newzealand.govt.nz

Department of Labour
TE TARI MAHI

Engaging young people/young adults in literacy, language and numeracy skill development: A Literature Review

Authors

Prepared for the Department of Labour by Jenny Whatman, Sandie Schagen, Karen Vaughan and Josie Lander.
New Zealand Council for Educational Research

Disclaimer: The views expressed in this paper do not necessarily represent those of the Department of Labour. The Department of Labour has made every effort to ensure that the information contained in this report is reliable, but makes no guarantee of its accuracy or completeness and does not accept any liability for any errors. The information and opinions contained in this report are not intended to be used as a basis for commercial decisions and the Department accepts no liability for any decisions made in reliance on them. The Department may change, add to, delete from, or otherwise amend the contents of this report at any time without notice.

The material contained in this report is subject to Crown copyright protection unless otherwise indicated. The Crown copyright protected material may be reproduced free of charge in any format or media without requiring specific permission. This is subject to the material being reproduced accurately and not being used in a derogatory manner or in a misleading context. Where the material is being published or issued to others, the source and copyright status should be acknowledged. The permission to reproduce Crown copyright protected material does not extend to any material in this report that is identified as being the copyright of a third party. Authorisation to reproduce such material should be obtained from the copyright holders.

ISBN 978-0-478-36078-3
August 2010
© Crown copyright 2010

Department of Labour
PO Box 3705
Wellington
New Zealand
www.dol.govt.nz

TABLE OF CONTENTS

LIST OF TABLES ..... **IV**

1. PURPOSE, DEFINITIONS AND SCOPE **1**

1.1 Purpose 1
1.2 Definitions used in this report 3

2. METHODOLOGY **7**

3. LLN BENEFITS AND YOUNG PEOPLE IN THE LABOUR MARKET **13**

3.1 Economic benefits to employers and economy 13
3.2 Young people and the labour market 19
3.3 Young people's transition to the labour market 21
3.4 Transition initiatives in New Zealand 22
3.5 Conclusion 28

4. ENGAGING YOUNG PEOPLE IN LLN **30**

4.1 Participation in New Zealand 30
4.2 Motivation 31
4.3 Recruitment, retention and persistence 36
4.4 Conclusion 41

5. LLN PROGRAMMES THAT EFFECTIVELY ENGAGE YOUNG PEOPLE/YOUNG ADULTS **42**

5.1 Philosophies of LLN 44
5.2 Embedding LLN 45
5.3 Integrated or separate classes for young people 51
5.4 Personalised programmes (that are not like school) 52
5.5 Small-group learning 55
5.6 Assessment and motivation 55
5.7 The use of Information Communication Technology (ICT) 57
5.8 Effective teaching 58
5.9 Integrated services 63
5.10 Specific learning environments 64

6. CONCLUSIONS AND RECOMMENDATIONS **68**

6.1 Limitations in research 68
6.2 Policy recommendations 73
6.3 Further research 77

REFERENCES **79**

APPENDIX A: ANNOTATED BIBLIOGRAPHY **92**

LIST OF TABLES

Table 1. Engaging youth in LLN 70

1. PURPOSE, DEFINITIONS AND SCOPE

This section provides background information about the project, and outlines the definitions of engagement, young people/young adults and LLN within which the review is framed. The review seeks to bring together the diverse research about young people/young adults' engagement in LLN, young people/young adults' engagement and adult LLN, drawing on research from New Zealand, Australia, the UK, Ireland, the US and Canada.

1.1 Purpose

The purpose of this literature review is to contribute to the New Zealand Council for Educational Research (NZCER) research project Engagement of Youth in Literacy, Language and Numeracy (LLN) Skills Development. As specified by the Department of Labour (the Department), the objective of the whole project is "to enhance the knowledge base on the engagement, recruitment, retention and support of youth in literacy, language, and numeracy (LLN) skills development".

It is intended that the literature review contribute to the process of identifying:

- good practice approaches
- the theories that underpin these
- the factors that are common to successful engagement of young people/young adults and the factors that are common to disengagement (and that have relevance in the New Zealand young people/young adults employment context).

To this end, the literature review will seek to answer these three questions about young people/young adults and LLN acquisition:

- How do young people/young adults best develop their LLN skills post-school (including in specific senior secondary school contexts)?
- What are the different ways LLN is delivered to young people/young adults through training and education programmes, and what evidence is there for the effectiveness of these programmes? (To what extent do programmes embed/integrate LLN?)
- How are young people/young adults best engaged, recruited, retained and supported in education and training programmes, so as to meet their LLN needs?

Over the past five years LLN has become one of the priorities in New Zealand tertiary education strategy and policy, as detailed in the *New Zealand Skills Strategy* (2008) and following major survey findings on literacy in New Zealand (Ministry of Education, 2008a, 2008b; Tertiary Education Commission, 2003, 2007, 2008). The Department is focusing on LLN issues for young people in particular because the 2007 Adult Literacy and Life Skills (ALL) Survey data showed several age effects related to 16–24-year-olds: they had lower literacy levels for numeracy and for problem solving than other age groups; and their prose and document literacy levels fell in the period between the 1996

International Adult Literacy Survey (IALS) and the 2007 ALL Survey (Satherley & Lawes, 2007).[1]

In addition, although 16–24-year-olds are the group most likely to be participating in formal education and training (Satherley & Lawes, 2007), the current formal education initiatives designed for young people (Gateway, STAR, Youth Training, Youth Apprenticeships, Modern Apprenticeships and the recent overarching Youth Guarantee programme[2]) do not necessarily address LLN or address it to the extent needed. Low literacy levels are not just an individual issue or an issue of scale (i.e., many individuals). Young people are entering, or about to enter, a labour market that demands greater literacy levels (and a more diversified set of literacies) than ever (Hartley & Horne, 2006; Marr & Hagston, 2007).

Despite the many different aspects of a knowledge society discussed by various authors,[3] there is common recognition of the increased complexity and uncertainty of our times and new demands that we adapt and innovate. Authors recognise demands not only for different skills but also for different relationships between knowledge, institutions and people. These changes demand a particular stance from us—one of lifelong learning and of participation. This is particularly so in the workplace.

We understand LLN to be a critical aspect of that learning and participation stance required by a knowledge society. This stance, which encompasses LLN, is critical to New Zealand's productivity. Such a stance operates through the workplace and employment relations practices that are now understood to be a positive contributor to economic development, rather than a constraint on the ability of firms to grow (The Office of the Prime Minister, 2002). It includes New Zealand's "innovation system" of skills, capacities and dispositions of population (Organisation for Economic Co-Operation and Development, 2007) and the development of higher skills, opportunities to reskill and "soft skills", because for productivity, "attitudes and values matter as much as knowledge and technical skill" (New Zealand Treasury, 2008, p. 8). Research on LLN in workplaces has highlighted that employers need *functionally literate* employees who can deal with documentation and compliance issues but employers also need *situationally literate* employees who can deal with understanding "the bigger picture" of a particular situation: for example, using oral communication skills, being able to learn with external providers (Schick, 2005), taking on greater responsibility, participating in meetings and understanding processes and new technologies (Gray & Sutton, 2007).

---

1 However, as a cohort, 16–24-year-olds in 1996 improved when measured as 25–34-year-olds in 2007.

2 A 2008 National Government policy which has taken over from the Labour Government's School Plus policy.

3 For example, changes in knowledge production and the implications for education (Gilbert, 2005); the rise of a new "creative class" of knowledge workers (Florida, 2002); new mindsets and capacities for the 21st century (Pink, 2005); "accelerated flows" of people, ideas and money between nations (Appadurai, 1996); fragmentation of structures and institutions and a heightened calculation of life risks (Zimmer-Gembeck & Mortimer, 2006); and new identities based in patterns of consumption rather than in social class (Kenway & Bullen, 2001).

1.2 Definitions used in this report

Engagement

We have analysed research relating to young people/young adults' engagement under the following subheadings: participation; motivation; recruitment; retention; and persistence. We have focused in particular on the research that deals with motivation as it would appear that this area is where young people/young adults' are most likely to differ from other adult learners. In order to understand young people/young adults engagement we have drawn on New Zealand research on school-based programmes aimed at helping young people/young adults move into work or further education and training, as well as on international research on young people/young adults in foundation, basic skills and LLN programmes.

In writing about student engagement in higher education in the US, Harper and Quaye (2009) consider that productive engagement is an important way for students to develop feelings about their peers, teachers and place of study. This gives them a "sense of connectedness, affiliation, and belonging, while simultaneously offering rich opportunities for learning and development. For this to happen, students must invest time and effort into academic activities and practices … that co-relate highly with positive educational outcomes" (p. xxiii). Engagement is also about commitment: according to Bean (1995, 2005, as cited in Harper & Quaye), students leave when marginally committed to institutions. Harper and Quaye consider that engagement is also about how the institution deploys its resources, curriculum and student support to motivate students to participate.

The authors outline five benchmarks of effective educational practice as measured by the National Survey of Student Engagement. These are: the level of academic challenge; active and collaborative learning; student-faculty interaction; enriching educational experiences; and a supportive campus environment. They also isolate five kinds of outcomes: cognitive and intellectual development; college adjustment; moral and ethical development; practical competence and skills transferability; and the accrual of social capital.

This book provides very useful theoretical frameworks and practical advice for engaging marginalised and minority students, many of which are sociocultural or social justice. Many chapters describe community colleges and pre-degree-level programmes and as such are similar in content and purpose to foundation and bridging programmes in New Zealand, although not necessarily focused on LLN.

Young people/young adults

In this review we refer to young people aged 16–24 as "young people/young adults". Research from the UK, the US and the Organisation for Economic Co-Operation and Development (OECD) tends to describe 16–19-year-olds as "youth" and 20–24-year-olds as "young adults". When discussing or quoting the work of a writer, their usage is followed. We have chosen to use the term "young

people/young adults" because of the negative connotations often associated with the word "youth".[4]

One New Zealand study (Collison & Drayton, 2002) distinguished between young people/young adults who were recent school leavers and those who were 18–20 but returning to study. Some research we looked at focused on "disadvantaged" or "at-risk" young people/young adults. Many of these young people/young adults are also NEET (not in employment or education and training). Other young people/young adults highlighted in the research are: those transitioning from school (we have not looked at research concerned with young people/young adults' LLN acquisition at school); young people/young adults in foundation or bridging programmes at Institutes of Technology and Polytechnics (ITPs) and Private Training Establishments (PTEs) (or their overseas equivalents); apprentices or other work schemes; and young people/young adults at work but not in education and training. We have sought research that focuses on the experiences of Māori and Pasifika young people/young adults. In order to manage the scope of this review, we have not looked specifically at young offenders in prisons or young people/young adults' facilities. We have not included research on young people/young adults who do not have English as their first language, except where these young people/young adults are included alongside young people/young adults whose first language is English.

Literacy

The documents included in this review use a wide range of terms. In addition to literacy (used in a very broad sense) and LLN (literacy, language and numeracy) the term "foundation skills" has already been mentioned, and "basic skills" is also common, especially in UK writing. There are also references to foundation learning, and LNL as an alternative to LLN.[5] We do not claim that all of these terms have an identical meaning, but there is clearly a very great overlap, and (as we have seen) the meaning ascribed to individual terms is by no means consistent. In this report the term "LLN" is preferred, but when discussing or quoting the work of a writer, their usage is followed.

The definition we are using is that described in the Tertiary Education Commission (TEC) guidelines for embedding literacy and numeracy (Tertiary Education Commission, 2009): "Literacy is the written and oral language people use in everyday life and work. A person's literacy refers to the extent of their oral and written language skills and knowledge and their ability to apply these to meet the varied demands of their personal study and work lives" (p. 58). In adopting this definition, we are aware that much of the literature in the LLN field adopts a broader concept of literacy.

The New Zealand Adult Literacy Strategy, *More Than Words* (Ministry of Education, 2001) uses the Workbase definition, according to which literacy is "a complex web of reading, writing, speaking, listening, problem solving, creative thinking and numeracy skills" (p. 4). This definition is very broad, encompassing

---

[4] See for example different language use in McLaren (2002)

[5] According to Benseman, Sutton, and Lander (2005), foundation learning incorporates literacy, numeracy and language (LNL).

oracy, numeracy and other skills in addition to those traditionally classified as literacy. It appears that literacy has become an umbrella term covering all the skills regarded as necessary for effective functioning in modern society and/or the workplace (Johnston, 2004). Hence the qualifier "functional" is sometimes used, and often implied, when speaking of literacy. In England and Wales, the Basic Skills Agency (BSA) defined functional literacy and numeracy as "the ability to read, write and speak in English and use mathematics at a level necessary to function and progress at work and in society in general" (Bynner, 2002, p. 3). In New Zealand, Johnson (2000) quotes a definition from Literacy Aotearoa: literacy as "the ability to use written and/or audiovisual material to express oneself, to learn and to communicate so that the individual is able to participate in, and benefit from, what society has to offer" (p. 22).

Whilst we have confined our analysis to the narrower definition, we consider that in writing about young people/young adults' learning in the 21st century, understandings of multiliteracies and new literacies are likely to guide future developments. We discuss this further in the final section.

Language

At one time, "literacy" referred specifically to the written word, and "language" might have been used to denote oral skills. However, recent definitions tend to include speaking and listening, along with reading and writing, as part of literacy. Thus the national report on the development and state of adult learning and education in New Zealand (Ministry of Education, 2008a) states: "In the New Zealand context, literacy is defined as the reading, writing, speaking and listening skills adults need to function in everyday life, including work" (p. 62). The *Literacy, Language and Numeracy Action Plan 2008–2012* (Tertiary Education Commission, 2008) asks "What do we mean by literacy, language and numeracy?" (p. 6); it offers a definition of literacy and numeracy, and implies effectively that literacy **is** language, "the written and oral language people use in their everyday life and work; it includes reading, writing, speaking and listening" (p. 6).

In this literature review, LLN refers to skills in the English language. We have not analysed research that arises from exclusively ESOL or te reo Māori contexts.

Numeracy

Defining numeracy also causes problems; once again, there is no universally accepted definition (Benseman, Sutton, & Lander, 2005; Tout & Schmitt, 2003). Marr and Hagston (2007) found that industry representatives were agreed about the importance of numeracy skills, but what the term "numeracy" conveyed to them was less clear. In general, "stakeholders' initial conception of numeracy could most easily be summed up as primary school level number or arithmetic skills" (p. 17): there were no references to spatial skills of any kind; "thus, reading of plans, diagrams and maps was entirely omitted from their thinking" (p. 17).

Marr and Hagston themselves prefer Coben's definition:

> To be numerate means to be competent, confident and comfortable with one's judgements on whether to use mathematics in a particular situation and if so, what mathematics to use, how to use it, what degree of accuracy is appropriate, and what the answer means in relation to the context. (Marr & Hagston, 2007, p. 11)

As Marr and Hagston (2007) observe, mathematics needs to be made relevant to learners, in order to avoid lack of interest and rejection; it is also necessary to counteract the fear of numbers which has been termed "math anxiety" (Tout & Schmitt, 2003).

It is clear that literacy and numeracy, as traditionally and separately defined, are both essential to life and work in the 21st century; it is also clear that they are closely related and often overlapping skills, and it may in some contexts be impossible to draw a sharp dividing line between them.

In recognising that numeracy is separate from literacy, the definition we are using is that described in the TEC guidelines for embedding literacy and numeracy (Tertiary Education Commission, 2009): "Numeracy is the bridge between mathematics and real life. A person's numeracy refers to their knowledge and understanding of mathematical concepts and their ability to use their mathematical knowledge to meet the varied demands of their personal, study and work lives" (p. 59).

2. METHODOLOGY

In this section we outline the processes we used for finding, selecting and analysing the research on young people/young adults' engagement and LLN. We found very little research that directly links young people/young adults and LLN. We included research on post-school young people/young adults' learning (not necessarily in LLN programmes) and on successful adult LLN programmes. Using a "backward mapping" strategy, we isolated those aspects in young people/young adults and LLN research to validate themes and identify additional approaches. Our review of the literature is presented in two parts: an analysis of the research on young people/young adults and LLN and an annotated bibliography. There are two intended audiences. The analysis is intended primarily for the Department and other government departments and does not discuss in depth those findings that are already familiar. Our main endeavour has been to find the common ground between the literature on adult LLN and the literature on young people/young adults and to distinguish those characteristics that are specific to young people/young adults in relation to LLN outcomes.

The annotated bibliography includes major research reports that relate to young people/young adults and LLN as well as existing significant reviews because these are likely to be useful to practitioners. We have also included those few New Zealand research reports that mention young people/young adults as a distinct group. This literature is focused on the tertiary sector, in foundation studies and bridging programmes.

Selection of literature

This review took a broad view of the quality of the material available, and sought to integrate professional wisdom with the best available empirical evidence because there has been little research into:

- the integration of LLN in young people/young adults' training programmes, and
- the engagement, recruitment, retention and support of young people/young adults in LLN skills development

We therefore employed "backward mapping" to help distinguish what research related to young people and/or adult LLN is relevant to this review.

> 'Backward mapping' is a strategy wherein researchers identify key influences on learners, and use these to consider implications for what is needed in teaching or other educational provision. For example, strong evidence about what is needed for learners to learn may influence what is needed in the preparation of teachers through initial teacher education. (Alton-Lee, 2004, p. 40-41)

In our context, we considered ideal LLN outcomes for young people and then identified those conditions that would need to be in place in order for those outcomes to be met. Those factors in combination were considered to be useful, as were conditions that were evident in a large number of the reports we read.

For example, the literature about youth transitions in New Zealand, whilst not about LLN or young people out of school, provided rich data about motivation and career identity. We could compare findings about motivation in this context with effective LLN outcomes for young people and see where there was convergence.

Definitions and criteria for inclusion of literature

For this review we used the following definition of "research":

> A process of systematic inquiry that is designed to collect, analyse, interpret and use data to understand, describe, predict or control an educational … phenomenon or to empower individuals in such contexts. (Mertens, 2005, p. 2)

This review covers both national and international research (restricted to Australia, Canada, the UK, Ireland and the US that is written in English.
If a piece of literature had these characteristics it was considered for inclusion:

- sustained and systematic enquiry
- generates knowledge and understanding
- an original investigation.

We anticipated the research literature would fall into three main categories:

- empirical studies: original research, use data derived from experiment or actual observation; describes their hypothesis, methodology and findings
- theoretical articles: written to advance theory; analyse an issue, method or model
- reviews: further examinations of research that has already been published; critiques, meta-analyses and literature reviews.

We therefore established criteria for the evaluation of each type of research.

The definition of research provided above precludes texts that are opinion pieces and discussions based on a person's experience. Often referred to as "professional wisdom"[6] or "expert opinion", these are not pieces of research. However, given the move towards evidenced-based policy making and practice in New Zealand and elsewhere, we have included some of this writing in our analysis. We did not include teaching resources, materials, kits or guides.

For a similar reason we included pragmatic or applied research.[7] This means we included evaluations as research; even though they are conducted for the purpose of decision making in a specific setting, rather than generating new knowledge that can be transferred to other settings.

---

[6] Thomas G. Sticht provides this definition: "In 2002, Dr. Grover (Russ) Whitehurst, Director of the Institute of Education Sciences, defined professional wisdom as 'the judgment that individuals acquire through experience' and 'consensus views'." Retrieved 19 December 2005, from http://wiki.literacytent.org/index.php/Scientific-basedEdResearch, message 6, January 2005.

[7] "Basic research is motivated by intellectual interest alone and is concerned with knowledge for its own sake, while applied research is directed toward solving immediate and practical problems." Source: Comings, J. P. (2003). *Establishing an Evidence-based Adult Education System*. Retrieved from: http://www.ncsall.net/index.php?id=26

Because we knew there was little available material on young people/young adults post-school and LLN, we included New Zealand literature on young people/young adults' transitions from school or on school-based initiatives aimed at better preparing young people/young adults for work. We found very little material that looked exclusively at NEET young people/young adults (young people/young adults not in employment or education and training).

A number of the reports we analysed were evaluations conducted for government departments. This means that there is very little independent research in the field. We are aware of significant literature reviews already undertaken in New Zealand, specifically Benseman and Sutton (2007), Gray (2006) and Benseman et al. (2005). We have only replicated these in our analysis if a piece of research specifically references young people, or supports key themes in the literature about young people/young adults and LLN.

Locating the literature

NZCER librarians conducted searches of the databases associated with adult education, vocational education and training, young people/young adults, young people/young adults' transition, LLN, management and employment. At the same time, NZCER researchers started a search for literature by accessing research publications readily available on government websites, including The Department of Labour (DOL), Ministry of Youth Affairs (MYA), Ministry of Education (MOE), TEC, New Zealand Qualifications Authority (NZQA) and Ministry of Social Development (MSD). A number of literature reviews related to young people/young adults or LLN have been carried out by these government agencies in the last 10 years. Researchers also accessed Literacy Aotearoa and Workbase libraries and research publications. We also searched the New Zealand theses database. We confined our search to research published since 2000 but have referred to some important research from 1995–99.

We searched the major repositories of adult literacy and language research studies in Australasia: the New Zealand Literacy Portal and the National Centre for Vocational Education Research (NCVER) website in Australia, in particular the Adult Literacy Research Program.

Two major overseas adult literacy research and development sites were also searched: the National Institute of Adult Continuing Education (NIACE, in the UK) and the National Center for the Study of Adult Learning and Literacy (NCSALL, in the US).

