects with Indigenous learners report that the use of curricula containing relevant content which proves meaningful and applicable to the lives of their learners is directly related to learner retention and learning outcomes achievement (AFLF, 2003; George, 1997; Greenall, 2005; McDonald, et al., 2006).

4. Cultural inclusion:

Harris (1990), Hughes, Fleet and Nicholls (2003), and Wall (2006) suggest an integration of cultures within learning environments to provide a better-rounded context for learning.

5. Accessible, suitable and reliable technology:

Technology resources in Indigenous communities must consider the social issues (i.e. only given to the privileged), cultural considerations (i.e. inappropriate content) and fiscal constraints within that community (AFLF, 2003; Brescia & Daily, 2007).

6. Intergenerational community involvement and consultation:

Many authors (AFLF, 2003; ANTA, 2002; Daniels, 2003; Facey, 2001; McGlusky & Thucker, 2006; Sawyer, 2004; Tankard & O'Kelly, 2009) have suggested that the inclusion of Indigenous people at the community level during the development and delivery phases of new learning initiatives could ensure standards relevant to local needs and technical capacity.

7. Positive relationships, mentoring and technical support:

Bamblett (2005), Greenall (2005), Porter and Sturm (2006), state that it is important to have as much support as possible for learners in remote
8. Promoting community-based learning:

There are indications that Indigenous learners prefer to work collaboratively, traditionally valuing kinship and the aspects of community, over individual learning contexts (Facey, 2001; George, 1997; Taylor, 1997, Zepke and Leach, 2002).

9. Genuine partnerships with Government:

Learning with technology costs money and McGlusky and Thacker (2006), Young et al., (2005), and Sawyer (2004), all discuss the lack of fiscal dedication from the government level to support literacy training in Indigenous communities. Stronger and more genuine partnerships are needed in order to help Indigenous communities obtain the infrastructure needed to support online learning.

**7.2.1.2 Practitioners’ views**

Secondly, the research examined the opinions of literacy practitioners and in particular, what they perceived to be the literacy needs in Aboriginal communities. Question 1.2: What do literacy practitioners perceive to be the literacy needs in Aboriginal communities?

The needs identified by practitioners are detailed in section 4.3.2.2 included:

a) A better understanding of the complexities of the Aboriginal learner from both a language and a personal perspective,
b) Improvement of all literacy skills,
c) Better support for the children in the community, and,
d) Skills that provide a voice for the community.
7.2.1.3 Participants’ views

Finally, the research sought the perceived literacy needs of an Aboriginal community from the community members themselves. Question 1.3: What are the literacy needs of an Aboriginal community as perceived by community members? The major themes that evolved from the community’s needs detailed in Chapter 4 section 4.4.2.3 were:

a) Support for learning all literacy skills including reading, writing, basic accounting skills,

b) Technology skills,

c) Employability skills,

d) Money management,

e) Capacity building, and,

f) Ways to empower the community.

7.2.2 Supporting identified needs

The second question that the research examined related to understanding the types of support and technology already in use in Aboriginal adult learning contexts. This second step in finding effective ways to support Aboriginal adult learners’ literacy skills using synchronous technology, was to foster an understanding of the type of support and technology currently in use in these Aboriginal contexts. The answers to these questions do not mean to suggest that all Aboriginal communities have, need or want all these types of support and technology. The purpose was to gain a general understanding about the types of support and technology that could currently be implemented in an Aboriginal community and to understand current methods and uses of technology that may be helpful when introducing the use of synchronous technologies to an Aboriginal community.
7.2.2.1 An overview of existing support and technology

Question 2: What types of support and technology are being used by practitioners in Aboriginal adult literacy learning contexts? The types of support and technology being used are described in detail in sections 4.3.2.3 and 4.3.2.4 in Chapter Four.

7.2.2.2 Specific existing support and technology available to an Aboriginal community

Practitioners identified three categories of approaches they have taken to effectively support the adult Aboriginal literacy needs in Aboriginal communities. These are described in detail in section 4.3.2.3 and summarised below:

1) Using culturally relevant approaches and culturally relevant material,
   - Oral language, talking, reading aloud and storytelling,
   - Learning through song,
   - Learning through nature,
   - Using visual language, and,
   - Seeking Elder’s advice.

2) Community /learner ownership and community development focus, including:
   - Relevant needs,
   - Community direction, and
   - Learning focused curriculum.

3) Facilitating a mentorship program.
   - For learners and practitioners

The practitioners also described the types of technology that they have used previously in their work within Aboriginal communities. These are described in detail in section 4.3.2.4 and summarised below:
Ten of the 11 practitioners have used computer technology in supporting adult Aboriginal literacy learners. These have included:

- Social computing networking software,
- Presentation software,
- Websites,
- Various games, and,
- Digital storytelling software.

The practitioners described using this software to support literacy skills such as:

- Language skills,
- Word processing,
- Driver’s license preparation,
- Reading,
- Researching,
- Writing,
- Oral presentation,
- Communication skills,
- Mentoring opportunities,
- Tax filing skills,
- Digital photography,
- Job searching,
- Banking, and,
- Opportunity for higher education courses.

Second, the research aimed to understand the types of support and technology that was already available to an Aboriginal community. Question 2.1: What types of technology are available to the Aboriginal community in question?

The data collected in section 4.4.2.4 suggested that the Aboriginal community in question did not feel supported. Many felt they would have to travel outside the community to receive the literacy support that they would like to take. While some community members were involved in a training course through the local TAFE, they generally felt that they were being forced to take courses that they were not interested in for the purpose of collecting their Centre Link payment. If they could choose the
types of support they would like to receive, several suggestions were made as suggested at the end of section 4.4.2.3:

- Positive role modelling from within the community,
- Working together,
- Mentoring programs,
- Family involvement, and,
- Genuine partnerships with government.

The community members also identified four categories in section 4.4.2.7 of specific learning opportunities that they would like to have available to their community including:

1) Employment related training courses,
2) Interest based courses,
3) High school qualifications, and,
4) Sharing culture and language with others.

In respect to the types of technology available to the community (section 4.4.2.5), many community members said that they had tried using computers in the school or when there were computers in a central community location however they identified three barriers to using computers that are detailed in the section and include:

1) Technical issues,
2) Accessibility barriers, and,
3) Lack of technology training.

Overall the data indicated a lack of adequate learning space, as well as a lack of access to computer technology and ICT support at the time of this research. However, the community members did show a keen interest in learning more about technology and how it could help the community as detailed in section 4.4.2.6

7.2.3 Creation of design-based principles

The third research question aimed to find principles to guide effective support of adult literacy learning in Aboriginal communities using synchronous technologies.
Question 3: What underlying principles, when applied in these contexts can support using synchronous technologies in Aboriginal communities? These principles were created using a design-based research approach (Reeves, 2006).

### 7.2.3.1 Draft-guiding principles

A thorough literature review completed and a gap in the literature was identified. Once the problem had been identified and the question of literacy needs and existing support and technology answered, a series of nine draft-guiding principles to effectively support adult literacy learning in Aboriginal communities using synchronous technologies were drawn together from the literature. These principles were enhanced by the addition of data collected from the literacy practitioners who work in the area of adult literacy in Aboriginal communities and who contributed an understanding of the literacy needs in Aboriginal communities from a practitioner’s perspective. Finally, Aboriginal adult learners from an Aboriginal community contributed their perspective of the literacy and learning needs from their community and these were added to include the Aboriginal community members’ input as well. This input resulted in the creation of a tenth draft-guiding principle. The ten draft-guiding principles were:

- **DGP1** Develop skills and awareness of Aboriginal learners’ profiles,
- **DGP2** Create opportunities to participate in an online learning community,
- **DGP3** Utilize relevant content,
- **DGP4** Value cultural inclusion,
- **DGP5** Support implementation of technology that is accepted, accessible, suitable and reliable,
- **DGP6** Foster intergenerational community involvement and consultation,
- **DGP7** Build positive relationships, mentoring and technical support,
- **DGP8** Promote community-based learning,
- **DGP9** Cultivate genuine partnerships with government, and
- **DGP10** Understand community goals, directions and development.

These principles were reflected upon and refined at each phase of the research to ensure that previous research, literacy practitioners’ and community members’ collaborative input was integrated throughout and that accurate, polished and succinct
principles were created. The draft-guiding principles were also used to guide the creation of the collaborative community engagement project.

7.2.3.2 Collaborative community engagement project

The next step in the creation of the design-based principles involved applying the draft-guiding principles, through the process of seeking a solution to the problem identified (Phase Two of the research), and then refining the principles at each iteration of the solution. In the case of this research, the solution was called the collaborative community engagement project. The community focus group identified one of their literacy needs as the development of their computer skills. This self-identified need evolved into a collaborative community engagement project that was relevant and important to the community focus group members. The project was built upon the concern that the local primary school had been under threat of being closed down. Over the past few years, the school that once held classes up to Year 7 was now only offering classes for children up to Year 2. During the time of the research, the community was going to celebrate their 140th anniversary. The group decided that it would be great to be able to broadcast to the community and to others, a presentation about the school in their community, how it came to be, what it means to the community and why it is important that it remains open in the community. The community focus group created a computer-based presentation including photographs that they scanned, audio that they added; some of which was in their own language, and a recited script that they had composed. The details of the process of the collaborative community engagement project can be found in the proceeding chapters (Chapters Three - Six). A static version of the presentation (available on CD ROM in the back cover of the thesis) was presented at the 140th anniversary community celebrations and became the first iteration of the solution. The draft-guiding principles were refined at this point in the research process.

Some of the focus group members then learned how to facilitate sessions in an online synchronous classroom environment and were able to present their project for two subsequent iterations. This enabled the group to share with audience members located
around Australia live-time in the synchronous environment. The draft-guiding principles were refined at the end of each of the iterations.

### 7.2.3.3 Design-based principles

The design-based principles are the result of carrying out the four phases of the design-based research approach as explained in previous chapters (Chapters Three-Six). The eleven design-based principles presented here propose a starting point to answer the third research question. Question 3: What underlying principles, when applied in these contexts can support using synchronous technologies in Aboriginal communities? The involvement of synchronous technology in the later phases of this research provided the arena for the design-based principles to be directly related to synchronous technology. These eleven design-based principles for establishing optimal learning environments for effective use of synchronous technologies to support adult Aboriginal literacy learners are:

**DBP1  Develop skills and awareness of Aboriginal learners’ profiles**
- Develop technological skills including ICT curriculum and troubleshooting,
- Present yourself in confident, competent, adaptable and flexible ways,
- Establish awareness of Aboriginal literacy levels and preferred learning styles,
- Make learning relevant to the community’s needs,
- Create opportunities for learning experiences that are both learner-focused and learner-driven, and
- Consider appropriate expectations of adult Aboriginal learners.

