INVESTIGATING ABORIGINAL PERCEPTIONS OF LITERACY NEEDS:

ELUCIDATING INNOVATIVE APPROACHES TO ENGAGE ABORIGINAL

YOUTH AND ADULTS IN LITERACY LEARNING

A thesis submitted in total fulfilment of the requirements of Masters of Philosophy

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Statement of Authentication

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Anne Ndaba

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DEFINITION OF TERMS

Throughout this thesis ***Aboriginal*** refers to Aboriginal Australians. The focus of this investigation is Aboriginal youth and adults and the participants are Aboriginal, therefore the word Aboriginal is respectfully used in these contexts throughout the thesis.

The word ***Indigenous*** is used by government bodies in Australia and refers to both Aboriginal and Torres Strait Islander people. Because some research and government reports referred to in this thesis use the word "Indigenous" to include Aboriginal and Torres Strait Islander people, "Aboriginal" and "Indigenous" are sometimes used interchangeably in this document.

Adult literacy is defined by the Organisation for Economic Co-operation and Development (OECD) as: "Literacy in the adult context is: the ability to understand and employ printed information in daily activities, at home, at work and in the community – to achieve one's goals, and to develop one's knowledge and potential" (OECD, 2000, p. x).

LIST OF ABBREVIATIONS

ABS   Australian Bureau of Statistics

ACARA   Australian Curriculum Assessment and Reporting Authority

ACSF   Australian Core Skills Framework

AIHW   Australian Institute of Health and Welfare

ALLS   Adult Literacy and Life Skills

APY   Anangu Pitjantjatjara Yankunytjatjara

CBT   Competency-Based Training

COAG   Council of Australian Governments

DEEWR   Department of Education, Employment and Workplace Relations

DEST   Department of Education, Science and Training

FaHCSIA   Department of Families, Housing, Community Services and Indigenous

       Affairs

FSK   Foundation Skills Training Package

HWA   Health Workforce Australia

IALS   International Adult Literacy Surveys

IBERA   Indigenous Body Educational Resource Animations

IBSA   Innovation and Business Skills Australia

IPLAC   Institute of Pedagogy in Latin America and the Caribbean

ISC   Industry Skills Councils

IT   Information Technology

LLN   Language, Literacy and Numeracy

LLNP   Literacy, Language and Numeracy Program

MCEETYA	Ministerial Council of Education, Employment, Training and Youth Affairs
MultiLit	Making up Lost Time in Literacy
NAALCSC	National Aboriginal Adult Literacy Campaign Steering Committee
NAPLAN	National Assessment Program in Literacy and Numeracy
NHMRC	National Health and Medical Research Council
NIACE	National Institute of Adult Continuing Education
NICHHD	National Institute of Child Health and Human Development
NCVER	National Centre for Vocational Education and Research
NRPIET	National Report to Parliament on Indigenous Education and Training
NSSC	National Skills Standards Council
NSWTAFE	New South Wales Technical and Further Education
NT	Northern Territory
OECD	Organisation for Economic Co-operation and Development
OTEN	Open Training and Education Network
PISA	Program for International Student Assessments
RCIADC	Royal Commission into Aboriginal Deaths in Custody
RRWG	Reading Research Working Group
RTO	Registered Training Organisation
SATAFE	South Australian Technical and Further Education
SCOTESE	Standing Council on Tertiary Education, Skills and Employment
SCRGSP	Steering Committee for the Review of Government Service Provision
SDT	Self-Determination Theory
SEE	Skills for Education and Employment
TAFE	Technical and Further Education

UNESCO	United Nations Educational, Scientific and Cultural Organization
VET	Vocational Education and Training
VETiS	Vocational Education and Training in Schools
WA	Western Australia

ABSTRACT

Poor literacy skills are seen as a major contributor to poverty and disadvantage (United Nations Educational, Scientific, and Cultural Organisation [UNESCO], 2011), and to the social and health problems faced by many Aboriginal people today (Australian Institute of Health and Welfare [AIHW], 2013; Boughton, 2009; Dockery, 2013; Steering Committee for the Review of Government Service Provision [SCRGSP], 2011). Literacy education is therefore a social justice issue that needs to be addressed in order to improve the health and wellbeing of Aboriginal people.

There is a lack of current research on adult literacy levels and perceptions about literacy skills in Indigenous communities and with those who may have been marginalised by their poor literacy skills. While there is extensive testing of Indigenous school children through the National Assessment Program in Literacy and Numeracy (NAPLAN), there have been no thorough surveys on adult literacy and no standardised assessing of literacy levels in Indigenous communities across Australia (Boughton, 2009; Kral & Schwab, 2012). Furthermore, research on Indigenous adult literacy learning is predominantly from the perspectives of literacy practitioners and program developers and little has been done to explore the perceptions of literacy issues by Indigenous youth and adults.

This investigation is a qualitative study that extends beyond the well-established theories on literacy acquisition and findings on successful teaching methods for

Aboriginal cohorts. It exposes the unpredictable and largely undocumented perceptions of literacy experiences by Aboriginal youth and adults, by presenting the views of a select sample of economically disadvantaged urban Aboriginal youth and adults on literacy learning and preferred learning environments. The results from this small sample of ten participants are not intended to produce generalisations but are examined in detail to provide an insight into the perceptions of this particular cohort. Three theoretical sources underpin the investigation. They are:

(i) The pedagogy of early reading theory;

(ii) adult literacy learning and adult learning theory and

(iii) the psychological theories of self-concept and self-determination

The overarching aim of the investigation was to elucidate perceptions of urban Aboriginal youth and adults of their literacy skills and the most appropriate ways of improving their skills. More specifically the research sought to elucidate participants' perceptions of: their own literacy strengths and weaknesses; the perceived causes of any literacy difficulties they experience; ideal learning environments; favourable aspects of computer-based literacy learning; and intention to use a computer-based literacy program.

The findings from this investigation indicated that literacy learning presents as life-long learning that is intrinsically connected to the social activities of the participants. Learning environments that afford privacy and include aspects of Aboriginal cultures and languages, and involve the use of information technology, were considered desirable by the participants of this study. Explicit learning of the technical skills of reading and writing were also considered important in improving literacy skills.

While much of the research in the area of adult literacy focuses on practitioners and theorists, this study gives a rare insight into the views of urban Aboriginal people. When Aboriginal youth and adults are given a voice, as in this investigation, they provide valuable insights into the direction that adult literacy programs could take in meeting their needs and contributing to the wellbeing of Aboriginal communities. Chapter 2 of this thesis adds meaning and context to these insights by critcally reviewing current policy and provisions in Australian adult literacy education. It is anticipated that findings from this study will build upon previous research and inform post-secondary literacy education to effect positive changes for Aboriginal families and communities.

CHAPTER 1

INTRODUCTION

"Literacy skills are an element of human capital. At an individual level, literacy contributes to personal development, through improved participation in society and in relation to labour market outcomes and earnings" (Organisation for Economic Co-operation & Development [OECD], 2000, p. 61). Without adequate literacy skills many Aboriginal youth and adults are denied entry into employment and are excluded from the socioeconomic benefits of Australia's high standard of living. As a result, they are likely to become trapped in a cycle of poverty, live marginalised lives that are subject to uncertainty and hardship, and be exposed to the risks of ill health, poor housing, and unemployment.

Whilst the link between low-level literacy skills and socio-economic disadvantage is not a direct and linear relationship, many argue that the key to breaking the cycle of poverty is education, because the ability to read and write gives adults the opportunity to earn a living (UNESCO, 2011). Education empowers people to make decisions about and manage their own lives and those of their family members. Furthermore, the ability to read and write is a basic human right and, as such, is recognised by the United Nations as being fundamental to the overall welfare of the individual and society: "Literacy is a right. Literacy is a foundation for all further learning. Literacy carries profound individual and social benefits" (Part 1, UNESCO, 2011, p. 3). In developed countries such as Australia, the ability to read and write

enables people to undertake training and expand their life choices rather than be subjected to the constraints of welfare dependency.

At a University of Sydney symposium on Bridging the Gap (2010), the Honourable Ms Linda Burney, the first Aboriginal Member of New South Wales (NSW) Parliament, identified the ability to read and write as fundamental to the health, wellbeing, and advancement of Aboriginal Australians. Ms Burney said, "the power of inter-generational disadvantage is overwhelming and disastrous for Aboriginal communities". As the Minister for NSW Department of Community Services (2008–2011), Ms Burney expressed alarm at the increasing number of Aboriginal children being placed in care due to parental neglect or abuse and informed the symposium that "32% of children currently in care in NSW are Aboriginal". Ms Burney claimed that the standout difference between individuals who maintain stable, "healthy" families and those who have had their children removed by the State was their ability to read and write (Burney, 2010). Inherent in this statement is the acknowledgement that the consequences of poor literacy are dire not only for the individual but also for subsequent generations.

Extensive and repeated studies indicate that the proportion of Indigenous people suffering: disadvantage by way of drug dependency (Catto & Thomson, 2008), incarceration, unemployment, and poor health is unacceptably high compared to the general population (Australian Bureau of Statistics [ABS], 2010; Department of Families, Housing, Community Services & Indigenous Affairs [FaHCSIA], 2009; SCRGSP, 2011). This disparity in social indicators such as health, employment, and education outcomes is referred to as "the gap", and eliminating this gap between

Indigenous and non-Indigenous Australians has become the focus for government action since 2006 (Commonwealth of Australia, 2009; Department of the Prime Minister and Cabinet, 2014).

In December 2007 and March 2008, the Council of Australian Governments (COAG) committed to six targets to close the gap in Indigenous disadvantage:

- closing the life expectancy gap within a generation;
- halving the gap in the mortality rate for Indigenous children under five within a decade;
- ensuring all Indigenous four-year-olds in remote communities have access to quality early childhood programs within five years;
- halving the gap in reading, writing and numeracy achievements for children within a decade;
- halving the gap for Indigenous students in Year 12 attainment rates or equivalent attainment by 2020; and
- halving the gap in employment outcomes within a decade (SCRGSP, 2011, p. iv).

Although the headline target for COAG's Closing the Gap agenda is the elimination of the life expectancy gap between Indigenous and non-Indigenous Australians, education is seen as an important contributing factor, with three of the six targets related to education (FaHCSIA, 2010). The setting of these targets clearly recognises that not only is education important in and of itself, but without reducing disparities between Indigenous and non-Indigenous Australians in education, other targets in relation to health and employment are unlikely to be met. It is widely recognised that literacy and education levels are intrinsically linked to the health and

wellbeing of the individual, their family, and their community (Boughton, 2009; Dockery, 2013; SCRGSP, 2011; Standing Council on Tertiary Education, Skills and Employment [SCOTESE], 2012).

Australia's Indigenous population has historically presented with literacy problems and low levels of education. Literacy results for Indigenous school students are consistently below the national average (FaHCSIA, 2008). The National Assessment Program in Literacy and Numeracy (NAPLAN) data from 2010 to 2013 confirms that, on average, across all year levels and all domains, Indigenous students achieved lower mean scores than their non-Indigenous peers (Australian Curriculum Assessment and Reporting Authority [ACARA], 2013a; COAG Reform Council, 2013; Department of Education, Employment and Workplace Relations [DEEWR], 2011b).

Similar comparisons are evident in international studies. Findings from OECD research in the Program for International Student Assessments (PISA) indicate that Australia's Indigenous students are leaving school with poorer literacy skills compared to non-Indigenous Australians and compared to average attainments across OECD countries. Reading literacy Level 2 on the PISA marking scale is considered to be the minimum skill level that enables school leavers to successfully engage with the literate demands of the modern workplace. Students who are assessed as competent at reading level 2 can locate one or more pieces of information; recognise the main idea in a text; understand relationships, or construe meaning within a limited part of the text when the information is not prominent and is able to make low level inferences (Thomson, De Bortoli, Nicholas, Hillman, & Buckley, 2011). The 2012 PISA research findings show that almost 40% of Indigenous students did not reach Level 2, compared to 17% of

students across the OECD and 14% of non-Indigenous students in Australia (Thomson, De Bortoli & Buckley, 2013). The difference between the mean reading literacy score of Australian Indigenous students and non-Indigenous students equates to around two-and-a-half years of schooling (ACARA, 2013b).

Disturbingly, the PISA 2009 and 2012 results indicate a worsening trend in reading literacy for Australian Indigenous students, with 35% of Australian Indigenous students at or below Level 1 in 2003, 38% in 2006, 40% in 2009 and 2012 (Department of Education, Science and Training [DEST], 2006; Thomson et al., 2011; Thomson et al., 2013). According to De Bortoli and Creswell (2004), students at or below Level 1 in reading literacy do not have "adequate skills and knowledge in reading literacy to meet real-life challenges and may well be disadvantaged in their lives beyond school" (p. 11). This predicted disadvantage is evident in Australia's employment and training figures, which show that 40% of Indigenous 18–24 year-olds in 2008 were neither employed nor studying, compared to 10% of non-Indigenous people in the same age group (SCRGSP, 2011). Boughton (2009) suggests that as much as 35% of the Aboriginal and Torres Strait Islander adult population have very low levels of basic English language literacy, and he predicts this could be a much higher percentage in some communities and regions.

While the need is great, it would be expected that post-school literacy programs available for Indigenous students would be based on best practice in early literacy acquisition, and on research-based methodology in teaching and learning in Indigenous settings. However, literacy provision is overwhelmingly dominated by employment-focused courses which teach literacy skills within vocational training and preparation

for vocational training (SCOTESE, 2012). As such, they are restricted in ways of catering for the specific needs and interests of literacy learners from diverse backgrounds. This narrow focus has limited access to appropriate literacy courses that would enable Indigenous students to build their literacy skills to successfully participate in vocational courses and move into employment. Government statistics indicate a low articulation rate of Indigenous students through the Vocational Education and Training (VET) system (DEST, 2005, 2008), and low employment rates for Indigenous youth and adults (ABS, 2010).

The focus by the federal government to assist working-aged Australians to improve their literacy and numeracy skills has resulted in the development of a national program: the Skills for Education and Employment (SEE) program (Department of Industry, 2013). The SEE program replaced the Literacy, Language, and Numeracy Program (LLNP) and was implemented across Australia in 2014. The SEE program provides pre-vocational training in literacy, language, and numeracy skills to enable students to find employment or further their studies (Department of Industry, 2013). With an additional aim of strengthening the government's "earn or learn" strategy (DEEWR, 2009), the SEE program is linked to Centrelink social security payments. Thus, Centrelink clients are required to undertake SEE if their poor literacy skills are a barrier to their finding work. Over recent years, the "earn or learn" policy has seen an increasing number of Indigenous students enrol in pre-vocational and vocational courses (DEEWR, 2008; DEST, 2005). Recent figures from the National Centre for Vocational Education and Research (NCVER) indicate that there was a 2.5% increase in Indigenous VET enrolments in 2012 compared to 2011 (NCVER, 2013).

VET courses are also seen as pathways for many Indigenous people to make up the gaps in their previous school-based education (DEST, 2005; DEEWR, 2008). According to federal government figures (DEEWR, 2008, p. 84), "one in four Indigenous adults (15–59 year olds) participated in a VET course". While the numbers of Indigenous enrolments are high, the "retention and completion rates are consistently below non-Indigenous rates" (DEEWR, 2008, p. 92). It is crucial that appropriate literacy provision is available for Indigenous youth and adults who are seeking a second chance at education through the VET system. This is particularly pertinent for Indigenous youth, as the proportion of young Indigenous students enrolling in VET courses is on the increase. In 2008, 34.3% of Indigenous VET students were aged 19 or younger, compared to 26.6% of non-Indigenous students (DEEWR, 2008, p. 80). The 2009 COAG National Partnership on Youth Attainment and Transitions (ACARA, 2011; SCRGSP, 2011), which formalised the age of compulsory school or training attendance to 17 years, put more pressure on VET services to provide literacy instruction to an increasing number of Indigenous youth, with many choosing the Vocational Education and Training in Schools (VETiS) option in their senior secondary school years (Helme & Hill, 2004; Schwab, 2001).

Studies that explore options for Indigenous youth to improve their literacy skills in preparation for work and study are increasingly important, as the overall proportion of Indigenous youth grows. Statistics indicate that the Indigenous population under the age of 15 years is growing rapidly: "twice the rate of the non-Indigenous population" (Ministerial Council of Education, Employment, Training and Youth Affairs [MCEETYA], 2006, p. 4), with 46.7% of the Indigenous population aged under 20 years (COAG Reform Council, 2013). Future projections indicate that the number of

Indigenous Australians aged between 25 and 45 years is expected to grow by 43% by 2021 (FaHCSIA, 2012). This strong growth in the Indigenous working age population highlights the importance of the Closing the Gap employment and education targets. The challenge for educators and researchers is to develop innovative, evidence-backed programs to engage Indigenous youth and adults in vocational education and assist low-level literacy students' progress towards employment through the VET system.

The present investigation aimed to develop understandings of the literacy needs of urban Aboriginal youth and adults, from their perspectives. The desire to undertake such research stemmed from the author's extensive experience as a literacy teacher at Tranby Aboriginal College – an independent Aboriginal-controlled college of adult education in Sydney, Australia. Over my twenty years in the field of adult basic education, I witnessed a number of changes to curriculum, funding and access and noticed that these changes were apparently made without consultation or input from Aboriginal students. At the same time, Tranby students were very vocal about their needs and preferred learning environments, and Tranby educators were responsive to these needs. However, the requirements of curriculum, access and funding were dictated by state and federal government policies and were therefore inflexible. When I began this research project, Tranby did not have a literacy program on offer and thus the research was not undertaken at the college. Furthermore, it was decided that a more insightful result would be gained from participants who were not enrolled in an accredited literacy program; thus aiming to capture participant perceptions to literacy learning without influence from the learning model they were engaged with.

The overarching aim of the investigation was to elucidate perceptions of urban Aboriginal youth and adults of their literacy skills and the most appropriate ways of improving their literacy skills. More specifically, the research sought to elucidate participants' perceptions of: their own literacy strengths and weaknesses; the perceived causes of any literacy difficulties they experience; ideal learning environments; favourable aspects of computer-based learning strategies; and intention to use a computer-based literacy program.

Qualitative research methodology was chosen as the most appropriate means of addressing the aims of the investigation and facilitating the collection of data that was largely based on personal experiences of the participants. It was important to elicit this data directly from the participants in the study. Research approaches that ask the respondents directly are termed "self-reporting" and are valuable in that they directly record personal experiences. Self-reporting research gives access to phenomenological data; that is, data that records respondents' perceptions of themselves and their world, which are unattainable in any other way.

In applying Silverman and Marvasti's (2008) concept of purpose determining methodology, the format of open-research-question inquiry – considered to be an "effective tool for holistic-inductive studies" (Geroy & Wright, 1997, p. 33) – was chosen for this investigation as a most appropriate method for eliciting personal information and perceptions from the Aboriginal youth and adults involved in the study. Question responses and respondent information were coded and categorised into themes (Cohen, Manion, Morrisson, & Routledge, 2011; Minichiello, Aroni, & Hays, 2008), effecting a thorough analysis upon which to draw conclusions and provide discussion.

The selection of participants in this investigative study was determined by access to and the availability of Aboriginal clients from two inner-Sydney community centres. Interested clients were invited to participate, and 10 participants in total were involved in the investigation. These participants fell evenly into two groups: 15–23 year-olds and 32–52 year-olds. They are referred to as *the younger group* and *the older group*, respectively, throughout this investigation. One-on-one interviews were conducted with the participants to elucidate perceptions of their literacy strengths and weaknesses, to determine if they were open to improving their literacy skills, and what methods or environments would engage them in literacy learning. The participants were also given an oral questionnaire which elicited personal information, such as age, employment status, course enrolment, and perceived levels of reading, writing, spelling, and computer skills. The data collected were analysed thematically and critically examined by comparing and contrasting results for the two age groups in the study.

This investigation was expected to extend our understandings of Aboriginal perceptions of literacy learning and to elucidate the features of learning environments that would engage a disaffected adult Aboriginal audience in literacy learning. As such, it also contributes to addressing the call by SCOTESE (2012) for "innovative, evidence-based learning resources to engage Indigenous learners in developing the foundation skills necessary for further study or employment" (p. 16). The opinions of Aboriginal people and their own assessments inform the findings of this investigation and are integral to the understanding of issues around post-school literacy education. It is expected that the findings will address a crucial social justice issue for Aboriginal people, by finding ways to enhance literacy skills in order to improve life opportunities.

CHAPTER 2

ADDRESSING THE LITERACY NEEDS OF ABORIGINAL YOUTH AND ADULTS: AN OVERVIEW OF THE SIGNIFICANCE OF THE ISSUE, CURRENT LITERACY PROVISION, AND IMPLICATIONS FOR THE PRESENT INVESTIGATION

Introduction

The purpose of this chapter is to provide a rationale for the current thesis. The chapter is divided into two sections. The first section provides evidence relating to the low literacy levels of Aboriginal youth and adults, and the long-term impact of poor literacy skills, along with the implications of these findings for this investigation. The second section outlines current adult literacy levels in the Australian working-aged population and critiques government strategies currently in place to meet the literacy needs of the wider community, with particular emphasis on the potential impact of these strategies on post-secondary Aboriginal students. Finally, a summary of these issues is presented and their implications for the present investigation is discussed.

Aboriginal Literacy: A Significant Social Justice Issue of Our Time

Overview

This section first discusses the literacy levels of Indigenous Australians. This is followed by an examination of the long-term impact of poor literacy levels on health and wellbeing. Finally, the implications of these issues for the present investigation are discussed.

Indigenous Literacy Levels

Australia has failed to provide successful literacy education for a significant proportion of Aboriginal school students and school leavers (Bortoli & Cresswell, 2004; DEST, 2006; FaHCSIA, 2008; Thomson et al., 2011). While there is no standardised testing of post-school literacy levels in Australia, there is extensive national testing in the school system, by way of the annual National Assessment Program in Literacy and Numeracy (NAPLAN) testing of students in Years 3, 5, 7, and 9. The student outcomes from these testings, especially the Year 9 tests, give a strong indication of the literacy levels with which students are leaving school. Data from the 2013 NAPLAN testing of Year 9 students indicates that, in each achievement domain and across all jurisdictions, the mean score for Indigenous students is substantially lower than the mean score for non-Indigenous students (ACARA, 2013a). Across Australia, the differences in these achievements range from 57 scale points in spelling to 88 scale points in persuasive writing (ACARA, 2013a). Furthermore, the PISA data indicates that literacy levels of Australian Indigenous students do not compare well internationally (DEST, 2006; Thomson et al., 2011). As noted in Chapter 1, almost 40% of Indigenous Australian students were assessed at the lowest level on the PISA reading literacy scale, compared to 19% of students across the OECD and 13% of non-Indigenous Australian students (Thomson et al., 2011).

There is a context to the poor literacy outcomes evident in these findings. While there are a number of complex variables that affect learning outcomes, it is widely recognised that economic and social factors can have profound impacts on learning achievements (Willms, 2003). PISA data show that there is a significant relationship

between students' performance and their socioeconomic background, and this is true for all countries assessed in the OECD. Results from PISA studies (Thomson et al., 2011) on the relationship between socioeconomic background and student performance indicate that the more disadvantaged the level of socioeconomic background, the lower the level of performance. Socioeconomic factors impact early in a child's education and continue through life. NAPLAN statistics show that children whose parents are unemployed score lower across all domains and jurisdictions. Similarly, "lower levels of parental education are reflected in lower NAPLAN scores" (NAPLAN, 2013, p. 256). Because of low employment and education levels in Australian Indigenous communities (Australian Institute of Health and Welfare [AIHW], 2013), these socioeconomic indices have a significant impact on learning outcomes for Indigenous students.

Research has also shown that educational inequalities linked to family background tend to persist and become amplified over a lifespan (Hammond & Feinstein, 2005). By the time a student is of high school age the opportunity to engage positively with learning may have been lost. The high rate of absenteeism for Indigenous high school students is an indication of the lack of engagement with learning by many Indigenous youth (De Bortoli & Thompson, 2010; SCRGSP, 2011). Furthermore, studies have shown that many Indigenous students leave school with negative learning experiences (DEEWR, 2011a). The combination of a lack of adequate literacy skills and disaffected learning experiences inhibits many Indigenous youth from pursuing post-secondary education and training. For example, research has indicated that Indigenous youth are not undertaking studies in their first year out of school to the same extent as their non-Indigenous peers (Biddle & Cameron, 2012). It is in this

"crucial transition period from school to work, when young people who are not engaged in education or employment, are at risk of long-term disadvantage" (SCRGSP, 2011, p. 35). Without adequate employment prospects Aboriginal youth can consequently become welfare dependant, and the cycle of disadvantage continues as they in turn become parents, and the opportunities to address their education and training needs become more difficult to access.

Statistics used to indicate progress towards the federal government's Closing the Gap targets (COAG, 2008) similarly reflect a lack of engagement with education by older age groups within Indigenous communities, as well as by youth. The primary measure for adult educational achievements used by COAG is the proportion of 20–64 year-olds with a post-school qualification of Certificate III or above (SCRGSP, 2011). Certificate III is the minimum vocational qualification considered adequate to obtain viable employment (COAG, 2008). Findings indicate that there are substantially lower proportions of Indigenous students attaining qualifications above this marker than non-Indigenous students (SCRGSP, 2011). These indicators are reflected in low Indigenous employment statistics, which show substantial differences between Indigenous working-aged adults and non-Indigenous Australians, especially in remote and regional areas, and no improvement in recent years (ABS, 2010; Department of the Prime Minister and Cabinet, 2014).

The Impact of Poor Literacy on Socioeconomic Outcomes

The increasing literacy demands placed on all members of a modern information-rich society put Aboriginal adults with limited literacy skills under enormous stress in their pursuit of a normal standard of living. It is hard to imagine that

anyone who is unable to read or write adequately could survive in today's world, where form filling and written documents pervade every corner of activity. Even the most menial jobs require workers to read manuals and complete forms. Results from an investigation into vocational training for Aboriginal youth in rural Victoria, Australia (Alford & James, 2007), gave an indication of the limited vocational opportunities available to a significant proportion Aboriginal youth in that region. Alford and James provided a snapshot of post-secondary Aboriginal literacy levels in the Goulbourn Valley region of Victoria, and the difficulties of providing training to students with low literacy skills. They concluded from interviews with Aboriginal community members and agency representatives that the low literacy levels of community members was a major concern. As an example, it was reported that 70% of a total of 16 Aboriginal students enrolled in an early school leaver horticultural program in the Goulburn Valley were found to be "highly illiterate with some unable to write their family name" (Alford & James, 2007, p. 38).

Education outcomes are seen as both one of the manifestations of Indigenous disadvantage and as a potential means for addressing disadvantage – or, in the language of the Commonwealth Government's current "Closing the Gap" agenda, education outcomes are both a "target" and a "building block" (Dockery, 2013; SCRGSP, 2011, p. 10). Similarly, Health Workforce Australia (HWA) (2011) claimed that there is a direct relation between targeting the social determinants of health, such as poor education, and reducing the incidence of ill-health in Aboriginal and Torres Strait Islander people. The HWA study found that there was an urgency in addressing the health and welfare of Aboriginal and Torres Strait Islander communities, as it estimated that the total burden of disease and injury for Aboriginal and Torres Strait Islander people is "2.5 times

higher than that of the general Australian population" (HWA, 2011, p. 1). The relation between poor health literacy and child health is one area that is closely linked to health outcomes for Indigenous Australians. Aboriginal and Torres Strait Islander babies are three times more likely to die in their first year than other Australian children. They are "more likely to suffer from poor maternal nutrition and be of low birth weight, contributing to chronic disease later in life" (Commonwealth of Australia, 2008b, paragraph 3).

Also linked to socioeconomic disadvantage and poor education levels is the incidence of child abuse, domestic violence, alcohol and substance misuse, and incarceration, which are all disproportionally higher for Indigenous than non-Indigenous communities (SCRGSP, 2011). For example, as SCRGSP (2011) shows, hospitalisation rates in 2008–2009 for injuries caused by assault were much higher for Indigenous men (7 times as high) and women (31 times as high) as for other Australian men and women. In 2010, "48 per 1000 Indigenous children aged 0–17 years were on care and protection orders, compared to 5 per 1000 non-Indigenous children" (SCRGSP, 2011, p. 22). All of these social indicators of disadvantage are linked to unemployment and low levels of education (SCRGSP, 2011; HWA, 2011). Many rural and remote Indigenous communities live in poverty due to the lack of economic opportunities available to them in those regions. In addition, a recent government assessment of Indigenous disadvantage (SCRGSP, 2011) indicates that Indigenous families and communities continue to live under "severe social strain, caused by a range of social and economic factors" (SCRGSP, 2011, p. 22). Furthermore, the situation is worsening. The *Closing the Gap Prime Minister's Report* (Department of the Prime

Minister and Cabinet, 2014) indicates that the employment rate for Indigenous Australians actually decreased from 53.8% in 2008 to 47.8% in 2012–2013.

Without employment prospects, crime can be seen as an option for survival. There is a strong link between unemployment and criminal behaviour, especially for individuals coming from a low socioeconomic background (SCRGSP, 2011). The link is particularly strong for Indigenous Australians, who represent 2.5% of the Australian population but over 25% of the national prison population; and, alarmingly, "Indigenous youth accounted for 59% of total juvenile detention in Australia in 2007" (SCRGSP, 2011, p. 8). In NSW, incarceration rates of Aboriginal youth have steadily increased, with almost 50% of NSW Juvenile Justice inmates being Aboriginal (NSW Department of Human Services, 2010). The early involvement of young people in the criminal justice system puts them at much higher risk of further involvement as adults. In addition, Indigenous people are over-represented in the criminal justice system, as both young people and adults. After adjusting for age differences, Indigenous people were imprisoned at "14 times the rate for non-Indigenous people in 2010 and Indigenous juveniles were detained at 23 times the rate for non-Indigenous juveniles" (SCRGSP, 2011, p. 24).

Illiteracy is seen as a significant social factor related to high incarceration rates of Aboriginal people (SCRGSP, 2011). In 1991, the Royal Commission into Aboriginal Deaths in Custody (RCIADC) highlighted the need for basic education provision to disaffected Aboriginal youth and linked low literacy levels to incarceration and recidivism (RCIADC, 1991). Over 20 years later, with increasing Aboriginal custody

rates (Commonwealth of Australia, 2011), the need to address this problem is as urgent as ever.

Section Summary and Implications for the Present Investigation

This section has highlighted the critical importance of improving literacy skills in Indigenous communities and the devastating consequences of failing to address this continuing injustice. It has described the profound impacts of not being able to read or write adequately, highlighting the importance of this study in clarifying the literacy needs of, and exploring ideas for successful teaching/learning strategies for, Aboriginal youth and adults. This section has used the projection of available data on school-aged Indigenous students to indicate the prevalence of low literacy levels of Indigenous adults.

There is limited research on the ways in which urban Aboriginal youth and adults approach literacy learning and the ways in which their needs can be addressed in order to prevent them from falling into the cycle of poverty and disadvantage. Asking urban Aboriginal youth and adults their views about literacy learning, as proposed in the current study, may elucidate the directions that post-secondary education needs to take in order to engage them in learning.

Government Strategies to Improve Literacy Skills of Adult Australians

Overview

This section first gives an account of current literacy levels in the Australian adult population. Second, it presents government responses to these literacy needs; and third, it reviews current government initiatives in literacy provision for adults. This is followed by an assessment of the limitations of these initiatives in relation to Indigenous

literacy needs and learning styles. Finally, a summary of the above and the implications of the issues identified for this investigation is presented.