We also searched other leading Literacy Research sites including: National Research and Development Centre (NRDC); Adult Literacy and Numeracy Australian Research Consortium (ALNARC); Basic Skills Agency; Research and Practice in Adult Literacy (RAPAL); the National Centre for Vocational Education Research (NCVER); National Institute for Literacy (NIFL); National Adult Literacy Database (NALD); Literacytrust.org.uk; and National Adult Literacy Agency (NALA). We also accessed relevant OECD publications.

Library search resources

Our library used the following resources for searching:

- NZCER Library Catalog database
- NZET — New Zealand Educational Theses
- ACER EJS: Ebsco Journal Service
- AEI — Australian education index
- BEI — British education index
- EBSCO Australia/New Zealand Reference Centre
- EBSCO MasterFILE Premier
- Ebsco Education Research Complete
- ERIC — US education database
- INNZ — articles in New Zealand journals
- Te Puna National Bibliographic Database — books held by New Zealand libraries
- Gale RDS Business database
- Google Scholar
- Social SciSearch
- VOCED — Vocational Education database.

NZCER librarians also asked the Department's Library to search their databases. The department used their own databases, plus:

- Business Source Premier & Australia/New Zealand Reference Centre & MasterFILE Premier
- OECD Labour databases.

A variety of search strategies were used: for example, a version of this search was tried for many of the education databases:

('Unemployed youth' or 'Youth employment' or 'Human resource development' or 'Prevocational training' or 'Entry level training' or 'Apprenticeships' or 'Entry into working life' or 'Prevocational training' or 'Training employment relationship' or 'Vocational preparation' or 'Training employment relationship' or 'Transition from school to work' or 'Technical education' or 'Continuing vocational education' or 'Continuing vocational training' or 'Workplace learning' or 'Adult education' or 'Adult learning' or 'Lifelong learning' or 'Workers education' or 'Vocational education' or 'Education work relationship' or 'Work based learning' or 'Job training' or 'Staff development or 'Prevocational education' or 'Traineeships' or ' Industrial training' or 'Inplant programs' or Vocational skills' or 'Vocational training')

('Key competency' or 'Adult basic education' or 'Literacy' or 'Numeracy' or 'Basic skill' or 'Adult literacy' or 'Basic skills' or 'Functional literacy' or 'Illiteracy' or 'Reading skill' or 'Writing skill' or 'Generic skill' or 'Basic language' or 'Workplace literacy' or 'Job skills' or 'Literacy education')

('Young worker' or 'Youth' or 'Youth program' or 'Employed youth' or 'Youth employment' or "Youth workers" or "Adolescents" or "Young adults" or "Youth programs") 2000:2009

We found that highly specific searches looking for workplace basic literacy AND youth gave us very few hits, so we looked through broader searches to identify material that would be suitable, but this meant that the material was either broader or on the edges of the ideal.

In all, the NZCER Library delivered 155 items for the researchers to review and the Department's Library sent 26 items.

We also undertook less structured searching of the Internet when websites or reports mentioned other organisations or material that appeared to be on topic. This review was conducted within a tight time frame, however we are confident that the most relevant and recent literature has been included in this review.

Reading and annotating the literature

We adapted an OECD template (Derrick & Ecclestone, 2008) to write annotations on each piece of literature we read and to determine whether it could be included in the analysis. We had a small team of readers, who scanned the databases provided, selected appropriate material, read and kept notes, discussed issues, broadened and narrowed the search. We followed up references in bibliographies where they seemed promising. Most of the research we read had a strong cost-benefit analysis perspective. Young people/young adults need to be in a position to contribute to the economy—hence they should be in employment and/or education and training. Adults need to improve their LLN skills to best contribute to their own and the country's welfare. Some literature used a deliberate social justice framing. Many studies which set out to determine the relationship between improved LLN outcomes and better employment/better income, in fact, reported on social outcomes, such as improved learner confidence or building networks.

Evaluating Validity

Because we were aware from the outset that it would be difficult to find research that directly addressed young people/young adults' engagement and LLN programmes, we adopted some of the processes outlined in the guidelines developed to help writers of the Best Evidence Syntheses (Alton-Lee, 2004). This meant that we searched widely for New Zealand material, including that held in the theses database. Where material did not meet our quality criteria (for example, it was a small-scale study where the methodology was not rigorously defined), we included findings that contributed to an existing body of knowledge. We have acknowledged reservations about validity of research throughout the review.

A piece of research generally had to meet these criteria to be included:

- peer reviewed/refereed
- in-text references used
- there is an abstract (for a journal article) and a complete bibliography
- the author is affiliated to a university, or recognised literacy NGO or government agency
- the text "looks" academic—writing divided into sections (with or without headings), such as introduction, literature review, methodology, results, discussion, conclusion and reference list

- the writer uses technical language and discusses research that has been done
- the publisher is a recognised academic publisher
- the website has an author and/or a date.

As we read we evaluated each piece in terms of relevance first but then also on its own terms—was it a "good" piece of research? When a piece of research was selected, we evaluated it in terms of its robustness and validity. We looked for: the strength of arguments made—that the authors showed evidence for claims they made; that findings were reliable and valid—they showed the study's limitations, any bias was identified and the conclusions were meaningful and useful. We also commented on the study's methodology—was it a good design for the purpose, was there enough information to replicate it (e.g., how were data collected), was the sample size adequate? We were also alert to relevance to the New Zealand context.

Many of the New Zealand and international research reports we read cautioned about validity of outcomes, especially LLN outcomes where researchers have often found it difficult to measure cause and effect. We found very little research that triangulated a range of different sources of evidence to assess outcomes, before and after learning opportunities or research that provided evidence of longer term impacts.

The best pieces of research will clearly identify the degree to which the relationship between the influence and improved learner outcomes is direct, indirect and/or mediated, but many research reports did not articulate this. We also located a number of promising reports but these were either not yet published (for example, TEC Embedded Foundation Learning Pilots; some of the NRDC publications) or they were not available for our use (for example, Watson, Van Wichen-Miller, & Bowen, 2006; some of the Learning for Living case studies).

Synthesising strategies

> The point of synthesis is that a cumulative body of research, carefully interrogated, provides more explanatory power than findings from any one research study or design type. (Alton-Lee, 2004, p. 33)

We looked for duplication of findings (as few studies on their own are strong in their evidence) but also the "outliers" or who was saying something different. We synthesised the material into distinct chapters: LLN benefits and young people/young adults in the labour market (including material about transitions); successful outcomes for young people/young adults; and effective LLN programmes, which included the involvement of employers and managers.

Annotated Bibliography

An annotated bibliography of key pieces of research is attached as an appendix to this literature review.

3. LLN BENEFITS AND YOUNG PEOPLE IN THE LABOUR MARKET

As we discussed in the first section of this literature review, young people aged 16–24 are a particular LLN priority in tertiary education strategy and policy because they have lower literacy levels than other age groups (Satherley & Lawes, 2007) and are entering a labour market demanding greater LLN levels than ever before (Hartley & Horne, 2006; Marr & Hagston, 2007). The research discussed in this section describes relationships between LLN and employment status, income and social and personal benefits. The research rarely singles out young people or shows effects related specifically to them as a group. However, using what little research that does do that, together with research on adults, we can see that, since young people are already a vulnerable group in the labour market, their lower literacy levels are likely to mean they suffer differentially in terms of employment status, income and in social and personal domains.

3.1 Economic benefits to employers and economy

It is generally assumed, and frequently stated, that improved adult literacy will benefit not just the individuals who participate, but also their employers, the economy and society as a whole. For example, the *New Zealand Adult Literacy Strategy* (Ministry of Education, 2001) begins with these words:

> Urgent action, sustained over the long-term, is needed to improve adult literacy levels in New Zealand. High levels of adult literacy are critical for the transformation and modernisation of the New Zealand economy, and the transition to a knowledge society ... leading to economic and social benefits for all New Zealanders. (p. 4)

As Bynner (2002) observes, basic skills were until quite recently desirable but not essential attributes, since "Large areas of employment depending on unskilled work demanded little in terms of literacy and numeracy. (p. 1). But in the light of global change and technological advances, higher levels are needed in the 21st century workplace.[8] Reid (2008) relates the increasing importance of workplace literacy in New Zealand to "high employment, skill shortages and the rising literacy demands in New Zealand workplaces" (p. 99). The *Literacy, Language and Numeracy Action Plan 2008–2012* (Tertiary Education Commission, 2008) states that "Literacy and numeracy skills provide the essential base for building a competitive, highly skilled and productive workforce" (p. 5).

Gray and Sutton's (2007) interviews with employers highlighted literacy-related needs in a wide range of contexts, including health and safety and quality compliance as well as the introduction of new technology, and support for employees from non-English-speaking backgrounds.

---

[8] There may be exceptions to this general rule: Waterhouse and Virgona (2004), in a study of workplace literacy in the aged care and call centre industries, found that people with good learning and social skills "even when combined with relatively limited English language and literacy, fared well enough". (p. 1)

One study estimated the UK costs in 1992 as £165,000 per year in companies employing more than 50 employees, and up to £500,000 in larger companies. Based on these figures, it has been estimated that poor literacy skills cost the UK industry more than £4.8 billion a year (see Johnston, 2004). These figures should be taken with caution however; Ananiadou, Jenkins, and Wolf (2003) note that these figures have been criticised on methodological grounds and are also out of date, and Johnston agrees, noting that only 15 percent of the firms surveyed were able to provide an estimate of the costs of poor literacy skills.

While it may be difficult to estimate costs, Gray and Sutton's (2007) respondents reported a number of issues which together could have considerable financial implications. They included the risk of accidents and emergencies (if staff failed to understand or comply with health and safety rules), the extra time spent ensuring that instructions were understood, a high volume of complaints and the risk of legal action.

Ananiadou et al. (2003) also found limited evidence for the benefits to employers of basic skills training; however, the available studies suggested that employer-provided literacy and numeracy courses could increase productivity, improve the use of new technology in the workplace, save time and reduce costs. The NRDC summary (2007) also claims that "Workplace learning has been shown to offer numerous other benefits to employers, including lower staff turnover and higher commitment to the job" (p. 4). Johnston (2004) cites a rigorous evaluation by Krueger and Rouse (1998, as cited in Johnston), who estimated that for the manufacturing company involved (though not the service company), the benefits of the training programme in terms of increased productivity probably outweighed the costs.

However employers are not always aware of the widespread benefits of improved LLN for their businesses, nor the education and training options available (Benseman & Sutton, 2007; McGuinness, Bennett, & McCausland, 2008). They are, therefore, also likely to be unaware of the benefits to the economy.

PricewaterhouseCoopers (2008) carried out an economic evaluation of Adult and Community Education (ACE) outcomes in New Zealand. It is important to note that this relates to the whole ACE sector, and not specifically to LLN, but it is reasonable to assume that the latter is a substantial part of the former. They calculate a Return of Investment (ROI) of $54–$72 for each dollar of funding, estimating that "Each dollar of government funding generates a return of $16–$22, but this is further leveraged through private contributions to the sector" (p. 5). This is based on higher income generation, and government savings due to (for example) fewer people claiming welfare benefits, improved health and reduced crime and violence. Based on an international literature review, PricewaterhouseCoopers discuss the reported social benefits of ACE, some but not all of which may have economic impacts.

Hartley and Horne's (2006) international literature review, focusing on the economic and social costs and benefits associated with LLN, highlighted the

complexity of measuring costs and benefits, and emphasised the importance of taking a wide range of factors into account. They identified studies which had examined the relationship between levels of "health literacy" and knowledge/behaviour, but could not find any which had conducted a cost-benefit analysis in this area. The IALS findings also indicated an association (not necessarily causal) between literacy and health outcomes, including longevity, but did not attempt to investigate the relationship in detail.

Similarly, the Allen Consulting Group (2008) reports that Birch, Kenyan, Koshy, and Wills-Johnson (2003, as cited in Allen Consulting Group) estimated the ACE sector in Australia had a net community impact of $828 million, in addition to the impact on individuals. The Allen Consulting Group also cites research evidence to show the links between education and social outcomes such as community participation and volunteerism, health and crime, which would in turn impact on the economy. But as they themselves point out, young people are less likely to be involved in ACE programmes and therefore ACE is likely to reduce crime rates less than other forms of education, since rates of criminal activity tend to be higher among adolescents. And although there is no doubt a correlation between education and rates of, for example, smoking, drinking and obesity, it does not necessarily follow that participation in adult learning will lead to changes in the lifetime habits of individuals.

Based on this research, there is no definitive evidence for the economic impact of improving levels of LLN. However, as Isaacs (2005) and others have argued, adult literacy programmes do have impacts beyond the purely economic which are important for individuals and for society; these should also be taken into account when developing policy.

Economic benefits to individuals of improved LLN

Results from IALS (Organisation for Economic Co-Operation and Development, 2000) indicate that New Zealanders with higher literacy skills earn more, on average, than people with lower skills, and are also more likely to be employed. Johnston (2004) points out that the correlation is not necessarily causal; it may be that people with high-level literacy also tend to have other skills (or qualifications) that employers value. One possible "missing link" is educational attainment, but the studies reviewed by Johnston indicate that literacy does have an impact on earnings, and on employment, even when controlling for educational attainment (see also Bynner, 2002).[9]

Findings from IALS confirm that, in many countries, literacy has a net effect on earnings, independent of educational attainment. Green (2001) analysed Canadian data and found a strong correlation between literacy and years of schooling, but each had a significant (though reduced) impact even when the analysis controlled for the other. He concluded that a substantial part of the impact of schooling was due to its effect in raising literacy; but although years of schooling has an effect on literacy, years in employment does not. It is therefore

[9] Analysis of ALL data by the MOE (2009a) shows that the correlation between literacy level and qualifications achieved is by no means perfect. In each age group, at least half of the people with Level 1 or 2 literacy had a school or tertiary qualification.

necessary for workers to take part in programmes designed specifically to raise literacy levels, because this will not happen simply through gaining experience at work.

Attempts to calculate the value of the "literacy premium" suggest that it varies from country to country (cf. Organisation for Economic Co-Operation and Development, 2000). In New Zealand, one study estimated that a 10-point increase in literacy score was associated with a 2.4 percent increase in hourly wages (Johnston, 2004). Green (2001) found that a 10-point increase would yield the same wage premium as a year's additional schooling. It should also be noted that the earnings gap between the more and the less skilled is widening (Green, 2001; Organisation for Economic Co-Operation and Development, 2004). Much depends on what exactly is being measured. Unwin and Wellington (2001) report a study of the British labour market (Green, 1999, as cited in Unwin & Wellington) which indicated that while computer skills were highly valued, numerical skills had no link with pay and verbal skills carried a pay premium only for women. Later NDRC studies contradict this finding.

In any case, because people with higher literacy skills (mainly developed while at school) tend to earn more, it does not follow that improving the literacy skills of adults would have the same result. Indeed, the Allen Consulting Group (2008) cites a UK study (Silles, 2007, as cited in Allen Consulting Group) which found that there were no genuine returns to qualifications completed in adulthood. Further, if there is a correlation between high literacy scores and employment, it could be that jobs gained by those who have improved their skills are at the expense of other workers; if this is the case, some individuals would benefit but there might not be any wider advantages.

However, improving LLN skills may matter for those who are least skilled to start with. Tyler (2004) studied the data on General Educational Development (GED) candidates in Florida between 1995 and 1998 and determined that numeracy skills do matter for those who are least skilled in terms of economic advantage of first employment. Tyler's recommendation is that schools and adult LLN programmes need to pay attention to developing skills in youth with low education and little or no work experience.

A literature review conducted by Ananiadou et al. (2003) found robust evidence from large-scale UK surveys that poor literacy and numeracy skills had adverse effects on earnings and employment prospects, even when allowing for differences in formal qualifications. However, a summary of NRDC research (2007) refers to another literature review (Barton & Tusting, forthcoming, as cited in National Research and Development Centre for Adult Literacy and Numeracy) which suggests that the development of basic skills in adulthood has little immediate impact on wages and the probability of employment.

The Allen Consulting Group's (2008) study of ACE in Victoria defined the market benefits to individuals as increased wages and a stepping stone to higher education which leads to further market benefits. The exact amount of additional earnings varied by age and gender, the highest annual premium being $12,829

for males aged 25–49.[10] However, it should be noted that only a quarter (24 percent) of ACE learners in Victoria were on LLN programmes, and there is no attempt to distinguish the differential impact of LLN and other types of learning.

The Australian Government evaluated the Literacy and Numeracy Training (LANT) programme (Rahmani, Crosier, & Pollack, 2002) to determine the extent to which training improved unemployed job seekers' literacy and numeracy skills and their participation in the labour market. Whilst LANT was initially focused on youth, it was extended to cover other groups. The evaluation surveyed by telephone a sample of the 6,248 job seekers eligible for the programme between August 1998 and October 1999. Many people left the programme early: "… those who left late were older, more education, and had longer prior unemployment durations. On the other hand, those who left early were younger and less educated, and had shorter prior unemployment durations" (p. iv).

Literacy and numeracy gain was assessed using a National Reporting System (NRS) rating scale and self-perceived improvements in literacy and numeracy. According to the data, 17 percent of participants who started the programme achieved a successful NRS outcome. Many (over 60 percent) left the programme before completing and therefore didn't have their skills assessed. Some participants deliberately chose not to sit the assessment because they were anxious or nervous about it. Self-report revealed that the most successful participants were female and older, stayed in the training longer and were satisfied with the programme.

Employment outcomes did not appear to be influenced by participation in the programme. The authors urge caution in interpreting these findings because 30 percent of people who did not start the programme had found a job. Those populations that were less likely to find full-time employment were younger, female, had less education and/or were disabled. Participants who stayed longer in the programme or who completed the training were less likely to find full-time employment. The authors suggest that this group—older and better educated—may have been committed to improving their skills and less likely to be looking for employment. Results for income status, including no longer receiving income support, were similar to employment outcomes.

About 25–30 percent of people who were referred to LANT went on to further training or study. People who stayed longer in the programme or who completed the training were more likely to do further study or training. Taking part in the LANT programme helped the vast majority to gain entry to another course. Rahmani et al. (2002) recommend that flexible approaches to pre-employment

[10] Movement into employment following ACE study was more common for females. Of women not participating in the labour force in 2004, who subsequently undertook ACE, more than a third were employed two years later. Comparison figures quoted suggest a much lower figure for those who did not take ACE course. However, these figures relate to a different sample at different time points; moreover, it could be argued that women taking ACE courses were those who had decided to return to the labour market.

programme delivery are needed to take account of "levels of literacy and numeracy, attitudes to training and capacity to learn" (p. vii).

One of the clear messages from the LANT research is how hard it is to measure whether LLN gains have a positive effect on employment. Policy objectives to improve LLN gain in pre-employment programmes in order to enhance employment opportunity seem to be counter productive. LLN gain in its own right could be seen as a more worthwhile goal.

The authors also highlight another issue with measuring LLN outcomes which relates to time. Improving literacy and numeracy is a slow process; indicators of success are more profitably determined over longer periods of time. Unfortunately many research projects, especially evaluations of programmes, don't measure long-term gains.

LLN and social outcomes

The most obvious outcome from LLN learning is improvement in LLN skills, but, as we have already seen, this can be hard to measure and is not always evident. Johnston (2004) discusses eight programmes (mainly in the US) which measure gains in literacy, and finds that only two report statistically significant increases (although participants in some of the other programmes were more likely to gain the GED).

However, improved LLN skills are not the only outcome from adult programmes. Balatti, Black, and Falk (2006) conducted interviews with 57 students and 18 teachers in Australia in order to explore social capital outcomes. They give examples of impacts (all but one positive) in a wide range of areas, including health, leisure and personal safety. They concluded that these outcomes—although not formally assessed and reported—were highly valued and played an important role in improving the student's quality of life.

Authors of the *Monitoring Report on Adult Literacy Interventions* (Clark, Ramasamy, & Pusch, 2006) report that providers noted improvements in participants, including increased confidence, having more positive attitudes, being more involved in community projects and improving personal skills and emotional health.

Adults involved in the Manukau Family Literacy Programme identified a number of positive changes that had resulted from their participation. As well as improved (by self-assessment) literacy skills and self-confidence, the programme had for some challenged their beliefs, and changed their attitudes to education, relationship with their child's school and future ambitions. (It had also had a broader impact on parenting and families, but that of course derived from the particular character of family literacy programmes.)

Talking about the impact of LLN programmes, Gordon (2008) mentioned four outcomes: literacy level; literacy engagement (e.g., reading for pleasure or for information); self-esteem; and confidence. McGivney (2002) believes that, if it were possible to collate all the adult feedback on the benefits of learning, "it is

virtually certain that the most frequently mentioned gains would be softer outcomes to do with feelings and attitudes rather than harder outcomes such as qualifications and jobs" (p. 21). Of these "soft" outcomes, the one which (according to McGivney) is most frequently mentioned, and most highly valued, is increased self-confidence.

This is confirmed by more recent evidence. Benseman et al. (2005) refer to "the consistent outcome of increased self-confidence and self-efficacy, often independent of any gains in LNL skills" (p. 31). Dymock (2007b) cites a number of research studies which stress the importance of increased confidence and self-esteem, which can in turn lead to other personal and social outcomes, and perhaps engagement in further learning. Providers surveyed by Dymock believed that their learners' self-confidence had improved more than their skills.

