

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

***Outcomes and Impacts of
Workplace Literacy Programmes
in New Zealand***

***A thesis presented in partial fulfilment of the requirements for
the Degree of
Master of Philosophy (Business)
in Communication Management, at
Massey University, Palmerston North, New Zealand***

Nicola Belle McCartney

2006

Abstract

Current government focus of initiatives and funding for foundation learning incorporating workplace literacy suggests that there is a link between skill investment and workplace productivity. Workbase: The New Zealand Centre for Workforce Development, claims that the link between literacy skills for participation in the workforce and increased productivity is very direct (Workbase, 2006c, p.2).

The results of the International Adult Literacy Survey (IALS) in 1996 found an estimated 40 per cent of New Zealand adults lack the literacy skills needed for everyday demands of their work role (Workbase, 2006c). These results coupled with current low unemployment rates have provided impetus to address workplace literacy needs.

Providing workplace literacy programmes requires employers to overcome a number of obstacles ranging from costs of skill investment and the practicality of implementation to philosophical questions of whether the company perceives skill investment of employees as part of their responsibility. Employers also need to be able to derive benefits for the organisation.

This research focused on how workplace literacy programme participants and management representatives were experiencing workplace literacy programmes. Sixteen programme participants and nine management representatives from five companies described their experiences and their perceptions of programme outcomes and the impacts in the organisation. The programme participants took part in individual interview sessions which incorporated a self-assessment questionnaire on

their perceived progress. A separate interview was held with each of the management representatives. The results identified that workplace literacy programmes were having generally positive outcomes and impacts. Increased self-confidence of the programme participants was a recurring theme along with academic literacy skill gain and other non-academic outcomes such as changes in attitudes and increased participation in the workforce. Impacts in the workplace were perceived by management as more accurate documentation, increased efficiency, increased independence, an improved flow of work and increased productivity.

Programme participants were invited to also talk about prior academic learning experiences and their perceptions of effective learning. From the prior academic experiences were descriptions of students feeling alienated from the system, lacking self-confidence, falling behind and leaving school at an early age. In contrast they talked positively about their experiences on the workplace literacy programmes and identified key ingredients as a positive tutor-student relationship, a meaningful programme and an environment where they felt safe and were treated with respect.

The challenge that educators, researchers, government officials, policy makers, employers and schools currently face is the need to address low literacy levels effectively. Early detection at school, accessibility of programmes, further learning after leaving school, workplace support and encouragement, effective programmes and delivery are all implications from this research.

This research discussed the link between investing in people skills in the workplace and increased workplace productivity. It also highlighted a link between workplace

literacy programmes and a healthier and more functional society; an area recommended for further follow-up research. Two other areas of recommended follow up research were best practice for workplace literacy programmes and research at schools to identify potential low achieving students.

Acknowledgements

My first acknowledgement is to the honesty and openness of the workplace literacy programme participants who were willing to tell their stories. From these people I was privileged to learn of their literacy journeys; their struggles, their determination, their courage and their successes. Without them this project would not have been possible. My thanks go to the companies who were willing to participate and their management representatives who helped to provide other insights into the literacy world within their organisations. My final acknowledgement of gratitude is to friends, colleagues and family for their enduring support, patience and encouragement. Every little bit has helped to realise this part of my life journey.

Contents

Abstract	i
Acknowledgements	iv
Table of Contents	v
Table of Figures	vii
CHAPTER 1: INTRODUCTION	1
1.1 Introduction	1
1.2 Views and definitions of literacy	1
1.3 Approaches to adult literacy	4
1.4 Historical perspective of literacy in New Zealand	5
1.5 Current focus of literacy in New Zealand	8
1.6 Factors contributing to the current focus	11
1.7 Research aims	14
1.8 Overview of thesis	17
CHAPTER 2: LITERATURE REVIEW	18
2.1 Introduction	18
2.2 The link between literacy and workplace productivity	20
2.2.1 Individual gains	21
2.2.2 Organisational gains	26
2.2.3 Issues of measurement	29
2.3 Prior academic learning contributing to low literacy levels	32
2.4 Key factors contributing to effective workplace literacy programmes	34
2.5 Summary	38
CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY	40
3.1 Introduction	40
3.2 Different research approaches	41
3.2.1 Paradigm	42
3.2.2 The researcher's paradigm	43
3.2.3 Strategies of inquiry	44
3.2.3.1 Quantitative approach	44
3.2.3.2 Qualitative approach	44
3.2.3.3 Mixed methods approach	45
3.2.4 Triangulation	46
3.2.5 Validity and reliability	46
3.2.6 Choosing a method	47
3.2.7 Ethical considerations	48
3.2.8 Data collection procedure	48
3.3 The research process for this study	49
3.3.1 Background	49
3.3.2 The companies	50
3.3.3 Ethical concerns	52
3.4 Method of approach	54
3.4.1 Programme participant interview	54
3.4.2 Management representative interview	56
3.4.3 Research participants	56