**DBP2  Create opportunities to participate in an online learning community**
- Seek to understand Aboriginal learners’ past learning experiences in order to assist them to effectively participate
- Include opportunities for social networking, interpersonal relationships, cultural relevance, traditions and values
- Consider Aboriginal learners’ and community’s current social struggles
- Incorporate opportunities for all parties to share and collaborate in the online environment
**DBP3  Utilise relevant content**

- Deliver relevant, meaningful, applicable, and computer adaptable content for use with synchronous technologies for Aboriginal adults. For example content that:
  - Helps Aboriginal adults better understand their identity as an Aboriginal person,
  - Connects content to cultures and traditions,
  - Encompasses community values,
  - Grows from community knowledge, and,
  - Assists in gaining employment.

- Create content in consultation with the community

**DBP4  Value cultural inclusion**

- Consider culture in all instruction and implementation stages of synchronous learning opportunities including:
  - Geographic area,
    - Living conditions,
    - Socioeconomic status, and,
    - Language group
  - Consult with the community in regards to culture at every level of instruction
  - Aim to implement an Aboriginal curriculum that is created from within the community, involving community members, delivered by community members, for community members
  - Use learning materials and resources that are community-centred and grounded in local language

**DBP5  Support implementation of technology that is accepted, accessible, suitable, and reliable**

- Consider cultural values, social issues, fiscal constraints, technological support and physical space in the community,
- Appropriately introduce technology to the community and allow for community choice of type of technology,
- Ensure community understands the benefits of synchronous technology to the community such as: social networking and family connections, community
capacity building, links to other communities and professional training for community mentors, and,

- Be aware of the current state of technical equipment and the barriers to computer learning in the community.

**DBP6 Foster intergenerational community involvement**
- Ensure a locus of control by the community when using online technology,
- Develop learning tasks that promote and encourage a whole family, whole community approach and include children through Elders in the process.

**DBP7 Build positive relationships, engage mentors, and provide technical support**
- Incorporate where possible and encourage several types of mentors including: onsite mentors, peer mentors, community mentors, Elder mentors, liaisons, technical support people and practitioner mentors, and,
- Ensure technical support is available to the community.

- Encourage practitioners and mentors:
  - Make time for relationship building and gaining trust,
  - Gain respect of the community by obtaining permission to be on the land,
  - Meet with community council regularly,
  - Have energy to put into engaging learners,
  - Be approachable,
  - Support learners academically and emotionally,
  - Scaffold computer skills,
  - Show respect for community and members,
  - Be sensitive towards learners,
  - Take time to understand the community,
  - Ensure down time for themselves to avoid burnout,
  - Be willing to become an active participant in learning, and,
  - Implement technology that is enjoyable and relevant to the community.
DBP8 Promote community-based learning
- Facilitate community collaboration,
- Provide opportunities for the community to see the benefits of new technologies through a wholistic kinship approach,
- Use Aboriginal strengths (including oral storytelling, song, the Dreamings and language) in these contexts to promote familiarity and a feeling of comfort for learners, and,
- Allow the learners to choose the location and setting of where they would like to work on learning projects.

DBP9 Cultivate genuine partnerships with government
- Develop relationships with key stakeholders in order to promote meaningful, relevant, empowering and real-life online learning opportunities.
- Consider a third party liaison that could possibly better connect the community with government services.
- Be aware that funding is required in most aspects of online learning environments, and,
- Use online synchronous technology to act as an affective filter which can enable the community members to represent themselves in their own voice directly to the Government.

DBP10 Understand community goals, directions, and development
- Use synchronous learning tools as community development support systems by providing links to the outside world and finding ways in which technology can engender greater self-sufficiency within communities, and
- Understand the deep concern of many Aboriginal communities for their children and future generations. Know that this concern is at the core of the desire of many communities to learn about technology.

DBP11 Embrace Aboriginal Ways of Knowing and Learning through Elder education
- Embrace Aboriginal Ways of Knowing and Learning and incorporate these attributes throughout the learning processes,
- Consider Elders a unique subculture of teachers,
- Involve Elders in all stages of new learning experiences and environments,
- Respect Elder education and wisdom,
- Welcome Elders to share and pass down their knowledge in Aboriginal synchronous learning environments, and,
- Engage in learning opportunities from Elder expertise.

These design-based principles provide evidence-based answers to Question 3 of the research questions: What underlying principles, when applied in these contexts can support using synchronous technologies in Aboriginal communities? They provide a practical and relevant set of design-based principles, while considering the current literature, expertise and experience of literacy practitioners and the Aboriginal community through a community focus group. These principles provide sound guidelines for future research engaging Aboriginal adult literacy learners with learning opportunities involving online, synchronous computer technology.

### 7.2.3.4 Developing a model

The second part of research question three, the final question for this research, queries a model that can be developed to support similar research. Question 3.1: What model can be developed for use in similar contexts to support Aboriginal adult learners’ literacy needs? An original model, designed by the researcher and based on this study is explained in detail in the subsequent sections. This model is presented as an embedded addition to the theoretical framework presented in Chapter Two of the research and adds another level of depth to the framework assembled by the researcher for this study. However, this model could be extrapolated from the framework to be applied in various contexts as a model independent of the framework presented for this study.
7.3 REFLECTING ON THE APPLIED THEORETICAL FRAMEWORK

In the fourth and final phase of the research, design-based principles for establishing optimal learning environments for effective use of synchronous technologies to support adult Aboriginal literacy learners were created. These were a result of a refinement process that occurred when the initial draft-guiding principles of the study created from the literature reviewed, the data collected from practitioners and community members were refined through three iterations of a collaborative community engagement project. This project was created as a solution to the problem of how to best support adult Aboriginal literacy learners while using synchronous technology. A reflection on the theoretical framework chosen for this study allowed the researcher to conceptualise the process of the learning that took place in the process of this study and to make connections to link the design-based principles back to the theoretical framework. The framework presented pictorially below (Figure 7.1) is an original design that incorporates three theories/models including Vygotsky (1978), Lave and Wenger (1991) and Henderson (1996).

Figure 7.1 Theoretical Framework
The diagram that has been assembled by the researcher implies that the overarching theme (the large circle that encompasses the theoretical diagram) of this research is Vygotsky’s sociocultural theory (1978). Vygotsky’s work suggests that learners work best in social settings, working together with others, collaborating and communicating in collective ways. The theoretical framework for this research becomes more refined and introspective of the learning landscape of Aboriginal communities as each layer of theory is added from the large circle to small. The next layer of the framework connects with Lave and Wenger’s situated learning theory (1991) which raises two main perspectives on learning. The first perspective is that learning requires social interaction and collaboration that can result in communities of practice, and the second suggests that effective learning takes place within authentic contexts. The data presented in this research set out to lend further support to these theories as presented by Lave and Wenger specifically within Aboriginal contexts. The innermost group of circles are presented by Henderson (1996) in her multiple cultural model of e-Learning design for Aboriginal communities. The circles have been placed inside the other two frameworks to indicate a step further into the details of working specifically with Aboriginal communities. Henderson’s model is presented in the context of a tertiary education program delivered to Aboriginal communities whereas this study applied the concepts of Henderson’s model to an adult literacy learning environment. The researcher specifically focussed on one of the five interlocking rings called ‘minority culture’ within Henderson’s model to further examine the features of minority culture as it pertained to this particular project. This led to the proposal of yet another layer within the ring of minority culture that suggests community strength as the core of learning experiences in Aboriginal communities as shown in Figure 7.2.
7.3.1 Learning with others and scaffolding

Based on the work of Vygotsky, the premise of the sociocultural theory is that quality social interactions can develop higher order functions when they take place in cultural contexts (John-Steiner & Mahn, 1996; Scherba de Valenzuela, 2002; van der Veer & Valsiner, 1991). Based on this philosophy, adults will learn more effectively when they socialise with other learners in a positive environment and instruction is deemed more effective when it is connected to cultural learning relevant to the learner (Scherba de Valenzuela, 2002). This study demonstrated that a very important aspect of working with the adults in the Aboriginal focus group was that they were comfortable in their community environment. The group volunteered their time and came forward to work together. The focus group members grew up knowing one another and had been through life’s challenges and successes together. They shared an understanding of where the Narungga people originated, the history of their people, the realities of today’s community, and the hopes for the future. The overall feeling within the group was one of care and concern for the subject matter that they had
chosen to talk about. There was potential for Narungga culture to be negatively impacted should the community lose its school, and this was of grave concern to the community and its members.

Vygotsky’s theory demonstrates that guided social interactions serve a cognitive function which occurs in the ZPD which, is the difference between what a learner can do independently and what can be accomplished cognitively with guided support from more knowledgeable others (van der Veer & Valsiner, 1991). This scaffolding was seen is illustrated in Chapters Five and Six, such as when the research project progressed through the training of the synchronous platform, as well as in isolated tasks of the project such as scanning, creating a presentation and adding and editing audio files. Throughout the study the researcher observed the process of moving the learner from assisted performance to greater self-assisted and self-regulatory competence (Henderson & Putt, 1999; van der Veer & Valsiner, 1991). This occurred as students learned computer skills including how to facilitate the synchronous platform. These learning experiences were often fostered by a more knowledgeable other (Chapters 5 and 6) who assisted the less knowledgeable learners to a place where they now could help others themselves. Evidence of this scaffolding included instances between the researcher and the focus group members while the members learned how to scan photographs, resize them and place them into the presentation. There were also instances of a more knowledgeable and skilled community member, who had experience with computers, aiding fellow focus group members and assisting with their skills so that overall, the group attained a greater level of competence in the skills due in part to the assistance of the experienced focus group member. In this way, computer literacy skills seem to be a learning area where the ZPD is applied in many contexts.

Social cultural theory, the large circle in the pictorial representation of the theories used to frame the research, is shown as encompassing the entire framework. While the evidence of scaffolding is an important part of this research, this project has shown that such research is influenced by the need for the Aboriginal learner to feel comfortable in his or her learning environment and for the learning task to be relevant and culturally appropriate. This further supports Vygotsky’s sociocultural theory having significance in adult literacy learning settings in Aboriginal communities.
7.3.2 Situated learning in authentic activities

Lave and Wenger’s (1991) theory of situated learning further interprets Vygotsky’s theory and suggests that it is the context in which knowledge is obtained and applied in daily situations that governs the cognitive retention of the information being taught (Chin & Williams, 2006; Stein, 1998). This suggests that rather than being an action of the learner obtaining information from an academic body, learning is a sociocultural phenomenon, in which the learner acquires knowledge through actively participating in specifically influenced contexts (Stein, 1998). Lave and Wenger (2003) have also developed a model of situated learning that is based on a process of engagement in a ‘community of practice’ where learners commune through mutual participation in activities related to their learning. Building relationships over time, participants in communities of practice continue to develop meaningful relationships and resources that contribute to both the group and individual’s knowledge base (Lave & Wenger, 1991; Stein, 1998).