Based on a literature review, Dymock and Billett (2008) identified seven "wider benefits" of learning, chief among which was self-confidence and personal competence: "the extent to which the learner has a sense of self and a belief in being able to put their capabilities into action" (p. 15). Other wider benefits include attitudes to learning, personal growth and social capital.

Finally, it should be noted that the outcomes from LLN courses may not be the same as expectations. An Australian study (Brennan et al., 1989, as cited in Benseman & Tobias, 2003) found that learners' expectations were mainly in the cognitive domain, but when they were reporting on outcomes, the social and personal featured much more strongly. On a similar theme, NRDC (2007) cites a study by Wolf, Evans, Aspin, and Waite (2006) who (in a letter to participants, 2006) illustrated differences between what learners expected and what they actually got. Comparing what they thought (prior to taking the course) would be the outcomes, and what they thought afterwards, it is clear that expectations of promotion, better jobs and higher pay were not met. On the other hand, compared with expectations, more people reported meeting new people and finding their current job more interesting. Two-thirds of the learners reported being more confident at work, and almost as many said they were more confident elsewhere.

3.2 Young people and the labour market

We can see that LLN outcomes, whether related to income and employment status or personal and social benefits, are outcomes that impact upon people at any age. However, there is likely to be a differential impact upon young people because their position in the labour market is usually more vulnerable than that of adults aged over 24 years.

For example, young people are more likely to be unemployed, even taking into account their higher participation in tertiary-level education. A Department (2009) factsheet, *Employment and Unemployment—December 2008 Quarter*, was published in February 2009. A summary shows that unemployment rates generally rose to a five-year high of 4.6 percent. This reflects the recent economic downturn, and the rate is expected to increase further, rising above 6 percent by early 2010. The Department notes that youth (aged 15–24) are

particularly affected by an economic downturn, since they have lower levels of experience and are in general more likely to be unemployed. Hence during 2008 their employment rate fell by 3.5 percent and their unemployment rate went up from 9.7 to 11.1 percent. The worsening economic situation is also expected to impact negatively on Māori and Pasifika workers, since they have a greater proportion of youth relative to Päkehä, and also tend to be disproportionally employed in low-skilled and semiskilled occupations, which are most likely to be affected in a recession. In May 2009, unemployment rates for 15–19-year-olds were 14.3 percent and that figure was predicted to surpass general unemployment rates by three to one. Some economists predict youth unemployment to hit 18–20 percent by 2010.

There is, then, a reduction in labour market opportunities for young people, and—as recent media reports suggest—some may decide to remain in education as they see no realistic alternative.

Young people at risk and not in employment or education

Some groups of young people are even more likely to struggle in the labour market—those who are defined as at risk and NEET. Although the OECD (2008) recently reported that New Zealand young people have a very low incidence of long-term unemployment and find their first jobs more quickly and at a younger age than young people in other OECD countries, they also found:

- there is a hard-core of youth who are at high risk of poor labour market outcomes and social exclusion (including 11 percent of NEET youth, with high percentages of Māori and Pacific young people)
- there are not enough youth in vocation education and training
- tertiary institutions are not providing youth with the requisite skills
- New Zealand policies make it difficult to reach disengaged youth (for example, benefits and allowances).

One of the few research reports on NEET youth (but note that this report is not specifically about LLN) looks at the impact of policy changes on youth in Greater Merseyside, UK (Pemberton, 2008). Despite the difficulty in measuring the impact of policy not designed specifically for NEET youth and where the subjects of the research are difficult to access, Pemberton suggests that policies have had limited success because there are so many influences on NEET youth. He recommends that government put greater emphasis on attacking intergenerational issues. He also recommends government focus on those NEET who have "more pronounced difficulties" rather than those who are voluntarily and short-term NEET. Pemberton identifies the role of motivation—rational decision making—in young people's status as EET or NEET; not all NEET are disadvantaged. Educational disaffection also has significant influence. Peer influence can affect decision making to eschew NEET status.

The Merseyside research used young "peer" researchers to interview 21 NEET youth, most of whom were 17. Most of the interviewees had worked in low-paid, short-term jobs and options for informal employment reinforced their NEET status (because they could not acknowledge their experience or get a reference).

Benseman (2006) undertook an evaluation of the Papakura Youthworks programme for NEET young people. The scheme was a joint initiative of the Papakura District Council, TEC and MSD and the vast majority of participants have been male, under 16 and Māori. The scheme provides young people with initial practical support, help with finding employment, often with LLN skills at a local PTE, and ongoing monitoring and support. Benseman reported very positively on the scheme and identified the following as key features of its effectiveness: committed and skilled Māori staff; "good networks with local employers; ongoing support and mentoring for youth all the way through; the involvement of parents and a close relationship with a local PTE that provides literacy and numeracy training" (p. 4). As with other commentators, the author identifies issues where the focus is on placing young people in (low-skilled) jobs rather than on helping improve their LLN skills which could lead to more productive longer term employment.

3.3 Young people's transition to the labour market

Policy concerns with young people's transition to the labour market over the past decade have been driven by the greater complexity involved in the transition from school to labour market as the nature of work and the labour market itself have changed. More recently this concern has been compounded by global economic downturns which are likely to affect young people more than any other age group. Concern is for all young people but focused especially on young people in the NEET category and young people at risk of not being able to participate fully in society because of poor basic skills and/or social and economic isolation.

Some New Zealand research is already showing that young people entering the labour market recognise that the idea of ever completing one's education is outdated as rapid change and just-in-time learning fast become the basis, rather than the school-bound precursor, of productivity and individual success (Vaughan, 2009, forthcoming). Senior secondary students are now required to make a far greater number of decisions, at earlier ages, and with more far-reaching consequences, about different in-school qualifications and in-school subject pathways, credit types, credit numbers and credit combinations (Hipkins, Vaughan, Beals, Ferral, & Gardiner, 2005). Senior secondary students now recognise a distinction between careers and jobs, with a job being a necessary, but not sufficient, condition for having a career (Vaughan, 2008a).

The first three years of the Pathways and Prospects study into how young people manage the transition from school showed that most of the 114 young people interviewed felt almost entirely unprepared (particularly by school) to make so many decisions and on an ongoing basis. They understood the exploration of their work and learning options not as something that necessarily comes before settling down, as it does in typical youth transition public policy and school-based careers advisory practice, but instead as a sort of ongoing life mode for learning, work development and lifestyle. Some young people experienced the increasing volume and breadth of career options as overwhelming and destabilising. Others understood the world as changing rapidly and placed importance on having backup plans, even deploying them before undertaking their most desired option—partly as a risk-avoidance strategy and partly to serve as a creative

platform for tying together seemingly unrelated pathways or creating hybrid occupations. Almost all understood their careers to be a dynamic life process rather than a destination (Vaughan, Roberts, & Gardiner, 2006).

Thus young people are engaging with the complexity of the transition from school to work in ways that defy some of the policies and practices derived from outdated ideas about what it is to be an adult, "have" a career and "get your qualifications". A recent international literature of youth transition from the different perspectives of education, sociology, indigenous studies and economics also confirms this complexity in young people's education–employment linkages and choices. The authors observe that such choices are shaped by context and culture, and that family background can be influential in many ways. Students with career-related goals are more likely to establish themselves in a stable career pathway. Education has to help students discover and develop their abilities; careers dialogues or conversations between student and teacher are important (Higgins, Vaughan, Phillips, & Dalziel, 2008). Policies and practices around the world, including New Zealand, are therefore being adapted and rethought in order to direct and support young people in ways that keep pace with global and local shifts and young people's expectations and experiences. These studies point to experiences and orientations that are particular to young people today, and these are picked up again in the following section in relation to the engagement of young people in LLN and other related areas.

3.4 Transition initiatives in New Zealand

There are a number of initiatives currently taking place in New Zealand which aim to engage young people and address their needs during the transition from school to work or the labour market. Some of these initiatives specifically address young people at risk of not making a successful transition (e.g., becoming NEET or "inactive" or trying to move from that status). The initiatives take three main forms:

1. in-school careers education (including career information and guidance) for all students
2. in-school transition programmes and courses for all students
3. post-school employability skill development and assisted entry to the labour market (job placement) for young people at risk or already NEET.

None of the initiatives or categories of initiatives focus specifically on LLN. However, some of the initiatives are oriented to young people with low LLN skills and there is some scope to include LLN skills development.

Careers education in schools

Careers education has emerged as one of the key ways that young people can be supported to make the transition from school to work by focusing on the information they receive about different options and the ways they can make decisions about options. Schools are mandated to "provide appropriate career education and guidance for all students in year 7 and above, with a particular emphasis on specific career guidance for those students who have been identified by the school as being at risk of leaving school unprepared for the transition to the workplace or further education/training" (National Administration Guideline

(NAG) 1.6) (Ministry of Education, 2009b, p. 1). The actual form that careers education takes varies widely among different schools looking to meet the needs of their specific students.

Vaughan and Gardiner's (2007) research into careers education in secondary and composite schools identified some worryingly narrow perspectives and careers education arrangements. On the one hand, careers staff described careers activities and approaches that were largely targeted at at-risk students, and an understanding of careers education as an intervention to predicted or predictable ends (e.g., getting a job placement) than ongoing development (e.g., being able to get more jobs in the future). On the other hand, careers staff acknowledged facing new challenges in their role related to all students (not only at-risk ones) grappling with more and weightier decisions throughout schooling and well beyond in their lives. Careers staff prioritised the provision of information over teaching long-term strategies such as helping students develop self-awareness or teaching students how to make good decisions—a priority that could fit with NAG 1.6's emphasis on preparation but seemed at odds with a MOE careers education handbook's emphasis on long-term skills and dispositions such as helping students to "develop self awareness, become aware of opportunities, make decisions and plans, take action" (Ministry of Education, 2003, p. 7, as cited in Vaughan & Gardiner). Vaughan and Gardiner (2007) also pointed out that NAG 1.6's emphasis on preparedness for work *or* further education/training would be more realistic if it were "work *and* further education/training".

The MOE-led Creating Pathways and Building Lives (CPaBL) initiative (a partnership between the MOE, Career Services and School Support Services) also attempted to address students' needs for tools with which to manage the transition from school. Over the two-year period of its existence, CPaBL supported 100 secondary schools to build a sustainable, integrated school-wide approach to careers education that would improve the quality of careers advice and guidance, as well as student motivation, engagement, retention, achievement and transition, and increase family involvement. Like Vaughan and Gardiner's (2007) research, Education Review Office (EROs) evaluation (2008) found wide variation in the progress of individual schools. However they did outline elements of good practice observed through CPaBL, and found that the programme was more successful when integrated into school subject choice systems and pastoral networks.

Transition programmes in schools

Transition programmes in school have also become more widely offered and used in recent times. Although really an additional source of operational funding rather than a programme, the Secondary–Tertiary Alignment Resource (STAR) has been available since 1996 for the purposes of faciliating transition to the workplace, increasing student motivation through the purchase of tertiary-level courses and supporting students to explore different career pathways (and complement NAG 1.6).

Schools use STAR funding in a myriad of ways within the broad parameters of its goals and regulatory framework. STAR's strength is in allowing individual schools

to offer courses or design entire STAR programmes which they believe will best meet the needs of their particular students and community. In many cases, STAR allows schools to widen their curriculum, acknowledge the importance of vocational as well as the academic learning and re-engage students by presenting new and different possible pathways to them (Vaughan & Kenneally, 2003). Courses are limited only by the availability of providers, the interests of students, and the STAR-excluded subjects that schools are expected to be able to offer as part of the national curriculum.

STAR-funded course types include university papers and polytechnic courses. Schools and tertiary institutions may even collaborate to produce initiatives such as Christchurch Polytechnic Institute of Technology (CPIT) and Burnside High School's use of STAR funding to prepare students for a career in ICT through the creation of a Christchurch College of Computing (CCC). Students are enrolled at CPIT as STAR students for 11 modules from the Diploma in ICT, and are awarded a Certificate in IT if they pass nine. During 2001–03, 159 students had been through either CCC or a similar course of preparation, and almost half of these students subsequently enrolled at CPIT for tertiary courses, although not all in computing. Of those enrolled on the Bachelor of ICT course, most were accepted because they had completed the certificate, and they were reported by lecturers to be well prepared for their courses (McCarthy, 2004).

STAR is also used for industry-related courses which attract credits against the National Qualifications Framework (NQF), and Short Introductory Courses (SIC), formerly known as "tasters". Although the value of tasters was being questioned by the MOE in 2002, the evaluation of it found that schools and students valued them highly and over half of all schools offered SIC to more than half of their junior and senior students (Vaughan & Kenneally, 2003). The evaluation also found that the fact that students did not necessarily go on to further study in STAR subjects that they "tasted" did not constitute a failure, but rather a success, because tasters allowed students to sort and prioritise interests and options, eliminating pathways that would be more expensive and time consuming to trial after leaving school, and increasing motivation to stay at school (Vaughan, 2009; Vaughan & Kenneally, 2003).

The TEC's Gateway programme also aims to facilitate student transition to work. While there are some overlaps with STAR, Gateway courses are work-based and programmes involve students being placed in local workplaces to learn industry-related skills for credits on the NQF. Like STAR, Gateway has been perceived as a resource for meeting the needs of at-risk students in particular, though this is possibly more pronounced with Gateway as it was initially limited to low-decile schools (it is now available for all schools). Gateway's strength is in its capacity to provide clear pathways from school directly to industry for students, and make schooling more explicitly relevant for those students.

In telephone interviews (Tertiary Education Commission, 2003), principals and co-ordinators identified a range of benefits from Gateway, including improved student retention, attendance and motivation, and enhanced school profile and relationships with local communities. A survey of 457 Gateway students showed

that the young people themselves valued the programme because it allowed them to gain new skills (including work skills), gain unit standards while still at school, find out more about career options and improve their self-confidence, motivation and communication skills.

The Youth Apprenticeships pilot scheme was announced in September 2007 (Ministry of Education, 2008b). Initially involving 10 schools, it was aimed at Years 9 to 13 students—from the fully engaged to the at-risk—"who thrive on real-world experiences". They would be given an opportunity to gain qualifications and work experience in industry or a trade-based career while still at school. Existing programmes such as STAR and Gateway could be integrated into the scheme. Participating schools were asked to identify at least five students, and develop an action plan. A pilot evaluation was due to be completed at the end of 2008, and a report published early in 2009. The scheme is in 100 secondary schools in 2009, and no decision has been made for 2010 as yet.
Current government policy proposes a Trades in Schools scheme that includes implementing school-based apprenticeships and establishing Trades Academies. The academies will "build on successful existing successful programmes but offer greater flexibility to students" (Tolley, 2009, p. 1). The Government's aim with this initiative is to have:

- more young people interested in being at school because they can combine hands-on work, training or further study,
- more young people gaining worthwhile qualifications at school that lead to work, training or further study, and
- more young people being given an opportunity to fulfil their potential. (Tolley, 2009, p. 1)

Early in May 2009 the Government announced that the first Trades Academy will open in 2010 in Manukau at the Southern Cross Campus. The academy will build on existing Gateway work experiences and enable successful participants to take up a Modern Apprenticeship. Preliminary information suggests the academy will study practical workplace skills in addition to a range of subjects including business communication.

Although STAR, Gateway and the pilot Youth Apprenticeships are not specifically geared to at-risk students, some schools have used these funds and courses to create specific programmes and focal points for those students. Boyd, McDowall, and Ferral's (2006) research over three years in seven low-decile secondary schools shows how they developed nonconventional programmes tailored to the needs of their students, by drawing on STAR, Gateway and Training Opportunities funding. Beginning in 2002, the researchers interviewed 119 students, 24 school staff, 56 parents and 18 external providers, conducting follow-up interviews over the next few years to ascertain the longer term impact of the programmes on their postschool destination and experiences. Based on the data collected, Boyd et al. identified seven factors that support the retention and transition of at-risk students:

- a relevant curriculum
- student-centred pedagogies
- access to careers/transition information/advice

- learning by doing
- bridges to the tertiary environment
- opportunities to gain qualifications
- opportunities to develop life skills.

The MOE (2007) published a collection of case studies from eight individual schools that had developed flexible initiatives to keep students engaged in learning, and reduce the numbers leaving early without qualifications. Each school adopted strategies that were appropriate for their students, but in most cases this involved broadening the curriculum, usually with an emphasis on vocational courses. STAR and Gateway often helped schools to do this. Two schools reported the Te Kotahitanga programme[11] had proved very valuable. But in each school the emphasis was on deciding what would work best in their particular context.

Regardless of whether LLN skills development is specifically included or not, all of these initiatives have an impact on young people by increasing their motivation, retention and engagement—which are all key aspects of successful LLN programmes (see following sections).

Employability skill development and assisted labour market entry

A third category of transition support for young people occurs through the immediate post-secondary school environment, often through tertiary education institutions or transition-to-tertiary programmes. Youth Training provides for the almost 10,000 school leavers under 18 years of age in New Zealand with low or no qualifications, and at risk of long-term unemployment (Ministry of Education, 2002). Youth Training courses involve work experience and also the chance to gain unit standards and improve literacy skills.

In 2004 the Youth Training Post-Placement Support (PPS) initiative was piloted and evaluated (Tomoana & Heinrich, 2005). Three options were piloted: continued learning while in employment; enhanced support to complete training at Levels 1–3 of the NQF; and support services to sustain employment or further progressive education/training outcomes. Tomoana and Heinrich acknowledge a number of weaknesses in the evaluation, including the lack of a comparison group (or comparison outcomes of non-PPS participants); incomplete data for some learners; and possible bias in the selection of learners to be interviewed. With that in mind, they reported that the PPS programme appeared to have been successful in meeting the needs of a particular group of young people for support, mentoring and modelling by trusted advisers. Positive outcomes were defined for each of the options, and achieved by 71 percent of the sample. Overall, Option 1 proved to be the least successful. While three-quarters of Option 1 learners achieved a positive employment outcome, the further literacy or learning opportunities yielded credit achievement for only 2 percent. Providers reported that quality tuition was not feasible given funding levels, and there was some

[11] Te Kotahitanga is a Ministry of Education funded research and development programme in years 9 and 10 of some secondary schools in New Zealand. The programme aims to improve teaching and learning for Maori students.

doubt about whether young people entering their first job were interested or motivated to continue formal learning.

Which students are most likely to drop out at an early age? As part of the Longitudinal Surveys of Australian Youth (LSAY) series, Curtis and McMillan (2008) analysed a nationally representative sample of 15-year-olds who were still attending school in 2003. They aimed to explore the relationships between noncompletion of Year 12 and a range of sociodemographic and school-level factors. They found that students more likely to drop out were those without the intention to complete; those from non-nuclear families; below-average achievers; males; those with an unfavourable attitude to school; and those who perceived student–teacher relations as unsympathetic. (Early leavers who had positive student–teacher relationships were more likely to pursue vocational alternatives.)

Curtis and McMillan (2008) found that the profile of noncompleters changed over time, but groups with consistently low noncompletion rates included those with high levels of reading and "mathematical literacy". Conversely, "Low achievement in all four academic achievement domains—reading literacy, mathematical literacy, scientific literacy and problem solving—is associated with an increased likelihood of school non-completion" (p. ix). But when the four domains were modelled separately, only the first two proved to be strongly related to non-completion. This is consistent with earlier LSAY findings (summarised by Penman, 2004), indicating that low levels of literacy and numeracy were the most influential factors affecting non-completion of high school, in both Australia and the US. Those with higher literacy and numeracy achievement in Year 9 were more likely to be employed and earning more up to 33 years of age (the latest age studied).

In New Zealand, Loader and Dalgety (2008) analysed government data to examine transition to tertiary education overall and by attainment at school. They found that, in 2005, 13 percent of school leavers had little or no formal attainment, and of these 43 percent went on to tertiary study, mainly at certificate level. Of the 54 percent with some attainment at Levels 1–3, 47 percent went on to tertiary study, again, mainly at certificate level. Of the 33 percent with Level 3/university entrance qualifications, 82 percent went on to tertiary education, mainly at degree level. Demographic differences were mainly due to differences in attainment. Loader and Dalgety refer to overseas studies which suggest that tertiary education is the key to raising productivity and, through this, economic growth.

Scott (2005) reports findings from the first longitudinal study of qualification retention, completion and progression in tertiary education in New Zealand. He found that 40 percent of students who began tertiary courses in 1998 had completed within five years, 9 percent were still enrolled and the remaining 51 percent had left without completing. Completion rates were better at the higher levels of study, but still only 46 percent for Bachelor's degrees and 56 percent for doctorates. Scott notes, however, that these may underestimate the true completion rates because some students study part-time or take breaks. Of those who completed in 2001, 15 percent progressed to study for a high-level

qualification, and 24 percent continued to study at the same level or lower. Those who had obtained certificates were the group most likely to progress to further study. Completion rates were higher for women, those aged under 25 and Asians (although Māori completion rates were among the highest for courses below degree level).

Prebble et al. (2005) conducted a synthesis of the impact of student support services and academic development programmes on student outcome in undergraduate tertiary study. They listed 13 propositions suggesting how student outcomes could be improved by institutional integration, services and adaptation. They noted that academic services are often separated form those dealing with personal and social matters, but suggest they are perhaps better integrated. Academic support should be linked with mainstream study, not given outside the faculty or department. The evidence indicated that services are not widely used by students, but can have a positive effect on retention and achievement, especially for those with special needs. "Supplemental instruction", a relatively new form of support, had positive outcomes, particularly for the traditionally underrepresented groups and for international students. There was also strong evidence for the positive impact of peer tutoring and mentoring.