3.5	Programme participant interview	60
3.6	Management representative interview	63
3.7	Data analysis techniques	64
3.8	Summary	66
3.9	Limitations of this study	67
CHAPTER 4: RESULTS		69
4.1	Introduction	69
4.2	Programme outcomes and their impacts in the workplace	69
	4.2.1 Academic outcomes	70
	4.2.2 Non-academic outcomes	77
	4.2.3 Management perspectives on impacts in the workplace	86
4.3	Programme participants' perspectives on learning experiences	91
	4.3.1 Prior school experiences and low literacy levels	91
	4.3.2 Factors contributing to effective learning	92
4.4	Summary	94
CHAPTER 5: DISCUSSION		96
5.1	Workplace literacy programmes – their outcomes and impacts	96
5.2	Outcomes of workplace literacy programmes	98
	5.2.1 Academic outcomes	98
	5.2.2 Non-academic outcomes	101
5.3	Impacts of workplace literacy programmes in the workplace	108
5.4	Programme participants' prior academic learning experiences	113
5.5	Key ingredients for effective learning	116
5.6	Summary	120
CHAPTER 6: CONCLUSION		122
6.1	Conclusions	122
6.2	Implications of this study	125
6.3	Suggestions for future research	130
References		132
Appendices		
A	Company permission form and information sheet	143
B	Programme participant consent form and information sheet	146
C	Management interview	149
D	Programme participant interview and questionnaire	151

Table of Figures

Table 3.1	Company profiles	51
Table 3.2	Timeframe for the research process	52
Table 3.3	Programme participants	59
Table 3.4	Management representatives	60
Table 3.5	Programme participant questions relating to aims of research	67
Table 3.6	Management questions relating to aims of research	67
Table 4.1	Programme participants' perceptions of their literacy skills prior to their programme commencement	71
Table 4.2	Programme participants' perceptions of their academic literacy skills at the time of the interview	72
Graph 4.1	Academic results 'pre-programme' to 'current' as perceived by programme participants	72
Graph 4.2	Overall band values 'pre-programme' to 'current' as perceived by programme participants	73
Table 4.3	Programme participants' self-assessment on 'self-confidence' and 'care with money' pre-programme compared with 'current'	77
Graph 4.3	Increase in self-confidence as perceived by programme participants	78
Graph 4.4	Increase in 'care with money' as perceived by programme participants	79
Table 4.4	Social changes self-assessment	80
Graph 4.5	Social changes	81
Table 4.5	Economic changes self-assessment	82
Graph 4.6	Economic changes	83

Chapter 1: Introduction

1.1 Introduction

Government has identified workplace literacy as an issue of critical importance to New Zealand's economic and social prosperity. An estimated 40 percent of New Zealanders do not have all the literacy skills they need for the everyday demands of their work role. (Workbase, 2006c, p.2)

What do we know about literacy in New Zealand? What research has informed our current thinking and focus of literacy? What is being done to address literacy needs in New Zealand? These questions form the basis of this chapter in introducing the New Zealand context of literacy and setting the scene for investigating workplace literacy programmes.

- 1.2 Views and definitions of literacy
- 1.3 Approaches to adult literacy
- 1.4 Historical perspective of literacy in New Zealand
- 1.5 Current focus of literacy in New Zealand
- 1.6 Factors contributing to the current focus
- 1.7 Research aims
- 1.8 Overview of thesis

1.2 Views and definitions of literacy

The complexity of literacy is illustrated by the changing conceptions of literacy over the years influenced by social, political and economic factors that have driven the thinking of literacy. No longer is literacy simply defined as reading and writing. The way literacy is measured is an example of changing views about literacy.