Adult Literacy Levels in Australia

In 2006, a resounding wakeup call regarding adult literacy and numeracy capabilities was delivered to Australian government bodies and employer groups with the release of findings from the Adult Literacy and Life Skills (ALLS) survey (ABS, 2008). The ALLS survey is an internationally administered research program that examines literacy, numeracy, and problem-solving skills among working-aged adults. The ALLS survey does not apply standardised testing of literacy or numeracy skills, but rather defines adult literacy and numeracy along a continuum of proficiency and across four domains: prose literacy, document literacy, numeracy, and problem solving (SCOTESE, 2012). Twelve countries have participated in the program at different stages since its inauguration in 2003. The Australian survey was undertaken between 2006 and 2007, with almost 9000 adults (aged 15–74) surveyed. Participants were asked to complete questions that gauged their skills in literacy, numeracy, and problem solving. Questions were set on a five-level scale, with Level 1 being the lowest. Level 3 is considered to be below the level needed to meet the complex demands of work and life in modern economies (SCOTESE, 2012). Alarmingly, the results revealed that 43.5% of Australia's working age population have literacy levels below Level 3.

The ALLS survey does not identify Indigenous participants, so no comparative conclusions can be drawn about the literacy and numeracy levels of Australian Indigenous adults. However, in terms of government and industry responses to the results of this survey, there was a general call for action to improve the overall capacity of the Australian workforce to meet the increasingly complex needs of a modern

workplace. The federal government called for submissions from education and industry stakeholders to inform policy directions, both to address the issue and to determine appropriate responsive action by education and industry organisations, so that the literacy and numeracy capabilities of the Australian workforce might be improved. The National Foundation Skills Strategy for Adults was developed from this comprehensive consultation process, setting in place a national plan for adult literacy and numeracy education for the decade 2012–2022 (DEEWR, 2011a; SCOTESE, 2012).

Another international survey - the OECD's Program for International Assessment of Adult Competencies (PIAAC) - was undertaken with Australian working-aged adults in 2011-2012. Results from this survey were released in 2013, after the National Foundation Skills Strategy for Adults was developed. The PIAAC survey, conducted in 24 countries, gave a more positive picture of Australian working adults in comparison with other countries. PIAAC is a survey that measures adult skills and competencies including literacy, numeracy and problem solving skills, with a particular focus on skills used at work (ACER, 2014). As with the ALLS survey, Australian Indigenous participants are not identified in the PIAAC data. The literacy results showed that Australian adults performed above the OECD average and above their counterparts in Canada, USA and England (ACER, 2014). However, data from PIAAC is not directly comparable to the ALLS data, due to the difference in meaning between the five levels of literacy and numeracy against which results are reported (ABS, 2013; ACER, 2014). The release of the PIAAC data did not negate the need to improve the literacy and numeracy skills of the Australian workforce.

Government Response to the Literacy Needs of Australian Adults

In examining adult literacy provision and considering what improvements could be made, criticisms arose from relevant stakeholders of the literacy support available to Vocational Education and Training (VET) students. This included teacher-led initiatives such as the embedding of literacy learning in course material and, at Technical and Further Education (TAFE) colleges, the provision of in-class or private tutorial assistance. The support was found to be ad hoc and developed on a local basis according to local needs and local management priorities (Black & Yasukawa, 2011). The provision of "embedded" or "integrated literacy" support has been found to be more successful when implemented in a team-teaching mode, as practised in TAFE colleges (Black & Yasukawa, 2011). The embedding of literacy skills into the teaching of vocational skills is seen as providing a relevant context to literacy learning and a preferred learning strategy for VET students (Black & Yasukawa, 2011; Casey et al., 2006; Ovens, 2002; Roberts et al., 2005). In relation to Indigenous VET students, there is evidence from NCVER studies that literacy support in the form of tutorial assistance has been inadequate or under-utilised by Indigenous students struggling in vocational courses (Alford & James, 2007; McGlusky & Thaker, 2006). For example, McGlusky and Thaker (2006) examined literacy and numeracy support systems available for Indigenous VET students in Queensland. They found that although literacy and numeracy skills were highly valued by Indigenous students and community members, literacy support was found to be "under-utilised and accessed in an ad hoc manner, with little consideration given to matching student needs to appropriate strategies" (p. 8).

Based on submissions from education and industry groups, the federal government called for a systematic and strategic approach in providing language, literacy, and numeracy (LLN) support to VET students, and this was outlined in the

subsequent National Foundation Skills Strategy for Adults (SCOTESE, 2012). This comprehensive document presented the blueprint for adult basic education in Australia for the ensuing decade, with the intention of ensuring the economic prosperity of the nation and the competitiveness of Australian industries by improving the literacy and numeracy skills of the workforce.

Government Initiatives to Address the Literacy Needs of Australian Adults

The National Foundation Skills Strategy for Adults. The aim of the National Foundation Skills Strategy for Adults is to improve the language, literacy, and numeracy skills of working-aged Australians and highlight priority areas for action over the 10-year period 2012–2022 (DEEWR, 2011a). In directing subsequent changes to the VET sector, the National Foundation Skills Strategy for Adults proclaimed: "The VET system must provide effective LLN support and skill development solutions, both prior to and during vocational training, to ensure that people acquire the LLN skills required in the workplace" (SCOTESE, 2012, p. 20). To this end, there has been a push for all VET trainers to be aware of the literacy needs of their students and to address these needs within vocational training. There is also recognition that pre-vocational literacy programs need to be developed as pathways to vocational training. The National Foundation Skills Strategy (SCOTESE, 2012) stressed the need for low-level literacy skill development, claiming that from an economic perspective, the greatest impact can be gained by "investing in improving skills at the lower levels" (p. 9). Furthermore, it acknowledged that adult literacy provision for Indigenous Australians has been inadequate and needs "more effective foundation skills programs based on specific needs analysis" (p. 16).

In summary, the following major strategies have recently been implemented in response to the National Foundation Skills Strategy for Adults:

- embedding of LLN skills into relevant units of competencies within all vocational training packages;

- up-skilling of vocational trainers to recognise LLN difficulties, and to improve student LLN skills within vocational training courses;

- development of the nationally accredited Foundation Skills Training Package (FSK); and

- implementation of the Skills for Education and Employment (SEE) program.

Embedding of LLN skills into relevant units of competencies within all vocational Training Packages. In Australia, vocational training is implemented by TAFE colleges and a range of government accredited Registered Training Organisations (RTOs). Over the past 20 years, there has been a change in the way VET has been implemented in Australia, with private RTOs competing with government TAFE colleges. There has also been radical changes to the delivery of vocational courses. The emphasis has moved from curriculum development to nationally recognised qualifications based on competency standards as expressed in national training packages (Smith, 2010). Introduced in 1997, training packages provide national competency-based qualifications for vocational work in Australian industries (Guthrie, 2009). Training packages are nationally standardised documents that contain the description of units of competencies and associated assessments comprising a vocational qualification. These descriptors are endorsed by relevant industry bodies. The development of training packages followed the introduction of competency-based training (CBT) in 1993, which was designed to effectively address the specific needs of vocational training. It proved

successful in delivering technical-based learning such as required by the automotive and hospitality industries and was gradually implemented across the VET sector (Misko, 1999). CBT was seen as a "vehicle for meeting enterprise and industry needs in a changing technological environment" (Misko, 1999, p. 24). Consequently CBT was introduced into the format of training packages and training packages gradually replaced curriculum-based qualifications in the VET sector.

In 2012, the body responsible for the accreditation of training packages, the National Skills Standards Council (NSSC), mandated that all vocational training packages must specify the required LLN skills to complete units of competency within the training package. This was in response to the ALLS survey (ABS, 2008), the National Foundation Skills Strategy for Adults (SCOTESE, 2012), and research undertaken by Industry Skills Councils (ISC) on how best to address low literacy and numeracy levels among working-aged Australians (Innovation and Business Skills Australia [IBSA], 2010; ISC, 2011). Prior to this directive, information for trainers in training packages was limited to the prescribed skills required to perform particular job roles within the vocational area under study. The inclusion of LLN skills within training packages highlights the importance of literacy and numeracy to vocational competency.

While the inclusion of LLN skills in training packages is a significant change to the format and implementation of training packages, it is an extension and formalisation of a practice that has become well used by literacy practitioners (Black & Yasukawa, 2011). Over time there has been a shift from teaching literacy and numeracy as discrete subjects towards embedding these skills in vocational course material (DEEWR, 2008; DEST, 2005). While there is evidence in the literature to support the embedding of

literacy skills in vocational courses as a successful strategy for adult learners (Black & Yasukawa, 2011; Casey et al., 2006; Ovens, 2002; Roberts et al., 2005), there is also considerable evidence that this teaching methodology is not an optimal strategy for beginner literacy learners (Clevenger-Bright, 2009; Taylor, 2012). Research indicates that beginner literacy learners in pre-vocational courses and vocational students with poor literacy skills need intensive and explicit literacy support (Hailstone, 2012; Taylor & Swift, 2012; Wood, 2012). Many Indigenous VET students would fall into this category, as indicated by the relatively high number of Indigenous enrolments at the Certificate I and II level (DEEWR, 2008; DEST, 2005). Hence, relying on the inclusion of LLN skills in training packages may not be the best strategy to assist Indigenous students with poor literacy skills.

The incorporation of foundation skills into vocational training is also the current trend in training in the United Kingdom, where a national strategy, called Functional Skills, has recently been implemented. It is a significant policy shift and marks a major change in the way literacy and numeracy are delivered. Many practitioners in the United Kingdom are pessimistic about whether Functional Skills will assist adults at entry level. For example, Carol Taylor (2012), the director of the National Institute of Adult Continuing Education (NIACE), warns that students from marginalised groups and adults with low-level skills who often need intensive and long-term support could lose out in the new Functional Skills approach.

Up-skilling of vocational trainers to recognise LLN difficulties, and to improve student LLN skills within vocational training courses. In considering the variety of approaches to improving adult literacy skills, there remains an overriding problem in

tying literacy development to vocational training: VET teachers are not literacy teachers. They are not trained in how to progress foundation skills or in how to develop the learning processes required by their low-level literacy students to attain the job outcome specified by competency units. Industry Skills Councils have identified the lack of expertise of vocational teachers to teach foundation skills as a crucial barrier to the successful development of foundation skills via competency-based training. Their 2011 report, *No More Excuses*, concluded that the structure and language of CBT "limits the way LLN requirements can be expressed" and "vocational practitioners have difficulty unpacking the LLN content of competencies" (ISC, 2011, p. 18). In addition to Industry Skills Councils recognising the problem of LLN teaching expertise, research by Smith (2010) confirms that teachers and trainers need high-level educational skills and qualifications in order to deliver CBT in training packages properly.

The National Foundation Skills Strategy concurs with this assessment, acknowledging the lack of appropriately trained VET teachers by recommending initiatives for higher education students to train as LLN specialist teachers and by advocating for the provision of extra training in LLN for current and future VET practitioners (SCOTESE, 2012). In response to the call for the up-skilling of VET trainers, the National Skills Standards Council has mandated the inclusion of an LLN unit of competency (TAELLN411 Address adult language, literacy and numeracy skills) – in the Certificate IV in Training and Assessment (TAE40110), which is the compulsory qualification for VET trainers (NSSC, 2013).

The NSSC mandated the TAELLN411 unit of competency as a requirement for all VET practitioners in Australia, from July 2014. It was developed to improve the

ability of vocational teachers to recognise literacy and numeracy difficulties that their students may have and to enable them to incorporate those skills effectively within the framework of their vocational teaching practices. Unfortunately, this response to the need to up-skill VET practitioners in LLN provision could be described as "bolting on rather than building in" knowledge and skill development – ironically, an approach the Industry Skills Councils warned against in their *No More Excuses* report (ISC, 2012). The report also claimed that the issue of practitioner capability could often be "more about insufficient pedagogical expertise to address the individual needs of learners, rather than a specific lack of LLN expertise" (ISC, 2012, p. 13).

It is doubtful that one unit of competency, either delivered online or in a five-hour lecture, as is currently on offer by a range of RTOs, is sufficient to address the pedagogical deficit and the complex skills needed to successfully attain the learning outcomes specified in the TAELNN411 unit of competency, which are to:

- Identify existing LLN skills of learners using validated LLN assessment tools;

- Determine the LLN requirements of the workplace and training in line with the Australian Core Skills Framework;

- Decide when specialist LLN support is required;

- Access appropriate specialist LLN support;

- Develop learning plan for learner to achieve required core LLN skills;

- Revise learning resources to be LLN appropriate;

- Apply learning support strategies to facilitate full participation and development of required LLN skills (http://www.training.gov.au).

As can be seen from these learning outcomes, vocational trainers are expected to be proficient in highly specialised skills, knowledge, and expertise. For example, they are required to understand and apply the Australian Core Skills Framework in identifying the LLN requirements of the vocational training they are delivering, along with identifying individual student difficulties in completing these requirements; develop literacy/numeracy learning plans and resources to address these needs; provide learning support to students with poor literacy or numeracy skills; and make professional judgments on the level and type of specialist support when required by struggling students. This extensive range of complex skills is normally covered in postgraduate studies that qualify LLN practitioners. Furthermore, such studies are delivered within a pedagogical framework that encompasses teaching and learning theories, teaching methodology, strategies for student assessments, and course evaluations. Guthrie (2009) notes that the original Certificate IV in Assessment and Workplace Training (now the Certificate IV in Training and Assessment) was developed to certify workplace trainers and assessors rather than to become the qualification standard of teachers. Before this certification became available, teachers in the TAFE system had been expected to acquire university-level qualifications in teaching.

Nonetheless, pursuant to the LLN training outlined above (TAELNN411), VET practitioners will be required to address literacy and numeracy issues within the vocational training package they implement with or without the necessary knowledge, skills, and training to effectively do so. To facilitate their new job role, the NSSC has mandated that all training packages identify the specific LLN skills required to undertake each competency unit within a VET qualification. Considering that VET

practitioners have difficulties in interpreting competency units in general (Hodge, 2014), this extra requirement could further add to the confusion around unpacking a competency unit and providing LLN assistance to students. So, theoretically, the strategy to include literacy development in vocational training supports the embedding of literacy skills; however, in practice it may be beyond the capabilities of VET practitioners.

Development of the nationally accredited Foundation Skills Training Package for the VET sector. The National Foundation Skills Strategy for Adults highlighted the importance of addressing the needs of early literacy learners who are unable to progress through vocational training without adequate attention to foundation skill development. To this end, the Foundation Skills Training Package was developed by Innovation and Business Skills Australia and implemented nationally in 2014 (IBSA, 2014). According to the *Foundation Skills Training Package Implementation Guide* (IBSA, 2014), the Foundation Skills Training Package provides an opportunity for RTOs to select and deliver foundation skills units that will enable learners to build the specific literacy and/or numeracy skills required to achieve vocational competency (IBSA, 2014). It has been designed to be implemented as a standalone LLN course to provide pre-vocational literacy and numeracy skill development, or as supplementary competency units that can be selected to boost the literacy/numeracy input in other training packages. Registered Training Organisations, including TAFE, are encouraged to use it to support low-level literacy students enrolled in Certificate II and III vocational courses (IBSA, 2014).

Competencies within the Foundation Skills Training Package are based on the Australian Core Skills Framework (ACSF). The ACSF describes performance in the five core skills of reading, writing, oral communication, numeracy, and learning (Circelli, Gillis, Dulhunty, Wu, & Calvitto, 2012). It contains benchmarks against which to assess and report on the progress of literacy and/or numeracy learners. The use of the ACSF requires considerable training and experience. As a consequence, trainers and assessors delivering and assessing from the Foundation Skills Training Package will be required to have recognised qualifications and expertise in the delivery and assessment of foundation skills and the ACSF.

The *Foundation Skills Training Package Implementation Guide* claims that many learners who undertake qualifications from the Foundation Skills Training Package will need "considerable support from LLN specialists with the pedagogical knowledge and experience to address and overcome severe barriers to learning" (IBSA, 2014, p. 6). Implementation of the Foundation Skills Training Package and other LLN courses will, however, be problematic in the National Foundation Skills Strategy's 10-year plan, as the supply of specialist foundation skills practitioners diminishes. SCOTESE acknowledges that the supply is "not sufficient to meet education and training needs across the nation and will continue to decline as many members of the current workforce retire" (SCOTESE, 2012, p. 21). Another problem is the restriction of literacy skill development to vocational needs, as necessitated by delivering literacy learning according to the descriptions and assessments set out in a training package.

The positioning of foundation skills in a training package means that literacy skills are taught within units of competency and based on job outcomes. The obvious

limitation of using the training package framework to teach foundation skills is the omission of the "what" and the "how" of teaching reading and writing, normally advised by curricula. Furthermore, early literacy development is not covered by the formulation of job skills. By definition, "training packages describe the skills and knowledge needed to perform effectively in the workplace. They do not prescribe how someone should be trained" (Innovation and Business Skills Australia [IBSA], 2012, p. 1). In effect, training packages are workplace standards rather than educational curricula.

Literacy instruction written in the format of a competency-based training package rather than as a curriculum document represents a major shift in adult literacy delivery in Australia. With the introduction of competency-based training over the last two decades, literacy teaching has gradually abandoned holistic, experience-based learning in favour of learning directed towards assessable skills (Guthrie, 2009; Waterhouse & Virgona, 2008). Taking literacy teaching out of a curriculum-based system and moving it into the Foundation Skills Training Package leaves training short on methodology pertaining to adult learning principles, learning styles, and reading theory. The concept of competency-based training focuses on what is expected of an employee in the workplace rather than the learning process (Misko, 1999). It represents the complete movement of an education-based VET system to an industry- or enterprise-based system. Such a system leaves little room for linking social and cultural experiences to literacy learning – factors that are seen as important for Indigenous learners. Research indicates that a holistic model of learning that reinforces identity, place, and community holds more meaning for Indigenous students (Boughton, Ah

Chee, Beetson, Durnan, & Leblanch, 2013; Christie, 2005; Durnan & Boughton, 1999; Eady, Herrington, & Jones, 2010; Kral & Falk, 2004; Kral & Schwab, 2003, 2012).

Implementation of the Skills for Education and Employment (SEE) Program. The federally funded SEE program (Department of Industry, 2013) has been rolled out across Australia by the Department of Industry, with a one-size-fits-all approach to improving the literacy skills of working-aged Australians. The Department of Human Services website describes the SEE program as a program to help speaking, reading, writing, or basic maths skills to improve the chances of getting and keeping a job (Department of Industry, 2014). The employment-driven nature of the SEE program is evident in its eligibility criteria, which restricts enrolment to youth (15–20 years) and those in receipt of Centrelink social security payments. Such criteria therefore excludes people over the age of 20 who want to improve their language, literacy, or numeracy skills for the sake of personal development or anyone who has reason not to be in receipt of a Centrelink benefit. This restriction is surprising given that almost half of the population of adult Australians have low-level literacy skills, according to the ALLS survey (ABS, 2008), and considering that the provision of literacy education is a basic human right (UNESCO, 2011). The Department of Industry gives no explanation for the reasons that access to the SEE program is restricted in this way.

In addition, there is a punitive side to the administration of the SEE program, as attendance is linked to Centrelink payments and monitored by the Department of Industry. Strict attendance reporting is required of RTOs offering the SEE program and Job Services agencies whose clients are SEE students. Centrelink benefits are stopped if attendance is poor. Furthermore, RTOs are monitored according to their ability to

improve the LLN skill levels of their students as determined by ACSF performance indicators. Funding to RTOs for the SEE program is based on attendance and student progression through the ACSF levels. Thus, literacy provision in the SEE program is dominated by reporting and administrative duties, with less attention given to learner needs. The heavily funded SEE program appears to be a bureaucratic solution to literacy skill development that will dominate post-secondary literacy provision well into the future.

Limitations of Current Government Strategies and Implications for Indigenous Students

As outlined in the previous section of this chapter, current literacy provision for adult Australians is predominantly employment-focused and addresses literacy skills within the framework of vocational training (SCOTESE, 2012). There are obvious limitations to this narrow approach to literacy learning, one being that literacy skills need to be transferrable and applied in a range of situations. Literacy practices do not occur solely within the employment arena, but across the literacy landscape of an adult's life.

Another limitation is that current literacy provision approaches do not cater for the needs of diverse learners and their social and cultural backgrounds. These issues cannot always be adequately addressed by contextualising the learning material. This is especially true for Indigenous students, and particularly those Indigenous students who are learning with students from different cultural backgrounds in mixed classes. The contextualisation of lesson material may be feasible in literacy classes in discrete Indigenous communities, but in urban and regional areas, where Indigenous students are

likely to be the minority in mainstream classes, there are limited opportunities for teachers to include culturally appropriate lesson material or accommodate Indigenous learning styles.

Indigenous Learners

Extensive research with Indigenous learners has shown that the lack of social and cultural relevance of learning programs is often a major cause of non-participation of Indigenous adults in education (DEEWR, 2008; DEST, 2006, 2010; Dockery, 2013; Eady et al., 2010; Giddy, Lopez, & Redman, 2009; Kral & Schwab, 2012; McGlusky & Thaker, 2006). If the onus is on teachers to contextualise learning for their Indigenous cohorts, this may become increasingly difficult when the predominant focus and assessable components are employment-based literacy skills. Furthermore, with heavily regulated programs like SEE, the pressures of outcome-based reporting can limit the time and resources available for teachers to use social- and culture-based material.

Kral and Schwab's (2012) studies in remote Indigenous communities found that youth and adults who were forced into accredited adult literacy or training programs in order to receive Centrelink benefits found the learning environment confronting, and many dropped out of classes. Kral and Schwab (2012) claim that:

Evidence from participants suggests that such courses have been intimidating, confusing, alienating, shaming, too hard, too easy, irrelevant, or a mixture of all these factors. Program objectives did not link to participant aspirations, needs, interests and skills, or provide any clear benefits (p. 81).

Findings from a NCVER review of research into good practice in VET provisions to Indigenous students, further add to the importance of the learning environment (Miller, 2005). This review identified seven critical factors to successful learning for Indigenous students in the VET sector: Indigenous community ownership or involvement; acknowledgement of Indigenous cultures, identity, knowledge and values; true partnerships between Indigenous communities and relevant external bodies; flexibility in course design, content and delivery; quality staff and committed advocacy; student support services and sustainable funding (Miller, 2005).

Regardless of such research findings, it would appear that adult literacy learning in the 21st century is tied to both the economic performance of the nation and the successful competitiveness of Australian industries, and is less concerned with the personal attributes, strengths, and needs of the learner. The pedagogy of student-centred learning, which used to be a strong, evidence-based feature of adult literacy teaching, has been forsaken in order to expedite bureaucratic processes and supposedly ensure the employability of the students. Improving the competitiveness of Australian industry can be a desirable outcome of adult literacy education programs, but this does not mean it is to be the only goal directing teaching and learning. Economic prosperity is only one aspect of broader national life, and literacy practices are important for individuals beyond "getting and keeping a job" – as defined by the Department of Industry (2014). Aboriginal participants in a range of research settings (Boughton et al., 2013; Eady et al., 2010; Kral & Falk, 2004; Kral & Schwab, 2003, 2009, 2012) clearly indicate that their lives hold greater meaning than that of employment alone, and their literacy practices and needs are directed by life choices that are more inclusive of social and cultural meanings.

Paulo Freire's view of literacy, which was once very influential in the 20th century, considered social and cultural life integral to adult literacy learning (Luke & Freebody, 1997) and appears to be more in tune with Aboriginal perspectives on education. Historically, Aboriginal people have been disadvantaged by an education system imposed by a government that, for many years, was embedded with the racist and imperialistic views of colonialism. Langton (1993) claims that racism in Australia has its origins in the colonial culture and its intent on subjugating Aboriginal people for economic and political gain. Rigney (1999) furthers this position with the assertion that institutionalised racism "placed physically identifiable groups in a hierarchy of inferiority and superiority … with Aboriginal people at the bottom of that hierarchy" (p. 43). Whilst significant changes have been affected in school curriculum and learning with the inclusion and acknowledgement of Aboriginal history and culture (Mooney, 2011), the negative and de-humanising policies of the past still reverberate in Aboriginal communities today. Indigenous scholars, such as Sarra (2011a), Rigney (1999) and Mooney (2011) claim that racism still evident today has an enduring impact on Aboriginal lives. Sarra (2011a) explains how negative perceptions of the capabilities of Aboriginal children that are systemic in the Australian education system stifle academic achievements and cause Aboriginal children to undermine their own abilities.

It is understandable that Aboriginal adults who are seeking a second chance at education and fear the humiliation of not being able to read and write would benefit from a Freirian approach to education. Freire (1972) saw adult education as a way of empowering the individual to better their lives – socially, economically, and politically. Such a viewpoint is demonstrably not being referenced by the Australian Government

as it seeks to apply very utilitarian principles to the teaching of literacy and numeracy to adult students: that is to say, the job is the focus of the outcome of learning, not the empowerment of the learner, nor the capacity of the learner to participate in the political, economic, social, and cultural life of Australia. Equally excluded from current adult literacy provision is the opportunity for independent Indigenous community development based on community needs as perceived by community members. According to Ife (2009), to deny community members a voice in defining community needs is to infringe on a significant human right. The economic rationalism behind recent changes to adult literacy provision proposes that the economy is the major priority in personal, national, and international life. If the community has a strong economy then everything else will follow. This ignores levels of cultural activity, social connectedness, and participation – it is only one dimension of community development. Kral and Schwab (2012) found that Aboriginal youth in remote Australia were more motivated by community-led ventures, connection with culture, and involvement with multimedia projects. Accounts of literacy learning within the *Yes I Can* project in the Wilcannia Aboriginal community (which will be examined in the next chapter) give a similar picture of motivations for learning, with successful outcomes based on developing literacy skills through community development (Boughton et al., 2013; Durnan, 2012).

It appears that approaches by the government to address post-secondary literacy learning do not complement or support the life-long learning approaches elucidated by researchers of Indigenous communities, for whom improving literacy skills is seen to be more than a means of gaining employment (Boughton et al., 2013; Eady et al., 2010; Kral & Schwab, 2012). This raises another conflict between government-led initiatives

like the SEE program and delivery to Indigenous students;, that is, the strict reporting procedures that track students by continual testing against the ACSF levels. This focus on assessment outcomes is incongruent with findings by Eady et al. (2010) in Indigenous communities, where "literacy learning is seen as a process and not a final outcome" (p. 263). Furthermore, skill-based assessments focus on student deficits. Freire believed in human ability and providing adults with the opportunity to enhance their capabilities through their own experiences and knowledge (Freire, 1972). Literacy for social change and individual empowerment seems to be a foreign concept to the current pedagogy in government-led adult literacy provision.

For Aboriginal learners, government initiatives such as the SEE program and programs using the Foundation Skills Training Package may not be inclusive of issues that are important to them. If Aboriginal youth and adults place a low value on employment and are motivated by other goals, then the current literacy programs on offer from the government will not be supported or accessed. Furthermore, current provision focusing on "employability skills" has yet to reflect the federal government's own recommendations as outlined in SCOTESE (2012): to provide foundation skills education "in a range of settings, formal and informal, and across multiple sectors" (p. 21), and to provide "learning opportunities that are appropriate, engaging, relevant" and "available when and where they are needed" (p. 14). While the National Foundation Skills Strategy for Adults highlighted these needs as crucially important for Indigenous students, the government obsession with workplace skills has directed funding to employment-focused courses, left community-focused courses to the substantially lower resourced Social Inclusion funding, and forced community-led projects to compete for limited philanthropic funding.

While the National Foundation Skills Strategy for Adults identified adult Indigenous Australians as needing foundation skills development based on specific needs analysis (SCOTESE, 2012), literacy provision for Indigenous learners in the predominant national literacy program – the SEE program – exclusively assesses needs based on ACSF testing, and appears to ignore Aboriginal learning styles and motivations to learn through connections with culture and community. Instead, the implementation of the SEE program relies on contextualisation of lessons by teachers, which can be problematic given the pressures of reporting against the ACSF levels within the restricted timeframes imposed by funding requirements and the diversity of students in a class at any one time.

Section Summary and Implications for the Present Investigation

This section has outlined current government strategies developed in response to the ALLS 2006 survey (ABS, 2008) and the limitations of these strategies in relation to addressing the literacy needs of Indigenous community members. These limited strategies are the background to the current investigation. The participants in this study may have very restricted choices in adult education programs on offer in their local areas. Furthermore, if they are recipients of Centrelink social security benefits then they may be required to enrol in courses that do not address their needs and goals. The value of this investigation therefore lies in its ability to enquire about Aboriginal learners' needs so that a greater understanding can be gained of how their literacy goals can be successfully met. There is little evidence in the literature of the types of learning environments urban Aboriginal youth and adults want to engage in to improve their literacy skills. It is expected that this research project will advance our knowledge and

understandings about what urban Aboriginal youth and adults perceive as their preferred literacy learning environments.

Summary

This chapter has examined Aboriginal literacy levels and the impact of low literacy on individuals, families, and communities. It has also critiqued adult literacy programs currently implemented by government bodies in Australia. The positioning of adult literacy within vocational education was discussed, highlighting the potential disadvantages and barriers for Indigenous students within such a teaching/learning framework.

CHAPTER 3

THEORETICAL UNDERPINNINGS OF THE PRESENT INVESTIGATION AND WHAT RESEARCH TELLS US ABOUT EFFECTIVE LITERACY INTERVENTIONS FOR INDIGENOUS STUDENTS

Introduction

This chapter provides the theoretical basis for the present investigation. First, reading theory and research findings on early literacy acquisition are presented. Since the literature on early literacy acquisition is dominated by studies conducted with children, theories developed from these studies are explored in order to clarify issues around early literacy acquisition that hold true regardless of age. The implications of findings from these studies for the present investigation are then considered. This is followed by an examination of a successful literacy intervention, using the principles of literacy acquisition as previously presented. Critical aspects of adult literacy learning and their implications for the present investigation are then outlined. This section is followed by an overview of the principles of adult learning theory, highlighting the importance of the learning environment in engaging and motivating the adult learner. The significance of self-concept, motivation, and engagement for adult learners is illustrated through the examination of self-concept and self-determination theories. The implications of these theories for the present investigation are then presented. This is

followed by examples of innovative literacy learning programs in remote Aboriginal communities. Finally, the significance of information technology and its propensity to engage disaffected learners and enhance literacy skills is examined.

Historical Background: Reviews of the Teaching of Reading to Children

Overview

Meta-analyses and meta-evaluations examining effective strategies for the teaching of reading in the United States (US), the United Kingdom (UK), and Australia have investigated the essential components of early literacy instruction for young children (Commonwealth of Australia, 2007; National Institute of Child Health and Human Development [NICHHD], 2000; Rose, 2006). Summaries of these findings will be presented in the following sections.

United States: The National Reading Panel, 2000 Report

The United States Congress commissioned The National Reading Panel in 1997 to review the "scientifically-based evidence" on teaching children to read (NICHHD, 2000). This extensive and comprehensive study identified five major elements that contribute to early reading success among English-proficient children: phonics, phonemic awareness, reading fluency, vocabulary, and reading comprehension (NICHHD, 2000). Its report, *Teaching Children to Read*, played an important role in directing policy regarding reading instruction in the school years. The extensive research and report provided evidence on how children's reading comprehension is developed as they build grapho-phoneme links, vocabulary, and fluency. Furthermore, the study concluded that explicit instruction produced significantly positive effects for students with reading difficulties. Overall, the findings showed that teaching phonemic

awareness to children improves their reading significantly more than instruction that lacks any attention to phonemic awareness (NICHHD, 2000).