In Ontario the College Sector Committee (Glass, Kallio, & Goforth, 2007) surveyed postsecondary and apprenticeship programmes to explore their Essential Skills (including LLN) to help ensure future successful transitions from school into tertiary study. Twenty-five staff from health, business, technology programmes and from the construction, industrial, motive power and service sectors were interviewed. The essential skills that interviewees thought students needed most to work successfully in their chosen fields were: team work; communication skills (including writing and verbal skills); interpersonal skills; critical thinking skills; analytical skills; time management; research skills; and numeracy skills.

Students who were seen to be unsuccessful for postsecondary classes were: unprepared academically or had issues with maturity; had a poor work ethic; lacked self-discipline; and had a heavy emphasis on themselves. Apprentices who were seen to be unsuccessful also lacked reading comprehension and basic maths skills. The study recommended classes that prepare students for postsecondary and apprenticeship programmes (Academic Upgrading programs) need to: have a strong focus on reading strategies; teach Document Use explicitly; use texts and assessments applicable to future study; and utilise learning technologies where possible.

3.5 Conclusion

LLN skills are becoming more desirable in emerging knowledge societies or 21st century societies. There is some evidence that high LLN skills are associated with higher income levels, better labour market status and security, and social and personal benefits. However, it is difficult to quantify the benefits—though some studies have tried. Young people are most at risk in the labour market because they have the least experience and qualifications. Those with low LLN skills are even more at risk and may move into the NEET category, where those risks are

actualised. Currently a number of initiatives exist to support young people in the transition from school to labour market and some of these address the needs of at-risk and NEET young people specifically. There is little research evidence about where LLN skills development fits in here but there is some evidence about young people's changing ways of thinking about the world beyond school and the kinds of approaches which might connect with those and thus recruit, retain and engage young people.

4. ENGAGING YOUNG PEOPLE IN LLN

In the previous section, we looked at attempts to calculate and understand the value-added component of LLN for the labour market, and young people's positioning and transition to the labour market. In this section we look at outcomes for young people who engage in LLN programmes and general foundation or bridging programmes which include LLN components. We focus here particularly on what it takes to recruit, retain and engage young people—in LLN and in other related areas of learning, in part building on the previous section's points about the changing youth transition environment and young people's expectations and motivations. For this section we have also drawn on research in adult LLN that may or may not disaggregate outcomes for young people with a view to understanding the ways in which the recruitment, retention and engagement of young people and adults does and does not differ substantially.

4.1 Participation in New Zealand

Benseman, Sutton, and Lander (2006) attempted to map the nature and extent of adult LLN provision in New Zealand in 2003. They point out that "Foundation learning occurs in a variety of contexts and the scale and nature of this provision is so diverse that it is inappropriate to compare all aspects in an undifferentiated way" (p. 9). They estimate that, in 2003, there were approximately 302,600 learners in foundation (Level 4 or below) programmes, and that just over half of these were enrolled in programmes with a specific LLN focus. About two-thirds of the latter group (111,500 learners) were in Tertiary Education Organisations (TEOs); 40,000 in school-based or other ACE provision; 10,500 in Training Opportunity and Youth Training programmes; and a very small number, only about 500, in workplace literacy programmes. Whilst these trends are likely to be similar in 2009, it is likely there are higher numbers of people involved in workplace literacy programmes, given the attention this is being accorded.[12]

Benseman et al. (2006) found that participation in LLN programmes varied among subgroups; for example, by gender and by ethnicity. Two-thirds of LLN learners were women, and the greatest proportion were in the 30–39 age group. The ethnic breakdown was Māori 40 percent, Päkehä 24 percent, Asian 22 percent and Pasifika 6 percent. Benseman et al. (2006) note that the latter figure is a cause for concern because of the high proportion of Pasifika with low literacy levels in IALS. So it is interesting to note that the learners in the Gray and Sutton (2007) survey of companies included "a large number of men and relatively high proportions of Pacific employees" (p. iii), which may indicate that workplace learning is particularly appropriate for those groups. According to Gray and Sutton's respondents, difficulties with recruiting were usually with New Zealand-born (Pākehā and Māori) people with low educational achievement.
The Benseman et al. (2006) study is the only one we have found which attempts to analyse participation rates for LLN programmes specifically. Analysis of IALS or ALL data discusses participation by subgroups in education and training

[12] There were 3649 learners in programmes funded through TEC's Workplace Literacy Fund in 2008.

("upskilling") generally (Culligan, Arnold, Noble, & Sligo, 2005; Satherley & Lawes, 2008a, 2008b), but the surveys did not ask about participation in LLN learning.

A study conducted by Anae, Anderson, Benseman, and Coxon (2002) for the MOE looked at participation of Pacific students in tertiary education where participation was defined as enrolment, completion/noncompletion and performance. The authors found that significantly higher proportions of Pacific students enrol in courses at PTEs compared to the general population. Pacific people enjoyed their experiences of PTEs because the PTEs focused on "raising self-esteem and self-confidence levels as a basis for ongoing academic/practical learning" (pp. 85–86). Those students achieve better, by moving into employment or continuing their education (after, for example, a TOPs course) than other students do. Students also enjoyed experiences of bridging programmes at TEOs.

Success stories tend to be through individual endeavour and Anae et al. (2002) provide a number of suggestions for improving participation of Pacific students in tertiary organisations. These suggestions mirror many of those made by researchers focused on improving youth participation (Organisation for Economic Co-Operation and Development, 2008; Ovens, 2002; Pemberton, 2008).

Anae et al.'s (2002) recommendations include:

- recruiting students from school by having high expectations of students in decile 1 and 2 schools and by preparing them for tertiary study
- making overt and accessible the pathways into tertiary education via PTEs and bridging programmes
- co-ordinating effort among providers to establish an optimum student-centred recruiting environment
- acknowledging the scale of socioeconomic issues—make provision for economic and personal support for affected students
- establishing academic support services which are accountable for support provided to Pacific students
- mandating effective training in tertiary pedagogy for lecturers
- establishing funding-based accountability requirement across the sector in relation to participation and success.

4.2 Motivation

Motivation is one area in the research literature where young people/young adults appear to be behaving differently from other groups of adults. In the following section we describe the research on adult and young people/young adults' motivation. A key theme appears to be that young people/young adults are harder to motivate and/or less motivated than other adults. We identify the following features as distinct for young people/young adults: the importance of extrinsic motivation which appears to be more heavily weighted to paid work rather than learning (separate from paid work); "hooking in" to learning through different kinds of approaches, including involving parents; the importance of mentoring and counselling; and the attitudes to anything that is like school.
In New Zealand, Hindmarsh and Davies (1995), on the basis of in-depth data collected from 36 learners (more than half of them Māori), identified three main

patterns, which they called zigzag, linear and cyclic. They reached the tentative conclusion that zigzag (moving to and from and between formal and informal learning opportunities) was the most common.

The important question is what prompts adults, who may have been out of education for some years, to undertake further learning, and specifically to enrol in an LLN programme. Gordon (2008) reports that "For most, the trigger for entering a literacy programme was some combination of a change in personal relationships or a desire for better/different employment opportunities" (p. 20). Gordon's conclusions were based on interviews with just six participants in Literacy Aotearoa programmes, but other researchers have found evidence which provides a consistent picture.

A Canadian study (College Sector Committee for Adult Upgrading, 2008) reinforces the concept of personal choice in returning to study. Many Canadian youth reported that they had to make considerable sacrifice and overcome barriers to return to study and that they did so because of research they did or because someone influential in their lives persuaded them to. They were motivated by employment or career, personal fulfilment or having a fresh academic start (p. 18). This study and others from the UK, Canada and Australia are helpful in identifying the complexity for individual youth in choosing or remaining in EET or NEET.

A NIACE paper (Bynner, 2008) identifies that a key feature of youth with poor basic (LLN) skills was that they tended to leave school as soon as they could. That meant they were ahead of their peers in terms of their employment rates but by the age of 20 they were much more likely to be unemployed. The NIACE studies also showed that young women with poor basic skills were most likely to leave employment early on to have children. Adults with poor basic skills tended to be disadvantaged which included having little or no exposure to computers. This in turn limits their employment options. On a positive note, the paper reports that where adults were aware they had a problem, they were motivated to do something about it. Therefore raising awareness about problems and potential solutions is critical.

Hall (2003, as cited in Vaughan & Boyd, 2004) reviews the literature on mentoring for young people: "Mentoring relationships are unlikely to be successful if there is too much social distance between the mentor and the person being mentored, if mentors are untrained, or if there is a mismatch between the aims of the service and the needs or values of the person being mentored" (p. 49). This finding is mirrored in the Merseyside study (Pemberton, 2008) and a NCSALL paper (Garner, 2004).

Barón's (2009) research examines the locus of control of a cohort of Australian youth and its relationship with success in senior secondary school and socioeconomic status. Barón found that youths who believe their actions are responsible for their future outcomes are more likely to achieve good secondary school qualifications. Barón did not find significant links between locus of control and disadvantage or between youth disadvantage at particular times and

educational outcomes later in life. Barón's discussion of the labour economics literature identifies the importance of concepts such as "self-esteem, pessimism, initiative and locus of control" (p. 5) in helping determine outcomes; because instruments are available to measure locus of control, this is a widely used measure.

An Irish study (National Adult Literacy Agency, n.d.) interviewed 159 students from 16 schemes across the country to promote the adult basic education services for people with low literacy skills. Only a quarter of the participants were aged 18–29. The researchers found that once people began participating in literacy schemes they began to see the links between improved literacy and employment. People who had not participated didn't make those links. Publicity, promotion and hooking people in to literacy education were seen to be key government priorities as a quarter of the respondents said lack of information hindered their participation.

The research found gender differences in that more young men, especially from rural areas, were taking part in literacy programmes in order to further their education, improve employment prospects or to cope with form filling and record keeping required of farmers.

Reluctance to engage in programmes was seen to have systemic as well as attitudinal basis. Negative feelings about school and parents' attitudes to education are powerful deterrents, as are young people's embarrassment and a sense of stigma. Benefits of LLN programmes were reported to be "growth in confidence, an ability to take up much coveted promotional opportunities, a willingness to participate in community and voluntary activities, success in various accredited courses, the ability to engage in leisure activities, improve mental health" (p. 39).

Chilvers (2008) reported on a 10-group segmentation of adults' attitudes to learning and the barriers that inhibit their learning. Chilvers suggests that UK initiatives that adults train while working and a skills marketing campaign could be helpful but the report notes that some groups of adults will be very difficult to reach. Young adults falling into the following categories could most profitably be targeted: those who are "hampered hard workers"; those "looking for learning"; "trapped in a treadmill"; and "sceptical but scraping by".
Dymock (2007b) noted that research into why adults learn had uncovered a whole range of factors. His own study of providers indicated that the main reason for learners coming to LLN programmes was to improve their skills for everyday living, and the second most common reason was vocational ("those seeking employment or wanting to prepare for training for employment") (p. 7). Parental responsibilities (as well as pressure from parents) could be another factor, as could taking opportunities to make up for learning missed at school. To summarise, "their goals are a mix of personal, social and vocational" (p. 8).

Benseman and Sutton's (2007) literature review indicated a similar range of reasons for participation. Some research suggested differences by subgroup. For Māori and Pasifika learners, being able to link into whānau/cultural ideal was

important, and wanting to help with children's education was a strong motivator. Levels of motivation were reported to be especially high among refugees, and there were indications that older learners tended to be more motivated than younger ones.

Johnson (2000), based on four workplace literacy case studies, also identified the main reasons for participation as the desire to get a job or promotion, family and personal reasons, a desire to learn computer skills and a general desire to learn. Factors encouraging workers to participate included accessibility, openness and convenience; the opportunity to learn at their own pace; and encouragement from management and co-workers.

Participants in a family literacy programme (Benseman, 2004) gave similar reasons: education/ employment focused (they wanted to improve their English, return to schooling, get a better job) or family/personal focused (to help their children, try things out for themselves). In addition, some had enrolled in the course not because they were motivated to do so, but simply because it was better than the perceived alternative (they found it boring at home and wanted to get out of the house). This illustrates the obvious difference between workplace literacy on the one hand and family or other community literacy programmes on the other: the former is in work time while the latter is in the learner's own time. For a busy person, finding time to participate could be a problem, but for those with time on their hands, it could be an advantage. Thus NEET young people could be seen, with regards to availability, to be in a position to readily access LLN and may just need the motivational support previously described to engage.

Hindmarsh and Davies (1995) undertook in-depth interviews with learners and providers in six centres for informal adult learning (some but not all with a literacy focus). They found that the most common reason for engaging in informal learning was to enhance further education and/or employment opportunities; this included school leavers who wished to continue their education and women who wished to re-enter the education/employment field. Some learners were taking informal courses because they felt it would help them develop their confidence sufficiently to be able to proceed to further education and/or better-paid employment at a later date, while others were aiming to upskill in a particular area. Other reasons for participating were to improve personal relationships/social skills, and to maintain the learner's social/cultural wellbeing and identity. For Māori interviewees, informal learning was seen as a way to maintain and develop their iwi or Māori identity and knowledge.

In a very different context, Perin, Flugman, and Spiegel (2006) looked at the reasons why young people (aged 16–19) enrolled in Adult Basic Education (ABE) courses in the US. In some cases they believed that new requirements had made it more difficult to obtain a high school graduation diploma, and felt (wrongly) that it would be relatively easy to obtain the theoretically equivalent GED qualification. Some preferred being taught with older students, or regarded ABE as a safer environment than high school, with less disruption and fighting. But other young people were attending because they had no alternative: it was dictated by family circumstances (so that their parents could continue to collect

public assistance) or because they were mandated to do so by the courts or by drug rehabilitation programmes.

Another study found that young people working in the retail sector were not forced to undertake learning, but may be convinced by an enthusiastic manager or training provider to start a Modern Apprenticeship, without being motivated to do so and perhaps without realising fully what is involved (Spielhofer & Sims, 2004). One of the main identified reasons for noncompletion was that the young people changed jobs frequently; they were more interested in better pay than in obtaining a qualification.

Barriers to improving LLN

Since there are compelling reasons for adults to wish to improve their LLN skills (see above), what prevents them from enrolling in programmes which would help them to do so? Jarvis (1995) cites UK research among five groups underrepresented in liberal adult education (McGivney, 2002). The most frequently cited deterrents to participation were:

- lack of time, money and confidence
- the negative effect of school experience
- distance from classes/lack of transport
- lack of daytime opportunities/reluctance to go out at night
- lack of childcare
- education regarded as irrelevant.

The subgroups surveyed by McGivney (2002) (manual workers, the unemployed, women with dependent children, older adults and minority ethnic groups) gave varying weights to these reasons. It should be noted that McGivney was asking about ACE in general, not LLN in particular. However, the barriers to LLN learning are essentially the same. Following other researchers, Quigley (1997) talks about structural and attitudinal barriers. Both types are represented in the list above from Jarvis 2002. Structural barriers are the practical difficulties relating to transport, location, money and childcare. Attitudinal barriers relate to the potential learner's experience of school, or attitude towards education. In the UK, Salisbury (2004) refers to young people with "fragile learner identities … rooted in prior experiences in compulsory schooling" (p. 96).

From a UK perspective, NRDC (n.d.) reports that time is a key barrier to progression, since "learners are likely to need on average 150–200 hours of time on task to improve their literacy by one level in Skills for Life" (p. 3). They also note that, compared with school-age learning, socioeconomic factors are less significant for adults, but attitudinal barriers are particularly important.

In the US, Jacobs and Tolbert-Bynum (2008) identify similar issues with ABE learners. Noting that they only rarely complete postsecondary courses, the researchers comment that, "While community colleges are better suited to the needs of working adults, in terms of their flexibility and convenience, they still are not a truly 'good fit' for such students" (p. 5). Low-income adults may have difficulties with transport as well as childcare, and some may have issues with the criminal justice system.

In New Zealand, Johnson (2000) identified structural and attitudinal factors, with an emphasis on the latter, no doubt because, if programmes are provided in the workplace and during working hours there is less likelihood of encountering structural barriers at a practical level. Johnson's (2000) list of factors inhibiting participation was headed by "negative experiences in secondary school" and "initial fear and suspicion" (p. 64). "Family issues" relate not (as is usually the case) to current problems with childcare etc., but to family experiences in the past which had resulted in the learner's initial education being curtailed. "Lack of time" in this context meant effectively pressure of work, which had resulted in some learners choosing to undertake LLN studies in their own time. There had also been an initial reluctance on the part of older workers to learn from younger tutors, but this had been overcome.

Asked to identify any difficulties in undertaking informal learning, Hindmarsh and Davies' (1995) interviewees most frequently cited the costs associated with learning. Some Māori learners had taken courses which were not their preferred option, because they were cheaper. Some women were struggling to finance their courses out of their housekeeping budget, and even those in receipt of training incentives could have problems with additional costs such as travel.

4.3 Recruitment, retention and persistence

In this subsection, we look at three related issues. First, what are the most effective methods of recruiting learners to LLN programmes? Second, once they have been recruited, what can be done to ensure good retention rates? The third topic looks at retention from the learner rather than the provider perspective; it asks what is likely to encourage learners to persist with their studies?

Recruitment to LLN programmes

In a study of youth literacies practice in Scotland (Hall, Maclachlan, Tett, & Edwards, 2008), "the 'hooks' for getting young people involved were the activities they offered which had an appeal to young people, or an end goal that articulated with their ambitions" (p. 39). The activities covered a very wide range: examples included digital photography, magazine making, cinema visits and outdoor pursuits. Goals included those that would improve young people's health, employment, housing and educational prospects. Providers stressed the importance of creating relaxed, informal settings, and offering "bribes" such as refreshments, visits to places of interest and outdoor activities. Practices such as these may encourage young people to try out the provision and to keep attending if they find it congenial. But there is an earlier stage: How are they made aware that the provision exists? Providers had tried a range of methods, of which the most successful were word of mouth, referrals from other agencies, working with other providers and other provision in the organisation. Circulating leaflets, outreach work and media advertising were much less successful.

It seems that young people (and maybe other adults too) could be divided into two groups. First, there are those who are aware of a need or desire to learn (for whatever reason). In this case it is necessary for providers to show how the course they are offering will help them achieve their goals. The second category

comprises young people who are not conscious of any such need or desire. In this case it may be necessary to offer activities which will attract them (but have no overt literacy component) and incorporate the learning by "stealth" (the term used by Hall et al., (2008) for courses where the literacies element is hidden and not made explicit to the learner).

There is perhaps also a third group: young people who may not have a desire to learn, but are obliged to enrol on elementary education courses. In the US, they may do this in order to receive public assistance, qualify for job training or as a condition of probation (Topper & Gordon, 2004). They may have been ordered to attend basic education classes by the courts, or as part of a drug rehabilitation programme (Perin et al., 2006).

In the UK, young people aged 18–24 who have been unemployed for six months are required to join the Government's New Deal programme. After a "Gateway" period of guidance and support from a personal adviser, they have four options, one of which is full-time education and training (FTET). Salisbury (2004) notes that young people with low literacy and numeracy are often "conscripted" to this "option". They are then likely to be demotivated and disaffected, possibly assigned to the wrong course, and their attendance is likely to be poor, even though it is required as a condition of further financial support.

Young people who—for whatever reason—have no choice but to enrol on a course, are unlikely to be enthusiastic learners and may well drop out at an early stage. There is no need for providers to actively recruit such learners, but dealing with them is likely to prove difficult, partly because they typically have a range of personal problems, and also because of the practical issues involved in teaching them alongside other learners (see Salisbury, 2004 for problems relating specifically to New Deal clients).

In New Zealand, learner recruitment has largely been the responsibility of providers. Benseman and Sutton (2007) note that recruitment "is always going to be challenging" since "Programmes are trying to attract people with low skills who are often wary of (or hostile to) formal education" (p. 39). What can providers do to ensure that their courses are accessible and attractive to potential learners? And—most important—how can they make those potential learners aware that the courses exist?

The learners interviewed by Hindmarsh and Davies (1995) identified location in the local community as a strategy that facilitates access. For Māori learners the two key factors were peer/family pressure and Māori programme provision; non-Māori learners highlighted affordability. Interviewees in Benseman's (2004) evaluation of a family literacy project similarly identified the two key characteristics of the course: it was free, and it was based in the local school.

Responses from Hindmarsh and Davies' (1995) interviewees indicated that Māori providers actively sought out potential participants and encouraged them to enrol. "Shoulder tapping" was one of several recruitment strategies used in the Manukau Family Literacy Project, but it proved to be the most successful

(Benseman, 2004). It was also anticipated that, once the programme was underway, past and current learners would help to recruit others. Active recruitment has been shown to be effective in other New Zealand and US studies of family literacy, but less so in the UK (Benseman, 2004; Hindmarsh & Davies, 1995). Anae et al. (2002) cited earlier also provide useful recommendations for recruiting Pasifika people to tertiary study.