The measurement of literacy is ... not simply a case of classifying someone as either 'literate' or 'illiterate'. Literacy forms a continuum from those people in society who have only basic reading skills to those who possess highly-developed skills to allow them to comprehend complex information. (Ministry of Education, 2001, p.22)

In addition to the view of literacy as a continuum rather than a simplistic notion of either illiterate or literate (Johnston, 2004), current thinking shaping our views include: 'adult literacy' as generally inclusive of adult numeracy and English as a second language (McKenna & Fitzpatrick, 2004); and literacy, numeracy and language (LNL) teaching and programme provision within the broader arena of foundation learning (Benseman, Sutton & Lander, 2005). Foundation learning has become an umbrella for adult literacy in New Zealand and is currently described as:

The application of a complex web of reading, writing, speaking, listening, critical thinking, problem solving, numeracy skills and communication technology so that people can achieve their own goals in meaningful social, cultural, vocational and/or learning contexts. (New Zealand Qualifications Authority, 2006)

From the context of a new knowledge economy, Lonsdale and McCurry (2004) describe the changing conceptions of literacy from 'knowing about' to 'knowing how to', and refer to the OECD's (2002) conceptualisation of human capital which goes beyond the possession of literacy, numeracy and workplace skills to the skills which allow individuals to develop and use these skills, such as the ability to learn, be organised and plan ahead. Lankshear (cited in Lonsdale & McCurry, 2004) defines literacy into four types:

- 'lingering basics' referring to mastery of basic skills (school work);
- 'new basics', the skills needed to contribute productively to a capitalist society;
- 'elite literacies', the high order skills; and
- 'foreign language literacy' enabling participation in the operations and dealings of a global marketplace.

These views of literacy suggest that economic factors, in particular, globalisation, competition and productivity, are some of the influences shaping this thinking about literacy.

Literacy has also evolved from the notion that rather than literacy as an 'autonomous' construction of climbing a ladder with a group of illiterates on the bottom, it is instead viewed as embedded in social practices rather than as technical skills to be learned in formal education (Maclachlan & Cloonan, 2003). Scribner (cited in Demetrian, 2001) expounds a similar view in that literacy is best understood as a set of practices imbedded within the context of local culture. These views which are influenced more by social factors focus on social practices and local culture.

The National Adult Literacy Agency (NALA) emphasises the individual's ability to realise his or her own potential and the impacts that can be made.

Literacy involves listening and speaking, reading, writing, numeracy and using everyday technology to communicate and handle information. It includes more than the technical skills of communication: it also has personal, social and economic dimensions. Literacy increases the opportunity for individuals and communities to reflect on their situation, explore new possibilities and initiate change. (NALA, 2005, p.3)

The emphasis on personal outcomes and impacts continues with Johnston (2004) who refers to New Zealand's Workbase: The National Centre for Workplace Literacy and Language (2000) definition as; 'literacy is not just reading and writing, but speaking, listening, critical thinking, problem solving and numeracy.' Johnston also refers to the Scottish Executive 2001 definition, as 'the ability to read, write and use numeracy, to handle information, to express ideas and opinions, to make decisions and solve problems, as family members, workers, citizens and lifelong learners.'

Within the context of the workplace, Hull et al (cited in Scholtz & Prinsloo, 2001, p.710) have suggested that literacy at work is more than using basic skills. Instead, literacy is more about being able to use literacy for varied and wide purposes so that workers are able to ‘dip appropriately and as needed into a wide and deep repertoire of situated ways of using written language and other forms of representation in order to carry out a work related activity’. The use of literacy for varied and wide purposes is endorsed by the 1996 International Adult Literacy Survey (IALS) which defines literacy as ‘the ability to understand and employ printed information in daily activities: at home, at work and in the community’. Workbase: National Centre for Workplace Literacy and Language, (2000) has expanded this definition to, ‘Literacy is a complex web of reading, writing, speaking, listening, problem solving, critical thinking and numeracy skills.’

1.3 Approaches to adult literacy

Foundation learning and/or adult basic education is ‘based on the approach that effective learning builds on the wealth of life experience which adults bring to their work on literacy development’ (NALA, 2005, p.9). Key contributors to this approach are Paulo Freire and Tom Sticht whose work underpins adult literacy.