United Kingdom: The Primary National Strategy

In the United Kingdom, the National Literacy Strategy reported findings around the teaching of reading in 1998, which informed the Framework for Teaching Reading. The Primary National Strategy subsequently updated this in 2006, after the release of the Rose Report (Rose, 2006), commissioned by the Secretary of State for Education for England. Based on findings from the Rose Report, the Primary National Strategy instructed primary schools in the United Kingdom to abandon teaching methods using a whole-language approach and to use direct instruction on phonological awareness, reading decoding, and reading comprehension in the teaching of reading in the early school years. In 2010, the UK Department for Education restated its support for the findings of the Rose Report on the teaching of reading, in *The Schools White Paper, The Importance of Teaching* (UK Department for Education, 2010).

Australia: Teaching Reading – The National Inquiry into the Teaching of Literacy, 2005

The Australian National Inquiry into the Teaching of Literacy (the Inquiry) was commissioned by the Australian federal government in 2004. The overarching aim of the Inquiry was to inquire into: the teaching of reading in Australian schools; the assessment of reading proficiency, including the identification of students with reading difficulties; and teacher education and the extent to which it prepares teachers adequately for reading instruction.

With similar findings to the major US and UK reports, the Inquiry highlighted the importance of "systematic phonic instruction as the building block for early literacy acquisition" (Commonwealth of Australia, 2007, p. 11). It did not, however, exclusively recommend phonics teaching, making the point that an "integrated approach to reading instruction was necessary in order for children to learn how to decipher print and to make meaning from print" (Commonwealth of Australia, 2005, p. 11). Dr Brendan Nelson, Australian Government Minister of Education, Science, and Training at the time, stated that the Inquiry found that "all children learn to read most effectively through an approach to reading that explicitly teaches: phonics, phonemic awareness, fluency, vocabulary development and text comprehension" (Nelson, 2005, p. 1).

The Weight of the Evidence

The teaching methods proposed by the United States and the United Kingdom, along with Australian national reports, form the basis of reading pedagogy that is now acknowledged as essential for early literacy acquisition. This approach, often referred to as the "phonics approach", is seen as diametrically opposed to the "whole-language" approach that dominated teaching practices and pre-service teacher training during the 1980s and 1990s (Buckingham, Wheldall, & Beaman-Wheldall, 2013; Commonwealth of Australia, 2007). Reading theorists supporting the latter pedagogy proposed that the learner relies on meaning constructed from text rather than knowledge of sound–letter relationships, and that teachers who immerse learners in language activities facilitate reading acquisition by an intellectual process similar to osmosis (Commonwealth of Australia, 2005). The debate about the use of "whole-language" or "phonics" approaches was a focus of the Australian National Inquiry into the Teaching of Literacy. The Inquiry noted criticisms of whole-language teaching methods, also known as a

constructivist approach, highlighting the fact that they are not evidence-based and are ineffective with a range of learners, including children with reading difficulties (Commonwealth of Australia, 2005). The Inquiry also expressed concern at the influences of constructivism in pre-service teacher education (Commonwealth of Australia, 2007), pointing out that constructivist approaches are not effective teaching methods for early literacy acquisition.

However, in its conclusion, the Inquiry determined that the dichotomy was false and that teachers must draw on "a range of techniques and adopt an integrated approach" to teaching reading to children (Commonwealth of Australia, 2007, p. 11). Hattie (2009) agrees that this polarisation of reading theories is unhelpful, and his summary of over 2000 studies points to the importance and value of "actively teaching the skills and strategies of reading" so that students can construct meaning from text (Hattie, 2009, p. 129). Hattie identifies phonics instruction as a powerful teaching method, but qualifies this by saying that "a teacher using a combination of vocabulary, phonics, and comprehension methods will be much more effective than either a phonics or a whole-language teacher" (Hattie, 2009, p. 140).

Implications for the Present Investigation

According to submissions to the Inquiry, there is a generation of adults in Australia who have been disadvantaged by the exclusive use of the whole-language approach in their primary schooling (Commonwealth of Australia, 2007). It is possible that some of the participants involved in this investigation are part of this generation who have not benefitted from phonics-based instruction in their early schooling. Furthermore, there is a generation of teachers in Australia without training in phonics,

thus impacting on efforts to provide second-chance education initiatives for adult learners requiring instruction in early literacy acquisition. As a consequence, although this debate is no longer current and whole-language methods are being phased out in Australian primary schools, the discussion provides useful background information for the present investigation. The lack of teacher training in explicit literacy teaching methods, including phonics-based decoding techniques, may have impacted on the participants in this investigation as they could have missed out on effective instruction in the foundations of reading in primary school along with the chances of learning these fundamental skills as adults.

Aligning Reading Theory to Practice

Overview

The following section examines a school-based literacy intervention that has been successful with Indigenous students. This program is an example of a literacy program that exemplifies evidenced-based theories on teaching reading, and has been shown to be successful with Indigenous students.

Making Up Lost Time In Literacy: The MultiLit Program

MultiLit is an intensive, structured, and systematic reading program, based on phonics and sight words recognition. It is a balanced and integrated program covering the five essential reading skills: phonemic awareness, phonics, fluency, vocabulary, and comprehension through explicit teaching and regular supported reading of texts (Cape York Institute, 2007; Wheldall & Beaman, 2000). The MultiLit program exemplifies the findings of recent international research as outlined above (Commonwealth of Australia, 2007; NICHHD, 2000; Rose, 2006).

MultiLit has proven successful with Aboriginal primary school children and older students with reading difficulties in Sydney and remote Aboriginal communities in Cape York. A study by MultiLit researchers compared gains made by Aboriginal and non-Aboriginal students at a tutorial centre in Sydney for older, low-progress readers and found that "the Aboriginal students ... progressed as well as their non-Aboriginal peers" (Wheldall, Beaman, & Langstaff, 2010, p. 14). Evaluations of the program as outlined in *'Mind the Gap': Effective Literacy Instruction for Indigenous Low-Progress Readers, MultiLit* (Wheldall et al., 2010) used quantitative analysis of reading and decoding skills to determine the effectiveness of the program. The study was conducted with Aboriginal and non-Aboriginal students in Years 5 and 6, over an 18-week period. Pre- and post-testing of the students was undertaken using standardised spelling and reading tests. Pre-testing found that all participants were at least two years behind the chronological age for reading. Post-testing found that the participants made highly significant gains in all measures of reading accuracy, comprehension, word recognition, spelling, and oral reading fluency (Wheldall et al., 2010). Wheldall et al. concluded that effective instructional approaches such as those used in MultiLit "can assist students irrespective of cultural background or identity" (Wheldall et al., 2010, p. 14).

Based on a thorough investigation of literacy interventions, the Indigenous leadership of the Cape York Institute in North Queensland, Australia, recommended the implementation of the MultiLit program to address the "literacy crisis" facing Cape York Indigenous communities (Cape York Institute, 2007). The Cape York Institute compared the MultiLit program to other reading programs (Reading Recovery, the National Accelerated Literacy Program, the Yachad Accelerated Learning Project, the

University of Queensland Early Literacy Fundamentals, and University of Queensland Phonological Awareness for Literacy) and found MultiLit to be the superior program. According to the discussion paper, *Improving Literacy in Cape York* (Cape York Institute, 2007), MultiLit "stood out as an evidence-based, remedial program, able to be implemented on a large scale quickly and with a track record of results" (p. 10). Research by the Cape York Institute determined that the MultiLit program had delivered improvements of up to 21.4 months in reading age with students across four sites in Australia (Cape York Institute, 2007).

Based on its favourable assessment of the MultiLit program, the Cape York Institute oversaw the implementation of MultiLit in selected schools across Cape York, Northern Queensland. From 2008 to 2010, the MultiLit program provided a range of interventions at primary schools in Aboriginal communities at Mossman Gorge, Hopevale, Coen, and Aurukun. The aim of the project was to improve the literacy levels of Aboriginal school students so that they were, on average, achieving at, or at least close to, grade level in terms of their reading skills. The project provided a MultiLit Tutorial Centre within each school at the four sites, embedded MultiLit instructional practices across the school by providing professional development to teaching staff within each school, provided intensive training for Education Queensland staff who were redeployed in the Tutorial Centres, and provided an after-school community Reading Club as part of the MultiLit Tutorial Centre. (http://www.multilit.com). Evaluations of these interventions have yet to be released.

Noel Pearson, founder of the Cape York Institute and the Cape York Australian Aboriginal Academy (CYAAA), believes that explicit instruction, as evident in the

MultiLit program, is the most successful way of teaching foundation skills. He also believes that "phonics-based instruction is imperative for Aboriginal students" (Pearson, 2009, p. 53). Whilst Pearson recognised MultiLit as a successful literacy intervention, he was instrumental in replacing it in CYAAA schools (Hopevale, Coen and Aurukun) in 2010, with a whole-of-school literacy and numeracy program, called SRA Direct Instruction, which was imported from the National Institute of Direct Instruction, United States of America. SRA Direct Instruction is a highly scripted program of teaching basic literacy and numeracy (McCollow, 2012). The literacy component focuses on phonemic awareness, phonics skills, fluency, vocabulary and comprehension (Dow, 2011).

The initial introduction of the SRA Direct Instruction program was marred by controversy within the teaching staff at CYAAA schools. The main criticism of the program was its use of American topics, spelling, and imperial measurement; and its dogmatic, inflexible approach to teaching and learning (McCollow, 2012). Dow (2011) and Sarra (2011b) are scathing in their assessment of the SRA Direct Instruction method, in that it excludes teacher and student knowledge from the learning process. Dow (2011) explains how teachers must follow scripted lessons within a strict timeframe and consequently are forced to discourage student-led discussions of vocabulary even when, in the examples she gives, the discussion directly related to the students' Indigenous experiences of country and language. Dow (2011) also expressed misgivings about the appropriateness of the program for students with learning difficulties and those affected by ongoing family violence or illness. Whilst Dow (2011) and Sarra (2011b) see the benefit of conventional direct instruction, they are also clear about the difference between conventional direct instruction and SRA Direct

Instruction. Supporters of SRA Direct Instruction claim success with improved literacy outcomes (McCollow, 2012). However, critics point to a combination of factors, such as small class sizes, increased resources and staff, as influential in ensuring these outcomes (McCollow, 2012; Sarra, 2011b). CYAAA schools supported the implementation of SDR Direct Instruction with a range of measures from increased resources to extra curricula activities and parent/community involvement (McCollow, 2012). Since its introduction in CYAAA schools, Noel Pearson has secured government funding to roll out the program to remote Indigenous communities in the Northern Territory and Western Australia (Walker, 2014). It remains to be seen whether students in these schools benefit from the program.

Adult Literacy Learning

Overview

The following section examines the research behind early adult literacy learning that reflects the findings examined for teaching children to read, as examined in the first section of this chapter. The processes of early literacy learning are discussed in the adult context and findings on Indigenous literacy learning are considered in this discussion. This is followed by an examination of the importance of social context in adult literacy learning, adult learning theory, and finally an outline of the implications for this investigation.

Early Literacy Learning for Adults

Regardless of age, the cognitive processes involved in reading are complex and include the essential skills of word identification, comprehension, and reading fluency, which have been found to link strongly with proficiency in word attack skills developed

from grapho-phoneme knowledge (Nicholson, 1999; Nicholson & Tan, 1999). Clevenger-Bright (2009) extensively reviewed how these processes connect in early literacy acquisition. She noted that phonics instruction using segmenting, blending, and rhyming, combined with developing sight word vocabulary, enhanced accuracy and speed in reading fluency and comprehension. Adult literacy teaching in the last 20 years has to a large extent excluded the teaching of phonics on the basis that it is a childlike approach unacceptable to adult students. However, recent research (Burton, 2011; Kruidenier, 2002; McCaffery, Merrifield, & Millican, 2007) indicates that there is value in teaching spelling strategies that focus on encoding and decoding skills developed from the understanding of sound–symbol relationships and the recognition of grapho-phoneme patterns. The need for phonics instruction in adult literacy settings is supported by US research conducted by the Reading Research Working Group (RRWG). The RRWG was set up by the United States Government to evaluate and identify existing research in adult reading instruction, as the National Reading Panel (NICHHD, 2000) had done in the context of children learning to read. The RRWG found that adult non-readers had almost non-existent phonemic awareness, and adult beginner readers had very poor phonics and word analysis knowledge (Kruidenier, 2002). Their findings indicated that low-level literacy students need explicit, structured teaching in phonemic awareness and word recognition. This approach is supported by international findings on adult literacy learning which claim that, regardless of age, reading and writing require an understanding of phonics and grapho-phoneme patterns to be able to decode in order to read, and encode in order to write (Burton, 2011; Kruidenier, 2002; McCaffery et al., 2007). However, such research has not been undertaken in Australia. Hence, there is a gap in the availability of research on the use of phonics-based teaching of early literacy skills with adult students in Australia.

Although conducted with school students, research in Indigenous literacy learning supports the findings on the importance of word attack skills, reading fluency, and comprehension (DEST, 2010; Rose, Gray, & Cowey, 1998). The comprehensive report by DEST (2010) – *What Works: The Work Program* – affirms the importance of decoding skills for Indigenous students in the development of reading fluency and comprehension. This report claims that working on automatic coding and decoding is an important part of teaching literacy, and many Indigenous students struggle with these processes, which then impacts on their ability to make meaning from readings. On this topic, the report states that: "The ability to automatically recognise and spell words in the English language is never the final goal for any literacy learner, it is nevertheless an important interim goal which should not be overlooked as a means to an end" (DEST, 2010, p. 2). The report further concluded that automatic decoding improves reading fluency and enables readers to pay due attention to making meaning from text.

While reading proficiency is dependent on the technical skills of reading, such as decoding, the primary goal of reading is comprehension (Hattie, 2009; Kruidenier, 2002; NICHHD, 2002). The RRWG report (Kruidenier, 2002) links reading processes to the ultimate goal of comprehension by the following reasoning: comprehension is improved if vocabulary is understood and individual words are recognised. To read individual words the reader must have knowledge of phonics and phonemic awareness in order to decode words. Readers must also be able to rapidly recognise a string of words in phrases and sentences. As Kruidenier (2002) noted, "Fluent reading is crucial to adequate comprehension" (p. 2). The definition of literacy used by the OECD in International Adult Literacy Surveys (IALS) adds a further dimension to the

understanding of adult reading theory: "Literacy in the adult context is: the ability to understand and employ printed information in daily activities, at home, at work and in the community – to achieve one's goals, and to develop one's knowledge and potential" (OECD, 2000, p. x). Implicit in this definition are the importance of reading for meaning and the relevance of content and motivation for the adult learner. Further research on adult literacy learning claims that effective reading and reading instruction for adults cannot occur without student motivation and engagement in the learning process (Dymock, 2007; Gawn, Derrick, Duncan, & Schwab, 2009; Kruidenier, 2002; McCaffery et al., 2007).

The Importance of Social Context in Adult Literacy Learning

Meaning, content, and engagement are aspects of the social context in which learning takes place. The content of literacy instruction is important for adults because it can either alienate or engage the learner. Content that reflects the learner's experience, and holds meaning for the learner, is therefore engaging and motivating. Conversely, lesson content that negates or ignores the learner's experience and values can alienate the learner, leading to disengagement. Extensive national and international research has shown that the social context of literacy learning is intrinsic to the success of learning programs (Barton & Hamilton, 2000; Boughton et al., 2013; Dockery 2013; Eady et al., 2010; Freebody & Luke, 1999; Freire & Macedo, 1987; Kral & Falk, 2004; Kral 2011; Kral & Schwab 2003, 2012). Street (2001) explains that literacy is always practiced in social contexts: "Whether literacy programs are school-based or in adult learning settings, they are inserted into the social beliefs and behaviours of the prevailing social context" (Street, 2001, p. 18).

Social context can have a profound effect on Indigenous students if they feel socially excluded from their learning environment. Cultural differences, language anomalies, and racist attitudes can impact on the social context of learning, resulting in Indigenous students having negative learning experiences as school children and leaving them reluctant to return to formal education as adults. In response to the relatively poor PISA results for Australian Indigenous students, the former director for Education at the OECD, Barry McGraw, noted the continuing educational disadvantage faced by Australia's Indigenous school students and acknowledged the magnitude of the influence of social background on educational achievement in Australia (Fernbach, 2007). The social context of learning can, however, have a positive impact for Indigenous learners if the learning environment, lesson content, and language of instruction acknowledge their beliefs, values, and experiences. Content and the language of instruction have been identified as important factors in motivating learners (Alford & James, 2007; Clevenger-Bright, 2009; Hull, 2003). For at least some Aboriginal students this includes the use of Aboriginal English – the student's home language – as the language of instruction. According to Harrison (2004), recognising Aboriginal English positions the students "as subjects in Aboriginal English rather than objects of Standard English" (p. 11). Findings by the Department of Education, Science, and Technology confirm that engagement needs to be fostered by activities that are linked to the students' real world, including Aboriginal English, which imparts "a sense of self, heritage and culture", and instruction that is driven by "content that strengthens the learner's identity as Indigenous" (DEST, 2010, p. 3). Acknowledgement of and respect for the learner's culture and language strengthens the learners' ability to stand erect in their identity.

International research with Indigenous communities confirms the importance of meaningful learning environments that respect and acknowledge Indigenous languages and culture. According to Beaulieu, Figueira, and Viri (2005), "Educational experiences for both the young and adults of a tribal community require a language and cultural context that supports the traditional knowledge and language(s) of the community as the starting place for learning new ideas and knowledge" (p. 2).

Adult Learning Theory

Adult Learning Theory is defined as "the body of knowledge that comprises what is known about how adults learn" (Sullivan, 2009, p. 14). Adult Learning Theory differentiates between what is known about how children learn and how adults learn. According to leading adult learning theorist Malcolm Knowles (1980), adult learning is contingent on the following four assumptions about adult learners: (a) they are more self-directed than dependent; (b) their accumulation of experiences is a rich resource for learning; (c) their readiness to learn is directly related to the tasks required in their social roles; and (d) they are more problem-centred or performance-centred in learning and thus find internal motivations more powerful than external ones. Knowles viewed these assumptions as critical to the design of educational programs for adults, stressing that the learning environment was of utmost importance to successful adult learning.

Based on Knowles' (1980) understanding of adult learning, the physical learning environment should be one of comfort where the student feels at ease. The psychological environment should be one of acceptance and respect, where the individual is valued and supported by teacher and classmates. Knowles considers that the behaviour of the teacher is the most influential aspect of the learning environment.

He advises that teachers need to be respectful of adult students and value the knowledge and experience they bring to the classroom. Educators, including teachers and program managers, should also be aware that adults have a particular orientation to learning that involves working towards improving their ability to cope with the problems that life presents. In that sense, they are concerned with current problems, such as securing employment or updating their skills to assist their school-aged children. They therefore respond positively to teaching methods that address their practical concerns and are relevant to their experiences and goals. Furthermore, adults' learning is increased by techniques, which involve them in self-directed inquiry.

In summary, Knowles (1980) sees optimal learning environments as consisting of the following attributes: the learner's perceived needs are addressed; the learning environment provides comfort, support, mutual trust, and respect; the learner shares responsibility for planning and operating the learning experience; the learning experience is related to the learner's own experiences; and the learner feels a sense of progress towards their goals. Knowles' theory identifies ideal adult learning environments that respect the learner and their prior experience in developing skills and knowledge that the learner requires.

An area that was not explored by Knowles and is seen by subsequent theorists as crucial to adult learning is the transformative power of learning. Mezirow (1990, 2000) believes that throughout the learning process, adult students reassess their assumptions of earlier years and this enables them to create new meaning schemes. Where Knowles (1980) acknowledges the importance of problem solving skills to adult students, Mezirow (1990) proposes that critical reflection is an extension of problem solving that

leads to a transformation of student beliefs and values. Critical reflection can validate what is known or transform prior meaning schemes and perspectives that are assessed by the student to be non-viable (Mezirow, 1990). The transformation theory of adult education is seen to be critical to emancipatory education and is reflected in Freire's view of empowerment through education. Where Mezirow focuses on transformative learning of the individual, Freire (1972) proposes that value systems of communities can be transformed by adult education programs. Thus, according to Freire (1972), oppressed populations can be emancipated by education, especially socially and politically based literacy education programs. Sarra (2011a) believes that, through education, Aboriginal people have the power to transform the social structures that oppress them. Sarra, however, does not believe that the transformative nature of education is strictly in the domain of adult learning. He proposes that young Aboriginal children should be challenged by their educators to question their beliefs about Aboriginal identity and how their identity is often tied to negative perceptions of their academic capabilities. Sarra contends that Aboriginal school children should be encouraged to reflect positively on their identity and affect change in their behaviour and beliefs.

Implications for the Present Investigation

For Indigenous adults the importance of the learning environment as identified by Knowles is amplified by the reality of Indigenous learning that occurs in institutions dominated by Western methodology and teachers. Issues of comfort, mutual trust, and respect can have a profound impact on students when the learning environment is foreign to their culture (Hanlen, 2010). While research with Indigenous children (DEST, 2010) and Indigenous adults in remote areas (Boughton et al., 2013; Kral &

Schwab, 2012) has shown that these issues are pertinent, there is little information on what is important to Indigenous adults in urban settings. Findings from this investigation are expected to add to understandings of what literacy learning environments urban Aboriginal youth and adults would choose to engage with.

Psychological Theories

Overview

The principles of Adult Learning Theory are reflected in the broader social and psychological theories of self-concept and self-determination. It should be noted that the term, 'self-determination', in this context is not consistent with self-determination of Indigenous populations in their quest for human rights and sovereignty. In the next section an outline of Self-Concept Theory and Self-Determination Theory is provided in order to add depth to the understanding of factors involved in Aboriginal adult literacy learning and to provide the theoretical underpinnings of the present investigation.

Self-Concept Theory

Self-concept is defined as "a person's perception of him- or herself" (Marsh & Shavelson, 1985, p. 107). Enhancement of self-concept throughout the learning process ensures that learning progresses and is enjoyed. It means that a learner's self-esteem and motivation drive the desire to learn more, thus sustaining positive outcomes. Positive academic self-concept can be viewed as an important educational goal in itself, and is noted by researchers as an important component in international best practice in educational interventions to further long-term learning (Craven & Yeung, 2008; Willms, 2003). Academic self-concept can be specific to the field of study (Marsh, 1992) and, according to Craven and Yeung (2008), interventions need to include "a focus on domain-specific dimensions of self-concept most relevant to the goals of the intervention" (p. 276). Thus, reading and writing self-concept is an essential aspect of literacy learning.

Self-concept theory explains that the more learning that takes place, the more self-concept is enhanced and, consequently, the further learning progresses (Marsh & Craven, 1997, 2005). This reciprocal effect is a powerful and sustaining determinant in the learning process. According to Marsh and Craven (2005, p. 3), "improved academic self-concepts will lead to better achievement and improved achievement will lead to better academic self-concepts". Conversely, academic failure will lead to decreased academic self-concept and in turn negatively affect further academic achievement. Knowles (1980) contends that self-concept is important for the adult learner, affecting their learning in positive or negative ways. Often adults can bring with them negative experiences from school, which can lead them to believe that they are inadequate learners. "The remembrance of the classroom as a place where one is treated with disrespect and may fail is so strong that it serves as a serious barrier to their becoming involved in adult education" (Knowles, 1980, p. 23).

Self-concept theory has important implications in the field of adult literacy learning and Aboriginal literacy learning. Munns, Martin, and Craven (2008) claim that anxiety, fear of failure, and disengagement are substantial barriers to motivation for Aboriginal students, and educators need to provide them with educationally valuable, culturally relevant, and enjoyable learning experiences in a respectful environment. Students who have negative school experiences and poor literacy skills may not expect benefits from re-engaging with education and in fact can face social risks, such as embarrassment, in adult education settings (McIntyre, 2007). For adults from educationally disadvantaged backgrounds, the fear of failure can outweigh the perceived benefits of engaging in post-school education, and the reality of failure in an educational setting can have detrimental effects on their sense of identity (McIntyre,

2007). The social risks faced by Aboriginal youth and adults can be a strong deterrent to enrolling in literacy courses, and also present a formidable barrier to the successful implementation of literacy interventions for students who carry the memory of negative learning experiences (DEEWR, 2011a).

For adults, the purpose of learning is a motivating factor, and the purpose must include positive outcomes, including positive effects on self-esteem. According to McCaffery et al. (2007), the purposes attached to learning are defined socially and culturally, and successful learning fosters a sense of self-worth and belonging. It is because of this connection to an individual's or a community's sense of social identity that literacy proficiency is sometimes referred to as empowerment (Kral & Falk, 2004). Consequently, self-concept is particularly important for those Aboriginal learners whose self-esteem is linked to a sense of identity and belonging. Adults derive self-identity from their experiences, and they therefore have a deep investment in its value (Knowles, 1980). If their experiences are devalued in the learning environment then they can feel rejected. Conversely, in learning environments where identity and culture is respected and acknowledged, learning is enhanced. Purdie (2005) found that because Indigenous students have strong cultural and family connections, self-concept was a better predictor of efficacy and academic achievement than for non-Indigenous students.

Congruent with Adult Learning Theory, adult learners are goal-oriented and motivated by the perceived and real benefits of their learning (Knowles, 1980). Dymock (2007) has further identified personal outcomes such as confidence, self-esteem, and identity as benefits of learning for adult literacy learners. While many adult learners come to second-chance education to improve their standing in society through increased

employability, they overwhelmingly claim to benefit from enhanced confidence as a result of their learning experience (Dymock, 2007). Confidence is important to a person's sense of identity. As a student engages in the learning process, positive changes in perceived identity can become a powerful motivating force in literacy learning (Dymock, 2007; Eldred, Ward, Dutton, & Snowdon, 2004; Falk & Balatti, 2003). Further research backs this assertion: "If Indigenous students are to be successful in learning environments their sense of identity needs to expand so that they develop a self-concept that includes an affirmation of themselves as successful readers, writers and speakers" (DEST, 2010, p. 3).

Self-Determination Theory

Self-Determination Theory (SDT) proposes that curiosity and the desire to learn are inherent human qualities that effect motivation (Niemiec & Ryan, 2009). SDT, as it is applied in education, suggests that students have a "basic psychological need for autonomy, competence and relatedness" (Niemiec & Ryan, 2009, p. 134), and that when these concerns are addressed in the learning environment, positive learning outcomes are then enhanced. Conversely, if these needs are not met there is a propensity for students to become disengaged from the learning process, resulting in learning outcomes that may not meet the required standards. In practical terms, the learning environment should enable the adult learner to exercise some control over their learning process, enhance their competence, and relate to their personal experiences, knowledge, and values.

In the education setting, SDT views "autonomy" as referring to when students willingly devote time and energy to learning and are able to make choices about

learning (Ryan, Connell, & Deci, 1985). SDT describes "competence" as when students feel they are able to meet the challenges of their academic work and have confidence in their ability, and "relatedness" as an individual's connectedness to others in the learning environment, Satisfaction of both autonomy and competence is needed for intrinsic motivation. It is not within the scope of this investigation to explore the multi-dimensional aspects of motivation; however, suffice it to say that intrinsic motivation and autonomous types of extrinsic motivation are conducive to positive learning outcomes (Niemiec & Ryan, 2009). Extrinsic motivation can be autonomous when the outcome is perceived to be personally beneficial to the learner rather than an imposed standard with which the learner is required to comply.

Teaching methodology that conforms to a top-down approach – where reporting demands control the learning environment – can deprive students of motivation based on their natural propensity for learning and developing knowledge. In so many educational settings today, the pressure to achieve specified outcomes excludes effective, student-centred teaching approaches, to the extent that policy makers and managers fail to consider student and teacher motivations, and instead concentrate their resources on specified learning outcomes and accountability (Niemiec & Ryan, 2009). Educators who recognise an individual student's motivation for learning are able to develop the student's knowledge and address their personal experiences and goals. This process implies respect for the student's knowledge, values, and experiences, and this in turn enhances the student's ability to relate to the learning environment. Controlling educational climates can undermine this process and negatively impact on student and teacher motivation (Niemiec & Ryan, 2009).

Competence and relatedness are also intrinsically linked to motivation since students will engage with activities that they can understand and master (Brooks & Young, 2011; Niemiec & Ryan, 2009). Teaching activities, therefore, need to be effective in order for students to feel competent and continue to be motivated to learn. In addition, satisfaction of the need for relatedness facilitates learning. Niemiec and Ryan (2009) contend that an individual accepts as their own the values of those they are connected to and the contexts in which they experience a sense of belonging. Relatedness is deeply connected to the respect demonstrated by the teacher to the student, as well as to the ways in which the teacher values the contributions of the student to learning activities. If the teacher encourages the students in this way they are more inclined to safely explore avenues of learning and unfamiliar content.

In conclusion, the application of SDT within educational settings is important for the engagement and motivation of adult students, to retain them and support their successful completion of study programs. This is significant for adult students, who, in contrast to school students, are voluntary students who can choose whether or not to attend formal education and engage with learning opportunities.

Implications for the Present Investigation

Optimal learning environments as outlined by the theories examined in this chapter are of utmost importance for Aboriginal learners. Evidence outlined in this chapter indicates that learning environments that incorporate respect and inclusion of Aboriginal culture and enhance self-concept and identity are crucial to successful learning programs with Aboriginal students. In order to address the disengagement of Aboriginal youth and adults with traditional learning settings, a deeper understanding of

issues of concern to Aboriginal learners can be gained from the insights of urban Aboriginal youth and adults as will be explored by the current investigation.

Innovative Indigenous Adult Literacy Programs

Overview

This section will examine successful and innovative examples of Indigenous adult literacy practices in remote Indigenous communities. The first case is an Aboriginal adult literacy campaign in northwestern New South Wales. The second case is an ethnographic study of Aboriginal community-led projects in remote areas of Western Australia and the Northern Territory, which examines the role played by technology in literacy and learning. This section is followed by an examination of the role played by technology in Indigenous learning environments.

Yes I Can – An Aboriginal Adult Literacy Campaign

The *Yes I Can* adult literacy campaign is based on the adult literacy intervention model developed in 2000 by the Institute of Pedagogy in Latin America and the Caribbean (IPLAC), Cuba. Known internationally as *'Yo Si Puedo'*, it has since assisted more than six million people in 28 countries to learn to read (Boughton et al., 2013).

The *Yes I Can* adult literacy campaign has recently been introduced (2012–2014) into the remote Aboriginal communities of Wilcannia, Bourke, and Enngonia in northwestern New South Wales, Australia. The *Yes I Can* pilot was initiated in 2012 in Wilcannia by the National Aboriginal Adult Literacy Campaign Steering Committee (NAALCSC) and managed by the University of New England, working in partnership

with the Wilcannia Local Aboriginal Land Council. This initial pilot had a 66.7% completion rate, with 16 participants completing from 34 starters. All participants who completed the program reached the minimum standard of being able to write a short personal letter about themselves (Boughton et al., 2013). Following its success in Wilcannia, the campaign was implemented in Bourke and Enngonia in 2013, with plans to expand its delivery to other Aboriginal communities in the future.

Yes I Can is referred to as an adult literacy 'campaign', rather than as a 'program' or 'intervention', because it involves the mobilisation of the whole community towards an awareness of the importance of literacy to the health and wellbeing of the community. Its success is dependent on the involvement of community members in setting up and running the program so that it functions as a true community development project. Furthermore, *Yes I Can* is contingent with the principles of Self-Determination Theory, in that its basis is connectedness to others (by its involvement of the community) as well as autonomy, as participants become self-motivated through the encouragement and support from the community. Competence is also an important factor, as indicated by the support given by facilitators and fellow students to assist all participants complete the specified lessons.