The companies involved in Gray and Sutton's (2007) study of workplace literacy used a variety of strategies to recruit learners. Some strategies were open calls for volunteers (via memos or meetings), while others involved identifying people likely to benefit from such learning, on the basis of supervisors' reports or the results of a needs analysis. Participation was usually voluntary, though some employees were strongly encouraged to participate. A key issue was how the programmes were marketed. Most companies avoided any explicit mention of literacy, and found it easier to recruit learners to programmes with neutral-sounding names, such as "Building the company" or "Wednesday training". ESOL employees were usually keen to participate, and grateful that the company was doing something for them.

Retention

Benseman and Sutton (2007) refer to the "common experience that LLN learners with complex needs and stresses in their lives often have attendance issues" (p. 40). It is also common experience that many adult learners withdraw before completing a course, due either to those same needs and stresses, or the fact that they do not feel comfortable in the classroom. In the four US case studies conducted by Perin et al. (2006), interviewees reported sporadic attendance and low retention for all age groups, not just for the young people with whom the researchers were chiefly concerned.

Quigley (1997) notes that the learners who enrol for literacy programmes may not be typical of all those with literacy needs—the learners who enrol for literacy programmes are, for example, able and willing to attend, unlike other learners who may attend unwillingly for various reasons (see subsection above). Nevertheless, the practical barriers which prevent or at least discourage people from enrolling (see section above) may also lead to poor attendance or withdrawal from courses. For example, suitable childcare may have been found to enable a learner to start on a programme, but subsequent problems (e.g., the child, or his/her carer, is sick) can threaten attendance. Such factors may be outside the provider's control. However, once learners embark on a programme, the content and style of the teaching, and the attitude of the teacher, will also be vital in determining whether they wish to continue: "teachers and good teaching are by far the most important factor in the enjoyment of learning, and therefore in motivation and persistence" (Quality Improvement Agency, 2008, p. 23). Teaching and learning therefore forms a substantial part of the next section which focuses on effective programmes for engaging young people/young adults in LLN.

Skill New Zealand (2002) reported good retention rates in workplace literacy projects: dropouts were limited to people who had left the workplace or changed jobs so they could no longer attend. Since workplace learning takes place during

work hours, they would not face the practical problems that cause other learners to withdraw. On the other hand, Benseman et al. (2005) note that "High retention rates are seen as a consistently positive feature of family literacy programmes" (p. 88).

Curson (2004) identified that completion of workplace training requires an effective learning culture in a workplace. Having training linked to the strategic goals of the business are the two most influential factors in determining whether a workplace environment is effective for fostering successful learning. She also found that having administration processes that effectively monitor and track an employee's progress, a structured approach to meeting the training needs of the employee, providing incentives to learn, providing support services, allowing time for training and learning to occur, and recognition that there is not a one-size-fits all formula to learning in the workplace, are important determinates of completion.

Although not specific to LLN, Engaging Students for Success (Australian Council for Educational Research, 2009) and the MOE report on Modern Apprenticeships (Mahoney, 2008), provide some information about age as a variable in retention. The ACER report analyses data from a 2008 survey of 101,141 first-year students from 20 New Zealand and Australian tertiary institutions. Satisfaction, support and learning outcomes were the most important correlates of pre-graduation institutional departure. Where the right mix of challenge and support is in place, students were more likely to stay. Younger students reported being less engaged than those over 20. Older students reported "higher general learning outcomes and lower departure intentions, but lower overall satisfaction" (p. ix). The study also found that:

> Speaking a language other than English at home appears to be associated with greater interaction with staff and participation in enriching educational experiences, but less engagement in work integrated forms of learning. General development outcomes were lower, as were average grades and overall satisfaction. (Australian Council for Educational Research, 2009, p. ix)

In New Zealand the statistics on tertiary retention and completion are confusing at best. For example, they do not take account of learners who leave programmes before completing but then enrol in other programmes. These learners are counted as having dropped out of study which is partly why tertiary completion rates appear very low. (Forty percent of people complete the programme in which they enrol.) These statistics are mirrored in the Modern Apprenticeships completion rates (Mahoney, 2008).

Persistence

Persistence is "retention turned inside out" (Quality Improvement Agency, 2008, p. 6); it differs from retention "which is organisation-focused and often used as a measure of accountability" by looking at the issue from the learner's perspective. So which learners are more likely to persist, and how can they be supported to do so?

The Quality Improvement Agency (2008, p. 6) cites a definition of persistence developed in the US by NCSALL:

> … adults staying in programs for as long as they can, engaging in self-directed study or distance education when they must stop attending program services, and returning to program services as soon as the demands of their lives allow.

This definition highlights another important difference between persistence and retention: "Retention can refer to the learner staying on one specific course or with one organisation whereas persistence relates to a longer and often more complex learning journey" (Quality Improvement Agency, 2008, p. 6). The 14 development projects in the Quality Improvement Agency study provided "evidence of the ways in which learning often has to compete with other priorities and demands on people's time" (p. 27). A few of the projects attempted to revise the definitions of withdrawal/dropout, recognising that withdrawal from a course was not necessarily withdrawal from learning. Some learners may need to take time out for family or other reasons, and contact with (ideally, support from) projects during that period could encourage them to return to learning when circumstances allow.

The Quality Improvement Agency (2008) acknowledges that some of the practical barriers to persistence (e.g., travel costs, shift patterns) can be extremely hard to tackle. Evidence from the development projects suggested that incentives could play a part, but teaching and good teachers were more important. It was vital to take a "holistic" approach to the learner, offering "pastoral support", because "when organisations recognise and take active measures to respond to their wider social, economic and cultural needs, learners appreciate it and … it may encourage them to persist with learning" (p. 12). However, the Quality Improvement Agency noted that offering practical and emotional support to learners requires particular interpersonal skills, and it can be challenging for tutors to balance this with their teaching role. They also commented on the role of effective assessment—particularly formative assessment—in supporting persistence, because: "Persistence is supported where learners are encouraged to recognise smaller steps in progress and achievement" (p. 15).

Clearly, learners with the strongest motivation for improving their literacy are more likely to persist than those who are simply doing it because they are bored. Comings et al. (1999, as cited in Benseman et al., 2005) found that immigrants, parents of teenage or grown children and those over the age of 30 were the groups most likely to persist; this may reflect the fact that immigrants tend to be highly motivated (by a desire to learn the language) and parents of teenage or older children do not experience the childcare problems which can be a barrier to potential learners.

Analysis of Individual Learner Record (ILR) data in the UK indicates that half of the learners who withdraw from Skills for Life courses do so in the first 30 percent of their course (Quality Improvement Agency, 2008). Another British study (Kambouri & Francis, 1994, as cited in Benseman et al., 2005) found that attendance rates during this time were similar for persisters and those who would

ultimately withdraw. They also found that just over a third of the leavers progressed eventually to other courses or jobs.

A recent large-scale US study on persistence (Nash & Kallenbach, 2009) reports on a research and development programme in New England to introduce teaching strategies aimed at improving adult learner persistence. The strategies produced positive outcomes by meeting learner needs of: sense of belonging and community, agency, relevance, clarity of purpose, competence and stability. The strategies related to intake and orientation, instruction, counselling and peer support and re-engagement. Findings from the study indicate that some strategies were less successful with young adults. For example, young adults weren't interested in goal setting or weren't sure of their goals. Peer mentors were difficult to match with 17–18-year-olds because of gender discomfort or vulnerability in revealing ignorance.

4.4 Conclusion

Improving participation, recruitment and retention are issues for both adult and younger LLN learners and many of the same barriers exist for both groups. It is motivation and persistence that single out young people/young adults as a general group. In the following section we describe those programme components that are likely to lead to retention and completion. We identify research that describes successful approaches for young people/young adults.

5. LLN PROGRAMMES THAT EFFECTIVELY ENGAGE YOUNG PEOPLE/YOUNG ADULTS

Section Five presents findings from the research directly about LLN programmes that are effective for young people/young adults. Almost all of the New Zealand research is from tertiary foundation or bridging programmes. International research includes young people/young adults on apprenticeships or in special young people/young adults' programmes. Whilst we did find a number of research reports (especially programme evaluations) we could find little that would distinguish effective young people/young adults' LLN programmes from effective programmes for other adults. Key ingredients of effective programmes are that they embed LLN into vocational programmes, that programmes are personalised with small classes and the environment is not like school, and that effective use is made of ICTs and/or teaching strategies designed to motivate young people. Effective teaching is critical to success, including the relationships established between teacher and learner.

To be included in this review then, and this section on effective engagement of young people/young adults, the training and education programmes had to have these features:

- a focus on young people/young adults—the majority of participants are aged 16–24, and/or the programme claims to cater specifically for young people/young adults, or where data are available and analysed according to age so that outcomes for young people/young adults are clear
- integration of LLN into the curriculum (deliberately aimed to improve LLN skills).

We have identified a number of effective practices in the literature on youth and LLN or basic skills programmes. Most of these are also identified in the general literature of effective programmes for adult LLN. We have discussed the research findings under a number of subheadings including embedded LLN, integrated or separate classes, the use of ICTs and effective teaching. We have included some discussion of the latter in this section. In the following section we provide a summary table of key characteristics or principles for effective LLN programmes for young people, including an evaluation of the importance of each.

In New Zealand there is a wide range of LLN provision in a variety of contexts (Benseman et al., 2006). Unfortunately, there is little evidence concerning the relative effectiveness of programmes in different contexts; Benseman et al. (2005) note that "very few studies … have considered this question and the few that exist are of poor quality" (p. 88). There is, however, agreement that LLN skills develop best in contexts that have meaning and purpose for the learner (for example, Ministry of Education, 2005, 2008a; Tertiary Education Commission, 2008) and that this context may not be the same for all. There is also agreement in the international literature that embedding LLN in vocational courses is effective and important, although there is no consensus on the best approach to embeddedness.

We could locate only two comprehensive New Zealand research studies (Benseman & Tobias, 2003; McMurchy-Pilkington, 2008) that disaggregated data about young people/young adults and LLN. Other than that, we found a book chapter that described an LLN programme where most of the students were 18–24, a conference paper that reported an interesting perspective on ages/stages and effective foundation programmes for young people/young adults and a Master's thesis that addressed issues of age of learner in foundation and bridging programmes.

One of the few large-scale, independent studies that looks at young people/young adults and LLN programmes was published in 2002 in Australia (Ovens, 2002). Because of its methodological rigour and its focus it is worthwhile highlighting it at the beginning of this section, as many of the findings are reiterated in other reports.

In this study, the researcher examined the discourses around success in programmes for youth "at risk" through a literature review, surveys, focus groups and six case studies. She employed a social justice framework (as opposed to an "at risk" framework). The project gathered data from selected samples of young people in nationally funded literacy and numeracy programmes, researchers, policy makers, managers of programmes with a focus on young people and teachers and practitioners of programmes for young people.

Ovens (2002) undertook six case studies of successful practice for engaging young people in LLN using a framework developed by McGuirk in New South Wales in 2001 (and attached in Ovens as Appendix 2C) where indicators of success were:

- Programmes for young people must be flexible and challenging in timing and duration.
- Planning for youth literacy programmes takes many factors into consideration so that the individual requirements are accounted for and the teacher can be flexible about how outcomes are achieved.
- Youth literacy programmes require adaptation of the strategies outlined for adult literacy in texts.
- Youth programmes require resources unique to their environment and their goals.
- Young people's complex needs including and underpinned by literacy needs require careful planning of learner groupings especially where young people are from non-English speaking backgrounds and indigenous backgrounds.
- Young people require feedback on progress and evidence that their participation is worthwhile.
- Best practice pedagogies in youth literacy meet the individual young person's goals and the goals for organisational profile within the complex youth service environment.
- Best practice pedagogies for young learners are matched with their individual goals and focus on the strengths which the learner brings.
- Best practice pedagogies for learners who are young people rely on the latest research and discussion about their complex and rapidly changing policy environment.

- Best practice programmes for young people rely on teachers being positive about change and modelling strategies to meet the challenges.

It is interesting to note the case study titles that capture the essence of delivery: "The door is always open"; "Intergenerational mentoring"; "Nothing succeeds like success"; "Capturing learning; structure and consistency of approach"; and "Community profile with young people".

Ovens (2002) reported that success was reliant on a number of factors interacting inside and outside the LLN programme. Included in her findings were that all successful programmes embedded literacy and numeracy, their curriculum allowed for flexible and multiple pathways, the programmes employed a range of activities to engage learners, and that some programmes were using innovative approaches that drew on brain research and "complementary and psycho-dynamic therapies" (p. 8).

Ovens (2002) also attempted to measure success against the Ausyouth (2001, as cited in Ovens) Good Practice in Youth Development Framework which provides success indicators for policy, programme and organisation. This framework is attached to Oven's report as Appendix 2D. Its principles include: a commitment to participation of young people in all levels of planning and decision making; an experiential model of learning that builds on capabilities and skills while maximising opportunities for fun and recognising age and developmental phases; and promotion that is ethical, honest and non-patronising.

5.1 Philosophies of LLN

We were interested to explore the philosophical or conceptual frameworks for programmes of LLN for young people/young adults, but were somewhat disappointed to find very little material on this aspect of programmes. However, it is clear that the content and style of delivery in LLN teaching will be influenced by what the tutors or organisers understand as the purpose of developing LLN skills. Their philosophy may not be consciously held or fully thought through, but it will be implicit in their practice. It is possible that embeddedness or personalised learning are being seen as proxies for a conceptual framework.

Two New Zealand Master's theses (Morgan, 2003; Raw, 2002) discussed theories of learning at length. Morgan's thesis explored the challenges that educators encounter in meeting the needs of students bridging into tertiary study. The study identified a number of areas of tension between philosophical assumptions and practice that educators need to consider in meeting current student needs in their learning. These tensions include the learning environment, the people who interact with these environments and future directions for pre-entry programmes.

Morgan (2003) identifies that many students in bridging programmes were school leavers who hadn't achieved University Entrance—the students appeared to see themselves as empty vessels, and focused on the minimal amount of content that would be required to meet assessment criteria. Educators Morgan interviewed acknowledged that they needed to change teaching to accommodate this.

Similar to Ovens' (2002) social justice-framed research another Australian study (Balatti, Black, & Falk, 2007) explores the impact of teaching for social capital outcomes on literacy and numeracy courses. The researchers argue for a sociocultural teaching and learning approach where the individual is the focus. In taking this approach, the networks that are established help participants acquire "new identities and knowledge resources and to make connections between what they learn on the course and the rest of their lives" (p. 256).

In the adult LLN literature, Quigley (1997) identified four working philosophies underlying literacy practice, which he terms vocational, liberal, humanist and liberatory. The vocational approach sees literacy in terms of preparation for work and financial independence; the liberal for acquiring cultural knowledge; the humanist for personal growth and self-esteem building; the liberatory for critical thinking and political awareness. By contrast, Beder, Lipnevich, and Robinson-Geller (2007) identified three approaches to literacy: basic skills (literacy taught as a discrete subject, on the assumption that skills acquired can be used in a range of contexts); emancipatory (equivalent to Quigley's liberatory); and functional (similar to basic skills, but broadening the concept to include skills deemed necessary for society).

Johnson (2000) noted a social justice framing of some New Zealand literacy programmes through their use of Paulo Freire's ideas about worker empowerment and liberatory education. "The area of literacy that draws on Freire the most in New Zealand is probably among Māori" (p. 41) and that the organisation Literacy Aotearoa, which actively promotes Māori participation, "seems to approach literacy from a Freirean perspective" (p. 46).

5.2 Embedding LLN

LLN skill development works best in a context that has meaning and purpose for the learner, whether this is workplace learning (e.g. Tertiary Education Commission, 2008) or in everyday life (e.g. Benseman et al., 2005). The word "embedded" is common in current usage to refer to LLN teaching in the context of another subject (usually vocational studies). The *Literacy, Language and Numeracy Action Plan 2008–2012* (Tertiary Education Commission, 2008) proposes "a significant increase in the amount of explicit literacy and numeracy teaching and assessment that is embedded into vocational training" (p. 9). Accordingly, the TEC (2009) has issued guidelines for embedding literacy and numeracy in vocational training. It states:

> Embedding literacy and numeracy in provisions such as vocational training is considered to be the most effective and efficient way to provide direct, purposeful instruction in contexts (settings) that allow both the initial opportunity to acquire new literacy and numeracy knowledge and skills, and plenty of scope for practising them. (p. 6)

Benseman et al. (2005) note, however, that:

> There has yet to be any substantive independent examination of how the process of integration of vocational and literacy skills takes place in New

> Zealand contexts, nor any in-depth analysis of whether the approach results in greater LNL gain for learners than LNL-specific programmes. (p. 42)

Benseman and Sutton (2007) also note that:

> Integrated provision … has been promoted as a cornerstone for the sector. It is under-researched given its importance and there needs to be more investigation of this model and the outcomes it achieves (p. 6).

There is much support for integration or embeddedness in the international research. Hall et al. (2008) carried out a questionnaire survey of youth literacies' providers in Scotland. They avoided the term "embedded" but instead asked their respondents to classify their approach as either *dedicated* (focuses exclusively and explicitly on literacy or numeracy goals), *integrated* (LLN explicit, but complementary to other activities) or *stealth* (literacies element hidden and not made explicit to learner). They found that the integrated approach was most common (94 percent), but a large majority used some form of dedicated provision (84 percent) and more than half used a stealth approach (54 percent).

The NRDC provides the most significant research on the value of embedding. Casey et al. (2006) collected data on almost 2,000 learners on 769 vocational programmes in five regions of England. Most of these were based in Further Education Colleges all of which had volunteered to be part of the study because they were interested in embedded LLN provision. The research team developed 30 questions relating to features of embedded provision, based on initial observations. They used respondents' answers to these questions to place each of the programmes on a four-point scale, representing the extent of "embeddedness". The scale ranged from non-embedded (learners experience their LLN development and vocational studies as entirely or almost entirely separate), through partly or mostly embedded to fully-embedded (learners experience their LLN development as an integral part of their vocational studies).

Learners were initially assessed using different tools, all of which were referenced to the National Standards for Adult Literacy and Numeracy. The purpose of this study was to investigate learners' achievement, retention and attitudes to LLN, within vocational programmes. The quantitative and qualitative data were collected using various methods: basic data collection from the providers; a questionnaire; semistructured interviews; focus groups; class observations; and document analysis. Data were gathered from the teachers; learners and managers.

The authors stated their study was not about establishing causal relationships between a type of provision and an outcome, but that it could "support hypotheses that are valuable in their own right" (Casey et al., 2006, p. 15). Their strongest findings were that learners on embedded courses had higher retention rates, and more positive attitudes towards LLN study, than those on non-embedded courses, and that more learners on the embedded courses achieved

literacy/ESOL or numeracy qualifications (43 percent and 23 percent more respectively) than on non-embedded courses.

They also commented that results suggested that additional Learning Support aided completion of a course, and it was most effective to have a team of expert staff (rather than having a single teacher responsible for both vocational and LLN skill development). In terms of the features of effective embedded provision, Casey et al. (2006) stated that structural features alone are probably insufficient to secure benefits, attitudinal features are key and that no single set formed a "winning profile". They identified nine features "associated with achievement in both literacy and numeracy" a further three for numeracy alone, and two more for literacy/language (see p. 28). As do many other researchers, the authors note many of these top nine features "represent aspects of good teaching, learning, partnership and delivery" (p. 29).

It would seem that what Hall et al. (2008) term integrated and stealth approaches could both be classified as embedded. However, the TEC (2009) evidently understands "embedded" as meaning what Hall et al. call "integrated", since LLN provision needs to be explicit and two sets of outcomes (LLN and vocational) reported on separately; this would preclude a "stealth" approach. However, it would still allow for the possibility of LLN being partly, mostly or fully embedded, as defined by Casey et al. (2006).

Seven case studies make up a significant research project, funded by the Department for Education and Skills (DfES) (Roberts et al., 2005), which gathered evidence about the "characteristics of embedded LLN teaching and learning" (p. 6). The project's strength lay in the rich descriptive nature of the case studies, although the main report cautions—"we must still be cautious about the generalisations which follow from this small and diverse range of courses" (p. 7). Three case studies out of the seven in this report are about youth and relevant to this Literature Review. These are described below.

Brittan and Grief (2005) carried out a case study of an Entry to Employment or E2E programme (in engineering) delivered by a training organisation, in which seven to 10 young men were enrolled, between the ages of 16 and 19. The E2E trainees attended two days a week, for approximately 6½ hours of teaching per day. This qualitative study explores "some of the ways in which numeracy skills are taught, negotiated and learned in a vocational (engineering) setting"(p. 3). There was no LLN tutor in this programme, and LLN was not an explicit part of the curriculum. However, the vocational tutors did say it was their role to support the learners to acquire these skills, as relevant.

Given the nature of the research, their findings are most likely to be viewed as "insights", and useful indicators of variables that require further research. The researchers found that emotional support has an impact on learning, lack of confidence is a major barrier to learning, motivation increases when the maths task is part of doing a vocational task, engagement is associated with individual attention and respect from the trainer, and learning may be enhanced when the

situation is relevant to the learner, that is, when the activity is practical and relates directly to achieving a personal goal.