In this research project the participants came together as a community of practice around a common goal and became readily passionate about the case that they were supporting and presenting. Throughout the project, the focus group members were learning things about their culture and community. This new information was being learned and retained and the focus group were able to better pass on this information through their presentation because of the meaningfulness of the content. It was the group’s decision to create a presentation about the school in the community and the importance of the education system over the years to the people of the Point Pearce community. This personal connection to the content and the desire to share their story fostered a fruitful and vibrant community of practice and brought meaning and relevance to the literacy skills that were achieved as a result. These capabilities included practical applications such as sorting, categorizing, discussing, scanning, cropping, sequencing, creating scripts, public speaking, and facilitating an online classroom.

Other literacy and life skills were also nurtured and valued. These included commitment, dedication, patience, sharing, discussing, listening, interpersonal relations, teamwork and pride. Situated learning theory is represented pictorially as
the second circle inlayed in the theoretical framework and has shown that whilst the big picture when working with Aboriginal communities is a level of comfort in a known environment, the more specific approach or the next layer is to ensure that a community of practice is formed and based in a specific context with attributes of importance to those involved in the research. Lave and Wenger (2003) suggest that the context, beliefs and values for a community of practice encourages and enables acquisition of new skills to take place. The community of practice created around the common and self-identified goal suggests that this project concurred with Lave and Wenger’s theory within the Aboriginal community context.

7.3.3 Multiple cultural model and the dimensions of learning

The final and innermost circles in the theoretical framework presented were those of Henderson’s (1996) multiple cultural model. The primary function of the multiple cultural model is to provide a framework on which to build effective e-learning instructional design in a learning environment that promotes equality for learners, particularly those from minority groups. In applying Henderson’s multiple cultural model to this study, the aim is for a partnership and interconnectedness of the five subcultures on a local level that can be reflected on when engaging in the same type of research with other Aboriginal communities on a local, national or global level.

These five cultures include:

1. Dominant culture.
2. Workplace culture.
3. Global academic training and entrepreneurial culture.
4. Gender, religion and class.
5. Ethnic minority and Aboriginal culture.

These cultures are pictorially represented and explained by Henderson (1996, 2007) with five equally proportioned circles that interlock and form an apex, which represents in her example, with all cultural logics considered, a most desirable scenario for e-learning to take place in an Aboriginal community setting. The researcher has examined each of the components of these circles in the context of the
Aboriginal community in this research project. The data collected suggests that in the case of this community, one of the five cultural logics, that of ethnic and minority culture, was of predominant importance.

7.3.3.1 Dominant culture

The dominant culture in respect of this research was Westernised society that influences the outcomes of e-learning and the processes of Aboriginal communities’ involvement with e-learning experiences. Henderson expresses concern for the fact that e-learning applications and resources do not include relief from “the rich get richer and the poor get poorer” cultural paradigm of society as a whole, and issues such as power control and disadvantage are not readily addressed in the context of e-learning (Henderson, 2007). This research would agree since now the Narungga community focus group members have skills to use the synchronous platform, not only as participants but as facilitators and teachers as well. As rewarding an outcome that this may be, a concern for both the researcher and the community members is the lack of technical and financial support for the community to continue to employ these technological advancements and skills. While there are some personally owned computers in the community and there is a computer lab at the school for the school children, there is not a community-based learning centre or Internet-accessible computer area for the use of local community members. While this research demonstrates interest and capability of community members in using the equipment and the online platform, questions of access, funding opportunities and technical support remain for the community.

7.3.3.2 Workplace culture

In the case of this community, the workplace culture affected the research only because there was not a workplace culture present. For those who had a job it was usually in a nearby town or community. A few people were involved in working at the local school however in discussion with the community members the understanding of the workplace culture was not evident. If the school was to be considered the mechanism of workplace culture, it was very supportive of the focus group, illustrated by the principal giving the group a place to gather and work together. However, the
impact of the workplace culture on the e-learning experience was minimal in the case of this research.

7.3.3.3 Global academic training and entrepreneurial culture

The influence of Westernised academic teaching and learning is a reoccurring concern when working with Aboriginal communities. In many instances we see western culture create a course or training session and then attempt to ‘Aboriginalise’ the content. Henderson suggests that academic cultures are based on Western culture and academic expectations and is “therefore inescapable when delivering global e-learning courses” (Henderson, 2007, p. 138). The researcher agrees, but suggests that in the near future, there will be examples of e-learning courses delivered from within an Aboriginal culture, by Aboriginal community members for Aboriginal community members. In this way, these online courses would be built from the bottom-up. The literature review highlighted several examples of projects that are currently being created from the ground up with Aboriginal teachers, Elders, professors and computer technicians (Christie, 2005, Eady, 2007; Goodwin Gomez, 2007; Greenall, 2005; McDonald, et al., 2006, Sisco, 2010). As we see more Aboriginal people’s strengths revealed within the dominant culture, we can be sure that the norm of academic expectation will alter. There are very few things in this world that are ‘inescapable’ and the Western culture’s connected academic expectations, while perhaps remaining a strength in the academic realm, will not always be the only expectation.

7.3.3.4 Gender, religion and class

The focus group in this particular piece of research were asked in retrospect whether or not gender, religion and class impacted the outcome of this research. The focus group members suggested that none of these three factors directly impacted this research. That is not to say that gender or religion would not be a factor in the past for the people in the community as discussed in Chapter Six. In section 6.3.4.5, the participants were aware education came to the community through religious affiliation however; many of the participants did not feel connected to religion at this point in time and felt that this project was not directly related to religion in any way. It is
obvious that in other contexts, working with other groups of learners in other areas of the country or the world, these three factors may have a great impact on learning. Henderson (2007) says, “the equity of e-learning means maximizing the learning outcomes for all the e-learners” (p.141). While perhaps the influence of gender, religion and class was inconsistent in relation to Henderson’s study on which the multiple cultural model was created, the learning outcomes for this research were maximised for all of the learners whether male or female, and despite their religious denominations or class.

7.3.3.5 Aboriginal and ethnic minority culture

The predominant piece of Henderson’s (1996) multiple-cultural model, which the researcher proposes applies most directly to this research, is the fifth cultural logic of Henderson’s model; Aboriginal and ethnic minority culture. As expected, this research reflects the area of Aboriginal culture and more specifically Narungga culture. In Henderson’s chapter, “Theorizing a Multiple Cultures Instructional Design Model for e-Learning and e-Teaching (2007) she explains that an underlying principle in the multiple culture model is that those of us belonging to majority and minority cultures each have to recognise the value in bi-cultural practice. In the context of this research, this was particularly valid. The Aboriginal community members were asked to adhere to some Western culture norms such as recognizing the value of setting up a specific time for training sessions so everyone would be there to participate. The focus group members were also asked to participate in training so that they could facilitate the online learning platform tools and functions and this training was presented in a very Westernised manner, being created in Westernised culture. However, there is a sense of complete inequality to the ideal bi-cultural practice in the sense that some members of the Westernised culture, perhaps in an air of domination, ignorance or lack of understanding, continue to fail to recognise and incorporate the value of Aboriginal cultural practice in the learning context. Through this community literacy project, while perhaps not comparable to Henderson’s examples of college and university level courses, it was the approach to the community, the trust that was carefully built and the time that the researcher afforded for sharing relationships to be fostered. The result of ensuring these measures were in place witnessed the importance of community strength in online learning experiences and the role that
community strength plays in fostering learning achievements in Aboriginal settings. The researcher would like to suggest a model of community strength, noting that in every ethnic setting and each Aboriginal community setting, this may present itself in different ways. This particular community’s model, the community strength model can be used as a means of better understanding the value in an Aboriginal cultural logic and the direct relation of these strengths in online learning and teaching environments.

7.4 COMMUNITY STRENGTH MODEL

The community strength model is built on the premise of Henderson’s multiple cultural model (Henderson, 2007), which incorporates ethnic minority and Indigenous culture as a cultural logic to be taken into consideration in the development of e-learning activities in Aboriginal communities. It also assumes that members of Westernised cultural logic understand how to view Aboriginal cultural logic in the context of e-learning environments. In a closer examination of Henderson’s Indigenous subcultures in relation to this research, the process of this project will help to clarify the meaning of Indigenous cultural approaches to learning and successful bi-culturally inclusive practices.

Figure 7.3 Community Strength Model
As suggested in Figure 7.3, the community strength model is a suggested enhancement to the ethnic and cultural minority section of the multiple cultural model (Henderson, 1996). As pictured here, the community strength model suggests that there are four main components, which can be specific to Aboriginal communities and are presented as an extension of the sociocultural theory (Vygotsky, 1978), situated learning theory (Lave & Wenger, 1991), and the multiple cultural model (Henderson, 1996), which perhaps have not been empirically identified as reliable components to consider in relation to e-learning approaches in Aboriginal communities.

In order for value in bi-cultural practice to be recognised, one must understand the ways Indigenous cultural logic can provide meaningful and valuable insights into learning experiences. Often Westernised cultural logic dominantly overrides the more subtle attributes offered by Indigenous cultural logic. So the questions to ask are what are we looking for within these cultures and how do we foster learning experiences that become examples of authentic bi-cultural practice. The findings from this research show that a major attribute of the Narungga community was strength. There are many definitions and interpretations of strength (Breiman, 2001; Gordon, 1967; Petty, 2005). Strength in numbers is evident in power and might, in academic ability or the area of sport. However, there can be strength in the arts, in music and dance, in one’s ability to work with others. Here one’s strength is a talent and a passion. Once someone realises his or her strength, it can be accompanied by a sense of confidence and a willingness to consider sharing with others. In the case of Indigenous culture, so often the people have been oppressed and unjustly treated, but in the case of this research, the learning experience was built on an identified strength specific to this particular community (a community anniversary) and the strength of Narungga Aboriginal voice (community concerns, Elder’s wisdom, traditional language and Indigenous knowledges). The learning experience responded to a self-identified learning need which in turn would satisfy a Westernised culture learning outcome resulting in an authentic bi-cultural practice. This model incorporates three continuous properties that are developed in everyday practices.
7.4.1 Community strength

The first of these properties is community strength. In the Narungga context, preparation of their celebration of 140 years of their existence as a community was their strength. A large celebration was being planned and the community was bursting with pride and buzzing with excitement. Many community members were starting preparations, and one project was going through hundreds of old photographs and making a display for visitors and community members to enjoy. A strength noted for this community was the ability to come together and work for a common cause that was especially relevant in light of the struggles that the community was facing in relation to their education system.