Yes I Can is comprised of three phases (Boughton et al., 2013):

1. The first phase involves the mobilisation of as many community members as possible – learners, teachers, organisers, and supporters – as well as government and non-government agencies, to become involved in the support and implementation of the campaign. This phase also involves learners self-identifying their literacy skills through a community-wide survey.

2. Throughout the second phase, non-literate and low-level literate members of the community participate in non-formal lessons conducted by non-professional community leaders with the assistance of professional adult literacy advisers. The participants are given a set of 64 basic literacy lessons over a period of 12 weeks. The minimum requirement after this period is that the learner should be able to write a short letter about his or her own life.

3. The third phase involves the participants in post-literacy activities organised by the community or local government, where possible. Situations are sought where the newly literate develop their literacy skills, often enrolling in basic education or vocational courses, or engaging in employment. The aim of the post-literacy phase is to embed literacy practices into the social activities of the participants.

Boughton et al. (2013) claim that the first phase of the *Yes I Can* campaign is of utmost importance because it positions literacy as the responsibility of the community rather than of the individual. The campaign highlights the importance of literacy to the wider economic and social goals of the community, thus linking literacy strongly to social needs and processes (Boughton, 2013; Freebody & Luke, 1999). In this sense, the campaign is a community development project and conforms with Ife's (2009) contention that, among other services, educational programs need to be community-based services that are mindful of the human element of development. The second phase of *Yes I Can,* whereby literacy lessons are delivered by community leaders rather than literacy teachers, supports Ife's view (2009) that programs that value wisdom, knowledge, and skills in communities foster self-reliance. Throughout the campaign there is reciprocated consultation whereby the community team advises the literacy professionals on content and delivery, and the literacy professionals advise the

facilitator on aspects of the students' literacy development. These activities are also congruent with aspects of both Adult Learning Theory and SDT. The strong community focus means that the community takes ownership of the project: it is community- and learner-driven education that encompasses relatedness.

The Wilcannia pilot of the *Yes I Can* campaign was assessed by an independent consultant, using the ACSF scales in the pre- and post-testing of learners. Results indicated that participation in the campaign had allowed learners to progress from ACSF Pre-Level 1 and Level 1 to ACSF Level 2 in learning, reading, and writing (three of the five core skills on the ACSF scale). In terms of reading and writing, this indicates that students went from building knowledge of words to reading and writing simple sentences (Boughton et al., 2013). The assessor concluded that one of the values of the campaign was that students developed important learning skills, which underpin the ability to develop all other core skills. Boughton et al. (2013) concluded that learners developed a belief in their own ability to learn and to change their lives, and this underpinned the development of learning skills. In this sense the campaign reflects the reciprocal effects of self-concept (Marsh & Craven, 1997, 2005), whereby the learner's increased literacy self-concept increases literacy achievement, which further enhances literacy self-concept. Confidence building is a significant outcome for the learners involved in the *Yes I Can* Aboriginal adult literacy campaign. In the words of Bob Boughton (Boughton & Seaborn, 2013):

> One of the most dramatic impacts is the way it builds people's confidence in
> their capacity to learn and to join that world where literacy is the coin. If a
> person didn't go to school or felt they didn't have the capacity to learn, this is a

really simple step, which allows people to realise, they do have the capacity to learn.

This innovative project, new to the Australian literacy landscape, has the potential to change the lives of many low-literate Aboriginal adults in communities across Australia. The evidence has established that through participation in the *Yes I Can* campaign, community members with low literacy do improve their literacy levels (Boughton et al., 2013), with accompanying increases in their self-confidence. Access to appropriate adult education programs in these remote areas would ensure the continuation of literacy learning for the *Yes I Can* participants.

Media-driven Learning in Aboriginal Communities in Western Australia and the Northern Territory

Kral and Schwab undertook extensive ethnographic research of learning experiences within remote Aboriginal communities in the Northern Territory (NT) and Western Australia (WA) over a period of three years during 2007 to 2010. Their studies involved Aboriginal youth in six remote communities across NT and WA, and explored the dynamics in youth enterprises such as film and music production, art workshops, and community-development programs. Their collaborative ethnographic research methodology involved participant observations, writing field notes and audio-visual recordings, gathering contextually relevant artefacts, and conducting informal interviews. Kral and Schwab (2012) discovered that all the youth projects they observed involved the use of technology and digital media, and were accompanied by language and literacy development.

In her reporting of observations from these studies, Kral (2011) found that Aboriginal youth in remote communities are "fearless with technology" (p. 9) and enthusiastically engage with community-based programs that incorporate it. Kral (2011) reported that even those with low-level English literacy were able to use digital devices like cameras, MP3 players, and smart phones. They were using editing software such as iMovie, GarageBand, and Final Cut Pro to produce DVDs and videos, and uploading these self-produced videos onto YouTube. In doing so, Aboriginal youth are exploring and mastering new forms of communication and, as a consequence, enhancing their literacy skills and confidence. According to Kral (2011, p. 8), the youth "are less 'shamed' when singled out"; they are comfortable with seeing their images and hearing their voices in multimedia platforms. Furthermore, Kral (2011) reports that there is increasing support by community Elders for the proficiency of the youth in leading a cultural and social transformation of the community through new media practices. Elders were respectful and appreciative of the role of young people in making contributions to the continuity of culture by their engagement with technology in recording history, stories, and song.

Another significant change brought about by the proficiency of Aboriginal youth with IT and digital media is the shift in control over the recording of social and cultural practices. Kral (2011) reports that young people, within the remote Aboriginal communities she observed, now have the capacity to record social and cultural practices, rather than researchers and anthropologists who are most commonly from outside the community. Such activity reflects the "positive manner in which Indigenous youth are interpreting and responding to contemporary circumstances with creative agency" (Kral, 2011, p. 12). For communities that are often judged as "failing" in

economic terms, this is a formidable step towards self-determination. Moreover, in these communities there is a shift in the way knowledge and skill are developed. Formerly, the acquisition of Western knowledge was confined to the realm of educational institutions and workplace organisations, which are controlled by non-Indigenous people. New technologies and their increasing availability now put the control of learning in the hands of the individual and community.

Kral and Schwab also emphasise the importance of the learning environment:

Our research shows that it is critically important that young adults have access to learning spaces where they have control over the physical space, and the time and the resources to acquire and practice relevant, new skills essential for productive activity (2012, p. 95).

These informal "learning spaces", such as youth centres, libraries, and arts centres, provide access to digital learning that takes place in a communal and collaborative setting, enabling independent learning, connectedness, and competence. Interaction with media provides young people with an autonomy that is less apparent in the classroom setting. Their efforts are largely self-directed, and informal learning occurs through intrinsically motivated sessions with peers and mentors, demonstrating the value and importance of both the social relatedness and autonomy in such learning environments – the underpinnings of SDT. The focus of learning activities in these project-based environments, as opposed to educational institutions, is thus shifted from the deficit model of learning, with literacy learning situated and embedded in social activities (Balati, Black, & Falk, 2009), and importantly, learning is incorporated into

the community context in which people reside. Kral and Schwab (2012) highlight the importance of community support for the youth projects where learning is occurring. In similar ways to *Yes I Can*, the learning environment is of utmost importance. Kral and Schwab (2012) contend that the community must value the program and have a sense of ownership. The community should control access to the learning spaces and technologies in the learning spaces and this should be supported by the young people involved in the learning activities. Ideally, the involvement of non-Indigenous staff, as mentors or subject experts, should be collaborative rather than "top-down" (p. 101). Again, similarly to the descriptions of *Yes I Can*, the involvement of non-Indigenous professionals should be dependent on their respect for the language(s) and culture of the community and their willingness to have an ongoing relationship with these aspects of community life.

Kral and Schwab's extensive study indicates that Aboriginal youth are not rejecting learning. Instead, when alternative learning opportunities are provided, young people are "participating and successful outcomes are being attained" (Kral & Schwab, 2012, p. 4). As contemporary youth, their learning experiences are powered by IT, reflecting their connection to a global world. The results of this study showed that learning has also resulted in some "important social outcomes: a positive sense of identity, the development of and transition to mature roles and responsibilities, an increased sense of confidence in engagement with the outside world and an enhanced quality of life" (Kral & Schwab, 2012, p. 11). It is evident that the social risk of learning is negligible when the learner is proficient at using information and communication technology. This is why it is a valuable engagement tool.

The learning environments described by Kral and Schwab reflect the aspects of SDT – autonomy, competence, and relatedness – that are important to adult learning settings. Their studies show that community-driven learning provides environments in which learners connect with each other, have control over the learning activity, and are supported to learn worthwhile skills.

The following section outlines the increasing importance of technology-driven learning and examines educational initiatives in a range of Indigenous adult learning settings that focus on the use of technology. Information in this section highlights how the ongoing advances in technology and their increasing affordability are opening up opportunities for literacy learning through innovative programs that enhance individual empowerment as well as community development.

Innovative Literacy Learning Using Information Technology

The literacy demands of today's modern society require more than "basic reading and writing, more than listening and speaking for rudimentary communication and more than how to view and represent our knowledge through media" (Campbell & Parr, 2013, p. 136). Successful participation in today's technology-driven world requires complex communication skills via social networking, texting, and online communication, and interactivity through written, visual, and oral texts. Current research findings indicate that teaching methodologies need to embrace technology to be meaningful to a modern audience (Walsh, Lemon, Black, Mangan, & Collin, 2011; Warschauer, 2003). Educators must find ways to engage with a future in which traditional learning environments are likely to be transformed into multimedia hubs. The children and youth of today have grown up in a media-rich environment and expect

to engage with technology in all areas of their lives. They communicate through technology and thrive on exploring and learning through new technology. Aboriginal youth live in the same world, and are as contemporary and technologically savvy as their national and international peers. In addition, Indigenous youth in remote Australia are leading the digital revolution in their communities (Kral & Schwab, 2012; Langton, 2013).

Emerging evidence indicates that the use of information technology (IT) may have a "significant impact on the education and training of disengaged young learners" (Walsh et al., 2011, p. 4). It is an international phenomenon that youth, in both developing and developed countries, are learning through technology (UNESCO, 2011; Warschauer, 2003). Warschauer (2003) concluded from his studies on engaging youth in education programs: "Information and communication technology initiatives often have a powerful leveraging potential" (p. 212). Studies with Australian Indigenous communities also indicate that technology is impacting in a positive way on learning outcomes (Eady et al., 2010; Guenther & Tayler, 2008; Kral, 2011; Kral & Schwab, 2009, 2012; Walsh et al., 2011; Young, Robertson, Sawyer, & Guenther, 2005).

Further studies have found that Indigenous youth are competent users of IT and are receptive to learning from online resources (Eady et al., 2010; Walsh et al., 2011; Young et al., 2005). One of the reasons offered is that such resources provide flexible learning opportunities. Self-regulated and self-directed learning has been shown to have a direct and positive effect on the engagement and retention of young learners (Walsh et al., 2011). This is supported by wider research demonstrating that the use of IT in schools can enhance a learner's academic performance, motivation, engagement,

independence, and self-management (Barker & Gardiner, 2007; Pasey et al., 2004, in UNESCO, 2011; Schmitt & Wadsworth, 2004). For example, Eady and Woodcock's study of synchronous digital learning (2010) found that e-learning programs have been successful with Indigenous students across a range of vocational courses, such as governance, business, and pre-vocational mining courses. Similar results have been found internationally. In a three-year (2001–2004) project that examined mobile learning, it was found that unemployed, underemployed, and homeless youth improved their literacy and numeracy skills when provided with mobile phones offering lessons such as language courses (UNESCO, 2011).

It is understandable that many students, especially youth, are drawn to IT to enhance their learning because of the confidence they feel in using technology, the convenience of use, and the enjoyment they get from interactive software. Their proficiency and familiarity with IT and aptitude for engaging with computer software ensures that they are able to bring experience and capacity to the act of learning, thus enhancing self-confidence. Research has found that Indigenous youth in remote Australia are exhibiting ingenuity and innovation with information and communication technology and are in a position to benefit from the opportunities available in multimedia projects in their communities (Kral & Schwab, 2012; Langton, 2013). Indigenous media organisations play a vital role across Australia, communicating news, education, information, and entertainment. Local and regional media services provide opportunities for Indigenous youth in training and employment within the expanding IT industry (Langton, 2013).

Because of the huge distances between commercial centres and communities, digital media has played an important role in delivering education and training in remote Indigenous communities in Australia. E-learning and internet-based resources have been integral to Aboriginal and Torres Strait Islander health worker education for many years. Research by El Sayed, Soar, and Wang (2012) indicates that the development of IT learning materials is fundamental to the improvement of Aboriginal and Torres Strait Islander health worker education, and thus essential to the provision of quality health care to Indigenous Australians. Their study found that IT resources had the potential to incorporate aspects of culture in an accessible and appropriate format to enhance learning outcomes. Eady et al. (2010) found that computer technology enables the incorporation of culture and builds on learner strengths, including visual, oral, and spatial skills, and thus is a valuable resource in enhancing literacy lessons. "In working with technology, people can also work in culturally appropriate and supportive trans-generational groups and focus on sharing their knowledge" (Eady et al., 2010, p. 278).

In remote Aboriginal communities, digital technology has also been significant in securing intergenerational transmission of traditional Aboriginal knowledge (Christie, 2005b; Ormond-Parker et al., 2013). Projects like the development of Ara Irititja software, initiated by the Anangu people in Northern Territory, have enabled Aboriginal communities across Australia to digitally archive their histories, music, songs, and artwork for access by future generations in their communities (Ormond-Parker et al., 2013). At a recent Information Technologies and Indigenous Communities symposium (Ormond-Parker et al., 2013), a statement on key issues noted the critical importance and relevance of IT for Indigenous youth. It highlighted the opportunities for youth to

meaningfully engage in learning, cultural production, enterprise generation, and employment pathways.

There is an increasing number of education providers, especially in remote and regional Australia, that focus on multimedia- and internet-based resources for implementation with their Indigenous clients. Charles Darwin University (Northern Territory), The Learning Workshop (Queensland), Edith Cowan University (Western Australia), Swinburne University of Technology (Victoria), New England University (New South Wales), Anangu Pitjantjatjara Yankunytjatjara (APY) Lands South Australian TAFE, Open Training and Education Network (OTEN) New South Wales TAFE, James Cook University (Queensland), and Southern Queensland University have all developed digital resources for use with their Indigenous students. The website Australian Indigenous HealthInfoNet, produced by Edith Cowan University, Western Australia, develops internet-based information sheets and multimedia resources for Indigenous health professionals and health educators. The HealthInfoNet website contains several thousand web pages covering a range of health issues, preventative health messages, and instructional material for health workers (Burns, 2009). Another successful multimedia resource used in Indigenous health is IBERA (Indigenous Body Educational Resource Animations). Medical services and educational institutions across Australia have found this digital resource a powerful teaching device for their Indigenous health students and health workers.

In a world where digital media and all its forms are part of the daily lives of many people, including those belonging to disadvantaged groups, it seems reasonable to assume that e-learning will become the medium of learning for Aboriginal youth and

adults. The National Foundation Skills Strategy for Adults, 2012 has predicted that the increasing availability of high-speed broadband has "the potential to significantly increase the reach, availability, quality and convenience of adult foundation skills learning opportunities for adult Australians" (SCOTESE, 2012, p. 15). It remains to be seen what innovative IT resources are developed in the future by educators who take advantage of this situation to engage Aboriginal youth and adults in literacy learning.

Implications for the Present Investigation

In order to address the continuing education disparity, new strategies need to be developed to engage Aboriginal youth and adults in valued learning experiences. There are a range of innovative community education programs, as outlined in this chapter, that successfully address the educational and social needs of Indigenous youth and adults. However, more exploration needs to be done on ways to engage different cohorts, in different regions of Australia, in meaningful adult literacy learning. The present investigation contributes to addressing the need to provide meaningful education by developing an understanding of the features of engaging and effective literacy programs for urban Aboriginal youth and adults. The implications for this investigation lie in the elucidation of the ways in which urban Aboriginal youth and adults might best connect to learning materials, teaching styles, and technology to meet their literacy needs and goals.

Summary

This chapter has explored the theories on early literacy acquisition for children and adults. Recent meta-analyses of the teaching of reading in the primary school years in the United States, United Kingdom, and Australia have been discussed in the context

of the recent changes in teaching methodologies in these countries. Findings from this research have been examined in the context of adult learning and their implications for early literacy acquisition in adult years. Adult Learning Theory, Self-Concept Theory, and SDT have been discussed, providing a theoretical basis for the current investigation. Research findings related to innovative literacy projects in Aboriginal communities have also been described and examined in order to determine their effectiveness and their connection to the theories previously discussed. Finally, innovative initiatives in the delivery of literacy programs within Australian Indigenous communities, and the importance and relevance of digital learning and all the potentials it offers, have been outlined. Consistent with the theories and research presented in this chapter, the optimum conditions for adult literacy learning have been examined for Aboriginal learners, and will be further explored for urban Aboriginal youth and adults through the current investigation.

CHAPTER 4

AIMS, RESEARCH QUESTIONS, AND THEIR

RATIONALE

Introduction

This chapter will summarise the research problem, and present the overarching aims of the study, the research questions, and the rationale behind the development of the research questions. First the research problem is presented, followed by the aims of the investigation. The aims, research questions, and corresponding interview questions are then clearly set out in Table 4.1, which shows each aim and matching research question and interview question, numbered and aligned so that the aim and question to which it relates can be clearly identified. This is followed by a statement of each research question and the rationale behind that question. Finally, a summary of the chapter is presented.

Statement of the Problem

There is an urgent need to improve the education standards and literacy levels of those Aboriginal youth who leave school without adequate literacy skills, so that they can participate successfully in Australia's literature-rich society, where text pervades almost all social and economic activities. Government reports and research findings have clearly shown the negative impacts that poor literacy skills have on Aboriginal people, their families, and their communities (Boughton, 2009; Dockery, 2013;

FaHCSIA, 2009; SCRGSP, 2011; SCOTESE, 2012). Consistent with these findings, the *Closing the Gap* report (Commonwealth of Australia, 2008a) prioritises the improvement of education standards of Indigenous Australians in order to improve their opportunities for employment and to elevate the standard of living, health, and life expectancy of Aboriginal people. Research also suggests that many Aboriginal youth and adults are disengaged from formal learning and employment-focused courses that ignore their world and their motivations (Eady et al., 2010; Kral, 2011; Kral & Schwab, 2012). The engagement of this cohort in literacy learning must necessarily take into account their views on learning, and the onus is on educators to instigate innovative teaching methods and to promote positive learning environments.

Aims

The aim of this study was to express the narrative around literacy learning from the experiences of urban Aboriginal youth and adults in order to understand literacy issues from their perspectives. According to Silverman and Marvasti (2008), qualitative research, such as in this investigation, can develop on a continuum from formal theory to data analysis that does not attempt to make universal generalisations but elucidates the issues raised in similar studies. Thus, the questions asked of participants in this study are designed to give background to theories developed from research findings noted in the literature review of this thesis (see Chapters 2 and 3). The premise of this research is that literacy programs are best placed to build on the strengths of the intended audience, and need to be designed to address their perceived needs in an engaging and culturally appropriate learning environment. This project therefore aims to identify what urban Aboriginal youth and adults think are the best ways to improve their literacy skills.

The overarching aim of this research project was to elucidate the perceptions of Aboriginal youth and adults regarding the most appropriate means of improving their literacy skills. To address this overarching aim, this study specifically aimed to elucidate participants' perceptions of: their own literacy strengths and weaknesses, the perceived causes of any literacy difficulties they experience, ideal learning environments, favourable aspects of computer-based literacy learning, and intention to use a computer-based literacy program.

Table 4.1 outlines the research questions and the interview questions alongside each relevant research aim.

Table 4.1

Aims, Associated Research Questions and Interview Questions

Aims	Associated Research Questions	Interview Questions
1. To elucidate Aboriginal youth and adults' perceptions of their literacy strengths.	1. What literacy skills do Aboriginal youth and adults perceive as their strengths?	1. What reading and writing skills do you think you are good at? Examples: Reading signs, reading timetables, reading school notes, reading magazines, reading words on TV ads & shows, reading shopping labels, spelling, using computer programs, YouTube, iTunes, IT games, phone apps, texting, writing emails, Facebook.

2. To elucidate Aboriginal youth and adults' perceptions of their literacy weaknesses.	2. What literacy skills do Aboriginal youth and adults think are their weakest?	2. There are different skills involved in reading and writing. (Give examples.) What would you like to improve the most? Examples: Spelling, reading newspapers, web pages, magazines, books, government letters & forms, writing sentences, filling out forms, writing emails and notes.
3. To elucidate Aboriginal youth and adults' perceived causes of any literacy difficulties they experience.	3. If they had difficulties learning to read and write, what do Aboriginal youth and adults perceive as the reasons for these difficulties?	3. Did you have any difficulties learning to read and write at school? If so, what things caused you difficulties?
4. To elucidate Aboriginal youth and adults' preferred learning environment.	4. What learning environments would engage Aboriginal youth and adults in improving their literacy skills?	4. If you were to improve your reading and writing, what do you think is the best way for you to learn? Examples: Enrolling in a literacy class (TAFE, youth group, job centre etc.), using a computer program, a phone application, working with a one-on-one tutor, studying a vocational course.

5. To elucidate perceptions of the favourable aspects of a computer-based literacy learning.	5. What aspects of a computer-based literacy program do Aboriginal youth and adults think would help improve their literacy skills?	5. What aspects of a computer-based literacy program would help you improve your reading and writing skills? Examples: Interactive media, using a screen, convenience, personal use, etc.
6. To elucidate Aboriginal youth and adults' intention to use a computer-based literacy tool.	6. Would Aboriginal youth and adults use a computer-based literacy program?	6. Do you think you would use an interactive IT program to improve your literacy skills?
7. To establish the desired features of a computer-based literacy program as perceived by Aboriginal youth and adults.	7. What features of an IT program are appealing to Aboriginal youth and adults?	7. What type of features would you like to see in an interactive IT program that teaches reading and writing? Examples: Videos, games, puzzles, writing sentences, matching words and symbols, writing sentences, spelling, Aboriginal art, music and language, Aboriginal English.

Statement of the Research Questions and Their Rationale

Research Question 1: Perceptions of Literacy Strengths

Research question 1 posed: What literacy skills do Aboriginal youth and adults perceive as their strengths? Strength-based practice is seen as a successful teaching model for adult education practitioners (Waterhouse & Virgona, 2008), especially adult literacy practitioners (Black & Yasukawa, 2011). Practitioners who build on the strengths of students build on their confidence and in doing so facilitate and enhance the

learning process (Black & Yasukawa, 2011; Knowles, 2008; Waterhouse & Virgona, 2008).

Furthermore, in identifying student strengths, much can be revealed about how those strengths developed and how practitioners can use this knowledge to make their lessons relevant and motivating. "Strength-based practitioners begin by trying to see the world through the client's eyes" (Waterhouse & Virgona, 2008, p. 24), with the aim of highlighting the student's strengths in order to develop them as the basis for subsequent knowledge growth (Waterhouse & Virgona, 2008). This question was therefore posed to elucidate which of their literacy skills were seen as strengths by the participants. These areas can be used as relevant starting points for literacy instruction and in pivotal points in a literacy learning program. In addition, responses to this question will also have implications for understanding appropriate learning environments and incentives linked to the development of particular skills, which have been nominated as strengths by the participants. Research has shown that learning environments are critical for engaging disadvantaged groups (Eady et al., 2010; UNESCO, 2011; Waterhouse & Virgona, 2008).

This question was also posed to elucidate the differences between the perceptions of literacy strengths of the younger and older participants. From the responses, inferences can be made as to differences and similarities in successful early literacy instruction and social practices that enhance literacy development for members of both age groups. Information gleaned from this question will also provide insights into the type of literacy skills urban Aboriginal youth and adults are using with confidence and practicing in their daily lives.

Research Question 2: Perceptions of Literacy Weaknesses

Research question 2 posed: What literacy skills do Aboriginal youth and adults think are their weakest? Research from national and international studies (see Chapter 2) has found that Indigenous Australians have proportionally lower literacy levels compared to non-Indigenous Australians. Furthermore, PISA 2009 results (Thomson et al., 2011) have indicated that there are proportionally less Indigenous students with advanced literacy skills. These studies found that there is a substantial under-representation of Indigenous students at the higher end of the reading literacy proficiency scale. Only 2.4% of Indigenous students reached Level 5 and there were even fewer Indigenous students (0.3%) who were placed at Level 6 (Thomson et al., 2011).

The intention behind asking this question is to gain specific information about the types of skills participants think they need to improve in order to be adequately literate in today's world. The literature review of this thesis has highlighted literacy skills that are considered by practitioners to be fundamental, such as encoding and decoding skills, comprehension, and fluency (Hattie, 2009; Kruidenier, 2002; NICHHD, 2002). However, little is known about which skills urban Aboriginal youth and young adults' perceive to be important to them.

This question was also posed to gain an understanding of the differences in literacy weaknesses between the younger and older group. Literacy teaching methodology has changed dramatically over the last 40 years, and data from this question and question 1 could highlight the successes or failures of the dominant

literacy education policies of those times. While specific information was not sought on the teaching methodologies or school practices experienced by participants, it may be assumed that the older participants, whose age range was 32–52 years, are less likely to have been taught reading and writing according to the whole-language method (see Chapter 3). Importantly, the teachers of the older group would not have been taught according to whole-language theories either, and would therefore have background knowledge of phonics-based explicit instruction. Research (Knapp & Watkins, 2005) has shown that it is the teachers who were schooled in the 70s through to the 90s who struggle with teaching the technical skills of reading and writing, especially grammar. This question sought to highlight any differences with the perceived literacy weaknesses of younger and older participants and draw implications from that data in response to these issues.

The data obtained from this question can provide insights into areas of weakness that may be valuable to researchers and educators, by indicating problem areas and aspects of literacy learning that could be included in literacy programs. There is a general lack of data on adult literacy skills in Indigenous communities (Boughton, 2009; Kral & Schwab, 2004), and while this investigation does not test the literacy skills of the participants, research questions 1 and 2 seek to add to the understanding of literacy skills and literacy needs of urban Aboriginal youth and adults, from their perspective.

Research Question 3: Reasons for Poor Literacy Skills

Research question 3 posed: What do Aboriginal youth and adults perceive to be the reasons for any difficulties they had learning to read and write at school? The ability to read and write has profound implications for the social, economic, and cultural aspects of an individual's life. According to Kress (2005, p. 7), "The ability to communicate fully is the single most significant prerequisite for full participation in social, economic, and cultural life." Some of the participants in this investigation may have experienced barriers to satisfactory socioeconomic participation due to their poor literacy skills. As youth and adults, it is expected that the participants in this study would be aware of the implications of not learning to read and write proficiently in their school years and would be open to considering and discussing the reasons for this.

The rationale for this question is therefore to allow the participants to elucidate any childhood experiences of education that they felt affected their literacy learning. In order to inform theory and practice, it is necessary to understand the reasons why some participants may feel they did not learn to read and write adequately at school. This information is crucial in designing and implementing literacy interventions, as it provides an understanding of student concerns and issues that could present a barrier to learning. In addition, it is important to gain information on positive learning experiences from any participants who felt they were successful learners at school. This question was posed to illuminate some of the differences between positive and negative literacy learning experiences in the participants' schooling. Inferences can also be made as to any school experiences that were related to the age of the participant, highlighting similarities or differences in school education practices.

Research Question 4: Engaging Learning Environments

Research question 4 posed: What learning environments would engage Aboriginal youth and adults in improving their literacy skills? Research (Knowles, 1980) has shown that the learning environment is of utmost importance to the learner, especially adult learners. Because adult students are voluntary students they can choose whether or not to engage with formal education. Research (De Bortoli & Thompson, 2009; MYEECTYA, 2006) has shown that students need to feel comfortable and motivated in their learning environment in order for them to successfully engage with learning.

For many people, achieving some degree of self-efficacy is essential if they are to remain engaged in their learning and achieve successful learning outcomes. Research within Indigenous communities indicates that disengagement from Western-style education and training programs is common and is often the reason behind poor outcomes and completion rates (DEEWR, 2008; DEST, 2006, 2010; Eady et al., 2010; Kral & Falk, 2004; Kral & Schwab, 2012; McGlusky & Thaker, 2006). Motivating and meaningful social activities were found to be the key to successful learning outcomes in studies undertaken by Kral and Schwab (2012). They found that youth in remote Aboriginal communities were developing language and literacy skills through "interest-driven projects" in stimulating learning environments (Kral & Schwab, 2012, p. 40; also see Chapter 3). Hence a research question was posed to explore this issue for urban Aboriginal youth and adults.

The main rationale for this question is the need to determine if urban Aboriginal youth and adults are open to learning in different settings (e.g., traditional learning

settings, in vocationally orientated courses, or in community-based programs). The confidence gained from learning in a familiar and non-threatening environment has been found to enhance further learning (Knowles, 1980; Marsh & Craven, 2002). The responses to this question may offer further support for these concerns or reveal other issues about the learning environment that are more important to the participants of this investigation. This open-ended question was designed to allow the participants to express their personal preferences with regard to literacy learning environments and for the researcher to draw conclusions from this data to further understandings about optimal learning environments for urban Aboriginal youth and adults.

Research Question 5: Desirable Aspects of Computer-Based Literacy Learning

Research question 5 posed: What aspects of computer-based learning do Aboriginal youth and adults think would help improve their literacy skills? Research (Christie, 2005a; Eady et al., 2010; El Sayed et al., 2012) has shown that there are many aspects of IT learning that Indigenous students find conducive to learning. While anecdotal evidence and research findings (Kral & Schwab, 2003, 2012; Ormond et al., 2013) indicate that Aboriginal youth engage enthusiastically with interactive multimedia platforms, it may not necessarily mean that they believe using a computer-based program would be a suitable medium to improve their literacy skills. Furthermore, the propensity to use technology for learning may not be salient only for youth. Hence, this question will give insights into the experiences and attitudes of older participants towards technology-based literacy learning and enable a comparison between the responses of the two age groups.

The rationale behind this question is to establish what aspects of computer-based technology are suited to learning to read and write, as viewed by the participants. Information technology is opening up a range of education opportunities to Indigenous students, as explored in Chapter 3. It is expected that responses will indicate how urban Aboriginal youth and adults view technology and what aspects they see as engaging and enhancing for literacy learning.

Research Question 6: Intentions to Use a Computer-Based Literacy Tool

Research question 6 posed: Would urban Aboriginal youth and adults use a computer-based literacy program? This question is designed to establish the participants' intention to learn literacy using a computer-based program. Technology and multimedia resources are increasingly seen as a door to engagement with today's students, who are confident and motivated in communicating through technology (Walsh et al., 2011; Warschauer, 2003). Kral & Schwab (2009, 2012) found that remote Aboriginal youth confidently communicate through the latest technology and engage with the same multimedia devices, which are used to entertain and educate mainstream populations. This question adds a new dimension to the research by considering the propensity for urban Aboriginal youth and adults to use a computer-based literacy tool by gauging their intention to use a hypothetical program.

Responses to this question will also provide a comparison between the younger and older participants as to their readiness to use technology to improve their literacy skills. While both age groups live in the same technology-driven world, the younger participants may feel more comfortable using IT to further their learning. Research (Walsh et al., 2011; Warschauer, 2003), has indicated that the younger generation are

keen to learn through the medium of technology and expect learning programs to include digital learning.