The population of case study seven (Walsh, 2005, as cited in Roberts et al., 2005) was seven young people (aged between 18 and 21 where four were male and three female) enrolled in a programme to train them as sports coaches, delivered in a rural college for post-school trainees. This report used the term "essential skills" which equates to LLN. There was an essential skills tutor who attended the vocational training which was delivered one day a week. Separate sessions within the vocational programme were set aside for essential skills, as well as opportunities for integration during the vocational sessions. No data were provided on outcomes, and only a few findings are presented. Bearing in mind the apparent lack of validity and reliability best practice could be described as: incorporating initial essential skills needs assessment as part of the induction programme; planning sessions based on material covered in vocational classes and on specific individual issues; balancing the use of familiar but non-vocational contexts with the new vocational contexts; following a sequence of learning, thinking, re-learning and doing; and setting a leisurely pace, so as to enable learners to consolidate their vocational learning and correct errors.

No mention is made of the number of learners in the group of full-time students involved in case study three (Cooper & Baynham, 2005). In this study, the authors sought to "understand … the complex and dynamic nature of the process of embedding" (p. 3). The research involved formal semi-structured interviews with seven staff members and informal conversations with other staff. Three interviews were held with students. There were also "over 12 hours of classroom observations written up as narrative accounts and 16 hours of informal interactions" (p. 4).

In the construction course described in the research, the LLN tutors and ICT tutors often worked in the classrooms with the vocational tutors. There were also separate rooms available, for taking individual students out of class for individual attention. The authors claim that the embedded approach works most effectively: with full-time students working intensively over an extended period of time. They consider that LLN tutors should be attached to a particular vocational course so they can get to know the students and the curriculum, and that tutors should work and meet in teams and allow time for shared planning. There should be both a vocational tutor (experienced in the profession) and a basic skills tutor (also experienced in their field) with small class sizes and positive, supportive and collegial relationships between tutors and between tutors and students. Classes should involve engaging interactive multimedia games, joint construction of knowledge and formal and informal time.

Cranmer et al. (2004) evaluated the Learning and Skills Development Agency (LSDA) development project which aimed to explore different models of delivering LLN within apprenticeships, so as to make these skills a higher priority, and more integral to the course. The project covered eight centres, 13 occupational areas and a cross section of providers. Eight case studies are appended to the report. The researchers found that learners improved LLN when the whole organisation

believed key skills are essential for learning vocational skills and that learners' motivation and engagement improved where employers were actively involved. They considered the front-end delivery model to be effective as early success is motivational and advocated focusing on LLN early on and gradually decreasing its emphasis. These claims were based on retention and achievement rates as LLN outcome data were not available.

In the follow up to this report (Sagan, Waite, Cowan, Casey, & Evans, 2007) six of the original sites were revisited, and semi-structured interviews were held with project managers. Data were also collected on completion and retention. This brief report presents the progress made by each centre separately, and then gives a summary of findings, including the benefits of front-loaded models of delivery, the benefits of combining front-loaded and embedded models of delivery, additional features impacting on success and training for staff.

The usefulness of this report lies in its distinction between two models of delivery (p. 2), rather than the provision of any strong evidence for the effectiveness of one over the other. That is, most of the centres now implement key skills at the beginning of the apprenticeship (rather than after the vocational training as they had done before participating in the development project). It was noted that three of the centres, for some of their courses, adapted this front-loaded approach by embedding key skills teaching in the sense that they were included throughout the vocational training. As the apprentices progressed through the course, the percentage of time spent teaching key skills decreased.

The way the "achievement figures" are reported does not allow a reader to independently assess the relative success between centres and their models. The researchers claim for all centres an increase in the number of trainees completing key skills portfolios (that is, completing qualification assignments), over shorter time frames, and increased retention. The findings are of use insofar as they support larger, more rigorous studies. However, this is the only research related to young people/young adults and LLN that describes the front-loading approach. A literature review by Wickert and McGuirk (2005) "confirmed the success of initiatives in Australia in integrating literacy, numeracy and vocational skills acquisition through 'built-in' rather than 'bolted-on' methodologies" (p. 8). On the basis of the review and interviews with co-ordinators of community and workplace projects, the authors concluded that literacy should be embedded into workplace and community practice rather than taught in isolation, but that integration was a complex task, and there were varying views as to how it should be approached.

Powers and Associates (Australia) Pty Ltd's (2003) evaluation of the Indigenous Youth Partnership Initiative (IYPI) offers some insight although it is important to note that the population studied is significantly different from the general New Zealand young people/young adults/vocational population. In addition, the 1,000 learners involved ranged in age from Year 8 to adults.

Although the evaluators were supposed to evaluate the contribution of the projects to the improvement of indigenous young people's literacy and numeracy,

the projects themselves were not set up to meet this kind of objective. They did not collect data that could be used to measure LNL gain. (Only one project collected baseline data on the LNL levels of participants as they entered the project.) And, many of the projects also operated alongside a broad range of LNL initiatives, and it would have been difficult therefore to "separate the discrete effect of the IYPI projects from these" (Powers and Associates (Australia) Pty Ltd, 2003, p. 39).

Instead, the projects were set up to achieve engagement-related objectives and so the team focused instead on finding the ways the projects may have contributed the development of LNL skills. Therefore the main conclusion of this evaluation report is that "the primary contribution that the projects made was to keep the project participants engaged in both general and vocational education" (Powers and Associates (Australia) Pty Ltd, 2003, p. 6). Eight types of strategies were identified that "in one way or another, supported the development of core literacy, numeracy and employability skills" (p. 73). These included that vocational education strategies were used to encourage students to see the relevance of LNL to their career goals; for example, plans, role models, camps and simulations. The report noted that low LNL levels affect level and type of vocational education and training that can be delivered. The report also noted the importance of cultural recognition, acknowledgement and support to securing motivation and commitment and key factors to achieve this. Other strategies involved workplace engagement strategies where the effectiveness of the co-ordinator in co-ordinating work placements is the key to success.

A Canadian study (Fernandez, 1999) identified elements of effective LLN programmes for young people/young adults living in poverty in two areas of Canada (Toronto and Newfoundland). Fernandez does not discuss "integration" or "embedding" but in fact the participants described ideal courses in ways we would interpret as integrating LLN within vocational courses. Participants identified a number of situational, dispositional and institutional barriers that had led them to drop out of school. They considered that LLN programmes designed for them should be "flexible, goal-oriented and work-related" (p. 16) and emphasise computer literacy, job-searching and work experience. One-on-one support from a tutor was valued. The young people thought that staff should be "flexible, open-minded, culturally sensitive, and patient instructors who could help them set realistic goals" (p. 16).

Participants in Newfoundland thought the following would attract young people such as themselves to LLN programmes: "student centred instruction, small group work, computer instruction and curriculum that is tied to the real world" (Fernandez, 1999, p. 20). Successful programmes for these young people/young adults used small-group work and individualised instruction.

Fernandez (1999) considered that the 12 young people interviewed were motivated to continue with their education so they could get suitable employment. They emphasised that LLN programmes must not be like school. Programmes should be free or heavily subsidised, provide career and counselling support, be tailored to individual needs and with instructors who are well trained

to suit the specific needs of young people "at the margins". Additional support such as financial support, transport, mentoring, day care and work experience would attract young people and help to guarantee the success of a programme.

5.3 Integrated or separate classes for young people

There is no agreement among researchers on the question of whether or not young people should be taught in the same classes as older adults. However there is a lot of discussion on this issue and there is evidence that different age groups perform differently and are motivated by different things.

Most of the participants in Benseman and Tobias's (2003) study were enrolled in their programme for between six months and two years. The authors reported that many participants enjoyed the range of classmates whereas others commented that there was a disparity between younger and older people on the programmes. Some saw the younger ones as less motivated, immature, not interested or people with learning difficulties and psychological difficulties. Older participants were concerned that 16-year-olds disrupted the learning environment.

Participants surveyed were asked about their perceptions of the impact of the literacy programmes on their skills. Forty-one percent said there had been a little improvement; 46 percent said there had been a lot of improvement in their skills. Younger women (under 30, 17 percent) and older women (40 and over, 22 percent) were more likely to report no change. Older women were more likely than younger women (44 percent compared to 33 percent) to identify "a lot of improvement" and younger men were very much more likely to identify "a lot" of improvement (64 percent compared to 27 percent).

Collison and Drayton (2002) described two programmes at the University of Waikato aimed at preparing learners for further study. The school leaver group who were attempting university entrance needed to be taught differently and separately from the adult group (who were mostly aged 18–20) because their expectations and motivations were different. They brought expectations of schooling with them (for example, the teacher is responsible for my learning; the important thing is to pass rather than to learn; the classes are boring and I have to be here; my experiences are important but those of others aren't). The adult group was reported to be intrinsically motivated and bringing greater life experience and a willingness to share this to the class.

The authors acknowledged that the structure of the courses (lectures and tutorials versus workshops), the compulsory nature of the school leaver class and class size were also important variables. What is useful about this report is the discussion about young people/young adults as two distinct groups that are not divided by age but by motivation, attitude, perceived value of teaching and learning, distance and time away from school and the reason they are involved in study.

In the US, Hayes (1999) presented statistical data to argue the case that a trend exists that there is a growing number of 16–21-year-olds enrolling in adult

literacy education, in the US. She provided an assessment of the impact of this trend on adult literacy education, based on interviews she conducted with adult educators. Hayes described the general characteristics of young people enrolling in adult programmes, and went on to briefly identify four types of young people/young adults. These characteristics were seen to be at odds with the requirements of adult programmes and therefore she discussed the issue of integration versus separation. The adult educators told her about strategies they used to integrate young people/young adults, and the benefits this can bring, changes they made to the way they taught (setting rules, providing more structure, small class size, building rapport, different teaching strategies), changes they made to the curriculum to make it more relevant, and topics for staff development.

Weber (2004) also noted that young adult learners are developmentally different from older adults. This recognition, and the fact that ABE programmes in the US serve an increasing number of young adults, led to the development of the Youth Cultural Competence (YCC) programme, with three major components—youth involvement, positive peer influence and youth popular culture—which *"should be viewed as a bridge for reaching young adults 'where they are' and connecting them to academic content that might otherwise be boring or abstract"* (p. 9). Topper and Gordon (2004) report how ABE practitioners in Kansas City were trained over 18 months in the YCC strategy, since half of the GED learners there were young adults (aged 16–24). YCC separates young people/young adults from older learners into small classes and integrates elements of youth culture into an academic curriculum that would give young people/young adults the equivalent of a school leaving diploma (the GED). The authors reported improved outcomes for youth in enrolment, retention, attendance and graduation. They also reported changes in teaching with practitioners responding readily to new strategies and approaches.

Another NCSALL article on preparing young people for GED (Garner, 2004) advocates youth-only classes and profiles the success of a 22-year-old teacher. Her classes revolved around AMI (adult multiple intelligences) and the Internet. The teacher's colleague who taught the older adults reported they were more comfortable talking about taboo topics without the younger students and the older adults worked harder and participated more.

5.4 Personalised programmes (that are not like school)

This subsection considers processes for making learning relevant to the learner—sometimes described in the literature as "learner-centred". We have also read a number of Māori and Pasifika studies (some of which relate specifically to LLN) that describe the importance of whānau delivery. Some of these findings are also discussed later in the subsection about effective teachers. Many of the findings emphasise that the programmes are specifically designed to be unlike school or provide more personalised learning experiences than most schools have provided.

The importance of learner-centred provision is often highlighted in qualitative LLN studies, though without any attempt to prove that it results in more successful

outcomes. Gordon (2008) reported that "Three dominant and related themes emerged from the interviews with [Literacy Aotearoa] staff" (p. 22); the first of these was the place of the individual learner at the centre of literacy training. Tutors need to understand the learner's background, aspirations and the context of their life experience, including individual circumstances as well as broader cultural and societal influences. They also need to show respect for individual learners by making them feel welcome, recognising the fact that many have had negative experiences of school, and may therefore be distrustful of any formal education.

The MOE has recently commissioned two reports on LLN for adult Māori learners (McMurchy-Pilkington, 2008; White, Oxenham, Tahana, Williams, & Matthews, 2008). Of these, *Te Pakeke hei Akonga: Māori Adult Learners* (McMurchy-Pilkington) specifically addressed younger adult Māori as learners in foundation programmes. The researchers interviewed a number of CEOs, tutors and adult Māori learners in Auckland, Whangarei, Whakatane and Gisborne. They found that success for young learners was more likely to occur when contexts were "real-life" and where learning was based on practical, "hands-on" activities. This appeared to be particularly important for numeracy (and very different from school memories of mathematics). Learners felt comfortable within the physical environment and with the staff: "Comfort comes from the emotional security of 'belonging to the whānau'" (p. 28). PTE and iwi organisations set out to include and celebrate Māori identity in a Māori-centred, whānau environment (whakawhanaugatanga). Many staff teaching on foundation programmes in PTEs, wānanga and iwi organisations were whānau-based; students often come from the same whānau.

McMurchy-Pilkington (2008) identified that younger learners engaged in learning because the environment is not like school. Classes were small and personalised, learners were trusted and had choices and they were treated as adults (with rewards and bribes, such as being able to smoke at intervals, working well to encourage learning).

Although not specifically about LLN, two theses (Manu'atu, 2000; Ormond, 2004) consider Māori and Pasifika issues. Ormond's project with school-aged young people in Wairoa sought to address the social and institutional silencing that young people experienced in New Zealand by creating spaces where their voices were privileged.

Manu'atu (2000) looked at achievement of Tongan students at school in Auckland. Manu'atu views good pedagogies as cultural productions that provide access to cultural knowledge. In the Po Ako (homework centre) successful learning has occurred at the interface of Tongan and school cultures. Learning takes place when the pedagogies encourage critical thinking and acting upon knowledge that is produced and exchanged through interaction between the teacher and students. The successful teaching practices in Po Ako based on relationships of worth and passion between the teachers and students, encourage them to both talk with each other and pursue knowledge. The author also draws on the Polynesian Festival as a site for effective pedagogy.

Marshall, Baldwin, and Peach (2008) undertook to look at effective teaching and learning and programme design and development in 13 nominated Māori and Pasifika PTEs. The researchers found that the key elements of success were a whānau/aiga approach, making sure there was a sense of belonging and having a sense of "greater humanity" (p. 7) and cultural inclusivity. Interviews were conducted with 41 people over 18 months. Tutors were seen as critical to learner success and being flexible, committed, passionate about teaching, focusing on learners and being able to motivate learners were seen as characteristics of effective tutors. Learners were seen to be motivated by having clear boundaries and expectations and setting goals. Teaching that used an holistic approach, met learners where they were at and used humour and celebration was seen as effective. Successful programmes were flexible and designed around learners' needs with plenty of opportunity for assessment provided. Organisations were seen to be successful when they had good-quality management systems, when their tutors fitted in well and when good relationships were maintained with community and other groups. Learner, tutor and organisational goal setting, reflection and evaluation are described as important aspects of good practice.

Zepke, Leach, and Isaacs (2008) sought to find out how foundation learners experienced their learning, and what they considered to be success and the factors that helped learners achieve success. The researchers used a qualitative, interpretive framework to interview 96 learners in 18 focus groups from six ITPs. The age of participants was described as "loosely representative" (p. 14) and it is not known how many of the participants were under 25. The authors coded the findings into four categories of "soft outcomes"—work skills, attitudinal skills, personal skills and practical skills. They found that the strongest indicators of success were considerations for the future, motivation, basic literacy, learning to learn, self-esteem and relationship building. The participants considered that they got very strong support from their institutions which contributed to their success. Compared to school, the foundation programmes contributed to "learning transformations". Participants reported that they liked working in teams and problem solving. Many were extrinsically motivated although others were motivated by being able to learn and by the environment. For those learners in level three programmes, improved self-esteem and confidence were reported as success factors. Growing self-awareness was seen by many to be a success factor. Participants reported being extremely positive about their teachers, for their passion and caring and for the environment they established and maintained. This was in contrast to their school experiences. Participants also provided an interesting perspective on retention, citing advantages and greater success for those remaining when less-motivated class members dropped out.

Raw's (2002) thesis examines self-directed learning (SDL)—the importance of the learner exercising control over all educational decisions including what resources should be used, what methods work best to achieve learning and the criteria for assessment. She draws on Meizirow's (1982, as cited in Raw) theory of adult learning and Brookfield who considers that adult learner characteristics are the development of independence and taking responsibility for decision making. These are not an innate disposition in each person. She found that students in

their first year had different expectations of tertiary study than their experiences—they expected more instruction, a more traditional approach and so had to be taught how to become more independent and responsible as learners.

5.5 Small-group learning

The literature on young people/young adults and LLN emphasises the importance of small-group teaching (Airini et al., 2008; Benseman & Tobias, 2003; McMurchy-Pilkington, 2008; Topper & Gordon, 2004; White et al., 2008). We found little discussion of one-to-one teaching although a number of studies found that having a mentor or counsellor was important for retention and persistence (see for example, Fernandez, 1999; Powers and Associates (Australia) Pty Ltd, 2003; White et al., 2008).

Benseman et al. (2005) note that:

> Historically in New Zealand, LNL tuition has been dominated by one-to-one teaching by volunteers, but over recent years (especially with the growing role of paid tutors) and an increase in vocational programmes, there has been much more class and small group provision. (p.43)

Teaching groups can obviously be more cost-effective than teaching on a one-to-one basis, but there is debate about whether it has any other advantages or has disadvantages. Some of the companies involved in Gray and Sutton's (2007) study of workplace literacy had established learning groups, others were offering one-to-one tuition. Benefits were claimed for both, partly relating to work patterns and the practicalities of releasing a number of workers simultaneously. In addition, learners in groups could "share issues", while one-to-one tuition "focused specifically on the individual's learning needs" (p. 30f). But there is little if any research evidence on which method is likely to be the most effective.

5.6 Assessment and motivation

Previously we described some studies which referenced the importance for young people/young adults of being extrinsically motivated by achieving qualifications (for example, Fernandez, 1999; Hall et al., 2008), and some references to "test anxiety" (Brittan & Grief, 2005) but we found little research that focuses the role of assessment in teaching and learning for young people/young adults. In the adult LLN literature several of the studies reviewed by Benseman et al. (2005) mention the problem of "resistance to testing".[13] Because learners may object to the idea of being tested, tutors may be reluctant to carry out formal assessments. The type as well as the content of assessment will depend on the purpose of the assessment. NZCER (2006) derived from the research literature and interviews with key informants a set of six assessment principles, which provided a framework for examining current assessment practice in 12 tertiary foundation learning settings. They also identified three main purposes of assessment:

[13] This applies not just to examination-type testing, but also to the accreditation of key competencies as part of a vocational qualification (Spielhofer & Sims, 2004). Unwin and Wellington (2001) found that some modern apprentices were told about the requirements only towards the end of their training. They said they used the skills daily, so were not sure why evidence was needed; they were also aware of the extra pressure on their colleagues who had to carry out the assessments.

accountability and reporting; teaching and learning; and lifelong learning. In adult LLN learning, formative assessment is clearly important, although Derrick and Ecclestone (2008) note the difficulties of adult education teachers developing formative assessment skills and insights "in the context of a heavy casualised, part-time workforce" (p. 76).

Dymock and Billett (2008) looked at how adult learning could be assessed on nonaccredited LLN programmes in Australia. Noting all the variables to be taken into account (including learner goals, tutor competence and expected outcomes or benefits) they anticipated that "a range of instruments and approaches would probably be required to assess and acknowledge learning outcomes that are specific to particular learners or cohorts of learners" (p. 8). They then developed a portfolio of possible instruments, and six of these were trialled over a period of eight weeks. All were found to be useful in different contexts, and for different purposes, but no single instrument was preferred by all of the research partner organisations. There were, however, issues about the language level (particularly for ESOL learners); and the instruments were completed most commonly and most effectively as a joint tutor/learner activity. Ongoing use of these instruments would require tutor training as well as further development, but Dymock and Billett do not think it possible to create a "one-size-fits-all" assessment tool; they believe that "a choice of instruments for assessing and acknowledging learning is necessary" (p. 27).

Cushnahan (2009) noted that in Australia there is no national assessment and reporting system for the key competencies, which include Communicating Ideas and Information (literacy) and Using Mathematical Ideas and Techniques (numeracy). Clear guidelines for valid assessing and recording are needed, and also effective professional development for vocational education staff, most of whom are not trained to assess these skills.

Many existing studies rely at least to some extent on learners' perceptions of their own LLN skills, and improvements which they believe have occurred during the programme they are following or have completed (for example see Benseman, 2004; Benseman & Tobias, 2003). However, where self-report and formal tests are both used, the former tends to overestimate gains compared with the latter (Benseman et al., 2005). In all but two of the IALS countries, less than half of those assessed as literacy level 1 rated their own literacy skills as less than good (Organisation for Economic Co-Operation and Development, 2000).[14] Benseman et al. (2005) question learners' inflation of their skills through self-report, asking if "it is socially desirable to gain literacy, or are they making important gains that tests are not sensitive enough to measure?" and commenting that "Either way more quality research is needed about how, or what, gain is measured" (p. 25).

The OECD is currently developing a strategy for a Programme for the International Assessment of Adult Competencies (PIAAC).[15] Electronic assessment instruments are being developed and will be trialled in 2010. They are intended,

---

[14] Similarly, McGivney (2002) notes that research findings often show that learners' perceptions differ from tutors'.

[15] New Zealand is not participating in this study.

of course, for international data collection rather than assessing individual progress. The first cycle will assess the domains of literacy, numeracy, problem solving and ICT (Organisation for Economic Co-Operation and Development, 2004). A survey of job requirements will also be carried out, and an enterprise survey.