7.4.2 Authentic community voice

A powerful tool needed to promote bi-cultural practice is to hear the voice of the Aboriginal people involved in the process. In this research this included intergenerational sharing and passing down of culture and wisdom, strong communication skills in traditional language, 1st language, and English. There is also a strong need to provide a safe environment for people in which to express themselves in the way that they know best and to be respected for what they have shared. The following components described in 7.4.2.1 through to 7.4.2.5 are the contributing factors to authentic community voice.

7.4.2.1 Community concerns

Authentic community voice fosters confidence to raise concerns for the community wellbeing such discussed in the community focus group. The group often would raise issues both in general day-to-day conversation between participants but also in relation to the photographs as they were sorting them into the categories that they had created. In much the same way that discussion had promoted the theme for the community collaborative engagement project for this research, other concerns had also been raised through discussions at other times during the research process. Some of these discussions included concerns about employment issues, lack of literacy
skills, and worry for the future of the children in the community. The focus group had identified employment opportunities that had come and gone in the community over the decades including a general store and an oyster farm. One of the concerns raised was the lack of jobs for community members, the reasons why these opportunities were not retained, and where the community was heading. There was concern for the lack of literacy skills in the community and the youth who were not completing their education and what that meant for their future and the future of the community. There was also general concern for the children of the community, especially around the threat of the school closure. An authentic community voice would enable the community to voice their concerns and ensure their community remains viable for years to come.

7.4.2.2 Power of position

Some community focus group members were concerned with the lack of power of position that they had in the greater westernised world. The members felt that they were getting further and further behind the way of the wider society especially with things like computers and related technologies. The power of literacy and learning were seen as tools that would strengthen the voice of the community and that could be used to help the community to be confident and be heard as an important entity who had rights and needs as a viable Australian community. The issue of the unknown future of the local school brought forth a need to express these concerns and be heard in an equal and respectful way.

7.4.2.3 Strength of Elders

The voice of Aboriginal Elders, in this case, Narungga Elders is a particularly awe-inspiring gift. In the case of this particular research project, there were three Elders who participated in the collaborative community engagement project and contributed to the creation of the online synchronous presentation. These Elders provided facts about the project, stories that enhanced the journey and provided first hand recollections about the early years of education in the community. Many of the focus group members heard stories and learned things that they had never been told before as a result of their participation in the collaborative community engagement project.
7.4.2.4 Traditional language

Another important aspect of voice was the use and preservation, and in some cases the revitalisation of traditional language. It was very important to this community to ensure that portions of the presentation of their project were done in their traditional language and audio files of the local children singing songs in their traditional language were also added to the presentation. In some cases an interpreter may be required for a greater understanding of the content and expression of what is being discussed.

7.4.2.5 Indigenous knowledge

Finally, an aspect of authentic voice to consider is that of Indigenous knowledge. Knowledge, in terms of Indigenous culture is much more than satisfying a need to understand or a curiosity about something. Indigenous knowledge delves deeper than cultural systems, encompassing “the expression of the vibrant relationships between people, the ecosystems, and other living beings that share their land” (Battiste & Henderson, 2000, p. 42).

7.4.3 Shared learning experiences

An environment for learning experiences to take place emerged once the community strength was identified, the members were given an opportunity to share their concerns in a non-threatening environment, and the traditional language, Indigenous knowledge and the Elders’ wisdom, were incorporated. These experiences were supported through mentoring from both within and from outside of the community. The learning experiences were meaningful tasks that were relevant to the cause and are supported by skilful teachers, administrators and mentors. Many of these tasks can be done in collaboration with others with the same concerns or project visions and will result in sharing experiences with others.
7.4.4 Goals, directions and development

The final section of the community strength model suggests that an ongoing concern for Aboriginal community members is the creation and fulfilment of manageable, community-wide and relevant goals and directions for the community that lead to further community development. From learning experiences based on authentic voice and community strengths, community strength can continue to grow and provide confidence to encourage further implementations of voice resulting in abilities to further identify, articulate and foster the goals, directions and development of the community itself. All communities have directions and goals and this is no different for Aboriginal communities. For the community who worked together on this research project, the goal was to get a message out to the wider community about the importance of the local community school, what it means to the community and how it influences the preservation of culture and language. This community had a deep concern for their children and the future generations of the community. The group hoped to see the school reopen for older children as well and identified this as a direction they would like to pursue. These goal and directions lead to larger community development directives which required community strength, which comes from an authentic voice, which foster learning experiences to move further forward with goals, direction and development. The circle continues and the community strengthens.

7.4.5 Community Strength Model in action

This research project represents a vivid example of the community strength model. The westernised learning outcome was for the Aboriginal community to learn how to use synchronous computer technologies and enhance literacy learning. The researcher first gained permission and showed respect to the community, who in turn welcomed the project to take place. Over time and in getting to know people, the researcher invited community members to attend a focus group discussion. During this discussion, in a safe, known environment for the group, the community members were able to express their concerns and identify needs in the community. These needs and
concerns were strengthened by the need of power of position within the greater community, Elders’ wisdom, traditional language and Indigenous knowledge that led to a desire to learn meaningful and relevant literacy and computer skills. Considerate scaffolding from the researcher was essential to support the motivation and the agency of the community in their journey of learning the new skills. With the acquired skills the community members were able to share their story with others and take pride in their accomplishments. This environment fostered further discussions about other ways that they could share strengths and concerns for their community. These learning experiences fostered further discussions about continued directions of the community school and community developments that could be supported using the synchronous platform.

The learning experiences of this research were successful in part, due to the relevant content for the learners combined with the strengths and the components of those strengths in the Aboriginal community. The mode of the approach to the learning experienced, directed in by the draft-guiding principles, ensured respect for the cultural needs and traditions of the community members, as well as the sensitivity to the learners as active participants of their own learning and initiated discussion about future goals and directions.

7.5 FUTURE RESEARCH

This research project provides many avenues for research in the fields of education, informatics, research ethics, and Aboriginal and ethnic cultural studies. There are several areas that have been identified by the researcher as potential projects for future research as well as suggested practical recommendations; the 11 design based principles, which have been showcased at the beginning of this chapter. Besides the suggested practical recommendations, the potential projects for future research are presented here in no particular order:

In the data from the literature, literacy practitioners, and community members and from what the researcher experienced, a lack of hardware and a place to house the computers and accessories is an issue in many communities. There is a need to
explore the idea of community access centres or facilities for computer usage and to
determine available avenues through which communities can acquire funding to
develop a community-based access centre. There are also questions of responsibility
and care of running the centre and maintaining equipment, which could be
investigated.

Another area of research could focus on aspects of Henderson’s multiple cultural
theory (Henderson, 1996) which discusses the concept of workplace culture of
Aboriginal societies. In much of the literature and discussion with participants, the
majority of the community members are unemployed which leaves the question, what
is workplace culture in Aboriginal society? What does this mean and how can
workplace culture be fostered in these communities?

Influences on e-learning and skills acquisition in Aboriginal settings according to
Henderson include the ways that gender, religion and class, affect online learning
opportunities presented to ethnic and minority communities. An additional study
might unpack this idea further, in response to the surprising finding that the
community involved in this research felt that Henderson’s identified influences had no
bearing on their learning experience at all.

Motivation is an ongoing issue that could be researched as a result of this project. The
findings of this project showcase how the community focus group dedicated their time
to this project. The researcher’s further query focuses on the reasons behind this. Why
was the focus group so dedicated to this project? The community members chose their
own topic for the project. It would be interesting to know if the outcomes of this
research would have differed had the project’s topic been different, or if the
differences between a self-identified literacy goal and a Westernised imposed
curriculum goal were accessible.

Another field of recent interest is community informatics and examining the
relationships between computers and human interaction in Aboriginal communities.
An interesting area of research could focus on the reasons why these and other
Aboriginal community members are so readily accepting of the technology used for
the project. Future research could explore different types of platforms and the successes of their use in Aboriginal communities.

The community strength model, as suggested by the researcher, could provide a platform for further research and in which the model is applied to other Aboriginal communities’ learning experiences. A subsequent collection of community strength models, and descriptions of the power of the Aboriginal community voices, could be developed and a collaboration of efforts published in this area.

Another topic of particular importance for further research is the community’s Elders and their impact on learning within Aboriginal community settings. The literature suggests that there are particular roles that Elders hold within their communities and further research could explore their impact on learning and teaching in community settings and how their influence is affected by the introduction of technology into their respective communities.

Finally, this project was successful in part, because it was well supported by the researcher. Further studies could investigate the area of self-sustainability and identify how future learning projects, such as this one could continue and grow from within Aboriginal communities and driven by the community itself.

**CODA**

Every Aboriginal person has a voice, every Aboriginal community has strengths and wisdom beyond Westernised culture’s recognition and understanding. It is time for our Eurocentric curriculum to take a backseat to the abundance of this Indigenous Knowledge and Ways of Knowing and let the culture, language and wisdom of these amazingly talented, big-hearted, kind and welcoming people lead the ways in which we approach learning together. A top down approach often results in limited success. Strength lies in our diversity and differences, and policy makers and curriculum developers at every level must learn to use their power to embrace these strengths in order to make the difference that is needed for Aboriginal learners and communities everywhere.
REFERENCES


Ashford-Rowe, K. (2008). Applying a design based research approach to the determination and application to the critical elements of an authentic


APPENDICES

Appendix 1a

Literacy Practitioner Participant Information Sheet

PARTICIPANT INFORMATION SHEET
Literacy Practitioners and Telecommunication Community Workers

Research Project: Using synchronous technologies to support self-identified literacy needs of Indigenous communities.

You have been invited to participate in a study being conducted by Michelle Eady, Ph D candidate, University of Wollongong. We are asking for your consent to take part in this project. The study is funded in part by the Government of South Australia, Department of Further Education, Employment, Science and Technology, through the Digital Bridge Unit. This study has received ethics approval from the University of Wollongong.

The study is trying to find out how self identified literacy needs for remote Indigenous communities can be supported by synchronous technologies. The information from the study will be used to develop an understanding and appreciation of how to best incorporate a technological means of communication and learning while respecting Indigenous cultures and ways of knowing.

You will be asked to participate in discussion, focus groups and interviews with other literacy practitioners and telecommunications specialists and provide insight to the literacy needs of Indigenous communities and reflect on existing theories and reviewed literature. This collaboration will occur both physically and virtually as Indigenous community members identify, plan, implement and evaluate literacy learning experiences using a synchronous platform in their community.