Research Question 7: Desired Features of a Computer-Based Literacy Program

Research question 7 posed: What features of a computer-based literacy program would be appealing to the participant? Research has shown that there are many features of technology-based learning that are beneficial and appealing to Indigenous students (El Sayed et al., 2012). The flexibility and privacy of IT learning, along with its interactivity and capacity to combine visual and audio effects with text, are features that have been found to enhance learning for Indigenous students (Eady et al., 2010; El Sayed et al., 2012)

The rationale behind this question is to elucidate the features of a computer-based program that participants feel would engage them in literacy learning. An important outcome to this question is the valuable insights that can be gained into the types and styles of multimedia applications that are attractive to Aboriginal learners. As a consequence, examples of the visual and audio effects favoured by the participants in this investigation could be used in developing innovative learning programs.

Summary

This chapter has presented a summary of the problem under investigation, the aims, the research questions, and their rationale. Table 4.1 outlined these aims, the research questions, and the corresponding interview questions. The series of open-ended interview questions, with examples for the participants to consider, was directed by findings in the literature review and were developed to address the aims of the research

project. This chapter explains how this investigation attempts to add to the understanding of what matters to urban Aboriginal youth and adults on a range of issues connected to literacy learning. The following chapter describes the methodology that was designed to rigorously test the aims of the study and the research questions proposed in this chapter.

CHAPTER 5

METHODOLOGY

Introduction

This chapter presents the methods employed to investigate each of the aims outlined in Chapter 5. It provides a rationale for the use of qualitative methodology and the framework applied to plan and conduct the research. The research context is discussed, including the means by which organisations and individuals were approached to participate in the research project. Ethical considerations in undertaking this study are also outlined. A description of the participants is followed by a step-by-step account of the procedures undertaken in conducting the interviews. Finally, an overview of the data collection and analysis is presented. More detailed and specific analysis techniques are described in the Chapter 6.

Rationale for Methodology

This research project has been designed to inform understandings of literacy learning from the perceptions of a sample of Aboriginal youth and adults living in inner-Sydney, Australia. In order to draw meaning from the participants' experiences and their views on literacy learning, empathetic social research methods were applied. Qualitative methodology was considered more appropriate than quantitative methodology because qualitative methodology relies on text data rather than numerical data. Numerical data cannot reflect life experiences and perceptions (Silverman, 2013), which are the foci of this research project. Qualitative research seeks to illuminate the

relevant experiences of participants, and is well suited to capture the personal issues surrounding literacy learning as experienced by participants in this study.

This is an inductive study that will present findings based on the outcomes of open-ended questions designed to expose individual perceptions about literacy learning. Hypotheses have not been formed, as previous research has not provided adequate research-based evidence to inform predictions. Qualitative studies that explore the views of select groups of people are rarely predictable and, consequently, the act of formulating hypotheses can interfere with the subjectivity of the study (Silverman & Marvasti, 2008). The endeavour of this investigation is to gain insight through interaction with the data provided by the participants' responses and to gain access to the inner experience of participants, to ascertain how meanings are formed through and in a cultural context, as suggested by Corbin & Strauss (2008).

The three fundamental facets of research – epistemology, methodology, and method (Carter & Little, 2007) – have been used to provide the framework for planning, implementation, and evaluation of this research project. First, epistemology, as described by Carter and Little (2007), provides a potential connection between research practice and formal theories of knowledge. Theories around literacy learning, as explored in Chapter 3, are complex in nature and inherently tied to social practice, teaching methodologies, and learning styles. This research project aims to elucidate personal experiences across these domains, and therefore the investigation was approached from a social perspective. Second, the methodology was determined by choosing the best method of elucidating and understanding these experiences and

perceptions. The methods chosen were based on those considered to be the least imposing ways of interviewing Aboriginal youth and adults.

The process of inviting discussion through one-on-one, semi-structured interviews gave a select sample of urban Aboriginal youth and adults the opportunity to discuss their ideas on literacy learning to a greater or lesser degree, as they wished. The open-ended questions allowed them to express their perceptions and feelings, and to reflect on their past and current learning experiences. This form of self-reporting allows respondents the freedom to answer questions in their own words and to be spontaneous in offering their views and perceptions. In encouraging respondents to self-report, it is important to nurture the respondents and allow them the opportunity to reveal their personal experiences without pressure or judgment. Hence, a short, unobtrusive questionnaire (Appendix 5) was designed to elicit personal information and perceptions of literacy levels. The employment of a user-friendly, self-rating scale to determine the participants' self-perceived literacy levels was deliberate in its attempt to ensure the participants felt comfortable and did not feel they were being assessed, or that their skills were being measured by the researcher. This questionnaire was administered prior to the interviews, and provided background information to complement the interview data. The data gathered from the interviews was analysed for commonalities of words and concepts, in order to identify themes in the responses to each research question. These research methods have been shaped by the objectives of study: to elucidate and critically analyse personal experiences around literacy learning (Carter & Little, 2007; Denzin & Lincoln, 2005) and to undertake the interviews in a culturally sensitive and unobtrusive manner, allowing the focus to stay with the views expressed by the participants (Sherwood, 2010; Smith, 1999).

Research Context

This investigation sought to interview urban Aboriginal youth and adults, who may be considered marginalised from mainstream society. However, finding a sample that was representative of marginalised Aboriginal youth and adults was unrealistic. Aboriginal people are members of diverse and geographically scattered communities across Australia, and no one group is representative of Aboriginal Australia (AIHW, 2013). Moreover, finding a point of contact with potential participants was challenging and required the researcher to consider a number of options to meet the objectives of the research while gaining access to groups of Aboriginal youth and adults in a way that was both unobtrusive and respectful to the participants.

One obvious point of contact to research post-school literacy learning would have been a TAFE literacy class. However, this research project sought to elucidate ways of engaging Aboriginal youth and adults in literacy learning. Students enrolled in a literacy class could be considered to have already made the initial step of engaging with formal literacy learning. Furthermore, their perceptions would have been based to a large extent on their experiences in that literacy class. The study would therefore have been confined to a particular learning environment.

The task was to find a geographical or social meeting place where a general sample of marginalised Aboriginal youth and adults congregate. Youth and community centres were considered practical locations to find participants for the study since they offer assistance to economically disadvantaged community members and are used as points of contact for Aboriginal people of all ages who seek assistance with day-to-day

living. The common denominator for people accessing youth and community centres would appear to be financial hardship. Clients of such centres may or may not be engaged in learning and may also have varying levels of education, so in terms of literacy learning they could be considered a diverse group. Community centres also provided the opportunity to involve both Aboriginal youth and older adults in the study.

Thus, choice of the participants in this study developed over time and consideration, using a sample based on the accessibility and representation of an urban Aboriginal community who are unemployed and thus, to some extent, may be considered marginalised from mainstream society. According to Silverman (2013), researchers do not always need a random selection, and accessibility can be a sufficient reason to include participants. If it is anticipated that the participant can provide illuminating information, then as purposive sampling it may be appropriate. Silverman (2013) claims that access does not have to be a methodological constraint.

Participants

Participant Groups

In total, 10 participants contributed to this study. Five participants were aged between 15 and 23 years, and five were aged between 32 and 52 years. Throughout the data analysis, the two groups are referred to as the *younger group* and the *older group*. Division of the participants into two groups allowed for comparison between older and younger participants. Two participants in the younger group were male and all of the older participants were female. Two participants were high school students and all other participants were unemployed.

Recruitment of Participants

A number of Sydney metropolitan youth and community centres, as well as a primary health facility, were approached to participate in this research project. Six organisations in total were contacted in the Sydney metropolitan area. The researcher made contact with the Aboriginal worker or the coordinator of Aboriginal programs at each of these centres. They were asked if they saw value in the project and if they thought Aboriginal clients who attended their centre would be willing to be interviewed on the subject of literacy learning. If a positive response was received, a brief abstract describing the study, the proposed questionnaire, and interview questions (see Appendix 7) were emailed to the head of the centre and the Aboriginal program manager for examination. While most organisations saw the value in the project, practicalities limited the study to two inner-Sydney locations.

Gaining staff support for the project was fundamental to the implementation of the research process and the starting point for recruiting participants. It meant that Aboriginal and non-Aboriginal staff who worked with Aboriginal clients at these centres trusted the ethics of the study and believed it could benefit current and future Aboriginal clients. Their interest in the outcomes of the study was also indicative of the belief that qualitative studies such as this investigation are of value to their own organisation's endeavours and goals, which are based on social justice, community empowerment, and wellbeing.

Situational Analysis

Location 1. This independently funded site, located in the inner city, provides health and welfare services to the homeless and most marginalised members of the local

community. These services are recognised and trusted by Aboriginal community members as being culturally sensitive, respectful, and appropriate. The site holds weekly activities specifically for Aboriginal clients that focus on healthy living choices and promote a sense of belonging to disadvantaged Aboriginal people in the area.

Flyers were posted at the site advertising the research project, and staff promoted it to their Aboriginal clients. Interested clients contacted the researcher by phone and an interview was arranged at a cafe nearby. Each interview was conducted at a pre-arranged time, over a cup of coffee, in a relaxed atmosphere and in an environment that was familiar to the participants.

Location 2. This inner-city centre supports disadvantaged youth, is independently funded, and offers a range of services to engage local youth in sporting and healthy lifestyle activities while providing a safe meeting place for marginalised youth and their families. Weekly barbecues were regularly attended by Aboriginal community members, and these provided the opportunity for the researcher to recruit participants for the study.

The service manager suggested that the researcher attend one of the weekly barbecues and be introduced to clients by a local Aboriginal Elder to whom the researcher is well known. This was done at one of these weekly events, during the free evening meal provided by the centre for local residents and guests. A number of clients were interested in the project and interviews were conducted at the centre, where people felt comfortable and at ease in a familiar environment.

Ethical Issues

An ever-present concern in undertaking this research project was to proceed in an ethical and respectful manner in the recruitment of participants, in the conduct of the interviews, and in the provision of access to the results of the study. Results of this study will be made available to the participating individuals and organisations. In doing so, the anonymity of participants will be ensured. The sharing of this information will be undertaken in the format requested by the participating organisations, eg: in written or verbal communication to staff and/or clients.

As a non-Aboriginal person, the researcher was sensitive to the perception that research can be very intrusive, especially if undertaken by a non-Aboriginal person in an Aboriginal community environment. Consequently, all aspects of the study, such as promotion of the interviews, communication with prospective participants, and the arrangement and location of the interviews, were guided by the advice of staff at each centre. Each centre agreed that it would be appropriate to offer a food voucher to participants, in appreciation of their contribution to the study.

Another factor that needed careful consideration was determining the literacy levels of participants. A formal assessment of participants' literacy skills was not undertaken, as the researcher considered it to be inappropriate for an outsider to impose a written assessment on people who were not current literacy students, who were not known to the researcher, and who were generous in giving their time to the study. Asking participants to make an informal assessment of their own literacy skills was less intrusive, gave the participants greater control over the interview process, and provided

valuable insights into how literacy is viewed and experienced in social contexts by the participants.

The success of this investigation depended on the participants accepting and trusting the researcher. Trust is an important factor in communicating and relationship building with Aboriginal people (Black, Ndaba, Kerr, & Doyle, 2012; National Health and Medical Research Council [NHMRC], 2003; Minniecon, Franks, & Heffernan, 2007). In the past, the researcher has worked with Aboriginal students in both locations and, while only two participants had met the researcher prior to their interviews, the fact that other community members knew her as someone who had worked with Aboriginal people over a number of years was a factor in being accepted and trusted in this situation. In addition, the researcher was introduced at both locations by trusted members of staff and, at Location 2, also by a local Aboriginal Elder. Trust and rapport were also built during the interviews by empathetic questioning that revealed the researcher's own personal experiences when invited, within the context of the conversation. Empathetic communication and identification with the participant's responses is recognised as one of the strengths of qualitative research (Hesse-Biber, 2010; Silverman & Marvasti, 2008).

Qualitative research is seen as an important tool for research with Indigenous people (Smith, 2001) and an effective method to enable the perceptions by Aboriginal youth and adults to inform current research. Using open-ended questions in a semi-structured interview format was conducive to participants revealing their personal experiences as well as offering their views on literacy learning. Consistent with self-reporting methodology, a flexible interviewing style with occasional probes was

employed to assist the participants to describe their experiences and feelings in response to the question posed (Barker, Pistram & Elliot, 2002). In such situations the interviewees have control over the process and can converse as much or as little as they wish. Furthermore, the researcher allowed participants to elaborate on issues that they felt comfortable discussing, while maintaining a respectful distance and allowing the participants to provide a broad range of feedback without intrusive probing for more information. Asking open-ended questions in a conversation-style interview was considered appropriate methodology to allow Aboriginal participants share their perceptions and experiences to assist in building shared understandings around literacy learning (Christie & Verran, 2014).

Data Analysis Procedures

Data Collection

The following procedures were conducted with each participant:

1. Participants were given an explanation of the research project along with the requirements and the nature of their participation. Information about privacy, ownership of the project, and Ethics approval was provided. It was explained that this was a literacy research project and that the researcher was interested in gaining an insight into the views of Aboriginal people around literacy learning for the purpose of completing a research degree.

2. The researcher read an information sheet to each participant, explaining the purpose of the research, the privacy conditions, Ethics approval, researcher details, and timeframes (Appendix 3). It was also explained that participants could withdraw from the interview at any time should they choose.

3. The participants were asked if they wished to be interviewed and, if so, to sign a participant consent form (Appendix 4). The form also asked if the participant gave permission to be audio-recorded; however, no participants wished to have their responses recorded in this way. For participants under the age of 18 years, written parental permission was sought, in addition to the participant's permission.

4. The researcher completed the questionnaire (Appendix 5) with each participant by oral questioning and scribing their answers.

5. The interviews were then conducted individually with each participant. Each participant was asked the same series of questions (Appendix 6).

6. The interview responses were scribed, and not recorded, according to the wishes of each participant.

Consistent with interview techniques proposed by renowned qualitative researchers, the process of data collection in this study was flexible and respondent-centred (Hesse-Biber, 2010; Minichiello et al., 2008; Woods, 2006). While the questions were standard, the expressions used by the researcher in explaining or elaborating on what was being asked differed slightly according to the age and disposition of the participants. The researcher took care to respond to the individual situation and the way in which the participant was responding to the interview process. For example, the youngest participants at the youth centre were concerned with the time the interview would take, so the researcher did not probe for further details if it appeared that the participant was not keen to elaborate. However, the participants at the other location were happy to sit over a cup of coffee and discuss different aspects of the

questions. Consequently, the interview times varied from 15 to 30 minutes depending on the participant.

The interviews were conducted in a conversational manner that was intended to elucidate personal experiences and attitudes related to literacy issues for each participant. On occasion, the researcher prompted the interviewee with probes related to the original question. For example, if the participant gave an example of a situation in answer to a question, then elaboration on that issue was seen to add to the understanding of the participant's response. Participants were asked at the close of the interview if they wanted to add any further information consistent with Corbin and Strauss's (2008) suggestion that "revelations" may come at the end of an interview, thus providing additional insight into their own perceptions and/or behaviours. Finally, participants were invited to ask any answers or withdraw from the research should they choose.

Analysis of Questionnaire

The questionnaire served a dual purpose as it provided background information on the age, gender, course enrolment, and employment status of the participant, as well as an understanding of their perceptions of their literacy and computer skills. This information enabled the researcher to crosscheck the interview responses against the background information and perception of skills that the participant provided in this questionnaire. The participants were asked to self-rate their literacy and computer skills by giving their reading, writing, spelling, and computer skills a score from 1 to 10, with 1 being the lowest and 10 being the highest score. As a prompt, they were asked to consider the score of 5 as being average.

Self-rated literacy and computer skills. Tables 5.1 and 5.2 present the scores with which the younger and older participants rated their reading, writing, spelling, and computer skills. In each table the score for each skill is aligned to the age of the participant and the identifying code for that participant.

Table 5.1

Self-Rated Reading, Writing, Spelling, and Computer Skills – Younger Group

Participant	Age	Reading	Writing	Spelling	Computer
Participant A1	15	6.5	8	8	7
Participant A2	16	5	3	5	6
Participant A3	22	7	8	4	4
Participant A4	22	6	5	6	6
Participant A5	23	6.5	6.5	6.5	10

Table 5.2

Self-Rated Reading, Writing, Spelling, and Computer Skills – Older Group

Participant	Age	Reading	Writing	Spelling	Computer
Participant B1	32	7	4	4	2.5
Participant B2	32	6.5	9	9	3
Participant B3	43	5	6	5	5
Participant B4	48	8	8	8	3
Participant B5	52	7	7	7	1

The following section is a summary of the data on the self-rated skill levels gained from the questionnaires:

Self-rated reading skills. Based on the responses to the questionnaire, 80% of the older group rated their reading skills above 6 and 60% of the younger group rated their

reading skills above 6. Reading was the most highly rated skill across the two groups, with seven participants rating their reading skills above 6.

Self-rated writing skills. Based on the responses to the questionnaire, 60% of the older group rated their skills above 6 and 60% of the younger group rated their skills above 6.

Self-rated spelling skills. Based on the responses to the questionnaire, 60% of the older group rated their spelling skills above 6 and 40% of the younger group rated their spelling skills above 6.

Self-rated computer skills. Based on the responses to the questionnaire, no participants in the older group rated their computer skills above 6 and 40% of the younger group rated their computer skills above 6.

Employment status and course enrolment. All participants were unemployed (two were high school students). Three participants occasionally attended a drop-in community literacy program in their local area, which was funded by TAFE NSW. One participant was enrolled in a block release undergraduate program. Two participants were high school students.

Table 5.3

Employment Status and Course Enrolment – Younger Group

Participant	Age	Participant Employed	Course Enrolment
Participant A1	15	n/a	Yes – high school
Participant A2	16	n/a	Yes – high school

Participant			
Participant A3	22	No	Yes – community LLN
Participant A4	22	No	Yes – community LLN
Participant A5	23	No	No

Table 5.4

Employment Status and Course Enrolment - Older Group

Participant	Age	Participant Employed	Course Enrolment
Participant B1	32	No	Yes – community LLN
Participant B2	32	No	Yes – undergraduate degree
Participant B3	43	No	No
Participant B4	48	No	No
Participant B5	52	No	No

Computer usage. Two participants clarified their daily computer usage as 'watching movies'. Three participants from the younger group clarified their daily usage as using the internet on their iPhone. The older participants varied in their computer usage from between two or three times a week to once every six weeks.

Table 5.5

Frequency of Computer or Smart Phone Usage – Younger Group

Participant	Age	Frequency of Computer Usage	Frequency of Smart Phone Usage
Participant A1	15	Weekly	Daily
Participant A2	16	Weekly	Daily
Participant A3	22	Daily	n/a
Participant A4	22	Not often	n/a
Participant A5	23	Fortnightly	Daily

Table 5.6

Frequency of Computer or Smart Phone Usage – Older Group

Participant	Age	Frequency of Computer Usage	Frequency of Smart Phone Usage
Participant B1	32	Daily	n/a
Participant B2	32	3 times a week	Daily
Participant B3	43	3 times a week	n/a
Participant B4	48	Weekly	n/a
Participant B5	52	Once every 6 weeks	n/a

Intended use of computer-based literacy program. In answer to this question, 80% of the younger group said they would use a computer-based literacy program; one participant said yes if it was a phone application; and 100% of the older group said they would use a computer-based literacy program.

Data Analysis Interviews

Data gained from the questionnaire and interviews were comprehensively examined for recurrent themes and anomalies (Silverman & Marvasti, 2008). To ensure reliability, all parts of the data were inspected and analysed a number of times so that there was consistency with which instances were assigned to the same category (Hammersley, 1992, p. 67; Silverman & Marvarsti, 2008). Furthermore, consistent with Silverman's advice, anomalies and deviant cases were actively sought out and addressed to strengthen the validity of the analysis (Silverman, 2013; Silverman & Marvasti, 2008). The interview data was analysed by coding specific words/concepts that were repeated throughout each interview response in order to build accurate findings, which truly reflect the essence (or themes) of the participants' views or perceptions. These

concepts then formed the basis of analysis, ensuring that the raw data could be transformed into meaningful contributions to the current debate of literacy delivery to communities, as well as to contribute to, and increase, professional knowledge.

Interpretation of data was also important in the open-question qualitative analysis methodology employed in this investigation. The data collected was based on the participants' perceptions, views, and remembered personal histories. Therefore, it was important to be sensitive to these perceptions and to pay attention to the language and particular expressions used by the individuals in their interviews to facilitate valid and meaningful interpretations (Woods, 2006).

Summary

This chapter has described and explained the methods used in order to elicit valid and effective findings. The research context and recruitment of participants, along with a description of the participants and ethical concerns, were elaborated. The questionnaire data was presented in table form. The methods employed for data collection and analyses were presented, and the rationale for employing these methods was discussed.

CHAPTER 6

RESULTS

Introduction

This chapter presents the findings as they relate to each of the aims and research questions outlined in Chapter 4. First, the research question is presented with a brief outline of the intention behind it. Second, responses to each interview question are categorised into themes and presented in table form, indicating how many participants mentioned each of these themes. In the outline of each theme, a comparison is made between the younger and the older group to highlight the differences and similarities between the two groups. Quotes from the participants are given to illuminate the findings. The quotes from participants in answer to some research questions include their perceived levels of literacy skills as recorded in the questionnaire responses, to enable nuanced understandings of their perceptions about related literacy issues.

Throughout this chapter the anonymity of the participants is preserved by not revealing the gender of the participants in the younger age group (Group A). Consequently, the pronouns *they, them,* and *their* are used instead of *she/he, her/him*, or *hers/his*. This is not necessary for the older age group (Group B), as all participants in this group were female.

Results Research Question 1: Perceptions of Literacy Strengths

Overview

Research question 1: What literacy skills do Aboriginal youth and adults perceive as their strengths? This question was posed to determine the reading and writing skills the participants believed they were good at, and therefore practised with confidence. This information provided an insight into their perceived literacy strengths, the type of literacy skills performed, and the social practices in which their literacy skills were used.

Results

Table 6.1 (below) provides a summary of the participants' perceived literacy strengths. It is evident that there is a difference between the perception of literacy strengths and related tasks for the two groups in this study. The majority of the older participants rated their reading skills highly (see Chapter 5, Table 5.2) and while they mentioned a range of technology related skills such as texting and use of Facebook, they were unanimous in nominating reading books as one of their strongest skills. It should be noted that all the older respondents were female and this may be a factor in their love of books and their perception of book reading as a strong skill. The younger participants mentioned literacy skills related to their engagement with social media as their strongest skills. Because of the widespread use of abbreviated words, symbols, and unpunctuated and 'grammar-free' text, and a reliance on spell-check functions, the literacy skills required for communication through social media are not complex. However, most members of the younger group estimated their reading and writing skills as above level 6, or above average. Although possibly an unrealistic assessment for some participants, this indicates that the participants feel confident in using their literacy skills for the tasks they undertake in their daily lives. It is notable that only one participant nominated email writing as a strength. This older participant rated her spelling skills at 9 and

writing skills at 9. She was also enrolled in a block-release university course and had developed confidence in communicating by email.

In relation to the perceived literacy strengths of the participants, three significant themes emerged: technology-related literacy skills, practical everyday literacy tasks, and reading books.

Table 6.1

Perceptions of Literacy Strengths

Skill	15–23 year-olds		32–52 year-olds	
	N	*%*	*N*	*%*
Texting	5	100%	4	80%
Facebook	4	80%	2	40%
YouTube	4	80%	2	40%
iTunes/phone apps	3	60%	2	40%
Magazines/newspapers	3	60%	3	60%
Signs	2	40%	2	40%
Shopping labels	2	40%	2	40%
Notes/cards/diary	2	40%	2	40%
Emails	0	nil	1	20%
Books	0	nil	5	100%

Emerging Themes

Figure 6.1 represents the themes that have been drawn from the responses to research question 1. The number of responses given by participants has been mapped against the theme identified by these responses. Most participants gave more than one example of their literacy strengths; consequently this chart does not reflect the dominance of one group of skills over another.

Figure 6.1

Perceptions of Literacy Strengths
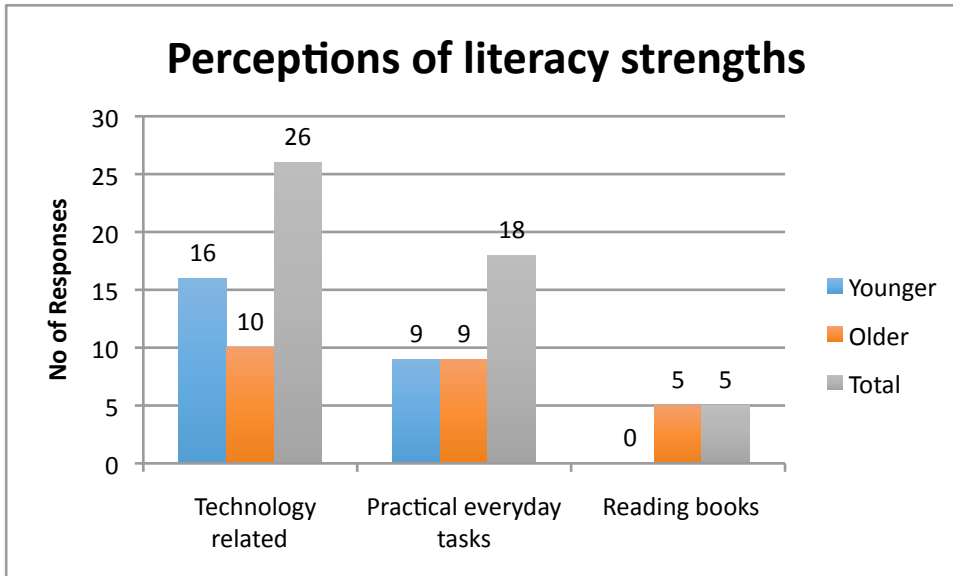
Theme 1: Technology-related literacy skills. The most common form of communication for both groups appears to be texting, which was a skill that almost all participants said they were good at. More members of the younger group than the older group nominated social-media-related literacy skills such as using Facebook, iTunes, and YouTube as their strongest skills.

This theme is illustrated by the following comments from the younger group:

A5: *Yeah, good at texting and Facebook … YouTube and iTunes. I can read and write simple words, but can't read big words and not good at pronunciation.*

This participant rated their reading skills at 6.5 and their writing skills at 6.5.

A1: *I'm good at Facebook, YouTube, texting, reading school notes and timetables.*

This participant rated their reading skills at 6.5 and their writing skills at 8.

Only one out of the total of 10 participants mentioned the more sophisticated skill of email writing as a strength. This participant, who was from the older group, noted:

B2: *I'm good at writing emails; I do that for my block-release course.*

This participant rated her reading skills at 6.5 and her writing skills at 9.

Theme 2: Practical everyday literacy tasks. Although not mentioned by many participants, both groups reported being equally good at the non-technology-related reading tasks associated with practical day-to-day activities, such as reading signs, shopping labels, magazines, and newspapers. A total of 60% of the younger and older participants mentioned reading newspapers as a literacy strength. Reading and writing notes and cards were also mentioned equally by both groups, with 40% of younger participants and 40% of older participants citing these skills. Throughout the interviews there was little discussion about these skills and participants mentioned them without further comment. For this reason no quotes have been included to support this theme.

Theme 3: Reading books. Significantly, none of the younger group considered reading books as a literacy strength. However, all members of the older group said they were good at reading books. The reading of literary texts involves more complex and time-consuming skills than technology-based reading and also represents a difference in lifestyle. It was not only mentioned by all participants in the older age group, but four

out of five of the group talked about the joy of reading books. This theme is illustrated by the following comments from older participants:

B1: *I love books … I've got a collection of books. I love reading my books!*

This participant had been homeless. She had recently found accommodation in a boarding house and still managed to keep her collection of books. This participant rated her reading skills at 7, her spelling skills at 4, and her writing skills at 4.

B5: *I love reading books! I started reading books late in life … in my forties, after I read the Harry Potter series. I couldn't read at all before that … I taught myself to read with the first Harry Potter book. After reading the Harry Potter series I started to do crosswords and kept reading books … I taught myself.*

This participant said she had been embarrassed and humiliated at school because she could not read, and when she was placed in a remedial class she began to "play up and didn't learn anything". This participant rated her reading skills at 7, spelling skills at 7, and writing skills at 7.

B2: *I like reading crime novels. I have trouble reading stuff for my course … trouble with comprehension, but I like crime books.*

This participant was enrolled in an undergraduate degree. She rated her reading skills at 6.5, writing skills at 9 and spelling skills at 9.

Summary

The key finding from the responses to this question is the role literacy plays in the lives of the participants and how this influences perceptions about literacy strengths.

The results show that literacy practices are intrinsically connected to the social activities of the participants, and where these skills are practiced daily, with confidence, they are considered a strong skill. Both older and younger groups reported that they were good at practical reading tasks. Younger participants reported being more confident in relation to technology-related skills in comparison to the older participant group. In contrast to older participants, who reported reading books as a literacy strength, younger participants did not nominate reading books as a key strength. The only participants to identify the complex writing skill of email writing was an older participant who also rated her spelling and writing skills at level 9. This is an indication of the importance of encoding skills to the writing process. It is also an indication of the role that social activities play in developing skills and confidence, since this participant often used emails for communication in her daily life.

Results Research Question 2: Perceptions of Literacy Weaknesses

Overview

Research question 2: What literacy skills do Aboriginal youth and adults think are their weakest? This question was posed to elucidate the particular reading and writing skills the participants felt to be their weakest. Answers to this question gave an insight into the literacy skills that participants thought were important for interacting with the wider society, within their personal lives, and that they needed to be competent in. Their answers also gave insight into areas of skill development that teaching programs and literacy interventions should cover in order to meet the needs of Aboriginal youth and adults.

Results

Table 6.2 provides a summary of the types of literacy skills the participants felt to be their weakest. The younger participants seemed concerned with complex writing skills, such as form filling and writing emails, and problems with reading and comprehension. Participants in the older group mentioned a broader range of literacy skills and were specific about the particular skills they needed to improve. Members of both groups were very aware of their weaknesses and the older participants were able to articulate specific writing skills, such as punctuation and grammar, as weaknesses. Spelling was considered a weakness by the majority (70%) of the participants in this study.

In relation to the perceived literacy weaknesses of the participants, three significant themes emerged: encoding and decoding skills, grammar and punctuation, and complex reading and writing skills.

Table 6.2

Perceptions of Literacy Weaknesses

Skill	15–23 year olds		32–52 year olds	
	N	*%*	*N*	*%*
Form filling	4	80%	2	40%
Spelling	4	80%	3	60%
Reading/comprehension	4	80%	2	40%
Emails	3	60%	2	40%
Grammar/sentence writing	1	20%	2	40%
Punctuation	0	nil	3	60%
Computer related	0	nil	1	20%

Emerging Themes

Figure 6.2 represents the themes that have been drawn from the responses to research question 2. The number of responses given by participants has been mapped against the theme identified by these responses. Most participants gave more than one example of their literacy weaknesses; consequently this chart does not reflect the dominance of one group of skills over another.