Paulo Freire’s work dates from the 1970s. Freire’s ‘Pedagogy of the Oppressed’ (1993) discussed education as liberation from oppression. His approach, known as the ‘critical approach’, based the content of language lessons on cultural and personal experiences (Benseman, 1996). It is learner-centred and participatory, in which adults determine the content and direction of their own education (Sticht, 2004). Spener (1992), in discussing the Freirean approach to adult literacy education, talked about

‘literacy for social change’ and stated that unjust conditions are the cause of illiteracy and that the purpose of adult basic education is to enable learners to participate actively in liberating themselves from the conditions that oppress them.

An alternative to the ‘critical approach’ is the ‘functional approach’ in which literacy integrates basic skills education with important content area, knowledge and skills (Sticht, 2004). It is argued that this approach makes more rapid progress in achieving sustainable development. The ‘functional approach’ is also contextual and Sticht (2005) has stated that a basic tenet of functional context education theory is that adult literacy education ought to be based on what is relevant to the contexts of adult lives. In a workplace literacy programme this relates to making the learning relevant to their workday and roles. The ‘critical approach’ on the other hand is based on learning from the discussion of themes of importance to adult learners, drawn from their real-life experiences (Spener, 1992).

1.4 Historical perspective of literacy in New Zealand

McKenna and Fitzpatrick (2004) have provided an overview of New Zealand’s literacy development with the first community literacy programme through Massey University recorded in 1970. This was followed in 1976 with the National Council for Adult Education’s first seminar on literacy. Seed grants from the McKenzie Education Foundation and then government funding encouraged community programmes and in the early 1980s the literacy federation, Adult Reading and Learning Assistance (ARLA) was formed with a grant of \$10,000. By 1989 the grant had risen to \$400,000 and ARLA has since been renamed Literacy Aotearoa (McKenna & Fitzpatrick, 2004).

As concerns about literacy became linked to rising unemployment, funding was increased, and a number of initiatives were established during International Literacy Year in 1990, one of which was a workplace literacy project. In 1996 'Workbase: National Centre for Workplace Literacy' was founded with a small grant from the Ministry of Education to set up library and information services, and offerings of adult literacy programmes in the workplace. Workbase is an independent non-profit organisation whose funding comes from government annual contracts, commercial activities and contestable funding pools (Workbase, 2006).

In the 1990s, the National Qualifications Framework (NQF) incorporated a series of communication unit standards designed for both first and second language speakers in Levels one and two on the NQF. These have subsequently been used for workplace literacy programmes although there is debate about the inclusion of unit standards in workplace programmes. Hales (2004) has criticised external qualifications and external providers for workplace learning saying that the requirement to meet external requirements has a 'dumbing down' effect on the learners and has argued for transferable skills from formal courses to be built on within the company environment through company policies.

Prior to the 1996 International Adult Literacy Survey (IALS), Moore and Benseman (2003) conducted a survey on workplace related literacy demands of employees and supervisors and concluded that there had been significant changes in demands on literacy, language and numeracy skills. The study found that significant numbers of employees currently working in New Zealand had low levels of literacy, language and

numeracy skills. It also found that effective workplace programmes need to be relevant and contextualised.

Sutton and Benseman (1996) in their findings on adult literacy and basic education in New Zealand from 1960 to 1996 reported that the perception in the early 1990s of New Zealand's reading literacy results as highly successful was, in fact, inaccurate. Furthermore, their research found that adult literacy and basic education suffered from a lack of policy and research to guide its development.

The International Adult Literacy Survey (IALS) undertaken in New Zealand in 1996 provided findings that supported both Moore and Benseman's 1993 study and Sutton and Benseman's 1996 study. IALS, which produced information from 20 countries, examined people's ability to understand and employ printed information in daily activities, across three domains of literacy skills – prose, document and quantitative literacy. Proficiency was graded along five levels. Levels 1 and 2 indicated a low literacy level and Levels 3 and above indicated 'functional literacy', that is, the literacy skills necessary to function within today's economic market. Levels 4 and 5 were considered the highest levels of literacy. For the purposes of the report, they were combined into a 'Level 3 or more' category.

New Zealand's performance in the survey was, on average, in line with results for a number of countries, including; the United Kingdom, the United States, Australia and Canada. The results from the survey were based on a random sample of 4223 New Zealand adults ranging from 16 to 65 years (Ministry of Education, 2001, p.22). The survey found that 45 percent of adult New Zealanders were in Levels 1 and 2 for

prose literacy, 50 percent for document literacy and 49 percent for quantitative literacy. In relation to workplace literacy, in 2001 the Ministry of Education estimated that there were ‘...fewer than 2,000 literacy learners in workplaces yet IALS estimated that nearly 100,000 people currently employed in New Zealand have very poor literacy (Ministry of Education, 2001, p.9).