In New Zealand, NZCER is developing an online adaptive assessment tool for adults that will provide reliable assessment information on reading, writing and numeracy, linked to the Learning Progressions. The tool is not designed specifically for young people/young adults, but takes account of all adults in New Zealand whose literacy and numeracy skills are at ALL levels one to three. The majority of tasks are centred on generic work environments. This tool will enable educators to understand the strengths and weaknesses that learners have in reading, writing and numeracy and to tailor teaching accordingly. It will also allow educators, organisations and the TEC to map learner achievement and progress against the Learning Progressions and against national means. However, it will not measure outcomes other than LLN; for example, growth in confidence or self-esteem. Perhaps there is a place for a tool that could reliably measure "soft outcomes" such as growth in confidence or improved engagement and with some extrinsic recognition for achievement so that learners could be credited with development in these areas.

5.7 The use of Information Communication Technology (ICT)

The use of ICT and multimedia is highlighted in the research on young people/young adults and LLN (Cooper & Baynham, 2005; Fernandez, 1999; Hall et al., 2008). We discuss this in more detail in the final section of the review.

In terms of the adult LLN literature, Benseman et al. (2005) review a number of other studies purporting to show that computer-aided instruction (CAI) can be more effective than other methods of learning. In many cases there were methodological flaws and/or the results were inconclusive; nevertheless, Benseman et al. conclude cautiously:

> It appears CAI may be marginally more effective compared with conventional instruction, although much better verification is needed to strengthen this conclusion. Additionally, the studies often contrast CAI interventions with 'traditional' curriculum, the nature of which is not spelled out clearly and may be different from conventional teaching in New Zealand. (p. 48)

Based on their review of research evidence, Benseman et al. (2005) make two other important points. First, "Irrespective of its effectiveness compared with other modes of instruction, CAI is consistently reported as valuable for motivating reluctant or hesitant learners" (p. 49). Second, "Teachers are central to making CAI programmes work. The programmes work best as a supplement to other forms of instruction, rather than as a stand-alone option' (p. 49).

This view is echoed by the Quality Improvement Agency (2008) findings from 14 development projects, of which "a substantial number … involved an element of ICT" (p. 17). According to the Quality Improvement Agency:

> Feedback from practitioners and learners provides strong evidence that innovations in the use of ICT can enhance learners' experience of learning … but … it is not a replacement for personal contact with a teacher. On the contrary … it is the combination of new online learning materials with additional tutor input, either through face-to-face contact or via telephone or email, that contributes to greater levels of motivation and persistence among learners. (p. 17)

5.8 Effective teaching

As we have previously stated, good teaching is the critical component of effective LLN programmes for young people/young adults. Whilst this is also critical in adult LLN programmes, there are some aspects of teaching that appear to be particularly important for youth.

A Team approach

Krsinich and Roberts' (2008) study investigated 135 students in three programmes: Business Administration; Tourism and Travel; and pre-apprentice Technology. Their research resulted in a model of LLN integration into vocational courses, which they call team-teaching. The authors also provide useful commentary on definitions of "embedding".

Distinct features of this mode of delivery included: organisational factors (such as management support, number of hours the LLN tutor is involved, funding, joint meetings, office space); quality of provision (staff training and professional development); roles and relationships (goodwill, trust, anxieties, shifting practice); and matching learners' needs to programme requirements (designing tools for initial needs analysis and individual learning plans). The authors describe three different modes of delivery which they call up-front teaching (the vocational and LLN teachers take turns to teach), roving (the LLN teacher provides support to individuals in workshop or group activities), and tag or tandem teaching (the LLN teacher addresses a specific LLN point at the moment it is required), and as well identify the importance of having drop in times, and LLN tutorials.

Wrigley and Powrie (n.d.) reported on a project between 2002 and 2004 centred on a small school that targeted at-risk young people aged 15 and 16 with low LLN skills. The school is a two-year programme that combines LLN, other academic subjects, art and technology and social development with the aim of reintegrating young people back into school. Learners in the research study increased their reading comprehension scores by three and a half years on average. In addition they made significant gains in their social and emotional development and reduced criminal and violent behaviour. The research supported other findings in this review: a team-teaching approach where teachers are skilled as counsellors and mentors and where there are dedicated counsellors on site; a focus on developing resilience and self-efficacy; small class sizes; using contexts that

relate to young people; study being full-time with multiple opportunities to learn; and an holistic approach.

Weber (2004) noted that employment and training programmes have often been "overwhelmed" by the number and intensity of the problems confronting young participants.[16] He suggests that Adult Basic Education (ABE) programmes would need to provide support services themselves, or find a way to link young people with existing community services. He added: "Teachers will be likewise challenged to expand their role as educators and develop a skill set more often associated with social workers, counselors, and even parents" (p. 6).

Team-teaching approaches raise the issue of whether all teachers need to be qualified to teach literacy specifically. Lonsdale and McCurry (2004) observe that "All teachers are teachers of literacy. Once seen to be the province of language teachers, literacy is now recognised as being cross-disciplinary" (p. 15). While there is undoubted truth in this, it is also true that teaching LLN skills is a specialist task. It is for this reason that two specialist qualifications have recently been made available for LLN teachers in New Zealand: a National Certificate for specialist LLN teachers and one for vocational tutors and workplace trainers who integrate literacy into other programmes (Benseman & Sutton, 2007). However, the majority of vocational tutors are unlikely to have specialist LLN skills, and conversely LLN teachers may know little about the vocational or workplace setting in which LLN is to be taught. According to Holland, Hunter, and Kell (2002) it is common practice in Australia for literacy specialists to be seconded to the workplace for part of the week, "enabling them to become fully familiar with workplace communications issues" (p. 34).

The alternative strategy is to have LLN delivered by a team. McKenna and Fitzpatrick (2005) note:

> Integrated approaches require in-depth knowledge of the culture and practices in the industry, expertise in education, and some knowledge of applied linguistics. It would be rare, although not impossible, to find these skills sets in one facilitator; they are most likely to be found in a team of facilitators delivering a mix of on-the-job and off-the-job training. (p. 51)

Cushnahan (2009) notes that many trades trainers (in Australia) lack understanding in teaching the "soft skills", and prefer to concentrate on the trades skills where they have extensive knowledge. NRDC (2007) cites an evaluation (Cranmer et al., 2004) which found that "most vocational teachers were teaching literacy and numeracy without appropriate training" (p. 3). Not surprisingly, therefore, Casey et al. (2006) found that "where one teacher was given responsibility for all the teaching of the vocational subject and LLN, the probability of learners achieving LLN qualifications was lower" (p. 5). Noting this, NRDC concludes that "a collaborative team, made up of teachers with

[16] Salisbury (2004) provides a similar list of personal problems typically affecting learners under the New Deal scheme in the UK.

complementary skills and expertise, is the most effective model" (p. 4). Based very largely on NRDC research, TEC (2009) advocates a team-teaching approach.

Eisen and Tisdell (2002) are exponents of team teaching in higher education where the learners are part of the team. They advocate the importance of "negotiating relationships [with learners], providing a relevant and integrated curriculum, and focusing on participants' ongoing construction of knowledge" (p. 1).

Culturally sensitive and emotionally supportive teachers

Almost every research report we read highlighted the importance of the teacher being highly skilled as a "youth worker"—someone who has the personal characteristics that engender a trusting and caring relationship with young learners.

McMurchy-Pilkington (2008) identified success where tutors were caring, approachable, passionate about their work, firm, humorous and committed. Learners regarded them as mentors. The researchers cited Hawk, Cowley, Hill and Sutherland (2002) who highlighted the importance of teacher/learner relationships being established prior to any formal instruction taking place. Many of the younger students were there for social reasons; tutors dealt with cultural, social and economic factors and building self-esteem and self-efficacy so that learners could be successful in a tertiary environment.

White et al.'s (2008) research concerns how language and literacy can be optimised for Māori learners undertaking introductory, foundation or certificate-level courses at Waikato Institute of Technology. The authors described literacy and language as "a lifelong journey of building the capacity to shape and empower Māori and other worlds" (p. 18). Many of the findings in McMurchy-Pilkington's (2008) report are reiterated, including the Tuakana–Teina[17] relationship, the particular skills required of tutors who must deal with the social and attitudinal first, the importance of trust between learner and tutor, having an holistic and whānau approach, whakawhanaugatanga,[18] and experiential learning. One of the most important concepts for understanding Māori learners' experiences with literacy and language was "habitus" (Bourdieu's concept of personal culture resulting from the internalisation of social and wider cultural structures). Another important concept was manaakitanga (a form of sharing and caring) which helped optimise success for learners.

The researchers identified the importance for students of holistic Māori pedagogical perspectives and practices. They reported that it was important for students to have their prior skills validated. Small class size was seen to be critical so that more personal tutor–student relationships, and individual attention are possible. Tutors needed to be able to make texts accessible to students and they "need to be skilled in planning, facilitating and managing the learning experiences that are unique to foundation learners. They need to understand

[17] Symbiotic relationship

[18] Process of relationship building

where these students have come from and how this influences their learning needs" (White et al., 2008, p. 74).

Morgan (2003) considers that qualities required of a good foundation studies teacher include genuineness, acceptance and empathy with an emphasis of the personal relationship between teacher and learner in establishing a climate conducive to learning.

A number of studies emphasise that literacy teachers need a closely supportive relationship with the learners. A recent New Zealand study of adult literacy practitioners (Chandler et al., 2008), identifies 79 percent of teachers as over 40 and none younger than 30. The overwhelming majority were female and Päkehä; some worked voluntarily and some in paid positions. Whilst the participants in the study reported close links between teaching literacy and numeracy, they saw their role as being a social one—providing support for the whole person—as much as technical (literacy) support. Dymock (2007a) sees the role of the literacy tutor as both teacher and "nurturer". The Quality Improvement Agency (2008) stresses the importance of offering "pastoral support" to learners, but acknowledges that this requires particular interpersonal skills, and it can be challenging for tutors to balance this with their teaching role.

Powers and Associates (Australia) Pty Ltd (2003) discusses the significant role of mentoring as a "basic tool in assisting young people in their acquisition of core skills" and their "continuing engagement in education" (p. 11).

Providers of youth literacies programmes in Scotland (Hall et al., 2008) felt that staff should: be committed and relate well to young people; be good listeners; be non-judgemental; understand young people's issues; be able to develop quality resource materials; recognise very small progress steps; be flexible; be trained in youth work and/or specialist skills, including literacies. Learners interviewed during case studies also felt that staff should be non-judgemental and friendly, and that there should be mutual respect between tutors and young people.

McNeil and Dixon's (2005) final report on young people's experiences of informal learning and LLN describes the two phases of the project. The researchers identified the following as some of the key findings: the need to address young people's personal and social issues; providers were focused on NEET young people obtaining employment or further training; and engagement can be more important than LLN skill development (providers balanced sticks and carrots). Researchers also reported ongoing debate about terminology, whether or not embedding LLN should be explicit or not, and no common use of assessments or resources. Teacher qualities "associated with effective youth work, such as patience and empathy, were considered essential" (p. 8) but very few practitioners were specifically trained in LLN teaching.

There is some research that identifies that teachers who are closer to age and stage to young people/young adults are more likely to be successful (Garner, 2004; Ovens, 2002). Attracting and training younger people as teachers may be something worth considering in New Zealand although the majority of the

research suggests that success is related to the empathetic qualities of the teacher and the teacher-learner relationship irrespective of age.

The following research does not specifically address young people, but reiterates many of the themes in the youth literature. Skill New Zealand (2001) highlights the importance of good relationships between the learner and the facilitator of learning. Māori learners rate highly the support given to them by tutors, and consider tutors are most effective when they combine empathy with effective teaching. Māori PTEs believe success is associated with having a strong foundation of culture and by the contribution of the individual to the whānau and family. Learning environments are seen as integral to the development of Māori pedagogy: success is seen as cultural strengthening and continuity. Tutors need to place students at the centre of the learning process and as well to understand the Māori philosophy that education is for the benefit of the whole tribe rather than the individual. Tutors are also at the centre of learning—everyone brings knowledge and life experience and learns from each other.

Benseman (2001) reviewed research studies which investigated the attributes and/or behaviours of effective teachers. He found "no unanimity as to the 'magic formula' for any of these approaches. Indeed, some of the research findings are contradictory. For example, humour and personality are rated very highly by some studies and very lowly in others" (p. 28). Nevertheless, Benseman observed that some characteristics occurred more often than others. These included: being flexible; having an awareness of learners' needs and accepting their individuality; having positive, equal relationships with learners; having a commitment and passion for teaching; having an ability to balance supporting and challenging learners; using valid assessment methods in a positive way; having an ability to establish relevance to learners and relate to their current issues and interests.

Benseman et al. (2005) reviewed a number of studies which explored the learner perspective on which aspects of programmes were effective. The responses reported relate closely to factors already discussed. According to Benseman et al., one large group of UK learners felt that they were achieving little because of the lack of individual tuition (Ward, 2003); the same group felt that self-assessment and the tutor's judgement of their achievements were supportive of their learning. Tutors' attitudes, and their relationships with the learners, were of great importance. From one group of learners in the UK, Benseman et al. highlighted that most responses referred to the tutors' skills and the fact that it was not like school (Eldred, 2002). A UK study (Brooks et al., 2001, reported in Benseman et al.) assessed the progress of more than 2,000 learners over a two-year period. They identified three factors associated with progress: the tutors having qualified teacher status; the teachers having additional help (whether volunteers or paid assistants); and the amount of tuition provided. The latter is obviously significant, although there is no consensus about the amount of time needed for LLN learners to make progress.

From the strongest studies they review, Benseman et al. (2005) identify certain factors which appear likely to enhance learner gain. Many of these echo points already made above. Teachers need to be skilled in order to identify learners'

strengths and weaknesses; teaching should use a range of methods and be clearly focused on learners' needs; the curriculum must be authentic, linking to the learners' life experiences; there should be ongoing assessment, taking into account the variation in learners' skills; programmes should allow for high levels of participation (100 plus hours per year); efforts should be made to retain learners, taking into account factors that help or hinder persistence.

Although there are some reasonably clear indications of "what works" in terms of adult LLN learning, Benseman et al. (2005) felt that, in 2005, there was not a sufficiently large research base from which to draw strong conclusions: "We are still unable to state that particular LNL strategies and techniques do, or do not, lead to learner gain with the degree of confidence that is possible in many aspects of schooling. … The jury is still out" (p. 103).

5.9 Integrated services

The 11 foundation studies teachers Morgan (2003) interviewed highlighted the importance of bridging programmes having a very particular purpose, namely staircasing into academic study. They also acknowledged the tension in attempts to reconcile the current educational climate with the assumed purpose of programmes in addressing social equity (with particular reference to underrepresented groups, especially Māori and Pasifika). Other relevant findings were the individual students' engaging in the learning environment where tenacity was seen to lead to individual (as opposed to institutional) success. Tutors described the close link between the social orientation of adult learners, their emotional predisposition and cognition and the need for personal, group, academic and institutional connectedness. The latter points occur in much of the literature.

According to McMurchy-Pilkington (2008), teaching approaches that worked linked LLN to contexts that are real to learners (catering on the marae, for example). The emotional and social environment was as important as the physical one and living as Māori and tautoko or support of learners for each other were critical within this. There is some evidence reported in regard to support outside the learning environment with younger learners' identifying that they were not well supported outside the classroom.

Success for All (Airini et al., 2008) is a Teaching and Learning Research Initiative (TLRI) project looking at improving Māori and Pasifika success in degree-level studies. The research involves interviews with 53 Māori and Pasifika students and the analysis of 748 stories of what the students say has helped or hindered their success. Some stories developed in the initial phases of the project involve the importance of the environment, having cultural pride/mana, having student-focused tutor support, peer mentoring, inspirational teaching and small-group learning. Emerging findings that resonate with research on LLN and young people/young adults are that it is not useful to discuss academic support as distinct from pastoral support.

5.10 Specific learning environments

Residential programmes

The OECD (2008) country report on jobs for youth recommended that New Zealand consider the Job Corps model for young people who are most at risk. Job Corps is the largest education and training programme in the US for economically disadvantaged young people/young adults (16–24 years). The Schochet, Burghardt, and McConnell (2006) report is a summary of the main evaluations undertaken for the National Job Corps Study, between 1994 and 2006. This experimental study had a very large sample: "from late 1994 to early 1996—of the 81,000 eligible applicants, 15,386 were randomly assigned to either a program group ... or to a control group" (p. 8).

Those in the program group (who were allowed to enrol in Job Corps) received both vocational training and academic education ("to alleviate deficits in reading, math, and writing skills" (Schochet et al., 2006, p. 5)). The Job Corps is a residential programme and the average length of stay was about eight months, during which time participants received 1,140 hours of academic and vocational teaching. There was no mention of the integration or embedding of LLN. Those in the control group could enrol in other training or education programmes, therefore the comparison between the LLN outcomes of the two groups represents "the effects of Job Corps *relative* to available programs" (p. 9).

The LLN outcomes were measured using an assessment tool developed by the Educational Testing Service for the National Adult Literacy Study. A random subsample of the program and control group members was selected (2,300, i.e. nearly 15 percent), and 60 percent of those responded. The report claimed that the "program group had higher average scores on the assessment measures than the control group" (Schochet et al., 2006, p. 18) and that Job Corps "improved participants' functional literacy" (p. 18).[19]

Workplace literacy

We could find no research specific to young people and workplace literacy other than that described in the various UK NRDC and NIACE reports which we have discussed in relation to embedding, or that which focuses on apprenticeships or transition to work. This is an area that deserves more attention in New Zealand. Workplace literacy programmes are becoming more common, but they are still not offered in the majority of companies. Benseman and Sutton (2007) suggest that the relatively low take-up is due to lack of employer knowledge and demand. They suggest that many employers are unaware of the links between literacy and productivity/performance, or (if they are aware) they do not know where to get affordable and appropriate programmes. This lack of demand makes it harder for providers to develop workplace literacy businesses.

Research by Schick (2005) supports the view that employer awareness is limited. A telephone survey of 427 managing directors and CEOs revealed that 12 percent

[19] Benseman et al. (2006) provide a discussion in the appendices about how to interpret this kind of claim.

already had workplace literacy programmes, but only a further 10 percent were aware of their potential advantages. Schick classified almost half (46 percent) of the respondents as "unaware but favourable": they had not considered literacy training, but were favourably disposed to the idea; the remaining third (32 percent) were "unaware and unfavourable"—they would not consider workplace LLN programmes. The 10 percent who were aware but not running programmes were asked why: the main reasons given were lack of information, the time needed for planning and co-ordination, cost and lack of suitable training opportunities.

As part of its Statement of Objectives for 2006, Workbase prepared a synthesis of Workbase development and research projects between 2002 and 2005 (Workbase, 2006a), project-based syntheses of Workbase development (Workbase, 2006b) and research projects and summaries of projects conducted by Workbase from 2002 to 2005 (Workbase, 2006c). The projects do not focus on young people/young adults. Their focus has been to help grow the supply of workplace literacy providers, support ITO leadership, develop an understanding of employers' perspectives and help build capability of practitioners. In terms of understanding of employers' perspectives, Workbase reports that for learners with high needs the best approach to LLN is through specialist workplace and pre-employment programmes. Integrated industry training may be sufficient with learners with moderate needs. Workbase considers that "practitioners and providers need ongoing development to gain expertise in all aspects of workplace literacy programme design and development" and that "[i]t is essential that more is done to raise employer understanding and demand for workplace literacy and integrated industry training" (Workbase, 2006a, p. 3).

A recent NCVER publication (Halliday-Wynes & Beddie, 2009) looks at notions of informal learning, as opposed to formal or non-formal learning. They suggest that informal learning, where there is no formal assessment, can be useful in leading disengaged or reluctant learners to more formal study. They also suggest that Small and Medium Enterprises often underestimate the amount of training that is occurring because much of it tends to be informal. Informal learning needs to be acknowledged as significant in the workplace although there are concerns about how informal learning should be measured and whether measurement in itself could destroy the benefits of informal over formal learning. The authors cite a Cedefop project that demonstrated it is possible to make informal learning visible and to use portfolios to gather evidence.

It is not only employers that reap the benefits of workplace literacy programmes. Johnson (2000) finds that employees benefit both on the job (in terms of improved performance and opportunities for promotion) and outside work (in terms of confidence building, love of learning, setting an example for family members and improving family relationships). Benseman et al. (2005) also found "ample evidence" of the "'ripple effects' in the learners' households and communities" (p. 91).

Workplace learning can be particularly valuable for those who have had negative experiences at school, and would never consider returning to formal education

(National Research and Development Centre for Adult Literacy and Numeracy, 2007). Moreover, Townsend and Waterhouse (2008), noting the criticisms of employers unable to recruit people with all the skills they require, question whether it is feasible to develop the skills required for a particular context (e.g., a workplace) outside the environment in which they are to be used. However, Waterhouse and Virgona (2004) argue in favour of off-site training, which avoids an undue focus on company learning agendas and gives opportunities for addressing broader educational issues.

The Industry Training Federation (ITF) Literacy and Numeracy Good Practice Project aims to "develop good practice guidelines, tools and resources for embedding LLN in workplace learning" (Murray, Parsons, Clarity, & Kumekawa, 2009, p. 14). The ITF evaluation found that providers used subsidies to employers to encourage uptake of LLN programmes. They also produced profiles of jobs for employees and employers to better understand LLN needs and conducted workshops with employers to raise awareness.