You will be asked to participate in two group discussions. These discussions will take approximately 1 hour at times convenient to both parties between September 2008 and December 2008. The group discussions are designed to collect information and investigate the ways that practising literacy practitioners and telecommunications specialists approach working in Indigenous communities and work together with them. The group will also discuss literacy needs in the communities and their experiences in accomplishing targeted goals in with the Indigenous communities. All group discussions will be recorded on audiotape or in the online environment for later analysis. Interactions and discussions between participants will be retained as text files for analysis.
Appendix 1

Participation is voluntary and you are free to withdraw your consent to participate in this research at any time. If you do decide not to take part, it will not affect your relationship with the researcher or the university. If you change your mind about taking part, even after the study has started, just let the researcher know and any information already collected will be destroyed. To withdraw, contact Michelle Eady (02) 4221 3613.

No-one will be able to identify you from the results of the study. Only the researcher and her supervisors will have access to this information.

All information will be stored in a locked container for 7 years and only the researcher will have access to it.

If you would like to check that you are OK with the information or recordings from the study, you need to contact Michelle Eady on (02) 4221 3613.

This information sheet is for you to keep. When you have read this information, Michelle Eady will be available to answer any questions you may have. If you would like to know more at any stage, please feel free to contact:

Dr Tony Herrington, ph. (02) 4221 4643, tonyh@uow.edu.au
Dr Caroline Jones, ph. (02) 4221 4905, carjones@uow.edu.au

or if you have any concerns or complaints regarding the way the research is or has been conducted, you can contact the Human Research Ethics Officer, Office of Research, University of Wollongong on 4221 4457.

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Appendix 1

Appendix 1b

Literacy Practitioner Participant Consent Form

University of Wollongong

Literacy Practitioners and Telecommunication Community Workers
Consent Form

Research Project: Using synchronous technologies to support self-identified literacy needs of Indigenous communities.

I (print name) ………………………………………………………………………………………
give consent to participate in the research project described below:

TITLE OF THE PROJECT: Using synchronous technologies to support self-identified literacy needs of Indigenous communities.

Ph D. CANDIDATE: Michelle Eady (02) 4221 3613, mje496@uow.edu.au
SUPERVISORS: Dr Tony Herrington, ph. (02) 4221 4643, tonyh@uow.edu.au,
Dr Caroline Jones, ph. (02) 4221 4905, carjones@uow.edu.au

In giving my consent I acknowledge that:

1. I have received information about the research entitled, “Using synchronous technologies to support self-identified literacy needs of Indigenous communities” and have been given opportunity to discuss the research project with Michelle Eady who is conducting this research as part of her Doctor of Philosophy studies at the University of Wollongong.

2. I understand that I may be interviewed in groups face-to-face, on the phone and/or using an online platform. I understand that the discussions and interactions both on the phone and online interactions will be audio taped and later transcribed and saved as text files.

3. I understand that my participation in the study will be treated confidentially and that my identity will be protected through pseudonym and omission of identifying features of my person and employ.

4. I understand that my participation in this research is voluntary. I am able to refuse to be included at any time. My withdrawal of consent will not affect my relationship with the researcher or the University of Wollongong.

5. I understand that the data collected from my participation may be reported within written conference and journal papers, and I consent for it to be used in that manner.

Signed……………………………………………………………….
Name……………………………………………………………
Date………………………………………………………………
Appendix 2

Practitioner Focus Group Questions

The questions below give an indication of the types of questions that will be asked in the focus groups with literacy practitioners and telecommunication community workers. Not all of the questions will be asked; rather, the researcher follow the participant’s lead and prompt for information considered to be informative of the research.

The interview would begin by thanking the participants for their time and explaining that I am exploring the ways that technology in the Indigenous community can support literacy needs identified by that community.

These first questions relate to demographic information about your career.
What is your job title?
How many years have you been working in your field?
What are your qualifications?
What are the main interests you have in working with Indigenous communities?

The next questions focus on the literacy needs in Indigenous communities
What do you perceive are some of literacy needs in Indigenous communities?
How are some of the ways that you have been able to work with learners from these communities to meet these needs?
Have you ever used computer technology to work with these learners?
   If so, what technology and how successful was it? Would you use it again?
How do you feel that computer technology can change the way we support Indigenous learners?

The next questions focus on the literacy practitioner as part of the Indigenous community
What do you see as your role in the Indigenous community?
Do you think that your role has changed over time?
   If so, how has it changed?
Do you feel that computer technologies in the Indigenous communities will change your role?
   If so, what will be the implication of the technology?
Do you expect the computer technology will be accepted by the community members?
   Why or why not?
Appendix 3

PowerPoint for Practitioner Focus Group

Welcome to the Practitioner Focus Group
Wednesday September 24, 2008
Literacy Live Session

Michelle Eady
Ph D Research Candidate
University of Wollongong
Faculty of Education 23.118
University of Wollongong NSW 2522 Australia
Telephone: (02) 4221 3613
Mobile: 0403854783
mje@uow.edu.au eadyconsulting@sympatico.ca

Question One (to be answered using the text chat option)

These first questions relate to demographic information about your career:
• What is your job title?
• How many years have you been working in your field?
• What are your qualifications?
• What are the main interests you have in working with Indigenous communities?

What do you perceive are some of literacy needs in Indigenous communities?

The next questions focus on the literacy needs in Indigenous communities...

How are some of the ways that you have been able to work with learners from these communities to meet these needs?
Appendix 3

Have you ever used computer technology to work with these learners?
If so, what technology and how successful was it? Would you use it again?

How do you feel that computer technology can change the way we support Indigenous learners?

The next questions focus on the literacy practitioner as part of the Indigenous community.

What do you see as your role in the Indigenous community?

Do you think that your role has changed over time?
If so, how has it changed?

Do you feel that computer technologies in the Indigenous communities will change your role?
If so, what will be the implication of the technology?

Do you expect that computer technology will be accepted by community members?
Why or why not?

What would you like to see changed about how we approach literacy and learning practices in Indigenous communities?
Any other comments?

THANK YOU for your time, effort and patience!

You all have been wonderful and I hope to talk to you again soon!
Appendix 4a

Community Members Participant Information Sheet

PARTICIPANT INFORMATION SHEET
Community Members

Research Project: Using synchronous technologies to support self-identified literacy needs of Indigenous communities.

You have been invited to participate in a study being conducted by Michelle Eady, Ph D candidate, University of Wollongong. We are asking for your consent to take part in this project. The study is funded in part by the Government of South Australia, Department of Further Education, Employment, Science and Technology, through the Digital Bridge Unit. This study has received ethics approval from the University of Wollongong.

The study is trying to find out how literacy needs that you identify for your community can be supported by learning together on computers. The information from the study will be used to develop an understanding and appreciation of how to best incorporate technology; communication and learning while your culture, traditions and ways of knowing.

You will be asked to participate in a discussion with other community members, the researcher and a liaison officer so that you can help understand the literacy needs of your community and so that the researcher can reflect and compare your thoughts with the existing theories and reviewed literature. These meetings will occur face-to-face and using the computer and together we can identify, plan, implement and evaluate literacy learning experiences using technology to learn in your community.

You will be asked to participate in many group discussions and asked to work with the computers in your community. These discussions and working groups will take place between October 2008 and December 2010. All group discussions will be recorded on audiotape or in the online environment for later analysis. Interactions and discussions between participants will be retained as text files for analysis.

Participation is voluntary and you are free to withdraw your consent to participate in this research at any time. If you do decide not to take part, it will not affect your relationship with the researcher or the university. If you change
Appendix 4

your mind about taking part, even after the study has started, just let the researcher know and any information already collected will be destroyed. To withdraw, contact Michelle Eady (02) 4221 3613.

No-one will be able to identify you from the results of the study. Only the researcher and her supervisors will have access to this information. All information will be stored in a locked container for seven years and only the researcher will have access to it.

If you would like to check that you are OK with the information or recordings from the study, you need to contact Michelle Eady on (02) 4221 3613.

This information sheet is for you to keep. When you have read this information, Michelle Eady will be available to answer any questions you may have. If you would like to know more at any stage, please feel free to contact:

Dr Tony Herrington, ph. (02) 4221 4643, tonyh@uow.edu.au
Dr Caroline Jones, ph. (02) 4221 4905, carjones@uow.edu.au

or if you have any concerns or complaints regarding the way the research is or has been conducted, you can contact the Human Research Ethics Officer, Office of Research, University of Wollongong on 4221 4457.
Appendix 4b

Community Members Participant Consent Form

Community Members Consent Form

Research Project: Using synchronous technologies to support self-identified literacy needs of Indigenous communities.

I (print name)

________________________________________________________________________________________

give consent to participate in the research project described below:

TITLE OF THE PROJECT: Using synchronous technologies to support self-identified literacy needs of Indigenous communities.

Ph D. CANDIDATE: Ms Michelle Eady (02) 4221 3613, mje496@uow.edu.au,
SUPERVISORS: Dr Tony Herrington, ph. (02) 4221 4643, tonyh@uow.edu.au,
Dr Caroline Jones, ph. (02) 4221 4905, carjones@uow.edu.au

In giving my consent I acknowledge that:

1. I have received information about the research entitled, “Using synchronous technologies to support self-identified literacy needs of Indigenous communities” and have been given opportunity to discuss the research project with Michelle Eady who is conducting this research as part of her Doctor of Philosophy studies at the University of Wollongong.

2. I understand that I will be taking part in discussions, working together to develop and deliver learning on the computer and that I will be observed as I interact with other research participants both face-to-face and in an online community.

3. I understand that the interviews and interactions will be audio taped and later transcribed and online interactions saved as text files.

4. I also understand that some digital images (stills) may be captured throughout group interactions.

5. I understand that my participation in the study will be treated confidentially and that my identity will be protected through pseudonym and omission of identifying features of my person and employ.

6. I understand that my participation in this research is voluntary. I am able to refuse to be included at any time. My withdrawal of consent will
not affect my relationship with the researcher or the University of Wollongong.

7. I understand that the data collected from my participation may be reported within written conference and journal papers, and I consent for it to be used in that manner.

Signed………………………………………………………………………………

Name………………………………………………………………………………

Date………………………………………………………………………………
Appendix 5

Sharing Circle Focus Group Questions with Indigenous Community Members

The questions below give an indication of the types of questions that will be asked in the sharing circle focus groups with Indigenous community members. Not all of the questions will be asked; rather, the researcher will follow the sharing circle method and allow everyone to have a turn expressing their thoughts. The researcher will follow the participant’s lead and prompt for information considered to be informative of the research, only after everyone has had a chance to voice and share their opinions.