Further research by Culligan, Arnold, Noble and Sligo (2005) used the New Zealand IALS data to predict adult literacy levels from certain demographics and a statistical model analysed the number and location of people at Levels 1 and 2 for 1996 to arrive at predictions for 2001 and 2004. Some of the key findings from the research follow. Those with Level 1 proficiency were most likely to be working within manufacturing and agriculture, hunting, and fishing industries and least likely to be in the business sector. Those of literacy Level 2 and below were most likely to have three years or less of secondary school education. Those with literacy Level 3 and above showed an opposite pattern, with the majority having tertiary education. People who identify as Asian, Pacific, or Māori appear to be more at risk of low English literacy than those who identify as European/Pākehā. The highest need for literacy provision in 2004 was the East Cape, parts of the Bay of Plenty, parts of Taranaki, Auckland, and the far north (Ministry of Education, 2005).

1.5 Current focus of literacy in New Zealand

The Ministry of Education has attempted to address adult literacy with its New Zealand Adult Literacy Strategy ‘More Than Words’, (2001) and has taken an increasingly proactive role in adult literacy. The key goals in the strategy are to: increase opportunities for adult literacy learning; develop capability in the adult

literacy teaching sector; and improve quality to ensure that adult literacy teaching and learning programmes are world class. Cooperation among government departments is becoming evident with the collaboration among the Tertiary Education Commission (TEC), Ministry of Education, Department of Labour, Ministry of Social Development and the Ministry of Economic Development (Workbase, 2006b).

The Tertiary Education Commission (TEC) established in 2003, has the responsibility for implementing the government's adult literacy strategy. From the strategy, initiatives have been developed to strengthen the capability of the adult literacy sector, develop tutor skills, and increase learning opportunities. Funding is available for workplace literacy programmes and there has been an increase in workplace literacy providers.

Current approaches to foundation skills are extensions of the 2001 New Zealand Adult Literacy Strategy with foundation learning incorporating literacy, numeracy and language (or LNL). Foundation learning has become increasingly recognised as an important component across the tertiary sector (Cain, Johnson & Benseman, cited in Benseman et al, 2005) with its inclusion in the current government policies and strategies (Ministry of Education 2001, 2002, 2003, 2003a, cited in Benseman et al, 2005). The importance of foundation learning is highlighted with almost \$16 million awarded to over 90 adult literacy providers for 240 programmes through the 2007 round of the TEC Foundation Learning Pool Funding (TEC, 2006). TEC also administers the Workplace Literacy Fund and is currently offering up to 85 percent subsidy to support effective workplace literacy programmes.

The New Zealand Qualifications Authority (NZQA) is currently developing a quality system for foundation learning called Foundation Learning Quality Assurance (FLQA). Part of the FLQA's plan is to up-skill foundation programme tutors in integrated adult literacy teaching with a 40 credit Adult Literacy Education (Vocational Tutor) qualification. A specialist literacy tutor qualification, National Certificate in Adult Literacy Education (Educator) of 83 credits has also been registered on the New Zealand Qualifications Framework and TEC is administering study grants for practitioners to gain literacy qualifications. Cain et al (cited in McKenna & Fitzpatrick, 2004, p.29) note that 'the level of expertise in the field of adult literacy is quite low...those who work in the field receive low pay and have low status, and the short term and unpredictable funding streams provide little incentives for taking up work in the field.'

Comrie et al's research on employment and literacy has found that increasing compliance is one of the changes in the workplace context requiring higher levels of functional workplace literacy skills.

'Within New Zealand there was now a greater need for workers to engage in documentation, form filling, and reading and understanding regulations, as for example, in Health and Safety regulations. Workers in industries where they could previously have functioned with limited literacy now needed higher levels of literacy skills (Comrie et al, 2005, p.34).'

The requirement for higher levels of functional workplace literacy skills is resulting in more industries pre-screening applicants (Comrie et al, 2005). Their research also suggests that employers are recognising that along with basic foundation skills and literacy skills that communication skills are also of importance in career advancement.