Figure 6.2

Perceptions of Literacy Weaknesses
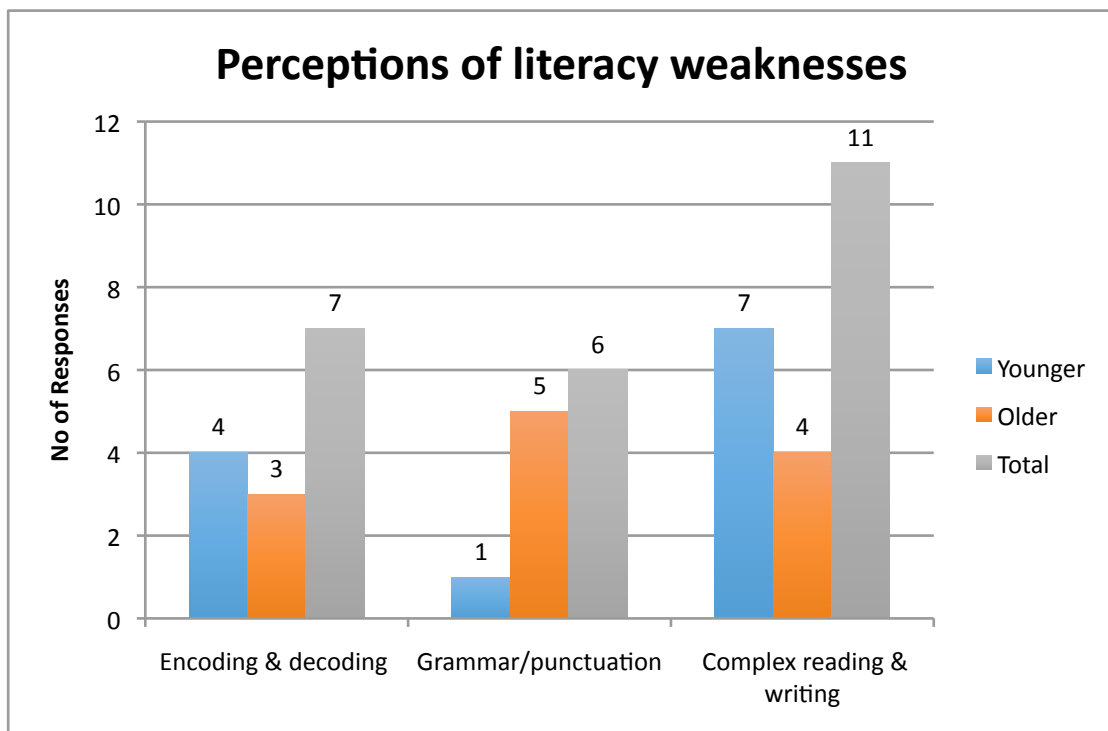
Theme 1: Encoding and decoding skills. Four out of five (80%) participants in the younger group mentioned spelling and reading skills as needing improvement. While two participants in the older age group mentioned reading, one specified comprehension as her main problem and the other specified "big words" as being

problematic. Three out of five (60%) older participants mentioned spelling as a weakness.

The following responses from younger participants in the study illustrate their need to develop their spelling and reading skills:

A5: *I can't read big words. I can only spell simple words. I can't write emails, fill out forms. I need to learn more complex stuff.*

This participant rated their reading skills at 6.5, their spelling skills at 6.5, and their writing skills at 6.5.

A2: *My spelling is bad. I'm not good at reading newspapers and magazines – comprehension not good. And I'm no good at form filling.*

This participant rated their reading skills at 5, their spelling skills at 5, and their writing skills at 3.

A4: *I got trouble understanding newspapers… spelling big words…writing sentences.*

This participant rated their reading skills at 6, their spelling skills at 6, and their writing skills at 5.

Theme 2: Grammar and punctuation. There was a notable difference between the two groups with respect to these literacy skills. Three (60%) of the older participants specified punctuation and two (40%) cited grammar as their weakest skills. None of the younger participants specified punctuation or grammar. One participant in the younger

group mentioned "writing sentences" as a skill that needed improving. This could be seen as covering grammar and punctuation, without naming the particular components of sentence writing. This is indicated by the following response from a younger participant:

A4: *I want to be able to write sentences properly.*

This participant rated their writing skills at 5.

An older participant commented:

B1: *I want to improve my ability to be able to write a full sentence and know where the dots and everything go.*

This participant rated her writing skills at 4.

Theme 3: Complex reading and writing skills. Form filling and writing emails were mentioned by both groups, with more of the younger participants expressing a desire to improve these skills. A high level of reading skill is required to understand the terminology and often convoluted instructions of bureaucratic forms; and email writing requires an understanding of the nuances of that particular genre, and also the computer functions associated with sending and receiving emails. With respect to reading skills, all but one of the younger participants said that reading and/or comprehension was a weakness and none of the younger participants mentioned book reading as a strength.

The following comments illustrate the concerns participants had about their literacy weaknesses:

A5: *I can't write emails, fill out forms. I need to learn more complex stuff.* (Younger participant)

This participant rated their reading skills at 6.5, their spelling skills at 6.5, and their writing skills at 6.5.

A4: *I'm no good at filling out forms and I can't understand newspapers properly.* (Younger participant)

This participant rated their reading skills at 6, their spelling skills at 6, and their writing skills at 5.

B2: *I have trouble with comprehension … I can read well, but I don't understand a lot of what I have to read for my course.* (Older participant)

This participant rated their reading skills at 6.5, their spelling skills at 9, and their writing skills at 9.

Summary

Responses to this question illustrate the participants' perceptions of the importance of learning the technical skills of writing. Spelling was mentioned as a weakness by four of the younger group and three of the older group – a total of 7 out of the 10 participants. Encoding and decoding skills are essential precursors to developing comprehension and complex writing skills. Participants also identified grammar and punctuation as a weakness, which is a concern linked to the articulated desire to write emails – a skill that would require a knowledge of punctuation and grammar. These findings are an indication of the awareness the participants had of the necessary literacy skills needed to effectively communicate in today's society.

Results Research Question 3: Reasons for Poor Literacy Skills, If Any

Overview

Research question 3: What do Aboriginal youth and adults perceive as the reasons for any difficulties they had learning to read and write at school? First, research question 3 sought to determine if the participants had difficulties learning to read and write in their childhood. If they did believe they had difficulties, this question sought to elucidate issues that may have negatively impacted on their literacy learning. Firsthand information about school experiences is valuable for researchers and educators to understand barriers to literacy learning. Furthermore, valuable information about literacy learning can be gained from participants who did not have problems learning to read and write at school.

Results

Table 6.3 provides a summary of the reasons participants felt they did not learn literacy well at school and also accounts for those who did not have problems learning to read and write at school. While some participants had quite strong memories of school and were clear about any negative impacts, others were less concerned about the influence of teachers or problems at school. For example, one of the older respondents felt that her initial negative comment about her teachers was not fair, and qualified her remark, as is evident from the following quote:

B3: *Teachers never explained things fully – other than spelling and pronouncing words. But … you know … teachers were good, can't blame the ol' teachers!*

School attendance was seen by 60% of the younger participants as a factor in the problems they had learning to read and write at school. This was not mentioned by any of the older participants. The older participants cited problems with teachers and embarrassment in the classroom as issues that affected their literacy learning at school.

There were three participants who felt they had no real difficulties learning to read and write at school. One of these, from the younger group, did however state that they would prefer to learn literacy with a one-on-one tutor and cited privacy and confidentiality as a positive aspect of computer-based literacy learning. This participant also said their literacy weakness was "reading generally" and noted their strengths as simple reading and writing tasks like social media communication, school notes, and timetables. One of the older participants, who said she had no difficulties learning to read and write at school, was very clear about why she felt she did well at school. She talked about the "very good education" at the Catholic school she attended. She considered explicit teaching methods and repetition to be crucial for successful learning. This participant rated her reading, spelling, and writing skills at 8 and considered that she was good at all the literacy skills mentioned in research question 1.

In relation to the perceived difficulties with literacy learning, three significant themes emerged: attendance, teacher or teaching methodology, and embarrassment.

Table 6.3

Reasons for Poor Literacy Skills, If Any

Reasons	15–23 year-olds		32–52 year-olds	
	N	*%*	*N*	*%*
No problems	1	20%	2	40%
Poor attendance	3	60%	0	nil
Teachers/teaching methods	1	20%	3	60%
Learning difficulties	1	20%	1	20%
Embarrassment	0	nil	2	40%

Emerging Themes

Figure 6.3 represents the themes that have been drawn from the responses to research question 3. The number of responses given by participants has been mapped against the theme identified by these responses.

Figure 6.3

Reasons for Any Difficulties
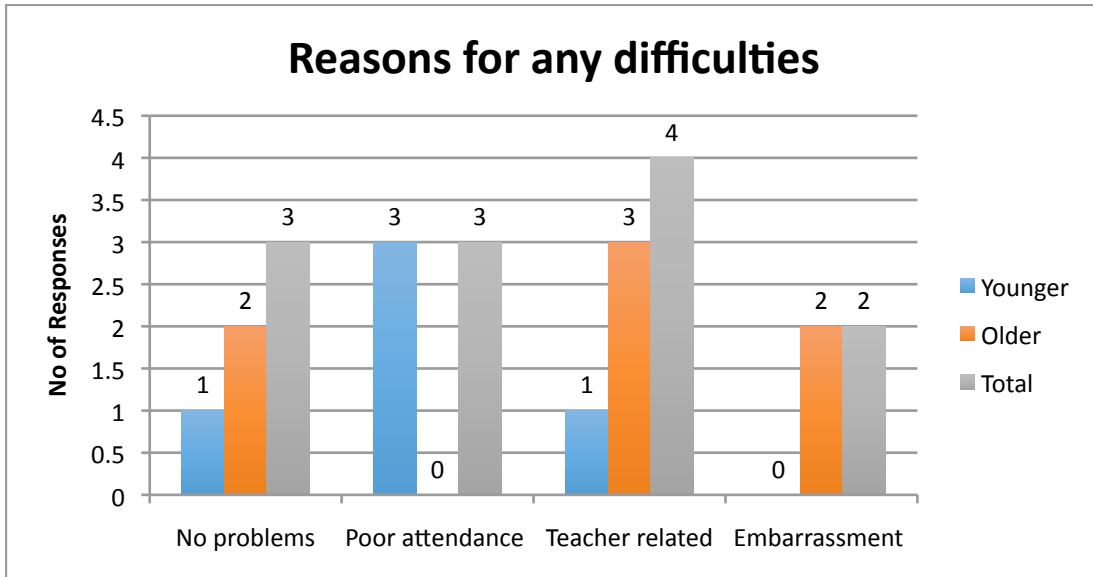
Reasons for any difficulties

Theme 1: School Attendance. It is notable that poor attendance at school was not an issue for the older participants, but it was mentioned by 60% of the younger group. These responses give an insight into the reasons the younger participants gave for not attending school:

A5: *Didn't go to school much, dropped out in Year 8 … couldn't sit and learn, too much energy.*

This participant rated their reading skills at 6.5, their spelling skills at 6.5, and their writing skills at 6.5.

A3: *Influence of friends stopped me from attending school and learning. Peer group pressure from mates if I didn't wag school. I wish I could go back to school now and be mature and say no to them and study.*

This participant rated their reading skills at 7, their spelling skills at 4, and their writing skills at 8.

A4: *Family issues made it hard … always problems at home, left school when I was 13 or 14.*

This participant rated their reading skills at 6, their spelling skills at 6, and their writing skills at 5.

Theme 2: Teachers and teaching methods. Difficulties at school were attributed more to teachers or teaching methods by the older age group, with only one of the younger participants mentioning the teachers as problematic. The following comments show the types of issues the participants had with some of their school teachers.

A4: *I never had the patience. Not listening. Teachers didn't care – except one.* (Younger participant)

This participant rated their reading skills at 6, their spelling skills at 6, and their writing skills at 5.

B1: *Some teachers were nasty, some were good. I guess I had difficulties mostly with teachers.* (Older participant)

This participant rated her reading skills at 7, her spelling skills at 4, and her writing skills at 4.

B5: *I couldn't read at school, went to remedial classes. Teaching method didn't help … I was singled out in remedial classes. In class, I had to stand up and read a*

paragraph which lead to anxiety, and to avoid the humiliation I became a problem child. (Older participant)

This participant rated her reading skills at 7, her spelling skills at 7, and her writing skills at 7.

Theme 3: Embarrassment. More older participants than younger participants mentioned embarrassment and humiliation during lessons as a problem. As included in B5's quote above, she felt humiliated when she had to read aloud and developed anxiety over the prospect of having to do this. One older participant, who said she had no difficulties at school, added that she did not like reading aloud. Her comment illustrates that while she was a successful learner at school she still felt embarrassed when she was singled out:

B2: *I had no problems at school but I hated reading out aloud.*

This participant rated her reading skills at 6, her spelling skills at 9, and her writing skills at 9.

Members of the younger group raised the issue of shame and embarrassment in other contexts. For example, in answer to research question 5, computer-based learning was seen as an attractive option because it afforded confidentiality. In answer to research question 4, one-on-one tutoring, which also affords privacy and confidentiality, was mentioned as a preferred literacy learning environment by four of the five younger participants.

Peer group pressure can be seen to be in the same category as embarrassment, as it affects self-concept and identity. Peer group pressure and influence from friends was mentioned by a member of the younger group as having a negative effect on their learning, as the following quote illustrates:

A3: *I was belittled if I didn't join my mates in wagging school or if I wanted to study.*

This participant rated their reading skills at 7, their spelling skills at 4, and their writing skills at 8.

Summary

Responses to this question revealed that not all the participants had experienced difficulties learning to read and write at school. The three participants who did not have problems learning literacy at school all rated their reading skills above 6 and their spelling and writing skills above 8. The remainder of the participants expressed a variety of reasons that attributed to their difficulties in learning literacy in their school years. One younger participant said she needed glasses but did not wear them, and also did not take her medication for ADHD regularly. A significant finding was that three of the five younger participants attributed their problems to a lack of school attendance, while none of the older group mentioned this factor. Fear of embarrassment and unsupportive teachers were issues that the majority of the older group cited as reasons for their difficulties. These findings indicate the importance of a supportive and motivating learning environment to early literacy learning, and the role that schools play in engaging and supporting students in their school years.

Results Research Question 4: Engaging Learning Environments

Overview

Research question 4: What learning environments would engage Aboriginal youth and adults in improving their literacy skills? This question was posed to identify learning environments that participants felt would be conducive to literacy learning. A list of possible settings (see Chapter 4, Table 4.1, research question 4) was read to each participant, and they nominated one or more learning environments that they thought would be the best way for them to improve their literacy skills. All participants answered this question, even though some rated their reading and/or writing skills highly.

Results

Table 6.4 provides a summary of the types of learning environments that would engage the participant in literacy learning. Some of the participants gave more than one suggestion. The majority of the younger group included learning with a one-on-one tutor in their preferences. The older participants mentioned a range of preferences, with computer-based learning, correspondence, or self-learning being mentioned by most of the group. The responses to this question indicate that the participants were open to a range of literacy learning settings but had an overriding preference for non-threatening learning environments, such as private tutoring, small community classes, or computer-based learning.

In relation to preferred environments for literacy learning, two significant themes emerged: non-threatening learning environments and TAFE or community literacy classes.

Table 6.4

Engaging Learning Environments

Learning environments	15–23 year-olds		32–52 year-olds	
	N	*%*	*N*	*%*
One-on-one tutor	4	80%	1	20%
TAFE literacy class	2	40%	1	20%
Community class or youth group	2	40%	1	20%
Self-learning or correspondence	0	nil	2	40%
Computer-based program	0	nil	3	60%
Vocational course	0	nil	0	nil

Emerging Themes

Figure 6.4 represents the themes that have been drawn from the responses to research question 4. The number of responses given by participants has been mapped against the theme identified by these responses.

Figure 6.4

Engaging Learning Environments
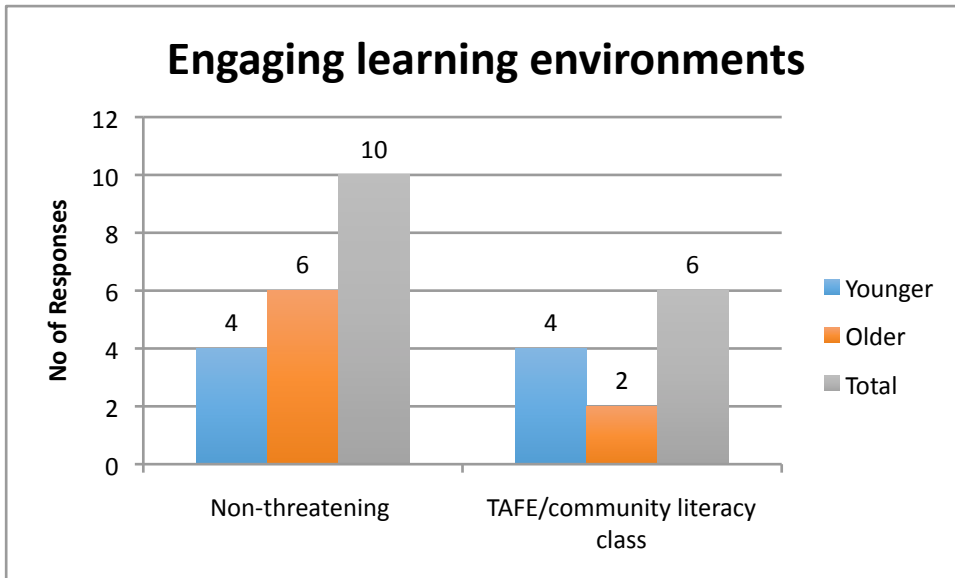
Engaging learning environments

Theme 1: Non-threatening learning environments. The most preferred learning environments for both groups appeared to be within a private learning environment; that is, in private with a tutor, using a computer program or in a correspondence course. The responses clearly indicate that fear of shame is a motivating factor in choosing these options. One of the participants in the younger group specifically mentioned they would only join a group-learning situation, such as a youth group, if they knew the other class members. This participant said they had once enrolled in a literacy class at a TAFE campus predominantly for Aboriginal students, but left because they did not know any of the other students.

Responses by younger participants indicated the concern of embarrassment:

A2: *One-to-one tutor would be good … scared to embarrass myself in class.*

A3: *Someone to help me, one-on-one tutor in a support unit rather than a class.*

Older respondents echoed the preference for privacy in learning:

B4: *One-on-one tutor… I'm embarrassed to speak up in a group. Anything with visual repetition is good.*

B5: *I'd use a computer program or by correspondence.*

Theme 2: TAFE or community literacy classes. Participants were equally open to learning literacy in a community class, youth group or at TAFE. However, this preference was not mentioned by a majority in either group. Two members of the younger group mentioned TAFE and two mentioned community or youth classes. Only one member of the older group mentioned TAFE and one mentioned community classes.

A2: *One-to-one tutor… scared to embarrass myself in class. Maybe TAFE.* (Younger participant)

B3: *I'd go to a community run class of five to six people (up to 10), not too big… and using computers.* (Older participant)

Summary

The results from this research question show that the younger participants preferred to learn with a one-on-one tutor or to attend literacy classes at TAFE or

community organisations. The older participants were open to a range of literacy learning methods, especially technology driven learning. A significant finding is that the participants were not motivated to learn literacy in a vocational setting. None of the participants in this study said that learning literacy in a vocational course would be engaging for them. Another significant finding is the high number of responses that related to private and confidential learning, such as one-on-one tutoring, correspondence or computer-based learning. This is a strong indication for the need for a non-threatening, risk-free learning environment.

Results Research Question 5: Desirable Aspects of Computer-Based Literacy

Learning

Overview

Research question 5: What aspects of computer-based learning do Aboriginal youth and adults think would help improve their literacy skills? This question asked participants to consider the advantages of using a computer-based literacy program. The participants were given examples of different aspects of IT (see Chapter 4, Table 4.1, research question 5) and asked to consider what they thought would be beneficial to literacy learning and engaging for the participant. The examples given were used as prompts only if the participant was not sure of the meaning of the question. Most of the answers that were given were offered without prompting.

Results

Table 6.5 provides a summary of the aspects of computer-based learning that participants felt would assist in improving their literacy skills. Since all of the participants in this study indicated that they would use an IT based literacy program, the

responses to this question gave important insights into the aspects of IT learning that would be engaging for them. Participants responded with a wide range of favourable aspects of computer-based literacy learning, with three significant themes emerging: free from embarrassment, self-paced learning without pressure, and directed learning.

Table 6.5

Desirable Aspects of Computer-Based Literacy Learning

Desirable aspects	15–23 year-olds		32–52 year-olds	
	N	*%*	*N*	*%*
Corrected and directed learning	2	40%	2	40%
Work at own pace/independent learning	2	40%	2	40%
Private and confidential	1	20%	2	40%
Touch screen/iPads	1	20%	1	20%
Games	1	20%	0	nil
Relaxing/no pressure	0	nil	2	40%

Emerging Themes

Figure 6.5 represents the themes that have been drawn from the responses to research question 5. The number of responses given by participants has been mapped against the theme identified by these responses.

Figure 6.5

Desirable Aspects of IT Learning
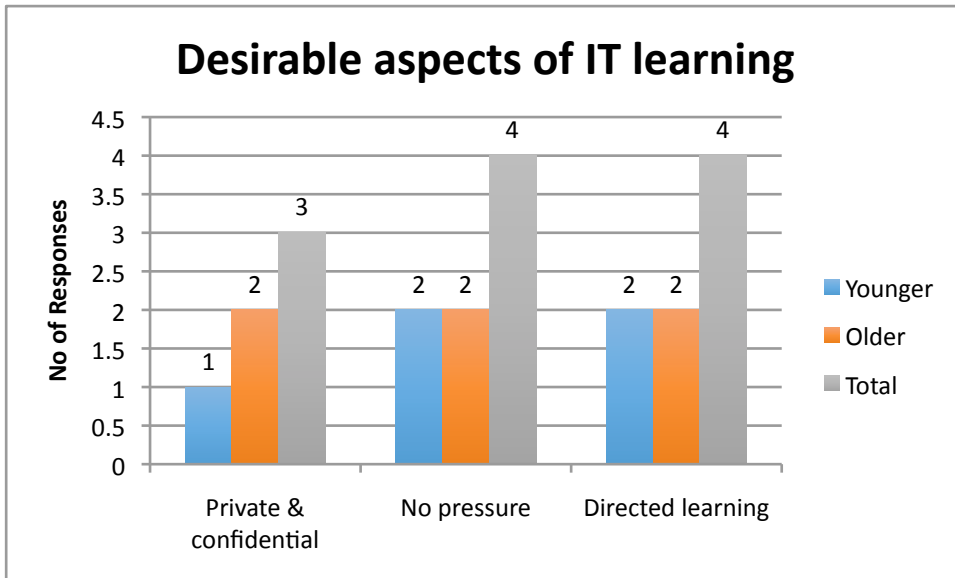
Theme 1: Private and confidential. Members of both groups considered the private and confidential aspect of computer-based literacy program an advantage. A younger participant was quite specific about the best aspects of computer-based learning:

A1: *It's confidential and private … that's what's good about computers.*

Older participants echoed this attribute of computer-based learning:

B2: *There is privacy, no shame.*

B5: *There's no peer pressure or expectations from others.*

Theme 2: Independent, self-paced learning, no pressure. Both groups equally saw the benefit of computer-based programs in allowing the user to work at one's own pace and to do so in a relaxed manner with no outside pressure. These findings are illustrated from the following comments from both groups:

A5: *It's independent ... you can leave and come back when you want.* (Younger participant)

B5: *You can work at your own pace.* (Older participant)

B3: *Computer usage is smooth and relaxed.* (Older participant)

Theme 3: Directed learning. Younger and older participants equally appreciated the ability of computer programs to correct mistakes and direct the learning process. This is indicated by the following comments:

A2: *Computer program would need to correct you and teach you how to memorise ... lots of repetitive stuff.* (Younger participant)

B2: *Computer learning is good because it is step-by-step learning, own-pace learning, and you can get tutorial help in an IT program.* (Older participant)

Summary

Results from analysis of this question illustrate the views of the participants on the aspects of digital technology that could be used to enhance literacy learning. Some

participants saw the benefits of computer-based learning related to its interactivity, such as the ability to direct, correct, and reward. Responses also showed the importance of self-esteem to successful learning. IT learning was seen to be confidential, non-judgmental and relaxing. These findings indicate the desire for learning environments that are flexible, encourage self-direction, and are free from pressure and embarrassment.

Results Research Question 6: Intentions to Use a Computer-Based Literacy Tool

Overview

Research question 6: Would Aboriginal youth and adults use a computer-based literacy program? This question was posed to determine if Aboriginal youth and adults would use a computer program to improve their literacy skills, if it was available. This was a closed question and most participants answered "Yes" or "No" without further discussion.

Results

Table 6.6 provides a summary of the intention of participants to use a computer-based literacy tool. All participants answered positively to this question.

Table 6.6

Intentions to Use a Computer-Based Literacy Tool

Intentions	15–23 year-olds		32–52 year-olds	
	N	*%*	*N*	*%*
Yes	4	80%	5	100%
No	0	nil	0	nil
Maybe	1	20%	0	nil

Figure 6.6 illustrates the responses to research question 6. Since this was a closed question, no themes have been identified.

Figure 6.6

Intentions to use an IT Literacy Program
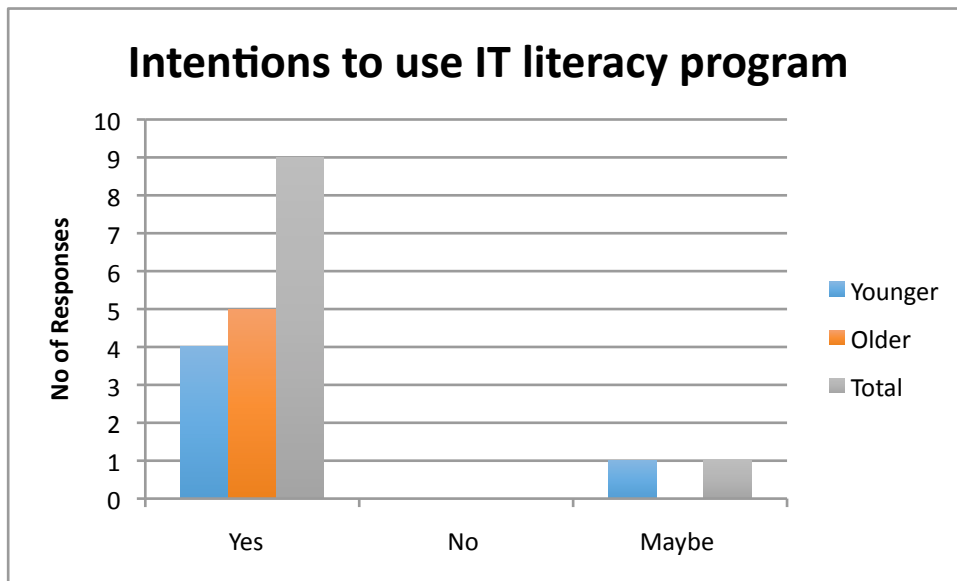
All participants except one said they would use a computer-based program to improve their literacy skills. The participant who answered "Maybe" qualified their answer by saying they would definitely use a phone application, as illustrated by their comment:

A5: *Maybe ... But I'd use a phone app. I like playing word puzzles on my phone.* (Younger participant)

The following comment from an older participant indicated another reason to use a computer-based literacy tool.

B2: *Yes. You could use it with your kids. The best thing is there is privacy, no shame.*

Summary

While responses to the participant questionnaire indicated that not all participants had daily access to computers and most of the older group rated their computer skills below average (see Chapter 5, Tables 5.2, 5.5, and 5.6) all participants said they would use a computer-based program or a phone application. This is a resounding indication of the desire to learn literacy skills through technology.

Research Question 7: Desired Features of a Computer-Based Literacy Program

Overview

Research question 7: What features of a computer-based literacy program would be appealing to the participant? Research question 7 asked participants to consider the different features they would like to see in a computer-based literacy program. The participants provided valuable insights into the features of digital learning that would engage Aboriginal youth and adults in literacy learning.

Results

Table 6.7 provides a summary of the desired features of a computer-based literacy program as perceived by the participants. The participants were unanimous in their desire to see Aboriginal cultures represented in a digital literacy learning tool. Participants also spoke about the use of Aboriginal English and Aboriginal languages in the presentation of a literacy program.

Table 6.7

Desired Features of a Computer-Based Literacy Program

Desired features	15–23 year-olds		32–52 year-olds	
	N	*%*	*N*	*%*
Aboriginal graphics, images, media identities, and/or music	5	100%	5	100%
Games/puzzles/matching exercises	5	100%	5	100%
Aboriginal English and/or language	3	60%	3	60%
Correcting and rewarding features	2	40%	2	40%
Spelling	2	40%	3	60%
Writing sentences	1	20%	2	40%
Typing lessons	1	20%	1	20%

Participants considered the interactivity of computer-based learning as an advantage and all said they would like to see interactive games and puzzles. Others mentioned the ability of IT programs to direct the learning and provide corrections and rewards to user entries. Some participants also saw the advantage of covering spelling, sentence writing, and typing in an IT literacy program. It was evident from the participant responses to this question that the IT program they envisaged as being beneficial to adult literacy learning involved problem solving and taught explicit literacy skills, such as spelling. Participants also suggested that such a program should acknowledge and incorporate Aboriginal cultural in its content and presentation.

In relation to these desired features of an IT literacy program, three significant themes emerged: Aboriginal cultural content, interactive problem solving activities, and explicit instruction.

Emerging Themes

Figure 6.7 represents the themes that have been drawn from the responses to research question 7. The number of responses given by participants has been mapped against the theme identified by these responses.

Figure 6.7

Desired Features of an IT Literacy Program
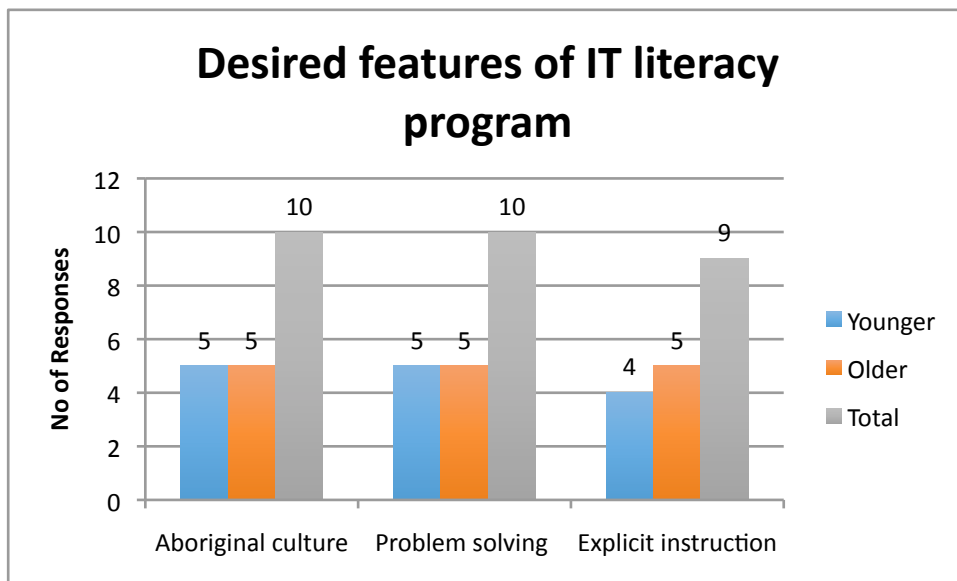
Theme 1: Aboriginal cultural content. All participants said they would like to see aspects of Aboriginal culture in a multimedia literacy tool. References were made to Aboriginal motifs, media identities, music, and images. Six participants said they thought the use of Aboriginal English or Aboriginal languages would enhance an IT

literacy program. One of the younger participants was particularly enthusiastic about the types of features that would enhance learning:

A4: *An Aboriginal program would be mad ... with footy players, games, deadly background with Aboriginal colours, longneck turtles, kangaroos, any famous Aboriginal people, and using Aboriginal English.*

Theme 2: Interactive problem solving activities. Games, puzzles, and matching exercises were considered by all participants to be attractive aspects of an IT literacy program. This comment from a younger participant illustrates the desire for interactivity and problem solving in learning:

A3: *Learning games would be good, with Aboriginal music, art, and video clips. Yeah, games and puzzles ... learning-to-type programs too.*

Theme 3: Explicit instruction. Members of the younger and older groups mentioned directed activities in the form of spelling exercises and writing sentences. This is an indication that participants saw the value in directed learning or explicit teaching in the technical aspects of reading and writing. This aspect of IT learning was also referred to by some participants in previous questions.