The sharing circle would begin by thanking the participants for their time and explain the purpose of the sharing circle in that we are discussing and exploring the ways that technology in the community can support literacy needs that the participants identify in our discussions.

Sharing circles/Group discussions:

Focus on the literacy skills that are important to the community

What does the term “literacy” mean to you?
What are the literacy needs in your community?
What types of support do you have now to help your community meet those needs?

Focus on the computer technology in the community

You now have computers in your community. Have you used them? Why or why not?
Do you feel that computer technology in your community can meet the literacy needs you have identified?
What literacy skills identified would you like to have developed through technology for your community?

Focus on the collaboration within the community to meet the literacy need

At this time, it would be discussed with the group how we could work together to create something that could be used on the computer technology to help meet the literacy need addressed. An explanation of the tool and how it can be used will follow and with participant involvement a literacy task created.
Appendix 5

PowerPoint 101
Getting you Started Using PowerPoint

1. Turn on your computer.
2. In the bottom left hand corner of your screen you will see a green button that says “start”

3. When you left click on this button a window will open that shows some primary programs on your computer and you may see the power point program listed there. If you see it there, click on it and it will open the program, if not, you will have to click on “All Programs.”
And find Power Point in the “Microsoft Office” folder:
4. When you open the program, it is going to look something like this. Let’s look at it in three parts:
5. On the left hand side is the slide viewer which gives you a miniature view of all the slides that you have created so far.

6. The middle section is where you create your slides. You can type on them, add pictures and even change the layout and design.
7. Here I am typing on the slide, just by clicking where I want to type in the text box and starting to type.

8. When you are ready to start a new slide, click “new slide” at the top of your screen:
9. The slide layout area allows you to choose different styles of layout. You can choose a title page slide, a slide with bullets, a slide with words and a picture. As an example I chose this one:

and now the slide layout changes to look like this, and I can go ahead and type on the new layout.
10. It is also possible to add a nice background to your slides. Just remember when you are using CENTRA©, you don’t want to get too fancy because others will have trouble seeing your slides depending on their Internet speed.

When you click on “Design” you get many choices of backgrounds. I chose this one:
And now that background is added to all of my slides:
11. You are also able to add pictures to Power Point by going to “Insert” at the top of your page and selecting “Picture.” In this case I want to insert a picture that I have saved on my computer somewhere so I chose “From File” when you click on the picture that you want, it will show on your Power Point slide.

12. When you are happy with your presentation, you must save it. So you have to give it a name. Go to “file” at the top of the page and chose “Save As”
A new window will pop up asking you where you want to save it and what you want to call your file.

Now you have saved your presentation to the desktop of your computer and you are ready to show it to others or import it into a CENTRA© session!
Appendix 6

Scanning 101
Getting you Started Using the Epson Scanner

1. Turn on your computer.
2. When scanning photos, there are two ways to connect with the scanner. First you can click on the scanner icon on your desktop…

Or you can go to “Start” then click on “All Programs” and find the scanner.
3. When you left click on EPSON Scan, a window that looks like this will appear:

![EPSON Scan window](image)

4. When you see this page click on the folder button. It is here that you can name the pictures and create a folder for your pictures to sit in.
5. When you get to this page, click on “other”

6. Then click on the word “Browse”
7. You can find a folder that you already created or create a new folder for your scans by choosing “Make New Folder”
8. Now a new folder will appear in the list:

![Browse for Folder dialog box]

9. Name the folder by right clicking on it and choosing “Rename”
And name the folder whatever you choose!

10. You can also set the name for the scans that you do, to match the name of the folder you created:
11. Now place your photo facedown on the top left hand corner of the scanner and click “Preview.”

Don’t touch the scanner! It is scanning your photo! 😊
12. Now you will see a picture of your photo on your computer screen:
13. You can crop or resize your photo by left clicking in the top left corner of your photo and dragging your mouse down across the photo to the point where you are happy with the size of your photo.
14. Now click “Scan”
15. And now this window opens again, click okay.

The program will tell you that it is scanning...

and you have scanned your picture!
You will find it on your desktop in the folder you created:

You can now add your photo to your Power Point presentation
Appendix 7

PowerPoint for Practitioner Focus Group

Established in 1986, Contact North\textit{Contact Nord} is a not-for-profit organization providing opportunities for literacy, workplace, secondary and post-secondary education and training to learners in small, remote, and rural communities in Northern Ontario, Canada. Contact North\textit{Contact Nord} is funded by the Ontario Ministry of Training, Colleges and Universities in the province of Ontario, Canada and is governed by a Board of Directors consisting of members from educational institutions, Aboriginal and Francophone communities, and the broader community. Many of the directors have previous experience with the boards of Northern Ontario colleges and universities as well as those of English and French schools. They are also experienced in working with the private sector (Contact North\textit{Contact Nord}, 2010).

The Mission of Contact North\textit{Contact Nord} “[is] to increase and improve affordable and equitable access to quality education and training for Northern Ontario residents, to support regional and community economic development and to promote a culture of lifelong learning” (Contact North\textit{Contact Nord}, 2010; Contact North's Mission Statement, para. 1). In this capacity, disadvantaged groups, including persons with disabilities, first-generation learners, Francophones, and Aboriginal peoples are targeted (Contact North\textit{Contact Nord}, 2010).

Contact North\textit{Contact Nord’s} Education Partners represent colleges, universities and providers of essential skills and literacy training. Contact North\textit{Contact Nord} provides direct access to programs and courses for full and part-time students.

Contact North\textit{Contact Nord} provides administrative, technical and training support for the delivery of distance and online learning (through audioconference, videoconference, web conference and e-learning platforms).

Currently the largest education and training network in the world, Contact North\textit{Contact Nord} offers over 8,000 courses and 800 programs. It delivers more
than 14,000 courses to over 5,000 students across Ontario, including e-CLASSES offered via the Saba/CENTRA synchronous online platform. This platform is very compatible with dial-up and high speed Internet. In addition, it enables application sharing, web browsing, and video streaming, and instructors can record the session for student viewing at a later time (Contact North|Contact Nord, 2010; Contact North Learning Technologies at a Glance, para. 2).

Contact North|Contact Nord operates 94 Community Access Centres in Northern Ontario and 18 elearnnetwork.ca Access Centres in Central, Eastern and Western Ontario. Access Centre staff provide course and program support services such as help with registration and identifying financial aid options, support to achieve successful course completion, and support for distance learning and related learning technologies. The staff assists also in marketing and recruiting for programs and courses (Contact North|Contact Nord, 2010).

An instructor training PowerPoint presentation (outlined in this Appendix) was developed in collaboration with Contact North|Contact Nord by the author. Educational partners who wish to use the Contact North|Contact Nord online synchronous platform must attend mandatory online instructor training, which is divided into three 2 hour sessions; Level 1 Instructor Training Part A, Level 1 instructor Training Part B and e-Essentials. The initial session simulates attending as a participant that is followed by instruction on how to facilitate an online session, and a detailed review of the online tools and components.

Once the participants have completed this training, the new instructors/leaders have access to the synchronous platform. The presentation was modified slightly for use with the Aboriginal community involved in this research project. The community focus group volunteered to attend the training, and six focus group members completed the training. As a result, these community focus group members delivered and facilitated their presentation without the online aid of the researcher.

The following pages present the training slides. While they are very small for overview purposes in the appendix, they are also available for larger viewing on the accompanying CD ROM in the back cover of the thesis.
Appendix 7a

CENTRA© Training
Part A

CENTRA Training Level 1 – Part A
Instructor Basics
Version 7.5

How it works…
the Learner Interface

CENTRA Basics: Objectives

➢ Learn how to log-in and log-out of CENTRA sessions
➢ Explore the CENTRA Participant Interface
➢ Use the CENTRA classes virtual classroom tools

www.outbackconnect.net

Type in your login and password

Audio Wizard
Used for audio, sound levels, and equipment testing

- Click on
- OR access via TOOLS — AUDIO WIZARD
Audio Wizard...cont’d
Select for audio, sound levels, and equipment testing

Audio
- Desktop or headset
- Placement
- Options to speak:
  - Chat Key
  - Talk Button
  - Listen-to-Talk
  - P.T.O. Key
- Audio Wizard Pre-test
- Troubleshooting

Audio Troubleshooting
- Shut down all other applications
- Complete an Audio Wizard check
- Log out/log back in
- Call for support – Outback Connect 1300 887 422

Multiple Intelligences
- Logical/Mathematical
- Bodily/Kinesthetic
- Musical
- Verbal/Linguistic
- Interpersonal
- Visual/Spatial

Exercise – Matching
<table>
<thead>
<tr>
<th>Intelligence</th>
<th>Famous Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal</td>
<td>a. Frank Lloyd Wright</td>
</tr>
<tr>
<td></td>
<td>b. Howard Hughes</td>
</tr>
<tr>
<td></td>
<td>c. Mozart</td>
</tr>
<tr>
<td></td>
<td>d. William Shakespeare</td>
</tr>
<tr>
<td></td>
<td>e. Oprah</td>
</tr>
<tr>
<td></td>
<td>f. Tiger Woods</td>
</tr>
</tbody>
</table>

Using Text Chat
Using your text chat, discuss how you feel this environment compares to traditional classrooms...

Icon's/Buttons

Participation Icon’s
- Laugh
- Feedback
- Exit Chat
- Full Screen
**Whiteboard Tips**
- Use mark-ups on slides to:
  - Focus attention
  - Add visuals
  - Summarize, guide, track
- Have a participant do the mark-ups
- Direct the use of whiteboard space, if more than one user, but limit the number using mark-ups at one time

**True or False**
1. Private Chat between the participant and the leader is always available.
2. A participant with a microphone can clear the mark-ups that the instructor has made on a slide.
3. Participants can always use the Raised Hand icon.
4. If the Network Status Display is flashing red, connection to the Internet is likely to fail shortly.

**CENTRA Platform Tools**
- Chat
- Whiteboard
- Survey
- File
- Shared
- Application Sharing
- Broadcast Rooms

**Logging Out**
- Log Out will take you out of the virtual school
  - All RecoDocs Materials and Tools
- Shut down
  - Public Server
  - Public Network
  - Desktop
  - Broadcast
Appendix 7b

CENTRA® Training
Part B

CENTRA Training Level 1 – Part B
Instructor Basics
Version 7.5

How it works...
the Leader Interface

CENTRA Training Leader Orientation: Objectives

➢ Use learning platform’s virtual CENTRA tools

➢ Consider best practices using CENTRA tools

➢ Explore teaching considerations for CENTRA classrooms

www.outbackconnect.net

Type in your login and password

Audio Wizard

Used for audio, sound levels, and equipment testing

- Click on...
Text Chat (cont’d)

- Chat is used to exchange text messages
- Public chat is seen by all participants and the leader
- Private chat is available between:
  - The leader/co-presenter and a participant
  - Participant to participant (if enabled by leader)

Laws of Learning

- Law of active learning
- Law of practice and feedback
- Law of individual difference
- Law of previous experience
- Law of emotional learning
- Law of relevance
- Law of reinforcement

Actions in Text Chat

Options in Actions of Text Chat

More About Text Chat...