TEC, The Ministry of Education and the Department of Labour are working on a range of initiatives. TEC is developing Learning Progressions for foundation level competency. The Ministry of Education is working on Descriptive Standards for literacy, language and numeracy outcomes and Key Competencies for social, economic and individual goals. The Ministry of Education's *Learning for Living* project is providing professional development for tutors in literacy and numeracy and the Department of Labour is engaged in research and development on workforce upskilling. Historically, provision of literacy development has been predominantly with Literacy Aotearoa and Workbase but is now expanded to include Private Training Establishments (PTEs), Tertiary Education Institutes (TEIs), adult and community education providers and Industry Training Organizations (ITOs) (McKenna & Fitzpatrick, 2004).

1.6 Factors contributing to the current focus

Johnson's report (2000) on recommendations for adult literacy policy in Aotearoa/New Zealand identified the following issues in relation to literacy: lack of strategic vision by government; fragmented literacy sector resulting in limited coherent advice to government; and inadequate funding. The Johnson report also listed obstacles to the development of a coherent adult literacy system as: a lack of coordinated literacy infrastructure (responsibility spread across several departments); limited quality assurance processes and accountability (no outcomes reporting system); inadequate professional development and career pathways for teachers; inadequate funding for programmes and research; marginalisation from key policy framework (NQF, industry training strategy standards) (Johnson, 2000).

These views were reflected in the Ministry of Education's literacy strategy with a summary in 2001 of adult literacy education in New Zealand.

Adult literacy education has never been well resourced in New Zealand and past policy has been haphazard. Current provision is heavily focussed in a community based sector dependent on volunteers. Throughout the adult literacy sector there are inadequate resources to promote provision, train tutors, develop learning resources and provide a flexible range of learning opportunities. We will need to do more to ensure the high quality teaching which will deliver good literacy outcomes for learners.
(Ministry of Education, 2001, p.4)

Although Freire is renowned for his work on adult literacy, Benseman (1996) has suggested that Freire has had little impact on adult literacy in New Zealand. His reasons for this include the conservative nature of adult literacy in the country, a lack of theoretical understanding in tutor training, constraints of limited funding and constraints of programme structures. The newly registered Adult Literacy Education qualifications, the substantial funding for foundation learning and the range of foundation learning programmes in 2007 anticipate addressing the limited literacy education in New Zealand.

New Zealand research, the IALS findings, the Ministry of Social Development and the Māori Adult Literacy Reference Group have made important contributions to the current status of literacy within New Zealand seen today with increasing initiatives and substantial government funding administered by TEC. The International Adult Literacy Survey (1996) results and the Ministry of Social Development (2004) reported with the IALS findings that New Zealand was a below average performer in 'quantitative' and 'document' literacy levels within the OECD. Findings from IALS show that one in five New Zealanders has poor, below Level 3 on the IALS scale,

literacy skills. Findings from the Māori Adult Literacy Reference Group (2001) has reported that the majority of Māori and Pasifika people and those from other ethnic minority groups are functioning below the level of competence in literacy; a level which is required to effectively meet the demands of everyday life. It also recognises that labour force status and income are related to levels of literacy. Castleton and McDonald's (2002) study on policy research found the New Zealand approach to literacy has been similar to Australia and has argued for a whole government approach and 'the need to place adult literacy concerns within broader socio-economic agendas' (Castleton & McDonald, 2002, p.52).

Cain et al (cited in Benseman et al, 2005) found that adult literacy provision, particularly with its community focus, has not been easily located within the new post-compulsory education policies and has remained marginalised. Furthermore, according to Cain et al (cited in McKenna & Fitzpatrick, 2004) challenges facing New Zealand provision have been differences in approach to adult literacy. They point out that there have been strong divisions between the community and workplace sectors with Literacy Aotearoa preferring a Freirean type approach and Workbase favouring a functional context approach. Sutton (cited in Johnson, 2000) has also indicated there have been tensions within the competency-based criterion-referenced system implemented through the National Qualifications Framework.

1.7 Research aims

Poor literacy is strongly correlated with a greater likelihood of unemployment, lower pay when in work, poor health, less likelihood of owning a home, and poorer basic skills for children living with adults with poor literacy. On the other hand, high levels of literacy are associated with higher earnings, a greater likelihood of being in a white collar high skill occupation, greater participation in voluntary community activities, and better health. The IALS final report concludes that good literacy is a necessary ingredient for citizenship, community participation and a sense of belonging. (Ministry of Education, 2001, p.4)

The focus on foundation learning at the tertiary education level attempts to increase capability and capacity for addressing literacy needs in education. The focus on workplace literacy provides further opportunity to up-skill people with low literacy levels who have slipped through the system and to up-skill people in roles requiring increasing demands and technological skills. Since the IALS results, more recent research has claimed that workplace literacy programmes have the potential to increase company productivity which in turn leads to growth in the economy (Johnson, 2000; Balzary, 2004; Movement for Canadian Literacy, 2005; HM Treasury Report, 2006).