A3: *Directed learning from computers is good.* (Younger participant)

B4: *Correcting features and audio helps learning. Also lots of repetition is good for learning. Anything with visual repetition.* (Older participant)

Summary

A significant finding from the responses to this question was the desire of all participants in the group for Aboriginal cultural content to be included in a digital literacy program. This is a strong indication that the inclusion of Aboriginal culture/s and language/s is seen as an engaging factor in literacy learning through multimedia. The incorporation of Aboriginal graphics, music, and languages were seen as important aspects to include in a digital literacy tool. Also seen as important was the use of interactive problem solving activities that covered spelling, punctuation, and grammar.

Summary

This chapter has presented the findings obtained from an analysis of participant interviews. This was done by listing the main idea of the responses to each question and recording how many times these responses were mentioned by participants in the two groups. Analysis of the data revealed themes for each question. These themes were presented, showing comparisons between the two groups of participants and supported by quotes from the interviews. The following chapter will discuss: the findings; the strength and limitations of the investigation; and the implications of the findings for theory, research, and practice.

CHAPTER 7

DISCUSSION

Introduction

This chapter is divided into three sections. The first section discusses the data extracted from the participant interviews, by presenting interpretations of the participant responses and the themes that emerged from the data. Each research question is presented as a heading, followed by a summary of findings and interpretations of these findings. An examination of the themes extracted from the responses for each research question is then undertaken, noting where there is crossover in responses to other questions. Where pertinent, the interview data is cross-referenced to the background information gained from the participant questionnaires. The second section of this chapter links the themes extracted from the data to theoretical findings examined in Chapters 3. The final section of the chapter discusses the strengths and limitations of the investigation, and the implications of the findings for theory, research, policy, and practice in the area of literacy education for Aboriginal youth and adults.

Research Question 1: Perceptions of Literacy Strengths

Results from this research question indicate that the participants perceive themselves to be competent in a range of text-based and IT-based literacy skills. The context for some participants was communication: they expressed confidence in reading and writing skills linked to mobile phone texting and social media applications. Others enjoyed reading books, newspapers, and magazines, and these were noted as strong

skills. The role that literacy played in their lives was a determining factor in influencing their skills. For example, participant B5 identified diary writing as a strength. She said she regularly wrote a diary to "offload mental health issues" and she found this a worthwhile exercise. The participant who had children at school mentioned reading school notes as a strong skill, whereas none of the other members of the older group mentioned this task, perhaps because they did not have children at school and notes were not part of their daily activities. Participant B3 mentioned a range of mostly simple reading skills, specifying "no big words". However, she said she was particularly good at reading manuals for electronic equipment, like DVD players. The participant who was studying in a block release program at an interstate university said she was good at reading and writing emails – a task that would be required to send and receive study related texts and communications. These responses indicate confidence in literacy practices that are closely linked to their personal and social activities, and individually developed through their own motivation and interests. This finding is reflected in wider research with adults, which has found that learning is situated in social and personal contexts, which determine motivations (Eady et al., 2010; Kral & Schwab, 2012; Kral, 2011; Mayes, 2000).

It is worth noting that few participants mentioned complex writing tasks as a strength, except for the participant who said she was good at all reading and writing tasks, and the participant who was studying at university. So, although 60% of all participants rated their writing skills above 6 (see Chapter 5, Table 5.3 and Table 5.4), the writing strengths they identified were not difficult tasks. For example, tasks listed in these cases were writing comments on Facebook, texting, and writing notes and cards.

This would indicate that the participant's perception of their literacy strengths is related to the familiarity of the task and therefore their confidence in performing that task.

Theme 1: Technology-Related Literacy Skills

More members of the younger group than the older group nominated social media-related literacy skills as their strongest skills. This result is unsurprising, given that the younger generation are generally more engaged with social media than older members of Australian society. Texting was mentioned by almost all the respondents, both younger and older, which was also expected since, with the widespread use of mobile phones, texting has become a universal means of communication because of its speed and cost efficiency.

The notable difference between the literacy strengths of the younger and the older participants highlights the differences in their lifestyles, their social practices, and their literacy skills. While members of the younger group significantly nominated technology-related literacy skills as a strength, the members of the older group mentioned a range of digital- and text-related skills.

Theme 2: Reading Books

All members of the older group said they read books, with three out of five mentioning how they loved to read books, whereas none of the younger group said they read books at all. These results are of concern as they suggest that the youth are limiting their literacy skill development to the simpler tasks required for interactions with social media. Answers to research question 2 indicate that the younger participants were aware of the need to develop more sophisticated literacy skills. However, their perceptions of

their literacy levels would indicate that they are unsure of the level of literacy required to be competent in those skills. Their estimations of their reading skills tended to be close to the average or just above average. (The participants were asked to consider 5 as representing average skills). Four of the younger participants rated their reading skills as 5, 6, or 6.5, and only one participant rated their reading skills at 7 (see Chapter 5, Table 5.3).

By contrast, four out of five members of the older group rated their reading skills at 7 or above (see Chapter 5, Table 5.4). This is an indication of the higher level of reading literacy that is required to read books. Findings from PISA studies indicate that enjoyment of reading was found to have a strong relationship with performance (Thomson et al., 2011). These results suggest that perhaps sustained reading such as required by books may be necessary to develop reading skills. Time spent reading is, in actuality, practicing reading, which enables the development of decoding skills. Comprehension is improved, as the reader is required to follow a story and understand the plot. Furthermore, book reading is a past time that often requires an emotional investment and represents a personal decision to engage with the book you have chosen. In this way, the experience of book reading is an individual and solitary pursuit that is very different to the highly social and communicative literacy practices of the younger participants. In either case, literacy practices are linked to lifestyle and the changing contexts of an adult's life. The predominance of multimedia information and communication in their lives since birth may be the reason the younger participants do not read books, just as the predominance of paper-based texts in the lives of older adults makes text-based reading a more familiar and comfortable medium.

Book reading would appear to be less attractive to young people across different demographics, and this is not a phenomenon confined to Aboriginal youth. PISA 2009 results show that one-third of Australian students reported that they did not read for enjoyment (Thomson et al., 2011). In addition, De Bortoli and Thomson (2010) found that reading enjoyment was very low for Indigenous males, and was lower for Indigenous males than for Indigenous females. This finding is reflected in the present investigation, where all those participants who said they enjoyed reading books were female.

Theme 3: Practical Everyday Literacy Tasks

Everyday reading tasks that are not technology-driven, such as reading shopping labels, signs, and notes, were not mentioned by many participants in either group. One interpretation for this is that tasks such as reading shopping labels and signs are not recognised as literacy skills by good readers, as they occur automatically and would possibly not rate a mention. When the questionnaire responses were considered in the context of these results, these skills were identified mainly by those participants who rated their reading skills at or below 5. Nevertheless, these practical skills were recognised by participants as requiring an application of literacy skills in their daily lives.

Research Question 2: Perceptions of Literacy Weaknesses

Participants in both groups were very aware of the literacy skills that they felt were their weakest and the literacy tasks that they found difficult. In summary, the majority of the younger participants believed that spelling, reading, and comprehension were their weakest skills, indicating they have problems with encoding and decoding

written text. This could be related to their high frequency of participation with social media, where one uses and responds to abbreviated words, symbols, and punctuation-free text such as Facebook messages, phone applications, and texting. However, it does indicate that while they feel competent using technology to communicate, they are aware of the importance of developing adequate reading and writing skills to participate in more formal settings that require more complex skills, such as email writing and form filling.

Across the older group a greater range of skills needing improvement were mentioned compared to the younger group. The older participants were also quite specific about their weaker skills; for example, some mentioned punctuation and grammar specifically. While only one participant in the investigation mentioned computer skills as a weakness, throughout the interviews the desire for typing lessons was referred to by three participants in other contexts.

Theme 1: Encoding and Decoding Skills

The majority of the younger participants identified spelling skills as needing improvement. Only one of the younger participants was a confident speller, rating their spelling skills at level 8 in the questionnaire, and identifying reading as their weakest skill. Three out of five of the older participants identified spelling as a weakness in answer to this question. The older respondent who said she was good at all literacy skills, and that her only weaknesses were grammar and punctuation, talked about the good education she had in her school years. She also talked about the need for school students to be given phonics-based instruction and the benefit of repetition in the learning process, which she believed was a major contributor to her good education at

primary school. This respondent also said that a computer-based literacy program should cover spelling.

Results indicated that the younger participants have problems with encoding and decoding skills to a greater extent than the older participants. This could be related to literacy teaching methodologies that presumably differed for primary school education for the two groups. As discussed in Chapter 3, there was a shift to "whole word" literacy teaching almost 30 years ago. However, this does not account for the older participant who taught herself to read in her forties, or for two of the older participants who loved reading books but also felt they needed to improve their spelling skills. This could be because literacy skills are developed throughout life, intrinsically connected to lifestyle, and individually motivated. However, the technical skills of writing, like spelling and punctuation, need to be explicitly taught and are difficult to learn without direction and support. Consequently, 90% of the total number of participants wanted to improve spelling or use a computer-based program to cover spelling skills.

Theme 2: Grammar and Punctuation

There was a notable difference between the two groups with respect to grammar and punctuation skills. Three of the older participants specified punctuation and two cited grammar as their weakest skills. The results suggest that the older participants are more aware of the skills involved in complex writing tasks, since none of the younger participants specified punctuation or grammar. One interpretation of the discrepancy between the groups is that the younger participants were less aware of the specific aspects of writing, such as grammar or punctuation, or the terminology used to describe these skills. One participant in the younger group mentioned "writing sentences" as a

skill that needed improving. This could be considered to include grammar and punctuation, without naming the particular components of sentence construction.

Theme 3: Complex Reading and Writing Skills

In consideration of the writing tasks that participants felt were their weakest, it would appear that many of the participants are ill-equipped to deal with today's bureaucratic demands, which call for advanced reading and writing skills. Completing forms and writing emails are commonly called upon in dealing with bureaucracy, and are thus necessary for engagement with the socioeconomic activities that are integral to modern life. Tasks related to job seeking, accessing housing and maintaining tenancy, applying for and receiving social benefits, and accessing education and training all involve form filling, and most involve writing emails. Three members (60%) of the younger group identified writing emails as a weakness and four (80%) said filling out forms was a weaknesses. In comparison, two (40%) of the older participants identified email writing and two (40%) identified form filling as a weakness. It appears from these results that the younger participants are not well prepared to engage with bureaucracies or to enter the workforce.

It is notable that all but one of the younger participants mentioned reading and comprehension as being a weakness, yet four of the younger participants rated their reading skills above 5. These same participants identified simple reading tasks such as Facebook and text messages as their strengths. One interpretation is that they perceive their skills to be adequate for activities that hold meaning for them, such as interacting with social media. Reading comprehension was mentioned by only one older

participant, who was quite specific about this weakness and felt it was her only problem.

The self-rated literacy skills of the older participants seemed more realistic than those of the younger participants. Older participants seemed more inclined to give a low rating in some cases, whereas the majority of the younger participants gave ratings closer to the average mark of 5. This difference could be related to the fear of embarrassment being greater with the younger participants, perhaps because of the greater age difference between them and the researcher. It also could mean that the younger participants are less sure of how to rate their literacy skills and therefore estimated close to the average score.

Research Question 3: Reasons for Poor Literacy Skills, If Any

Not all the participants had difficulties at school. Two of the older participants who rated their literacy skills highly felt they had a good education and had no difficulties at school. Only one of the younger participants said they did not have difficulties at school. When compared to their questionnaire responses, this participant also rated their literacy skills highly. This indicates that literacy skill development is related to successful learning environments, with participants noting their reasons for unsuccessful learning being related to school attendance, teaching methodology, and self-concept, which are themes explored extensively in the literature. Regular school attendance has been found to be crucial to the development of foundation skills (Purdie & Buckley, 2010), and where students are attending school the most important variable in predicting literacy achievement is the quality of teaching (Hattie, 2009). Findings on student self-concept indicate that achievement is related to academic self-concept

(Craven et al., 2005; Marsh & Craven, 2006; Purdie, 2005), and self-concept was seen to be a factor for some participants having difficulties learning literacy at school.

Theme 1: School Attendance

It is notable that poor attendance at school was not an issue for the older participants, but was mentioned by three members (60%) of the younger group. This is indicative of the recent and current problem of school absenteeism in Aboriginal communities (COAG Reform Council, 2011). It is interesting to note the different reasons given by the younger participants for absenteeism and that most of them took responsibility for their lack of attendance or difficulties at school. For example, A5 cited too much energy to sit still in class as a reason for missing a lot of school; another participant said they succumbed to peer pressure to "wag" school, and another said they did not take their "medication for ADHD" and also needed glasses, but did not wear them.

Theme 2: Teachers and Teaching Methods

Difficulties at school were attributed more to teachers or teaching methods by the older age group. Only one of the younger participants mentioned that "teachers didn't care". This difference could be attributed to the prevalence of racism in Australian schools 20–30 years ago, when the older respondents would have been in the school system. Teacher training, reconciliation programs, and the mandatory inclusion of Aboriginal studies/perspectives in school curriculum have positively impacted on the attitude of teachers and students in New South Wales school systems since then. Aboriginal studies was made compulsory in all NSW schools in 1987, and an extensive project to educate NSW teachers in aspects of Aboriginal history and culture was

implemented from 1991 to 1996 (Cadzow, n.d.). It can be assumed that the older participants would not have benefitted from this improvement in teacher education as the changes were implemented after the older participants left the school system. For the two older participants who said they did not have problems learning to read and write at school, teacher quality was perceived as good.

It is interesting to note that none of the younger participants focused on teachers in their response to this question. According to Hattie (2009), teacher quality is the single most important factor in school education. This is supported by the older participant (participant B4), who felt she had a very good education. She talked about the teachers using methods that worked in teaching spelling, reading, and writing: "They gave you lots of repetition and visual work". The older participants who cited teacher issues in answer to this research question, talked about the lack of care, nastiness, and insensitivity of some of their teachers. The main issue for the younger participants was school attendance, which in some ways can be related to teacher quality because teachers have a responsibility to engage their students in the learning process.

Theme 3: Embarrassment

While only one participant talked about fear of failure and humiliation as a factor in her difficulties in learning to read and write at school, members of both groups raised the issue of shame and embarrassment in other contexts. For example, in answer to research question 5, computer-based learning was seen as an attractive option because it afforded confidentiality. Peer-group pressure and influence from friends was also mentioned by one participant as having a negative effect on their learning. Peer

group pressure could be seen to be in the same category as embarrassment, as it affects self-concept and identity. For example, participant A3, who blamed peer group pressure, said: "I was belittled if I didn't join my mates in wagging school or if I wanted to study".

These results suggest that self-concept is an important factor that impacts across a range of situations in the classroom and outside the classroom, with teachers, other students, and friends. Results for the following research question on learning environments also indicate the role that self-concept plays in participants choosing where and how to learn.

Research Question 4: Engaging Learning Environments

In answer to this question, participants talked about learning environments that afforded privacy and the opportunity for explicit instruction, as offered by one-on-one tutoring and computer-based learning. Socially connected and trusted learning environments such as small community groups or TAFE literacy classes were equally mentioned by the younger and older participants, although not to the same degree as private learning situations. The responses show a preference for learning environments that avoid exposure of academic weaknesses and therefore embarrassment.

Theme 1: Non-Threatening Learning Environments

The most preferred learning environment for both groups appears to be within a private environment; that is, with a tutor, using a computer program, or in a correspondence course. The majority of younger participants and two of the older participants said they would like to work in a one-on-one situation with a tutor. Other

participants mentioned self-teaching methods and attending small community classes. These responses can be interpreted as being linked to the participants feeling threatened in unfamiliar learning situations with strangers, thus highlighting the importance of self-concept for students in literacy learning. It is also important in accessing adult literacy education, as indicated by the younger participant who said they would join a group-learning situation only if they knew the other class members.

Three (60%) participants in the older group said they would prefer to learn literacy using a computer program – this is despite their sporadic access to computers (see Chapter 5, Table 5.4) – whereas none of the younger participants mentioned this option, although they had more frequent access to digital technology (see Chapter 5, Table 5.3). This discrepancy may have been because the younger participants are more likely to engage with touch-screen devices such as smart phones and iPads. Perhaps research question 4 should have been worded to include popular technology like iPads and smart phones along with "computer-based" learning. "Computer-based" learning has become outdated, and the use of this terminology by the researcher could have influenced their responses. This arose in conversation throughout the interviews with some of the younger participants, who talked about a preference for iPads and smart phones rather than computers. It is increasingly common for young people to use their phones to access the internet. The availability of internet services may be a factor that comes into play when talking about computer usage. The costs of internet access are lower for mobile phones, and many people cannot afford to pay for a home internet service as well as mobile phone connection. In answer to research question 6, all participants said they would use a computer-based literacy program when a smart phone was included in this category.

Theme 2: TAFE or Community Literacy Classes

Some participants were open to learning in TAFE or community literacy classes, which shows a confidence in traditional learning settings. This finding is reflected in wider research that indicates that Aboriginal students value TAFE (Craven et al., 2005; DEEWR, 2008). The results of the present investigation show that some participants would potentially join literacy classes at TAFE or community organisations. However, it is worth noting that no participants in the current investigation mentioned vocational training as a preferred learning environment for improving their literacy skills, even though none of the participants were employed. This supports findings from previous research indicating that Aboriginal youth and adults are often not motivated to learn through vocationally orientated programs (Boughton, 1997; Dymock, 2007; Eady et al., 2010; Kral & Schwab, 2009, 2012). This is a strong indication that current vocationally orientated adult literacy provision will not be supported by Aboriginal youth and adults such the participants in this investigation. The underlying assumption behind literacy support within the vocational context is that students have a deficit that needs to be rectified, primarily because of their lack of participation in the workforce. This premise does not fit with the attitudes towards learning expressed by the participants of this investigation, who are more concerned with learning literacy in non-threatening and supportive environments.

Research Question 5: Desirable Aspects of Computer-Based Literacy Learning

Participants were very clear about the aspects of computer-based learning that would engage them in learning and improve their literacy skills. Most participants confidently gave one or two aspects of computer-based learning in answer this question. The use of a touch screen as being beneficial to learning was mentioned by two

participants. This preference for touch screens, as in iPads and smart phones, was evident throughout the interviews with both groups, thus indicating a desire to engage with new technologies and to use them in literacy learning. Research in remote Indigenous communities by Kral and Schwab (2012) has found the same propensity to take on new technologies with enthusiasm. Other responses to research question 5 were focused on the private nature of computer-based learning, and its ability to afford pressure-free learning and directed learning activities.

Theme 1: Private and Confidential

The recurring theme of fear of exposing one's failings or lack of skills was evident in the responses to this question. Three participants specifically noted the private and confidential aspect of computer-based learning and others mentioned being free of peer pressure. Throughout the interviews the word "shame" was used a number of times in answer to different questions, including this one. Furthermore, in answer to research question 4, the preference for one-on-one tutoring, correspondence courses, or self-learning denotes the fear of feeling shamed in the presence of other students and the significance of positive self-concept to the learner.

These results indicate that the engaging entertaining aspect of IT learning is not the over-riding issue when urban Aboriginal youth and adults choose to engage with computer-based learning. Participants in this study have shown that feelings related to self-concept and self-determination also play a role in choosing to learn through technology.

Theme 2: Independent, Self-Paced Learning

The appreciation of a pressure-free and self-paced learning environment afforded by computer-based learning was noted by participants in the younger and older groups. This desire to be in control of when and how to access learning is a reflection of adult learners need to be autonomous and is congruent with Adult Learning Theory and SDT, as outlined in Chapter 3. According to both theories, adult learners are more successful in learning environments where they are working towards their own goals and have control over this process (Knowles, 1980; Niemiec & Ryan, 2009). The reference to the relaxed nature of IT usage and the ability to work at your own pace could be interpreted as a desire not to have one's weaknesses exposed, taking one's time in learning, and progressing through lessons without the feeling of being left behind. In this sense, such responses are related to self-concept, which is noted as an important aspect to successful learning (Knowles, 1980; Marsh & Craven, 2002). Participants have expressed feelings around being free from the judgment of others and appreciating the opportunity that computer-based learning gives them to control the learning process.

Theme 3: Directed Learning

Four participants noted the ability of computer programs to give direction and correct one's mistakes. This appreciation of direct instruction was also evident in responses to other questions, where participants talked about the audio capability of computers and the benefit of tutorial support with some online programs. In terms of literacy instruction, this supports the contention by researchers that explicit instruction is needed in teaching the technical skills of reading and writing (Commonwealth of Australia, 2005). SDT (Niemiec & Ryan, 2009) highlights the need for competence, which is reflected in the participants' appreciation of the capability of computer

programs to give direct instruction, correct mistakes, and reward success. Furthermore, the results suggest that the participants see the value of explicit instruction in addressing their literacy learning needs. Research supports this view, with researchers in adult literacy (Kruidenier, 2002; Sabatini, Shore, & Holtzman, 2011) and school-based literacy (Commonwealth, 2005; NICHHD, 2000; Rose, 2006) acknowledging that explicit instruction enhances literacy skill development.

Research Question 6: Intentions to Use a Computer-Based Literacy Tool

All participants said they would use a computer-based literacy tool or smart phone application, if it were available. Even the participants who rated their literacy skills highly said they would use a computer-based literacy tool. Results from this investigation indicate that Aboriginal youth and adults are ready to embrace technology-driven learning, which supports wider research findings claiming that information technologies hold specific advantages for Aboriginal learners (Eady et al., 2010; El Sayed et al., 2012; Kral & Schwab, 2012). As the participants in this investigation have confirmed, information technology supports visual and oral learning; activities can be repetitive, self-paced, and interactive; and individual, independent learning is free from peer pressure and the shame often felt in the classroom environment (Eady et al., 2010; Steen, 1997).

In addition, the participants in this investigation felt they could improve their technology-based skills, with some specifically mentioning writing and sending emails. For those participants who had limited access to computers, and for those who preferred private tutoring, there may not be the opportunity to develop those skills in the current programs, which focus on work-place literacy provision. Mikulecky (2003) claimed that

adult education courses may be the only opportunities for some adult learners to access computers, the internet, and digital literacy instruction. This appeared to be the case for the participants in this investigation, most of whom said they had intermittent access to the internet on computers. They also said they wanted to improve computer-based skills such as typing and sending emails. It is therefore important that appropriate learning environments that incorporate technology-based learning are available to Aboriginal youth and adults. The potential socioeconomic benefits are extensive.

The skills practiced in interacting with social media are equally important in the lives of the younger and older participants in this study. International research has shown that the increasing affordability of information and communication technologies means that they are now accessible to people from low socioeconomic groups and can be used to advantage to facilitate lifelong learning (UNESCO, 2011). Mobile phones have become more sophisticated and are no longer just communication devices. IPads and smart phones are replacing computers, which means that learning has become mobile, individually controlled, and accessible at different times. These technologies have enormous potential to transform learning experiences for disengaged learners through stimulating multimodal applications that speak to a modern audience. Kral and Schwab's studies (2009, 2012) have shown that Aboriginal youth in remote communities are keen to use technologies for communication and learning, just as this investigation has demonstrated a similar propensity by urban Aboriginal youth and adults.

Research Question 7: Desired Features of a Computer-Based Literacy Program

It is evident from this investigation that technology-driven learning environments are attractive to Aboriginal youth and adults. The engaging aspects of using a touch screen, the audio and visual effects, the propensity for self-directed and explicit learning, repetitive information, interactivity, and confidentiality have all been noted as reasons to use an IT program to improve literacy skills. Tomai (2010) claims that an important advantage of computer-based learning is that information can be presented in different modalities, such as textual, visual, and oral, and is therefore retained more successfully than if presented in a single mode. Another advantage is its ability to incorporate different learning strategies, including problem solving, directed and explicit instruction, games, music, and puzzles. New technologies capture the learner's attention quickly and maintain it longer (Tomai, 2010); devices can be accessed at will, in private, or in group-learning situations (Steen, 1997). All of these attributes were considered favourable aspects of technology-based learning by the participants in this investigation.

In answer to this research question, participants were specific about what features they would like to see in a computer-based literacy program. A significant finding was that all participants thought that the inclusion of Aboriginal culture in the content and presentation of an IT literacy program would be appealing. In addition, participants were unanimous in their belief that interactive problem-solving activities would engage them in literacy learning.

Theme 1: Aboriginal Cultural Content

All participants in this investigation felt that the inclusion of Aboriginal culture(s) and language(s) would enhance the effectiveness of a multimedia literacy program. They specifically mentioned the use of Aboriginal media identities, images, voices, music, and graphics. In total, 6 out of the 10 (60%) participants said they would like Aboriginal English to be used in such a program. This finding supports extensive research with Aboriginal students, which has found that stronger cultural identity promotes greater participation and achievement in education (Alford & James, 2007; DEST, 2010; Dockery, 2013; Eady et al., 2010; Giddy et al., 2009; Harrison, 2004; Marsh & Craven, 2006).

Results from this research question highlight the importance of culture, language, and identity in the content and presentation of IT learning material. Dockery (2013, p. 43) posits that "cultural identity can be harnessed to improve VET outcomes" for Aboriginal students and should be incorporated into the curriculum whenever possible. Other studies have shown that the impact of cultural world view can be significant in literacy learning and thus recognition and respect of Aboriginal cultures and Aboriginal English is important in these settings (DEST, 2010; Hanlen, 2010).

Theme 2: Interactive Problem-Solving Activities

The interactivity of IT learning was equally appreciated by younger and older participants. In response to this question, all participants noted the value of problem-solving activities such as puzzles, games, and matching exercises. These responses are indicative of the desire for adult learners to be actively involved in performance-centred learning and are consistent with the principles of adult learning theory (Knowles, 1980).

Research with Indigenous school students indicates the same appreciation for interactivity and problem-solving activities offered by IT learning (Steen, 1997).

Theme 3: Explicit Instruction

The need for computer-based literacy programs to be correcting and to give direction in the lesson content was mentioned by participants in answer to this research question and also in answer to research question 5. This indicates the belief that explicit instruction is needed for some aspects of literacy learning. This perception is also reflected in the nomination of one-on-one tutoring by five of the participants in the discussion about preferred learning environments (research question 4). The appreciation of the correcting and directing features of computer-based learning is also an indication of the participants' desire to be competent and the importance of computer-based programs in improving literacy skills. The results from this research question provide further evidence for research that highlights the value of explicit instruction for literacy learners (Commonwealth, 2005; Kruidenier, 2002; NICHHD, 2000; Rose, 2006; Sabatini et al., 2011).

Implications for Theory, Research, Policy, and Practice

The findings from this investigation highlight the significance of self-reporting research that allows the voices of Aboriginal adults to be heard and linked to dominant theory, current research, and relevant practice. There are implications for each of these areas and each will be examined in this final section of the chapter. Firstly, the themes that emerged from examination of the data indicate that the theoretical underpinnings of this research project are valid and relevant to Aboriginal adult literacy learning. These themes can best be described within the overarching principles of three significant

theories: Adult Learning Theory, Self-Concept Theory, and SDT. The following section will examine how these themes are linked to each theory. Following this, the implications for research and practice will be examined.

Adult Learning Theory

According to Knowles (1980), there are certain conditions necessary to provide optimal learning environments for adults. Table 7.1 lists these learning conditions alongside the themes extracted from the views expressed by participants in the current investigation.

Table 7.1

Optimal Learning Environments for Adults – Linking Knowles' Describers to Aboriginal Perceptions

Optimal Learning Environments (Knowles, 1980)	Themes extracted from participant data
The learner's perceived learning needs are addressed.	Encoding and decoding skills, grammar and punctuation, complex reading and writing skills
The learner feels comfortable and supported, in an atmosphere of mutual trust and respect.	Embarrassment-free, pressure-free, positive teaching methods, private learning environments, community and TAFE literacy classes
The learner has some responsibility for planning and operating their learning experience.	Independent and self-paced learning

The learner is an active participant.	Interactive and problem-solving IT activities
The learning process is related to the learner's experience.	Literacy within social practices, e.g. reading books, technology-related tasks, everyday literacy skills; Aboriginal culture and language(s) included in content of computer-based literacy learning
The learner feels a sense of progress towards their personal goals.	Directed learning exercises with corrections from computer-based literacy learning programs

Table 7.1 clearly indicates that optimal adult learning conditions, as described by Knowles (1980), hold for Aboriginal youth and adults. For example, Knowles believes that the learner's perceived needs should be addressed – the participants in this investigation have clearly articulated what their literacy needs are. Knowles believes that the learner should be comfortable and supported in their learning – participants in this investigation indicated preferences for non-threatening learning environments. Knowles believes that adult learners need to exercise autonomy in the learning process – participants in this investigation showed a preference for independent, self-paced learning. Knowles believes that adult learners are successful if they are active participants in learning activities – participants in this investigation indicated that problem solving and interactive IT activities would enhance their literacy learning. Knowles believes that lesson content should be related to the learner's experiences – the participants in this investigation discussed literacy strengths and needs that are linked to their social practices. Knowles believes that adult learners are goal directed and need to

have a sense of real achievement towards those goals – participants in this investigation have indicated that they appreciate directed learning where mistakes are corrected and successes are rewarded.

Table 7.1 shows that for each of Knowles' optimal conditions, the participants' responses from the current investigation can be captured under the umbrella of their meanings, and explicitly give voice to their importance and pertinence for best practice literacy delivery.

Self-Concept Theory

Throughout this investigation, shame was a recurring issue. It was mentioned by younger and older participants in relation to past learning experiences and choices around future learning. Shame has such a powerful connection to learning that, as noted by participants in this study, it can be the determining factor in whether to engage with education or not. Self-Concept Theory proposes that in order to enhance learning, self-concept – or how a person feels about themselves – has to be positive and strong. Knowles (1980) claims that self-concept is a crucial factor that impacts on adult learners. Marsh and Craven (2002) propose that students compare their academic achievements with their peers, and this can form the basis of their own academic self-concept. This could explain why the majority of participants in this investigation said they would prefer learning environments that afforded privacy and confidentiality. Self-Concept Theory also adds weight to the comments by some participants concerning peer pressure, and how it affected one participant's ability to learn to read and write at school, and another's preference for computer-based literacy learning as it was free from the inevitable comparison with peers that occurs in a classroom situation. Self-

Concept Theory explains that individuals can use the comparison with others to evaluate themselves, and this can negatively impact on students if this comparison is unfavourable to the individual (Marsh & Craven, 2002).

Results from this study found that the shame factor is strong in affecting learning and directing choices in literacy learning for Aboriginal youth and adults. Considering this outcome, if learning programs are to be effective they need to first establish the conditions in which success or failure occurs for their students. Deficits often become focal points of interventions and learning programs, such as those tied to ACSF reporting. The current investigation demonstrates that, in Aboriginal settings, it may be wiser to focus on strengths and self-perceived needs. This approach is also supported by Adult Learning Theory and SDT. The provision of private learning environments and explicit cultural content can both contribute to the building of confidence, motivation, and resilience in the learner. Consequently, these factors are also important considerations in designing adult literacy programs and providing opportunities for Aboriginal students to participate in literacy learning.