Example of Text Chat
Appendix 7

Saving Text Chat
(For Leaders Only)

Tips on Using Text Chat
• Use chat for a specific purpose; disable if necessary
• Suggest to participants that they use chat to speak directly with you
  – If they step out and return when a breakout is already in progress
  – For help or questions during breakout sessions
• Read all private chat, and answer questions verbally
  – If typing answer, it will hold up your class

Leader Interface

Administration Area – Part 1
• Audio Controls

Menu
- File: Insert URL
- File: Exit: Every class
- Edit: Delete Agenda Item
- View: Return to Default
- Tools: Audio Wizard: Every class
Use of menu can be minimal

Importing PowerPoint Presentations

Importing (cont’d)

Selecting Image Format

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Appendix 7

Insert URL

Administration Area – Part 2
- Administer microphones
- Sorting
- Right Click
- Dockable People Panel

Sorting/Auto Sort

Dockable People Panel
Unlock panel
Re-lock panel

Administration Area – Part 3
- Agenda Navigation
- Session Status Display

Agenda Navigation
- Click on title any agenda item
OR
- Use the Next and Previous buttons in the Agenda area to step through the agenda in order

Agenda Navigation
- Accessed items

How to Clear Agenda
- Option to clear agenda

Appendix 7

**Tools and Shortcuts**

**Icon’s – Part 1**
- Visual input, e-classroom tools
- Mark-up tools

**Icon’s – Part 2**
- Record/Pause/Begin/End
- Agenda
- Survey

**The Survey**
- Use for ad hoc questions
- Can create the survey questions before the session begins or in Agenda builder
- One question shown at a time
- Can show results to participants
- Results are not saved

**Default Survey Questions**

**Survey View**

**Creating a Survey**

**Icon’s – Part 3**
- Whiteboard
- Text Chat
- Feedback
Appendix 7

Media Window

- Display area for media
- Whiteboard and graphic mark-up
- URL's
- Network Status Indicator

Whiteboard

Tips for Whiteboard

- Use the mark-ups on every slide
- Let participants add a drawing or diagram
- Don't allow too many participants to work at one time
- Assign areas on the whiteboard for students to work
- Save important mark-ups to the agenda
- Mark-ups on content remain throughout the session

Saving Whiteboard Material

Breakout Rooms

- Breakout Rooms
- Video

Icon's – Part 4

- Breakout Rooms
- Video

Breakout Room – Part 1

- Useful for group work, debates, and split classes
- Use Ctrl Shift combination to talk to all rooms
- Leader can move from one room to another
- Support content can be prepared ahead of time

Breakout Rooms – Part 2

- Highly flexible configurations
- Right click room for content options
- Right click participant for options
Appendix 7

1. Creating Breakout Rooms

The Breakout Room Leader

2. Assigning Participants

- Right click or drag-and-drop to move a participant to a new room
- Right click to reassign breakout room leaders

3. Selecting Content

4. Starting the Breakout Rooms

5. Managing Breakout Rooms

6. Stopping Breakout Rooms

Breakout Rooms

Press Shift + Ctrl
Web Safari vs. URL

You can access web pages by:

- Inserting a URL in the agenda
  - Web page displays in media window or participant’s system browser
- Web Safari
  - Web page displays in media window

Leader Interface Tips

- Use a three-step circular eye movement
- Develop comfort using one tool at a time
- Establish audio
- Start session
- Manage mics, responses, and hands

Exit
Appendix 7c

CENTRA Training
e-Essentials

e-Essentials
Version 7.5
An supplement session designed to enhance your CENTRA skills.

Objectives
Upon completion of this section, you should be able to:

• Effectively respond to feedback from participants
• Create, present, and manage a survey in a CENTRA class environment
• Comfortably navigate through text chat and control text chat options

Feedback

Feedback View for Participants

Feedback View for Leaders

* Ensure to clear all after you have read feedback responses
Appendix 7

The Survey

- Use for ad hoc questions
- Can create the survey questions before the session begins or in Agenda builder
- One question shown at a time
- Can show results to participants
- Results are not saved

Default Survey Questions

Creating a Survey

Showing the Survey

Survey View

Using Text Chat...

What type of learner in your community do you see benefiting most from this platform and why?

Type your responses in Public Chat

...look for themes in the posted responses
Text Chat

- Chat is used to exchange text messages
- Public chat is seen by all participants and the leader
- Private chat is available between:
  - The leader/co-presenter and a participant
  - Participant to participant (if enabled by leader)

Actions in Text Chat

Options in Actions of Text Chat

More About Text Chat...

Example of Text Chat

Saving Text Chat

Tips on Using Text Chat

- Use chat for a specific purpose; disable it if necessary
- Suggest to participants that they use chat to speak directly with you
  - If they step out and return when a breakout is already in progress
  - For help or questions during breakout sessions
- Read all private chat, and answer questions verbally – if typing answer, it will hold up your class
Appendix 7

Objectives
Upon completion of this section, you should be able to:

- Show a leader’s application to participants
- Grant AppShare control to participants
- Understand the issues and considerations of using the AppShare tools
- Understand the difference between the Web Safari tool and using an inserted URL

Sharing an Application
1. Start the application(s) you want to share
2. Click the AppShare button or click on Agenda item
3. Select your application
4. Click OK

AppShare View for Instructor

AppShare View for Participants

AppShare Tools

For Your Consideration...
- Using Audio during AppShare
- Positioning the Application
- Resizing the leader interface window
- Using full screen view
- Sharing multiple applications

Positioning the Application
TIP: Position the application in the upper left hand corner.
Appendix 7

Resizing the Leader Interface Window

- Do not move or resize the leader interface when showing an application.

Using Full Screen View

- The leader can control the participant view; however, instructors should be cautious when working with participants in remote regions and those who may still be using dial-up connections or dealing with small bandwidths.
- In some cases, learners who are working under those conditions may be ejected from the event when the instructor attempts the “Full Screen” view for Others option.

Sharing Multiple Applications

- If you are sharing an application, decide to open another application, the system will ask you if you want to share that new window with your participants.

Tips for Application Sharing

- Be sure to have the minimum requirements for your application sharing
- Large applications will take longer to get to participants
- Avoid unnecessary mouse movements
- Do not share applications or websites that use a lot of animation
- Show only the toolbars that you need
- Close all other non-essential applications

Tips...cont’d

- Keep the shared application in the upper left corner
- Keep the application sharing session short
- Use Lock-to-Talk when speaking during an application share
- Pause the application sharing when scrolling, resizing windows, or making multiple screen changes
- Click on a new agenda item, choose another tool, or select Quit Application Share to stop the application share

Granting AppShare Control

- Right-click and select Give AppShare Control to allow a participant to interact with your application

OR

Web Safari

- Similar to AppShare of Browser
- Good for ad hoc web viewing
- Participants can see leader’s browser
- Will launch your browser
Leader's View of Web Safari

Tips for Using Web Safari

- Use sites that provide relevant content that supports points you make in the session
- Avoid sites that include many pictures or animation
- Audio files do not transmit
- Check each link before beginning the session

Web Safari vs. URL

You can access web pages by:
- Inverting a URL in the agenda
  - Web page displays in media window or participant’s system browser
- Web Safari
  - Web page displays in media window

What Are You Trying to Achieve?

<table>
<thead>
<tr>
<th>If you want...</th>
<th>Then use...</th>
</tr>
</thead>
<tbody>
<tr>
<td>All participants to see exactly the same web page</td>
<td>Web Safari</td>
</tr>
<tr>
<td>Control of the pace and who has access</td>
<td>URL</td>
</tr>
<tr>
<td>Each participant to have control and a unique experience</td>
<td></td>
</tr>
<tr>
<td>Each participant to work at his/her own pace</td>
<td></td>
</tr>
</tbody>
</table>

*Remember:
1. Demonstrate a site using Web Safari
2. Give hands-on practice by inverting the URL into the Agenda

Objectives

Upon completion of this section, you should be able to:
- Create and monitor Breakout Rooms in the CENTRA classroom
- Understand uses for Breakout Rooms
- Gain Break Out room tips
- Use Whiteboard tools to enhance your sessions

Breakout Rooms

What is a Breakout Room?

- The main room is much like a classroom where all your participants are gathered together

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Appendix 7

**Breakout Room Overview**

- A breakout room can have as many participants as you like.
- Each acts like a small classroom.

**Breakout Rooms**

- **Main Room**
- **Breakout #1**
- **Breakout #2**
- **Breakout #3**

**Differences between the Main Room and Breakout Rooms**

<table>
<thead>
<tr>
<th>Main Room</th>
<th>Breakout Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants can easily get leader’s attention with ‘raise hand’</td>
<td>Participants must use private chat to get leader’s attention</td>
</tr>
<tr>
<td>All participants hear questions and leader comments</td>
<td>Conversations between participant and leader are private</td>
</tr>
<tr>
<td>The entire class sees a participant’s hosted application</td>
<td>AppShare sessions between participant and leader are private</td>
</tr>
<tr>
<td>Activity in the main room is recorded</td>
<td>Activity in breakout rooms are not recorded</td>
</tr>
<tr>
<td>Easier for the leader to manage</td>
<td>More privacy for the participants</td>
</tr>
</tbody>
</table>

**The Breakout Room Leader**

- **Session leader**
- **Breakout room leader**
- **Breakout members**

Breakout room leaders can use tools and import slides.

**Tips for Breakout Room Leaders**

- Click to give microphones to all
- Click here to open the whiteboard
- Click here to save your work
- Click here to record your work
- Send a Chat to the Leader/All Presenters

**Discussion**

Brainstorm in your Breakout Room:

- What are some specific uses for breakout rooms in your environment?
- What challenges do you anticipate when using breakout rooms?

Write your suggestions on your slide.

Save your slide. Use your leader’s name, as part of the name of your slide.