This study sets out to investigate what outcomes result from workplace literacy programmes and what impacts the outcomes have in the workplace. The definition of outcomes and impacts has been taken from Beder's approach (1999, p.4). Outcomes are described as 'changes in learners that occur as a result of their participation in adult literacy education'. Impacts on the other hand, are described as 'changes that occur in the family, community, and larger society as a consequence of participation (Beder, 1999, p.4).

Assessments based on outcomes and impacts, as defined by Beder, provide a different approach to assessments based on inputs and outputs. According to Beder (1999), 'many of the evaluation studies conducted in adult literacy education in the past 30 years have primarily, or exclusively, focused on inputs and outputs rather than on outcomes and impacts' (Beder, 1999, p.7). The reference to assessing inputs describes for example, the learner's characteristics in order to determine whether the teaching force is adequate and the reference to assessing outputs often entails variables such as the number of learners, how they were instructed and the programme retention rate (Beder, 1999). The current New Zealand funding policy for foundation learning and workplace literacy programmes is based on the assessment of outputs (TEC, 2007, p.13). Although these output assessments are useful, they do not determine the effectiveness of foundation learning education.

In contrast to assessing outputs of a programme is the assessment of programme outcomes and impacts. Assessing progress of an individual who as a result of a programme can seek clarification when the instructions have not been clear may demonstrate outcomes of increased self-confidence, critical thinking and improved communication skills. The subsequent impacts in the workplace may include reduced errors, increased worker independence, improved team dynamics and increased workplace efficiency.

Workplace literacy programmes are still relatively new in New Zealand. Employers require evidence that positive changes result from programme provision and participation. Assessing programme outcomes and impacts is another way to measure programme effectiveness and accountability. Not only does assessing outcomes and

impacts provide information for the employer, it can also contribute positively to government policy making particularly in relation to funding criteria. A person who leaves a foundation learning programme mid-programme because they have become employed, is an example of programme effectiveness and a positive outcome. However if the programme were to be assessed based on the output variable of programme retention rates, it would be measured as a negative outcome with subsequent reduction in funding.

My interest is in exploring the effects of programme participation in knowledge, skills, attitudes and behaviour (outcomes) and the subsequent effects of these outcomes in the workplace (impacts). The study also aims to shed some light on prior academic learning experiences of programme participants and the programme participants' perspectives on key factors contributing to effective learning.

This research aims to answer four questions:

1. To what extent do academic and non-academic outcomes result from workplace literacy programmes?
2. To what extent do workplace literacy programme outcomes impact in the workplace and in what way(s)?
3. What, if any, are common school experiences of workplace literacy programme participants that may have influenced low literacy levels?
4. From workplace literacy programme participants' perspectives, what, if any, are key factors that contribute to effective learning on workplace literacy programmes?

1.8 Overview of thesis

Chapter 1 has introduced the New Zealand context of adult literacy and has set the scene for investigating workplace literacy programmes. Foundation learning, the umbrella for adult literacy, and workplace literacy are current foci of the New Zealand Government with substantial funding available. *Chapter 2* provides a literature review of related research to adult literacy and workplace literacy. What research is available to assist an enquiry into workplace literacy programme outcomes? What is known about programme participants, about effective provision and what is known about the impacts in the workplace? In *Chapter 3*, the research design and methodology behind this study are described, as well as information on the participants and the setting for the research itself. A detailed description of the design and implementation of the study and the methods of data collection and analysis is provided with consideration of ethical issues and limitations of this study. *Chapter 4* presents the results of the data analysis in relation to the research questions: workplace literacy programme outcomes; the impacts of the programmes in the workplace; and key factors contributing to effective learning. In *Chapter 5*, the results of the study in relation to the research questions from the management and programme participants' perspectives are discussed with reference to previous research findings. In the final chapter, *Chapter 6*, conclusions drawn from the findings are discussed with some implications for government and policy making, employers, training providers and schools. Suggestions for further research are also considered.