Self-Determination Theory

The relevance of SDT, in the education setting, lies in the student's belief in having a personal sense of control, in being able to initiate his/her own activities, make choices about learning, and feel competent and connected in those learning activities (Brooks & Young, 2011; Niemiec & Ryan, 2009). These attributes were implicit in the responses of the participants in the current investigation. SDT identifies these attributes as autonomy, relatedness, and competence.

Autonomy. This investigation has shown that Aboriginal youth and adults have clear perceptions about their needs, which are connected to their social practices. Thus, participants who identified weaknesses such as email writing, form filling, and computer skills were responding to the demands placed on them in communicating with bureaucratic organisations. Congruent with SDT, participants have articulated their needs and are also clear about how they want to improve those skills. This is supported by research specific to adult learners which shows that adult learners are goal-oriented and motivated by the perceived and real benefits of their learning (Dymock, 2007; Knowles, 1980). In contrast, the top-down approach adopted by current post-school literacy programs strictly defines the needs of the learner in terms of ACSF levels, reducing opportunities for autonomy in their literacy learning. Niemic and Ryan (2009) predict that in such learning environments students can become frustrated and disengaged, and in some cases their enthusiasm and interest will be replaced by anxiety and alienation.

Competence. The results of this investigation show that the participants would like to be competent in performing a range of literacy tasks. The technical skills of writing such as spelling, punctuation, and grammar have been identified as weaknesses by the participants. While literacy is not a universal technical skill, there are aspects that need explicit teaching. Research has shown that for many adult learners, mastering the kind of automatic, efficient decoding skills of skilled adult readers would require many hours of instruction and practice (Sabatini, et al., 2011). The responses of the younger and older groups in this investigation indicate that there is a need to develop strategies that assist in decoding and encoding to enhance comprehension and writing skills. These responses, coupled with the selection of one-on-one tutoring as a preferred

learning environment, and for a literacy IT program to cover spelling and sentence writing, imply that the participants are seeking explicit teaching in particular skills. Furthermore, the reference to spelling or "big words" was made by 7 out of the 10 participants in this study, supporting research claims that regardless of age, reading and writing require an individual to be able to decode in order to read, and encode in order to write (Burton, 2011; DEST, 2007; Kruidenier, 2002; McCaffery et al., 2007).

Relatedness. Self-Determination Theory contends that the need to feel related stems from the desire to be socially connected (Brooks & Young, 2011). Results from this investigation indicate that Aboriginal youth and adults engage with technology to stay socially connected, and that technology plays a clear role both in enhancing their opportunities to improve their literacy skills and in staying socially connected. Results also show that the participants value learning environments that are non-threatening, familiar, and acknowledge their culture and identity. These learning environments are relevant and provide motivation for the participants in this investigation. This supports wider research with Aboriginal communities that has found that learning programs need to hold meaning for Aboriginal youth and adults, and incorporate aspects of culture, community, and everyday life (Boughton et al., 2013; Dockery, 2013; Eady et al., 2010; Kral & Falk, 2004; Kral, 2011; Kral & Schwab, 2003).

Congruent with SDT, Adult Learning Theory also highlights the importance of the experiences and strengths that adult learners bring to the learning environment. If the learning material is "significant to students it provides a connection to their prior knowledge and to their sense of identity" (MYCEETYA, 2006, p. 25). When adult students bring their own knowledge and experience to the learning process it becomes

more meaningful to them (Knowles, 1980), which has a flow on effect in enhancing motivation to learn and skill development.

Future Research

The findings from this investigation could act as a catalyst for further self-reporting research with Aboriginal cohorts around literacy issues. As a qualitative research approach, self-reporting studies provide authentic data, which upon analysis reveal pertinent information from real-world situations that can be used to support theory. It is crucial that research and theory are based on what is happening in the field, and self-reporting research, such as this investigation, can provide valuable insights to further this end. Asking Aboriginal youth and adults about their literacy skills and their perceived level of literacy skills adds to understandings of the literacy skills Aboriginal youth and adults use in their daily lives and how strong or weak they perceive their literacy skills to be. There is very little current research on the literacy levels of Aboriginal adults across Australia (Boughton 2009; Kral & Schwab, 2012), and this form of self-reporting research can provide researchers and practitioners with information on the range of literacy levels, the literacy practices, and literacy concerns of urban Aboriginal youth and adults.

This investigation has raised issues around preferred learning environments that need further exploration. The results show that this small sample of urban Aboriginal youth and adults prefer private learning environments. This result could be explored across larger populations and across learning areas. Further research might determine whether this is a preference specifically for literacy learning or if private learning is a generally preferred learning environment for Aboriginal youth and adults. Interpretation

of the data from this investigation indicates that the preference for private learning is linked to the fear of embarrassment, thus indicating that self-concept is an important factor in literacy learning. The findings from this investigation on the importance of self-concept and the learning environment make a valuable contribution to the fields of adult learning research and Aboriginal learning styles. In addition, the resounding preference given by participants in this study for IT learning and its suitability for literacy learning indicates that digital literacy learning is an area that needs further exploration in research and practice.

The value of this study to current research is that its findings elucidate issues raised in other studies with Aboriginal youth and adults. For example, the importance of culture, social practices, and confidence have been highlighted in research findings with Aboriginal communities in remote and regional Australia (Boughton 2009; Boughton et al., 2013; Kral & Schwab, 2012). The connection between school absenteeism and problems learning to read and write has been revealed by the majority of younger participants in this investigation, elucidating findings from school-based research (COAG Reform Council, 2011; Purdie & Buckley, 2010).

The findings from this investigation could inform or inspire further research into post-secondary literacy programs available to Aboriginal youth and adults and their effectiveness. The importance of the learning environment, the changing literacy needs of the technological age, the propensity for Aboriginal students to engage with digital literacy learning, and the importance of cultural and social life to learning are all areas that need further exploration by researchers.

Policy and Practice

Much can be gleaned from self-reporting research to inform policy and practice in adult literacy provision. This investigation has shown policy makers and practitioners that learning environments need to relate to and connect with the daily lives of adult students, in order to engage them in literacy learning. The participants in this study called for individual tutoring, explicit teaching of the technical skills of reading and writing, and digital literacy opportunities that include Aboriginal culture/s and language/s. This information can be used to assist program developers in providing optimal learning conditions and developing strategies to engage urban Aboriginal youth and adults in meaningful literacy learning. This investigation also encourages practitioners to be aware of their students' literacy strengths and the social contexts of literacy use in the daily lives of their students. In this way, practitioners can focus on the purposes for which literacy is used and address the individual needs of their students. Waterhouse and Virgona (2008) claim that adult learning principles, exemplified by the aforementioned practices, are rendered unworkable by bureaucratic constraints. Policy makers, therefore, need to allocate adequate resources and provide incentives for the implementation of these practices and relieve practitioners from excessive, time-consuming bureaucratic processes that limit opportunities for pedagogically sound teaching practices.

A significant finding of this study was the strong preference for one-on-one literacy learning, particularly shown by the younger participants. The new directions by government in adult literacy provision, as outlined in Chapter 3, would appear to exclude opportunities for private tutorial support, which was once a feature of adult

literacy provision in TAFE colleges across Australia. The findings from this investigation suggest that this policy shift could be re-examined.

Another significant finding of this investigation was the unanimous support for IT learning. This research has confirmed the propensity of Aboriginal youth and adults to engage with technology in social and learning situations. Findings from studies with remote Aboriginal youth have indicated that technology-driven community projects are engaging youth in learning and enhancing their literacy skills (Kral & Schwab, 2012). The findings from the present investigation imply that urban Aboriginal youth and adults also deem technology to be useful. In this investigation, the data related to the use of technology in literacy learning revealed that culture, language, problem solving, flexibility of use, and explicit instruction are considered to be important components of an IT literacy program. Digital literacy learning inclusive of these attributes was seen to be engaging and considered worthwhile in improving literacy skills. These directions can be used to develop innovative literacy learning programs that are designed to engage Aboriginal youth and adults in successful literacy learning. In this way, the readiness of young people to engage with technology could be harnessed to produce positive results in post-secondary literacy education.

Langton (2013) believes the opportunities for Indigenous youth offered by information technology could be life-changing, and go beyond personal development, to contributing to the economic and social welfare of Indigenous communities and to the wider society. Langton (2013) has called for specific policy and funding that is needed to encourage the engagement of Indigenous youth in digital media and the digital economy. This request was echoed by participants at the 2013 Information

Technologies and Indigenous Communities symposium (see Chapter 3). The symposium highlighted positive outcomes from Indigenous engagement with technology and identified areas that needed funding and policy support to enhance their ability to positively transform Indigenous communities (Ormond-Parker et al., 2013). One area that was highlighted was the role played by mobile technologies, which are seen as crucial to community-based communications, and the trans-generational passing on of cultural knowledge. Findings from the current investigation indicate that mobile technologies, such as smart phones and iPads, have the potential to provide learning opportunities for urban Aboriginal youth and adults. It follows that affordable access to mobile technologies and related learning opportunities are critical factors that need to be supported by government policy.

Strengths and Limitations of the Study

An important aspect of this investigation is that it addresses the significant issue of literacy education for a cohort who may be considered marginalised and who rarely have input into research around the design of educational programs or resources. The perceptions of Aboriginal youth and adults are valuable to educators, program managers, and researchers. As well as being highly relevant to areas that are often researched, the results of this investigation are authentic and reliable. The views of the participants were expressed in an environment free from the influences of a literacy program, literacy teachers, or fellow students. The investigation was conducted in such a way as to capture the perspectives of the participants in an environment that was closely linked to their everyday lives. The responses of the participants were given freely and their views generously offered in discussion with the researcher. Thus, the authenticity of the investigation could be considered as an important strength. In the

words of one of the participants of this investigation, "It's good that street people are being asked about these things because they know a lot. They know a lot more than those people in suits behind desks" (Participant B3).

Hearing the voices of urban Aboriginal youth and adults is vital to further understandings by educators and researchers on the subject of post-secondary literacy learning. The strength of this investigation is the valuable contribution it can make to the fields of adult learning and Aboriginal learning styles that come from interpretations of participant responses in the context of these theories. While much of the research focusing on the literacy needs of Aboriginal adults has been undertaken in remote and regional areas of Australia, this investigation is unique in that it concentrates on urban Aboriginal youth and adults. It is important to consider the perceptions of urban Aboriginal people, since more than 70% of Australia's Indigenous population live in urban areas (ABS, 2007). It is also important for researchers and educators to understand the context of the changing way of life for urban Aboriginal and Torres Strait Islander people (Fredericks, 2013) and the impact this has on literacy learning.

While authenticity is considered a strength in qualitative methodology (Silverman & Marvarsti, 2008), there are aspects of authenticity that can also be viewed as a weakness. The main weakness is that perceptions by the interviewer and the interviewed are entirely dependent on personal interpretation. A good example of personal interpretation with this research is the self-assessment of literacy skills. Participants were asked to rate their reading, writing, and spelling skills on a scale of 1 to 10, with 1 being the lowest and 10 being the highest rating. Some participants, perhaps motivated by fear of embarrassment, appeared to over-rate their skills. When

their ratings were compared to the reading and writing activities they said they were good at, it was the researcher's interpretation that their literacy levels were probably lower than they perceived. However, another interpretation might be that they were practicing literacy skills that were adequate in their daily life and therefore it would be reasonable to rate them highly. In looking at perceptions it is necessary to take into account the frames of reference employed by the participants and the unintended influence of the researcher's presence on the participants' responses. For example, the younger participants may have been embarrassed in discussing literacy weaknesses with an older person such as the researcher, whereas the older participants seemed more comfortable with the researcher. In situations such as this investigation, where participation was dependent on the potential participant approaching the non-Aboriginal researcher, it is reasonable to assume that someone with very basic literacy skills would be either too ashamed to volunteer for an interview or would claim to be literate. Thus the comment earlier in this chapter, that some participants may have rated their skills as 'average', as a way of disguising their poor literacy skills.

Another limitation is the scope of the study. The sample size of 10 participants from two urban settings could not be considered representative of urban Aboriginal youth and adults. Such a small sample size could not and is not used to make generalisations about Aboriginal literacy learning. The perceptions and experiences of this sample are unique and, even when comparing the findings from each age group, they could not be categorised as 'typical'. The fact that the majority of the participants were women adds another limitation to the results of this investigation. And, as mentioned in Chapter 6, all of the older participants being women may have been a contributing factor in their expressed enjoyment of reading books. These limitations do

not, however, detract from the value of the participant responses, especially when analysed in detail. Silverman and Maravasti (2008, p. 34) claim that qualitative researchers often work with small numbers and can afford to "sacrifice scope for detail in people's understandings". One of the advantages of qualitative research is its ability to facilitate a deep understanding of the research questions under investigation (Cohen et al., 2011).

Conversely, a disadvantage of qualitative research is the potential for the researcher to be biased and subjective in the interview and analysis stages of the investigation (Cohen et al., 2011). While care was taken to limit such influences, it should nevertheless be considered as a weakness of this investigation. Furthermore, an overriding assumption of the present investigation, as with other qualitative studies, is the framing of the research problem and the questions asked. Were they the right questions to be asked? According to Silverman and Marvasti (2008, p. 34), "Research problems are not neutral; how we frame a research problem will inevitably reflect how the world works". How the researcher perceives the world to work may not necessarily reflect how the participant sees the world. Hence, perhaps, had the participants had input to the research questions, greater meaning may have been attributed to the answers given, and more extensive insights may have been gained. Furthermore, perhaps the research problem would not be considered a problem from their perspective. This raises another limitation of the investigation that would definitely be reconsidered by the researcher in further investigations – the lack of audio-recorded responses. If participants had agreed to be recorded the analysis of data may have been more comprehensive and better reflect nuances that may not be captured through the process of scribing participant responses.

Summary

This chapter has critically analysed and interpreted the findings from each research question presented to the participants. The themes that have emerged from the responses have been discussed under the heading of each question. If these same themes have emerged in response to other research questions, this has been duly noted. Reference has been made to other research findings that relate to this investigation. Finally the implications of the findings for theory, research, policy, and practice were discussed along with the strengths and limitations of the investigation.

CHAPTER 8

CONCLUSIONS

This investigation sought to elucidate participants' perceptions of: their literacy strengths and weaknesses; the perceived causes of any literacy difficulties they experience; ideal learning environments; favourable aspects of computer-based literacy learning, and intention to use a computer-based literacy program. In doing so it has highlighted the importance of literacy in the lives of the participants and how they use their skills in their daily activities. It has given insights into the types of learning environments that would engage urban Aboriginal youth and adults in literacy learning and it has stressed the relevance of technology in their lives and the desire to use technology for literacy learning.

Results from this investigation indicate that if the content and context of literacy learning is meaningful and inclusive, then urban Aboriginal youth and adults will engage in learning activities. It follows that if literacy programs are to be relevant they need to incorporate aspects of the student's world, including technology-based learning that incorporates Aboriginal language(s), and culture(s). Contemporary literacy is taking place in the digital arena, and the results of this investigation clearly demonstrate that younger and older participants are embracing technology in their daily lives and see the value of literacy learning through technology.

Previous research has found that the contexts of literacy present different demands and different perceptions of literacy (Barton & Hamilton, 2000; Street, 2003). In the present investigation, participants were aware of their literacy strengths and the specific literacy skills they need to develop in order to function successfully in changing contexts. Moreover, they expressed a desire to further improve their skills in ways that suited their personal situations and learning styles. It is evident that learning occurs across the lifespan, in contexts outside the classroom, and that it is transformative to the individual. This holistic interpretation of literacy is supported by the literature on Aboriginal learning styles (Christie, 2005; Wallace, 2009; Eady et al., 2010), and is an important factor to consider in developing adult literacy programs for Aboriginal students.

It may be difficult to incorporate such values in the current adult literacy climate where government-sponsored literacy programs are designed to fit the formula of literacy skill development for the workplace. Findings from the present investigation are an indication that current adult literacy provision is not commensurate with Aboriginal views on literacy learning, and that community-based and technology-based literacy learning opportunities for Aboriginal youth and adults that incorporate their culture and hold meaning for their lives could be beneficial. If literacy is a social practice, then literacy practices will vary depending on the social context and literacy demands will change accordingly. It follows that literacy is not uniform, and literacy programs need to be flexible and accommodating to the changing needs of students. This is not a new idea, and it raises the question why the predominant current literacy programs seek to teach one particular form of literacy: vocational literacy. How is this sustainable if learners are motivated by other concerns? If literacy is a social practice

then students need to have choices about the kinds of literacy they want to learn (Street, 2001). As this investigation indicates, the literacy needs of Aboriginal youth and adults are intrinsically connected to their personal lives.

The challenge for educators and researchers is to develop innovative, evidence-backed programs to engage Aboriginal youth and adults in post-secondary literacy education and assist low-level literacy students to participate in broader social and economic aspects of society if they so wish. The present investigation is a step into offering some insights for addressing this challenge.

APPENDICES

Appendix 1: Ethics Approval

From: Kylie Pashley <Kylie.Pashley@acu.edu.au> on behalf of Res Ethics
<Res.Ethics@acu.edu.au>
Sent: Tuesday, 22 July 2014 2:30 PM
To: Rhonda Craven; Anne Ndaba
Cc: Res Ethics
Subject: 2014 119N Transfer of External Ethics Approval
The updated original version of this approval was sent on 29/05/2014. Kylie
Dear Rhonda,
Principal Investigator: Prof Rhonda Craven
Student Researcher: Ms Anne Ndaba (HDR student)
Ethics Register Number: 2014 119N
Project Title: Investigating Aboriginal Youth Perceptions of their Literacy Needs
and What Innovative Approaches would Engage Them in Literacy Learning.
Risk Level: Multi Site
Date Approved: 22/05/2014
Ethics Clearance End Date: 31/12/2014
The ACU HREC has considered your application for ethics transfer 2014 119N
Investigating Aboriginal Youth Perceptions of their Literacy Needs and What
Innovative Approaches would Engage Them in Literacy Learning.
As this application has already been ethically reviewed by the University of
Western Sydney, ACU HREC accepts the approval and has noted that no
adverse events have occurred during the conduct of the project whilst the
University of Western Sydney has been responsible for the project. This project
has now been recorded as an ACU project for which ACU is responsible. Please
ensure that annual progress reports are submitted to ACU on the anniversary of
the end date. A reminder will be sent by Research Services.
*** If data collection is still in progress please ensure that the information letters
are amended to ACU letterhead and please follow ACU's recommended
information letter and consent form format. The template is available for
download from: http://www.acu.edu.au/research/support_for_researchers/
human_ethics .
This project has been awarded ethical clearance until 31/12/2014. In order to
comply with the National Statement on Ethical Conduct in Human Research,
progress reports are to be submitted on an annual basis. If an extension of time
is required researchers must submit a progress report.
Whilst the data collection of your project has received ethical clearance, the
decision and authority to commence may be dependent on factors beyond the
remit of the ethics review process. The Chief Investigator is responsible for
ensuring that appropriate permission letters are obtained, if relevant, and a copy
forwarded to ACU HREC before any data collection can occur at the specified
organisation. Failure to provide permission letters to ACU HREC before data
collection commences is in breach of the National Statement on Ethical Conduct

in Human Research and the Australian Code for the Responsible Conduct of Research.

If you require a formal approval certificate, please respond via reply email and one will be issued.

Decisions related to low risk ethical review are subject to ratification at the next available Committee meeting. You will only be contacted again in relation to this matter if the Committee raises any additional questions or concerns.

Researchers who fail to submit an appropriate progress report may have their ethical clearance revoked and/or the ethical clearances of other projects suspended. When your project has been completed please complete and submit a progress/final report form and advise us by email at your earliest convenience. The information researchers provide on the security of records, compliance with approval consent procedures and documentation and responses to special conditions is reported to the NHMRC on an annual basis. In accordance with NHMRC the ACU HREC may undertake annual audits of any projects considered to be of more than low risk.

It is the Principal Investigators / Supervisors responsibility to ensure that:

1. All serious and unexpected adverse events should be reported to the HREC with 72 hours.

2. Any changes to the protocol must be approved by the HREC by submitting a Modification Form prior to the research commencing or continuing.

3. All research participants are to be provided with a Participant Information Letter and consent form, unless otherwise agreed by the Committee.

For progress and/or final reports, please complete and submit a Progress / Final Report form:

http://www.acu.edu.au/593192

For modifications to your project, please complete and submit a Modification form:

http://www.acu.edu.au/593192

Researchers must immediately report to HREC any matter that might affect the ethical acceptability of the protocol eg: changes to protocols or unforeseen circumstances or adverse effects on participants.

Please do not hesitate to contact the office if you have any queries.

We wish you well in this research project.

Regards,

Kylie Pashley

on behalf of ACU HREC Chair, Dr Nadia Crittenden

Ethics Officer | Research Services

Office of the Deputy Vice Chancellor (Research)

res.ethics@acu.edu.au

Appendix 2: Flyer for Location 1

Add your voice to research on literacy and Aboriginal youth & adults

You are invited to participate in a University research project – tell us what you think about literacy education for Aboriginal people and what programs would improve literacy skills of Aboriginal youth and adults.

WHO: Aboriginal youth and adults aged 15 plus years

WHAT: Talk about literacy skills and the best way to improve literacy skills

WHY: Help educators provide the best programs to improve literacy skills of Aboriginal youth

WHERE: ████████████████

* You will receive a $20 food voucher in appreciation of your participation in a 30-40 minute interview with the researcher

CONTACT: Anne Ndaba, ph. ██████████
or speak to staff at ████
        Ethics approval: 2014 119N

Appendix 3: Participant Information Letter

(ACU Letterhead)

PROJECT TITLE: Investigating Aboriginal Youth Perceptions of their Literacy Needs and What Innovative Approaches would Engage Them in Literacy Learning.
PRINCIPAL INVESTIGATOR: Anne Ndaba
STUDENT'S DEGREE: Masters of Philosophy

Dear Participant,

You are invited to participate in the research project described below.

What is the project about?
The aim of this project is to understand the literacy needs of Aboriginal youth, the causes of literacy difficulties and how they believe they could improve their literacy skills. Questions about how they want to learn and what they think would engage them in literacy learning will be asked in a 30-40 minute interview.

Who is undertaking the project?
This project is being conducted by Anne Ndaba and will form the basis for the Masters Degree of Philosophy at Australian Catholic University under the supervision of Professor Rhonda Craven.

Are there any risks associated with participating in this project?
It is not anticipated that participants will feel distress but if distress is experienced participants can stop participating at any time and can contact the NSW Mental Health Hotline on 1800 011 511.

What will I be asked to do?
Aboriginal youth who are clients of youth and community centres will be invited to participate. The research will involve a short oral survey and then a one-on-one interview, which will be audio recorded (if the participant agrees). The survey will gain background information such as the participant's age, gender and how they rate their literacy and computer skills. The interviews will be conducted in a conversational style and will take place in a comfortable environment familiar to the participants. Six open questions will be asked to elicit information on why the participants think they did not adequately learn to read and write at school and what learning environments they think would assist them in improving their literacy skills.

How much time will the project take?
The questionnaire will take less than 5 minutes and the interview will take 30-40 minutes. There will be no follow-up visits or interviews.

What are the benefits of the research project?
By participating in this research participants will have the opportunity to express their views on literacy learning and tell researchers what they think would assist them in improving their literacy skills. This research is designed to give a voice to Aboriginal youth in order to inform best practice in literacy learning.

Can I withdraw from the study?

Participation in this study is completely voluntary. You are not under any obligation to participate. If you agree to participate, you can withdraw from the study at any time without adverse consequences

Will anyone else know the results of the project?
Please be assured that only the researchers will have access to the raw data you provide. The participants will remain anonymous and their responses will not be identifiable.

The findings of the research will be published as a Masters of Philosophy thesis. It is also anticipated that findings from this research may be presented in conference papers and/or academic journal articles.

Will I be able to find out the results of the project?
The final results will be published in the researchers Masters thesis and made available to the youth or community centre where participants were located.

Who do I contact if I have questions about the project?
Please contact Anne Ndaba should you wish to discuss the research further before deciding whether or not to participate.
Anne Ndaba, Masters of Philosophy student, ACU.
ph. 0403 006 747

What if I have a complaint or any concerns?
The study has been reviewed by the Human Research Ethics Committee at Australian Catholic University (review number 2014 119N). If you have any complaints or concerns about the conduct of the project, you may write to the Manager of the Human Research Ethics Committee care of the Office of the Deputy Vice Chancellor (Research).

Manager, Ethics
c/o Office of the Deputy Vice Chancellor (Research)
Australian Catholic University
North Sydney Campus
PO Box 968
NORTH SYDNEY, NSW 2059
Ph.: 02 9739 2519
Fax: 02 9739 2870
Email: res.ethics@acu.edu.au

Any complaint or concern will be treated in confidence and fully investigated. You will be informed of the outcome.

I want to participate! How do I sign up?
To participate in this research project please contact your community centre coordinator or ring the researcher directly: Anne Ndaba m. 0403 006 747. Prior to participation you will be asked to sign a consent form.

Yours sincerely,

Anne Ndaba
m. 0403 006 747

Appendix 4: Participant Consent Form

(ACU Letterhead)

CONSENT FORM
TITLE OF PROJECT: Investigating Aboriginal Youth Perceptions of their Literacy Needs and What Innovative
Approaches would Engage Them in Literacy Learning.
PRINCIPAL INVESTIGATOR : Anne Ndaba
I .... (the participant) have read (or, where appropriate, have had read to
me) and understood the information provided in the Letter to Participants. Any questions I have asked
have been answered to my satisfaction. I agree to participate in this 30-40 minute interview about
literacy and Aboriginal youth, realising that I can withdraw my consent at any time without adverse
consequences. I agree that research data collected for the study may be published or may be provided
to other researchers in a form that does not identify me in any way.
I agree to have my responses audio recorded.
I do not agree to have my responses audio recorded.
NAME OF PARTICIPANT:
....
SIGNATURE .... DATE ....
SIGNATURE OF PRINCIPAL INVESTIGATOR:
....
DATE:………………………..
PARENT/GUARDIAN CONSENT FORM
TITLE OF PROJECT: Investigating Aboriginal Youth Perceptions of their Literacy Needs and What Innovative
Approaches would Engage Them in Literacy Learning.
PRINCIPAL INVESTIGATOR: Anne Ndaba
I .... (the parent/guardian) have read (or, where appropriate, have had read to
me) and understood the information provided in the Letter to the Participants. Any questions I have asked have
been answered to my satisfaction. I agree that my child, nominated below, may participate in this 30-40 minute
interview about literacy and Aboriginal youth, realising that I can withdraw my consent at any time without
adverse consequences. I agree that research data collected for the study may be published or may be provided
to other researchers in a form that does not identify my child in any way.
I agree that the responses may be audio recorded.
I do not agree to have the responses audio recorded.
NAME OF PARENT/GUARDIAN:
....
SIGNATURE ....……………………… DATE:
....
NAME OF CHILD
SIGNATURE OF PRINCIPAL INVESTIGATOR:
....

ASSENT OF PARTICIPANTS AGED UNDER 18 YEARS

I ……………………… (the participant aged under 18 years) understand what this research project is designed to

explore. What I will be asked to do has been explained to me. I agree to take part in this 30-40 minute interview

about literacy and Aboriginal youth, realising that I can withdraw at any time without having to give a reason

for my decision.

NAME OF PARTICIPANT AGED UNDER 18:

....

SIGNATURE: DATE: ....

SIGNATURE OF PRINCIPAL

INVESTIGATOR:……………………………….DATE:…………………….

Appendix 5: Participant Questionnaire

Investigating Aboriginal Perceptions of Literacy Needs: Elucidating Innovative Approaches to Engage Aboriginal Youth and Adults in Literacy Learning.

Participant Questionnaire

▢ Male
▢ Female

Age:

Are you employed?　　　▢ Yes　　　　　　Enrolled in a course?　　▢ Yes - Course
　　　　　　　　　　　　▢ No　　　　　　　　　　　　　　　　▢ No

Q1.　　On a scale of 1 to 10, with 10 being very good, how do you rate your reading skills?

Q2.　　On a scale of 1 to 10, with 10 being very good, how do you rate your writing skills?

Q3.　　On a scale of 1 to 10, with 10 being very good, how do you rate your spelling skills?

Q4.　　On a scale of 1 to 10, with 10 being very good, how do you rate your computer skills?

Q5.　　Do you have access to a computer?

Q6.　　How often do you use a computer?

Q7.　　Would you use a computer-based program to improve your literacy skills?

Appendix 6: Interview Questions

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terview Questions

What reading and writing skills do you think you are good at?
r example: Reading signs, reading timetables, reading school notes, reading magazines, reading words on TV ads
shows, reading shopping labels, spelling, using computer programs, YouTube, iTunes, IT games, phone apps, texting
iting emails, Facebook

There are different skills involved in reading and writing. (Give examples.) What would you like to improve the mos
r example: Spelling, reading (newspapers, web searching, magazines, books, govt letters & forms), writing sentences
ling out forms, writing emails and notes

Did you have any difficulties learning to read and write at school? If so, what things caused you difficulties?

If you were to improve your reading and writing, what do you think is the best way for you to learn?
r example: Enrolling in a literacy class (TAFE, youth group, job centre etc.), using a computer program, a phone app
orking with a one-on–one tutor, studying a vocational course

What aspects of a computer based literacy program would help you improve your reading and writing skills?
r example: Interactive media, using a screen not books, convenience, personal use

Do you think you would use an interactive IT program to improve your reading and writing skills?

What type of features would you like to see in an interactive IT program that teaches reading and writing?
r example: Videos, games, puzzles, writing sentences, matching words and symbols, writing sentences, spelling,
original art, music and language, Aboriginal English

Appendix 7: Abstract for Potential Participant Organisations

> Investigating Aboriginal Perceptions of Literacy Needs: Elucidating Innovative Approaches to Engage Aboriginal Youth and Adults in Literacy Learning

Researcher:
Anne Ndaba
Masters of Philosophy student,
Australian Catholic University
Contact details: ph. 0403 006 747

Principal supervisor:
Professor Rhonda Craven

Ethics Approval:
2014 119N, Australian Catholic University Ethics Committee

Research Project:
This is a qualitative study of perceptions by Aboriginal youth and adults on literacy learning and the most appropriate means of improving their literacy skills. To address this overarching aim, the researcher would like to conduct one-on-one interviews with willing participants, aged 15 years and over. The interviews should take 30-40 minutes. Participants will be asked to complete a short, 5-minute questionnaire before their interview. All information will be scribed by the researcher and the participant will not be asked to read the questionnaire or write their answers. The questionnaire is attached for your information.

Confidentiality:
All responses will be anonymous and participants will not be identifiable.

Location of interviews:
The interviews will be conducted at a location where the participant feels comfortable and is recommended by your organisation.

Interview questions:
The following questions will be asked of the participants and their answers will be scribed or audio-recorded – in accordance with the participant's wishes.

Question 1:
What reading and writing skills do you think you are good at?

Question 2:
There are different skills involved in reading and writing. What skills would you like to improve the most?

Question 3:
Did you have any difficulties learning to read and write at school? If so, what things caused you difficulties?

Question 4:
If you were to improve your reading and writing, what do you think is the best way for you to learn?

Question 5:
What aspects of a computer-based literacy program would help you improve your reading and writing skills?

Question 6:
Do you think you would use an interactive IT program to improve your literacy skills?

Question 7:
What type of features would you like to see in an interactive IT program that teaches reading and writing?

All data collected by the researcher will be held securely and confidentially at the Institute of Positive Psychology (IPPE), Australian Catholic University.

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