You will be notified when time is up. (Approximately 3—5 minutes)

**The Process of Creating Breakout Rooms**

1. Create Breakout rooms
2. Assign Participants to rooms
3. Add content to rooms
4. Start Breakout rooms
5. Manage breakout rooms
6. Stop breakout rooms

**1. Creating Breakout Rooms**

Configure Breakout Rooms

- Number of breakout rooms
- Minimum Participants in Room
- Auto-assign Participants to rooms

Or Close
2. Assigning Participants
- Right click or drag-and-drop to move a participant to a new room
- Right click to reassign Breakout Room leaders

Tips for Assigning Breakout Rooms
- Let the system place participants in the rooms
- Modify the room assignment as necessary
- Avoid known conflicts between participants
- Modify leaders as necessary (let everyone have a chance)
- Move participants from one room to another during the breakout session, if necessary

Remember...
- Only participants who are in the main room can be assigned to Breakout Rooms
- Participants who are stepped out will not be assigned to a room (but they can be assigned once they step back in)
- Ensure to provide leaders with steps on how to:
  - Grant microphones
  - Save a whiteboard, etc.

3. Selecting Content

Selecting Content

Content for Breakout Rooms
- Any item can be assigned (including a folder)

Folders can contain many items

4. Starting the Breakout Rooms

5. Managing Breakout Rooms
Appendix 7

**Breakout Rooms**

- Press Shift + Ctrl

**Main Room**

- Breakout #1
- Breakout #2
- Breakout #3

**6. Stopping Breakout Rooms**

![Image of tool to stop breakout rooms]

**Remember...**

- Talk to all groups using Shift + Ctrl Key
- The way in which you set up the breakout rooms stays the same for the entire session
- Only the leader can configure, start, and stop breakout rooms (not available feature for Co-Presenters)

**Tips**

- Have Breakout Room leader save their whiteboard to the agenda
- Suggest to the leaders to name their slide in a recognizable fashion
- Each saved content will be in the agenda
- Leader can send a chat to all Breakout Room leaders
- Participants can send chat to Leader by right-clicking on Leader name and selecting “Send Text Chat”

**Tips (Cont’d)**

- Be explicit about the assignment and how much time your participants will have
- Visit the Breakout Rooms often
- Do not break into ongoing conversations unnecessarily
- Let leaders know their responsibilities
- If necessary, help them to perform the task at hand

**Whiteboards**

![Image of whiteboard]

**Whiteboard Mark-Up Tool Bar**

- Erase all
- Erase script
- Erase tool
- Save in gif or png format only

Mark-up Tools are available for use with agenda content.

A microphone is required to use the mark-up tools.

---

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Appendix 7

Whiteboard

Access Whiteboard using icon,
Tools ➔ Whiteboard,
or F10

Whiteboard Colour Palette

Select colour

Format Text

Text Formatting

Whiteboard Drop Down Tools

Tips for Whiteboard

- Use the mark-ups on every slide
- Let participants add a drawing or diagram
- Don’t allow too many participants to work at one time
- Assign areas on the whiteboard for students to work
- Save important mark-ups to the agenda
- Mark-ups on content remain throughout the session

Moving Objects
Appendix 8a

Community PowerPoint Presentation
‘Our School’

Cultural Warning

Aboriginal and Torres Strait Islander users are warned that this presentation may contain images of deceased persons and images of places that could cause sorrow.

Point Pearce Aboriginal School

Our School
Our Past, Our Present
Our Future!
Appendix 8

The Narragga language is coming home.
The Narragga Language
1st form of Narragga land.
Our past holds the knowledge.
Our present gives the language back.
Our future is our children.
We pass on the Narragga knowledge.
The children listen
and speak the language with pride.

Ninangwa ngama warrma wangeramayi.
Ninangwa ngama warrna.
Ninangwa ngama wangeramayi.
Ngalakuna ngama kangama wamerwa nanggadha.
Ngayla nga pinn warrma wangeradha.
Ngayla nga xanggani nga xanggani xangga.
Ngadha Ninangwa wambe.
Swamga ngi ngga ngi ngga ngi ngi.
Wamga ngi ngga ngi ngga ngi ngi ngi.

Welcome to Buthera’s Rock.

Sport

Studies of Society & Environment

English

Mathematics

Fun and Relaxation

First Aid lessons at Point Pearce
Appendix 8

Transitions

Marinating Education in Culture

Our Narungga children are the pride of our school.

All community focus group members who dedicated their time and talents to this presentation would like to thank the following people and organizations for their time and effort in assisting us to put this presentation together:

- Point Pearce Aboriginal Corporation
- Point Pearce Community members past and present
- Staff and Students of Point Pearce Aboriginal School
- Michelle Eady from the University of Wollongong and assistant Brenda Devick
Appendix 8b

**Narungga Script**

**Numbered for Pictures**

1. **Paul** Hi my name is Paul and I am a proud Narungga man. I work in the schools in this area and teach the Narungga language to our children. Welcome (spoken in Narungga): Welcome everybody. Good day. Today we are going to be speaking about the school at Point Pearce and how it became to eventuate. We welcome you to learn about the importance about education in our community.

2. **Judy** Hello my name is Judy and I am the Playgroup Coordinator and a Council member of our community council. I am Narungga and have lived in Point Pearce all my life. The Narungga people are the traditional owners of the peninsula from the toe where the map says Innes National Park to the thigh just below Port Pirie. Goonya contact was fatal to the Narungga people. The first interaction being with sealers who came into the area and were looking for women. My 5th generation female ancestor was one of these women and she was taken and lived as a virtual slave and bore 7 children. When she died the sealer put her children in a little dingy and cast them afloat from Kangaroo Island. But they were very lucky because the spirits looked after them and brought them to the mainland. But maybe not so lucky because the police took them and put them in the missions at Raukkan and Point Pearce and that is where my linage started. This happened over and over again to lots of Aboriginal people and families.

**Terri** Hello my name is Terri and I have lived in Point Pearce for over twenty years. I am considered part of this community and soon will be the mother of 6 children all of Narungga descent.

a. The missionaries were instrumental in looking after the people and opening the school. Some of the Goonyas were overcome with guilt and compassion and wanted to help the Aboriginal people and therefore the people that were located in Moonta had the first school established for them in the 1800s.
b. The Aboriginal people were seen as a deterrent to the newly found copper mines and were seen by many as useless. In an effort to have the Aboriginals removed from Moonta a small committee of local gentleman who gave their services free was formed who had an objective of evangelization and civilization. This committee worked together to get the government onside and were looking for land, about 180 sq miles in the area of Point Pearce because there was water here and they wanted to water their sheep.

c. A community was organized and established by the committee to ensure that the Aboriginal people stayed in one place. In February 1868 Point Pearce was established as a mission and the Reverend Kuhn established a school. A bell which was rung for church, school, work, and bedtime regulated life on the mission.

3. Judy There was an original school building built by the church in Point Pearce by the people of Point Pearce.

   a. As the population grew, another school was set up on the present site. Eventually it was knocked down as it was well used and falling to pieces.

   b. Another school was built and suffered a fire but remained in use until the current school was built.

   c. This brings us to the current school on the site which was built in 1992 and remains strong and active.

4. Kylie My name is Kylie and I work as the Community Development Officer. I too have become part of the community and have three children of Narungga descent. The students who come to our school start with a playgroup that services children from 0-5 years of age. Last year 23 children attended and made use of the service provided.

   a. The school then includes reception and/or Kindergarten and Grades 1 and 2.
b. 99% of the children who attend the school live in the community of Point Pearce and 100% of the children are of Narungga decent.

c. The school provides a safe environment where parents are encouraged to participate.

d. The school is a family and community oriented place where everyone is welcome.

e. If something is going on in Point Pearce, it is happening at the school.

f. It is a place of learning for all community members both adults and children

5. **Paul** Culture is another important aspect of our people’s identity. There are four totems, in this area, the emu in the North, the red kangaroo in the East, the Eagle Hawk in the West, and the White Pointer Shark of the South. A totem represents one’s living attributes, and the characteristics of your totem are characteristics that you take on as a person. For example, sharks are protective and kangaroos are always on the move.

a. For the people here the Shark is our totem. This is where our lineage is as well. Our totem determines who we can marry, and what animals we can kill and eat. Our people have a very strong connection to the sea.

b. We share these dreaming stories with the children at the school. As our totem is the shark, we are entitled to hunt and eat kangaroo and we have shown the children how to prepare this in our traditional way.

c. We have also invited interaction with other schools to share our culture and to promote social awareness and sharing. Our children are just like any other children and we very much enjoy these opportunities.

d. The school also provides opportunities for two way sharing with different cultures.
6. **Paul** We have incorporated as a part of everyone’s identity a reintegration of the Narungga Language within the school curriculum. We want to ensure that our children do not lose their language as they grow older. When we lose our language we lose our identity as well. (reads poem)

**Tristan**
Hi my name is Tristan and I was born and raised in Point Pearce. I too am a proud Narungga and I am interested in sharing our language with others.

   a. We incorporate Narungga language classes at least once a week and incorporate speaking the language, visualizations, the Dreaming stories and field trips to cultural sites.

   (Wait for song to finish)

   b. We also do hands on activities such as artwork, song, create Dreaming story characters and drama as well.

7. **Judy** The school also adheres to and respects the educational curriculum that is set out by the Department of Education and Children’s services in all school areas including sport,

   a. The study of society and environment health and nutrition,

   b. English,

   c. mathematics,

   d. and allows time for fun and relaxation as well.

8. **Terri (wait for song)** The school has gone through many changes. The main transition of the school was from Moonta to Point Pearce which happened in the early years. This happened to force all of the Narungga people into one area. Now it seems that the government is doing the opposite, forcing our children to go to non-Aboriginal area schools. Our school used to be a school from Kindergarten to Year Seven, but suddenly a couple of years ago, the government closed the upper year classes. Now we are only left with Kindy, reception, year one and year two.

   As you can see from the picture our children are so small at this age and getting onto that bus is overwhelming and daunting. It is very far to travel to go to the area school as well.

   Our community is like a mother for our children. It is the place where our values and beliefs come from. Pulling our children away from their mother community and placing them in another school is
like handing them over to a stranger that doesn’t understand our culture. This is the opportunity for children to learn about their culture in the place where it is significant to learn their culture. Elders are here and they come into the school here and the children learn from them. Families feel safe coming into our school. Our school is very important to our community and without it, we are not sure what will happen.

9. **Kate** Hello, my name is Kate and I am Judy’s sister and proud to be a Narungga. The school is an integral part of our life. As our children grow older the more they learn. It is crucial for the Narungga culture that the children learn within their nesting area; within their community, which then enhances them as they move forward within the wider community.

    a. The children are becoming familiar with their learning environment while steadfast in their culture, language and with whom they are as Narungga people.

10. **Paul (wait for song)** Closing (Spoken in Narungga): We have worked very hard to bring you information that is truly important to our people, community, culture, language and future generations. We hope that you have learned from this presentation and understand better why our school is so important to our community. Thank you.