An evaluation of the project (Murray et al., 2009) involving seven case studies found that 86 percent of the cases targeted all learners rather than those with identified LLN needs. The evaluation also found that there is a need to build understanding and capability in Industry Training Organisations (ITOs), with organisations and employers. The authors point out that embedding LLN is costly and time-consuming and that success requires an holistic approach and buy-in from everyone involved. Embedding LLN is not "one size fits all"—it looks very different in different ITOs.

Evans and Waite (2008) provide a critique of the UK approach to LLN in the workplace: Skills for Life. The longitudinal project Adult Basic Skills and Workplace Learning Project documented participants' perspectives that the most significant outcomes were increased confidence at work, the development of new skills, increased confidence outside work and being able to meet new people. The authors also suggest that many individuals make do adequately with their LLN skills, developing these informally on a needs-must basis. The authors also report that new LLN skills need to be used for ongoing improvement. Evans and Waite conclude that the Government's initiative on LLN in the workplace has been misguided with its deficit modelling: "Companies that aim to expand and enrich job content in jobs at all levels are likely to find employees working to expand their capacities accordingly" (p. 201).

A summary report from the Teaching and Learning Research Programme (Wolf & Evans, 2008) reiterates much of the material described in Evans and Waite (2008) above. The summary identifies that the UK Government policy for adult education is based on employers wanting better productivity through improved skills and that it is the main function of adult education to achieve this. The authors suggest that the current UK policy is wasteful and not suited to the needs of adult learners or the workplace.

The researchers found that "workplace courses successfully reach adults who do not participate in other courses" (Wolf & Evans, 2008, p. 1) but that the effects

don’t last when the courses are delivered through outside initiatives. The authors argue therefore, that in-house or home-grown enterprises should be encouraged and supported. Employees and employers are motivated by a range of factors as well as the wish to improve their work performance and therefore the biggest benefits from basic skills programmes are personal and/or work satisfaction. The third key finding is that adults who use literacy in their working and daily lives continue to improve; the job a person is doing must require the use of literacy skills if the worker is to continue to improve.

Wolf and Evans (2008) conclude that there is not a severe skills deficit in the UK and that workers and employers agree that existing literacy skills are adequate for current jobs. Managers say they most value the learning because it boosts morale rather than because it improves productivity. “Workplace learning should be seen as a citizen’s entitlement which has multiple long-term benefits rather than a ‘quick fix’ to improve productivity” (Wolf & Evans, 2008, p. 1).

We have summarised the key findings in a table in Section six that relate to research described in Sections four and five. The table presents factors that are associated with successful programmes, factors that *may* be effective and those factors that appear to be more important for young people/young adults than for other adults.

6. CONCLUSIONS AND RECOMMENDATIONS

In the final section we discuss the limitations in the research we have reviewed and offer some cautious findings. We suggest a reconsideration of what being literate means to young people/young adults and recommend LLN programme features that are likely to be most effective with young people/young adults. We propose areas for government policy and practice to better engage young people/young adults in LLN and for further research.

6.1 Limitations in research

This literature review shows that is not possible to present a definitive set of factors that will lead to improved LLN outcomes for young people/young adults. As Benseman and Sutton (2007) have already pointed out, there is simply a lack of outcomes-based research in the LLN field that can confidently claim the best approaches to improving LLN. Following from that, we conclude that proving a causal link in any educational teaching/learning context is next to impossible because of the variety of factors that affect the outcomes observed (see for example, Alton-Lee, 2004; Benseman & Sutton, 2007; Rahmani et al., 2002).

There are several reasons for this. Firstly, many of the studies we reviewed did not have strong research methodology (for example, the methodology was not described in detail, the research could not measure LLN outcomes). For example, projects like the IYPI projects were assessed in terms of the quality of service provision, rather than what happens to the learners. The evaluators were not required to provide evidence of any links between changes to inputs, processes and structures and student learning outcomes, or post-programme experience of the students (particularly in their context of employment outcomes). Secondly, many of the projects studied were short term which, as Powers and Associates (Australia) Pty. Ltd. (2003) point out, is great for testing new ideas but then need to be integrated into a "whole of community, whole of government, whole of problem approach" (p. 12). Thirdly, some studies had small sample sizes that did not lend themselves to measuring LLN outcomes that could be generalised to populations.

However, in following the Best Evidence Synthesis (BES) guidelines (Alton-Lee, 2004), we have included a number of small-scale studies that did not on their own merits meet our quality criteria but which came to conclusions that support other findings and which therefore add to the wider body of knowledge. We have also used a "backward mapping" process whereby we have included research on adult LLN, young people/young adults and young people/young adults' transitions, and looked for commonalities and differences in the research about the young people/young adults and LLN. That "backward mapping" allowed us to make connections between ways to engage (recruit, retain, motivate) young people generally and successful approaches to, and outcomes of, LLN skills development programmes for people of any age.

So there is little we have read that would lead us to say categorically specific features *must* be present in order for young people to improve LLN outcomes. We

have found little that would lead us to say, for example, that particular conditions need to be in place for Mäori and Pasifika young people/young adults (see however, McMurchy-Pilkington, 2008; White et al., 2008 who find that a whānau / aiga learning environment supports young Maori and Pasifika adults' learning), though there is some evidence that culturally sensitive teachers make a positive difference for learners (see for example, Brittan & Grief, 2005; Fernandez, 1999; Powers and Associates (Australia) Pty Ltd, 2003).

The UK research and development project (National Institute of Adult Continuing Education, 2002) that looked at success factors in young adults' experiences of LLN in informal learning is one of the significant studies that informs this review. Of the 13 case studies produced, three have most relevance. Included in the project's main conclusions were:

- the importance of addressing young adults' needs (rather than focusing on funding and targets)
- the issues of engaging young adults can be more important than addressing LLN
- "personal qualities and attributes associated with effective youth work, such as patience and empathy, were considered essential: whereas literacy, language and numeracy training were seen as desirable, but hard to access and sometimes inappropriate to the cohort" (p. 2).

Embedding LLN was seen to be most effective with young adults. The project did not reach any conclusions about the benefits of being explicit about LLN in programmes as opposed to "teaching by stealth". Nor were participants in agreement about whether assessment and qualifications were motivating or intrusive.

There does seem to be strong support for embedding LLN into vocational programmes for young people/young adults. It should be noted that the strongest support for this comes from the NRDC. The UK approach to LLN is embedding and therefore the research does not query embedding per se, rather seeks to determine the best way to embed LLN in young people/young adults' programmes.

Though we cannot list definitive factors, we can present a summary of factors that are *associated* with successful programmes. In the following table we list these with an indication of the number of studies that support this characteristic. We also indicate factors that *may* be effective (that is, they are not from strong studies or only in one or two studies). We indicate those factors that appear to be more important for young people/young adults than for other adults and we acknowledge where characteristics are also described in the adult LLN literature. The adult LLN references are indicative and not definitive.

Table 1. Engaging youth in LLN

Key characteristic or principle	Level of importance	Young people and LLN research	Indicative adult LLN research
Raise awareness through marketing targeting young people/young adults directly—word of mouth works best	Essential	Bynner (2008); Hall et al. (2008); McGuinness et al. (2008)	Gray and Sutton (2007); National Adult Literacy Agency (n.d.)
Programmes target those most at risk with lowest skills	Highly desirable	Chilvers (2008); OECD (2008); Pemberton (2008); Tyler (2004); Wrigley and Powrie (n.d.)	
Low or no costs for learners	Debated but desirable	Birrell and Rapson (2006); Fernandez (1999); McMurchy-Pilkington (2008); OECD (2008); White et al. (2008)	Hindmarsh and Davies (1995) (but see McMurchy-Pilkington (2008))
Voluntary participation	More research required but appears to be desirable	Cooper and Baynham (2005); Hayes (1999); Perin et al. (2006); Salisbury (2004); Topper and Gordon (2004)	
Small-groups learning	Essential	Airini et al. (2008); Benseman and Tobias (2003); Fernandez (1999); McMurchy-Pilkington (2008); Topper and Gordon (2004); White et al. (2008)	
Separate classes for young people or integrated young people/adult classes with youth-friendly teachers	Debated—useful for further research (context specific).Check for case studies Note that programmes for Mäori indicate whänau teaching (not separating out)	Collison and Drayton (2002); Morgan (2003); Fernandez (1999); Garner (2004); Salisbury (2004); Topper and Gordon (2004) McMurchy-Pilkington (2008); White et al. (2008)	
Unlike school	Essential	Benseman and Tobias (2003); Fernandez (1999); McMurchy-Pilkington (2008); White et al. (2008)	National Adult Literacy Agency (n.d.); Zepke et al. (2008)
LLN embedded into vocational courses	Essential	Brittan and Grief (2005); Casey et al. (2006); McNeil and Dixon (2005); Ovens (2002)	TEC (2009); Wickert and McGuirk (2005)

Key characteristic or principle	Level of importance	Young people and LLN research	Indicative adult LLN research
Contexts and content are authentic and relevant	Essential	Brittan and Grief (2005); Fernandez (1999); Hipkins et al. (2005); MOE (2005); McMurchy-Pilkington (2008); White et al. (2008)	Benseman (2001); Benseman and Tobias (2003); TEC (2009)
Flexible programmes responding to learner needs and circumstance	Essential	Hall et al. (2008); McMurchy-Pilkington (2008); McNeil and Dixon (2005); Ovens (2002); Rahmani et al. (2002); Vaughan and Kenneally (2003); Walsh (2005, as cited in Roberts et al., 2005); White et al. (2008)	Benseman et al. (2005)
Personalised programmes meeting individual needs	Essential	Balatti et al. (2007); Boyd et al. (2006); Krsinich and Roberts (2008); McMurchy-Pilkington (2008); White et al. (2008)	Quigley (1997)
Short-range and achievable goals are set	Essential	Hall et al. (2008); OTEN (2006); Quality Improvement Agency (2008)	
Young people's extrinsic motivations (for jobs, qualifications) acknowledged	Must acknowledge—worthy of further research	Boyd et al. (2006); Collison and Drayton (2002); Fernandez (1999); Hall et al. (2008); TEC (2003)	Zepke et al. (2008)
LLN needs prioritised first in vocational courses	Limited evidence	Cranmer et al. (2004); Sagan et al. (2007)	
Learners and teachers jointly construct learning and knowledge	Highly desirable	Cooper and Baynham (2005); Fernandez (1999); McMurchy-Pilkington (2008); White et al. (2008)	
ICTs used to enhance good teaching	Highly desirable—probably stronger evidence for young people than other adults	Chan (2006); Chan and Ford (2007); Cooper and Baynham (2005); Hall et al. (2008); Fernandez (1999)	Benseman et al. (2005); Lavery, Townsend and Wilton (1998); Quality Improvement Agency (2008);
Programmes based around youth popular culture	US evidence—possibly useful	Garner (2004); Topper and Gordon (2004); Weber (2004)	
Teachers use a range of activities and innovative approaches	Highly desirable (robust research base)	Gordon (2008); Ovens (2002); Powers and Associates (Australia) Pty Ltd (2003)	
Team teaching to combine LLN,	Essential	Casey et al. (2006); Eisen and Tisdell (2002);	McKenna and Fitzpatrick (2005);

Key characteristic or principle	Level of importance	Young people and LLN research	Indicative adult LLN research
vocational and counselling expertise		Gordon (2008)	TEC (2009)
The roles of learning and working are acknowledged as ever changing and inter-related	Highly desirable and needs further research	Spielhofer and Sims (2004); Vaughan et al. (2006)	
Teachers are culturally sensitive and empathetic to young people/young adults—this is key	Essential	Benseman and Tobias (2003); Brittan and Grief (2005); Cooper and Baynham (2005); Curtis and McMillan (2008); Hall et al. (2008); Manu'atu (2000); McMurchy-Pilkington (2008); McNeil and Dixon (2005); NIACE (2002); Powers and Associates (Australia) Pty Ltd (2003); Vaughan and Boyd (2004); White et al. (2008)	Benseman et al. (2005); Chandler et al. (2008)
Teachers provide emotional support for learners—including through one-on-one mentoring and counselling	Essential	Fernandez (1999); McMurchy-Pilkington (2008); McNeil and Dixon (2005); Powers and Associates (Australia) Pty Ltd (2003); White et al. (2008)	Prebble et al. (2005); Tomoana and Heinrich (2005)
Teaching is relaxed and informal but focused	Highly desirable	Hall et al. (2008); McMurchy-Pilkington (2008); White et al. (2008)	
Teachers are well trained and knowledgeable	Essential but worth further research	McMurchy-Pilkington (2008); NIACE (2002); Weber (2004); White et al. (2008)	Quality Improvement Agency (2008)
Teachers are at a similar age and stage to learners	Desirable—worth further research and investigation	Barón (2009); Garner (2004); Ovens (2002); Pemberton (2008)	
Academic, social and personal services and purposes are integrated	Essential	Airini et al. (2008); Cranmer et al. (2004); McMurchy-Pilkington (2008); McNeil and Dixon (2005); Morgan (2003); White et al. (2008)	Anae et al. (2002); Prebble et al. (2005); Quality Improvement Agency (2008); Zepke et al. (2008)

6.2 Policy recommendations

There are five key areas that we would like to see further debated. These are: a 21st century conceptualisation of literacy and numeracy including LLN outcomes; a focusing on young people/young adults who are "most at risk'; a consideration of specific teacher education for people working with young people/young adults; and an acceptance of multiple approaches to integrating LLN into vocational training and work.

21st century learning and conceptions of LLN

We would like to see the conceptualisation of literacy and numeracy debated in terms of 21st Century learning and career identities for young people in the future. This is not to say that the current definitions of literacy, language and numeracy are wrong, nor that concerns about poor LLN skills of many young people are not valid. But we need to examine the approaches to funding and teaching and learning LLN so that we focus on what forms of LLN are most important now and into the future and what young people need and want for the future. We should heed the lessons from the UK as described by Wolf and Evans (2008) and Evans and Waite (2008) described in the previous section which emphasise the ongoing nature of literacy skills development and its wide ranging effects and benefits.

Feedback in the consultation phase of the *New Zealand Skills Strategy* included suggestions that "literacy" should be defined to include digital literacy, communication skills, teamwork, interpersonal skills, critical thinking and problem-solving skills (New Zealand Skills Strategy, 2008). In other words, there is increasing acknowledgement that the relationship between productivity and workforce development is growing closer in a knowledge society and thus the need for literacy—in various forms—is also increasing. However, as Treasury's (2008) recent Briefing to the Incoming Government notes, while a significant proportion of the workforce has low LLN levels, it is challenging to improve these when there is a lack of evidence about cost-effective approaches.

An increasing body of theoretical and empirical literature conceptualises literacy as situated in particular contexts—it is not the same in all contexts; rather, there are different literacies associated with different domains of life.

Barton and Hamilton (2000) refer to these domains as communities of practice; that is, groups of people held together by their characteristic ways of speaking, interacting, behaving, valuing, reading and writing. Each domain is perceived as a complex social structure in which literacy is embedded. For example, a literacy event such as a commercial baker baking a loaf of bread will be quite different from that of a farmer selling livestock at auction—and even different from that of a home baker baking bread.

More recent theorising by Gee (2008) builds upon the conceptualisation of literacy as situated in particular contexts by defining a literate person not so much as one who carries out particular literacy practices within a particular context, but one who is recognised as a member of a certain kind of cultural group, someone who

knows the rules of the game as a baker, a livestock farmer or a home cook. Literacy, then, is all about enacting a certain kind of identity and not just about practising certain skills within a certain social context.

For Gee (2004), a learner is far more likely to become literate when they are part of a cultural, rather than an instructed, process. Most people are not, he argues, adept at learning via overt instruction, citing examples such as the way young people effortlessly learn how to use digital technologies, not through proscribed exercises, but through assuming an emerging identity as a user of a particular technology while under the discreet guidance of someone more adept.

Chan (2006) suggests we need to rethink the role of knowledge and learning in the workplace. Her study of how eleven 17- and 18-year-old people became bakers in New Zealand investigates processes of belonging, becoming and being through an apprenticeship. Young workers' facility with mobile technology and computers may make them an "expert" in some areas rather than the novice that is usually conferred on apprentices. It is important to think about LLN skills through this lens. In relation to this, Chan and Ford (2007) report on trials at Christchurch Polytechnic Institute of Technology that set up a support system for workplace-based learning that integrated m-learning portfolios with Web 2.0 applications aligned with Moodle and utilised learners' mobile phones to send and receive assignment information.

Internationally, researchers are identifying ICTs as effective means of engaging young people in LLN. Sanford and Madill (2007) report on research that examined boys' literacy skills and understandings through video game play and design. The authors report on the overlapping operational, cultural and critical literacy dimensions they observed with boys aged 8–12 who were being instructed by older boys aged 11–16. They consider that video games involve participants in reading "non-linear, multi-layered, intertextual texts, as well as reading images and other semiotic signs systems" (p. 434), and that parents and educators should be looking for ways to develop critical literacies though game design and play.

Distance education and training to develop literacy skills for youth (DEADLY) (Open Training and Education Network, 2006) is a distance education online training package developed in New South Wales specifically for young Aboriginal males to improve their LLN skills and to encourage them to consider different industries and potential employment in them. The evaluation of the project reported success in engaging disaffected learners and providing new pathways for them. As well as the multimedia tools being engaging, one-to-one case management was seen to be critical in developing motivation.

Similarly, Simmons (2007) reports on the success of the Highland ABE M-Learning Partnership Project in Sutherland where previously disengaged young people have responded positively to a mobile phone trial.

In Section three we discussed the changing nature of career identity and employment possibilities that young people face now and will do in the near

future. We emphasised that work and learning should not be considered as separate activities confined to different periods in one's life. Rather, work and learning are one and the same. This understanding needs to be considered alongside the ideas discussed above.

Outcomes of LLN

We think it is time to reconsider and broaden understandings of outcomes of LLN for young people (see, for example, Zepke et al., 2008). As the research has shown, it is very difficult to measure literacy and numeracy gains and to separate these out from other social gains, particularly over short time periods. The research we have found has been dominated by government evaluations of short programmes and courses, often where the programmes were not set up to provide effective and discrete measures of literacy and numeracy gains. We think it is also time to debate the importance of LLN gain for economic prosperity and productivity as opposed to the importance of social and personal gain (which may in time lead to personal economic gain and to productivity).

The new TEC and NZQA quality assurance and monitoring processes, focusing on institutional self-assessment, could help provide better information to lead debates at institutional and government level.

Young people "at risk"

The literature tells us clearly that we should focus on young people/young adults who are "most at risk"—those whose LLN skills are lowest and who are most marginalised in social and economic ways. Sutton (2009) has identified that young people are overrepresented in the lowest ALL levels for numeracy skills. She has also demonstrated, using UK and Canadian data, that it is people at the lowest levels who take the longest time to make LLN gains. To overcome the issues of NEET young people/young adults, the OECD recommends:

- Improving retention rates at secondary school. The OECD recommends vocational/pre-employment options that allow young people to gain necessary skills before options of apprenticeship.
- Changes to tertiary education so that it meets the requirements of the labour market. This should involve a rethink of the role of ITPs. The Modern Apprenticeships scheme is described as successful but limited in scope and catering for an "elite".
- Monitoring demand-side barriers to young people/young adults' employment (for example, the young people/young adults' minimum wage and benefit payments).
- Improving the design and coherence of policies and strategies for disadvantaged young people/young adults (for example, financial incentives to engage in employment or education).

Teacher education

We should also consider specific teaching approaches that work with young people/young adults and make the appropriate teacher education available. Ovens (2002) issued challenges to the Australian Government to reform the marketisation of the provision of transport, youth services and educational products which compromise collaboration and co-ordination. She suggested

recruiting young teacher graduates to youth literacy and numeracy programmes and reforming pre-service and in-service primary and secondary teacher education courses. She considered that young people should be offered fun and engaging ways to work with administrators to communicate their concerns. She also advocated strategies that would provide better transitions between school and working life.

Quality of teaching and teachers is an issue that needs further exploration for adult LLN in New Zealand. We suggest that any research or investigation into teaching should include specific focus on skills and qualifications for teaching young people/young adults. What does seem to be critical for young people/young adults, especially those who are NEET, in New Zealand and internationally, is having a single point of contact—a trusted and constant mentor/counsellor who is very much involved in addressing social, personal and attitudinal issues which are often the main barriers to learning. The Government has recognised this need with, for example, the Modern Apprentices scheme.

There would seem to be a place for government to invest in developing specific resources and assessments that are tailored to young peoples/young adults' needs and interests, and which utilise mobile technology and other ICTs.

LLN and vocational training and work

We would also urge that vocational plus LLN teaching and learning opportunities for young people/young adults are not locked into a single "best practice" way of doing things, as we have not found any evidence that there is one best way. The debate over whether young people should be taught separately from other adults is a case in point. Decisions on good practice need to be made at the organisational level with shared decision making between all stakeholders.

Powers and Associates (Australia) Pty Ltd (2003) advocated for longer term, sustainable and connected approaches to improving indigenous young people's LLN skills. They suggested such an approach would have agreement by all relevant stakeholders on the need to address the youth transition issues. They also urged the empowerment of communities to define and control the strategies to be used to address these issues, and suggested this empowerment would include activities designed to inform and inspire communities about "what is possible". Success would be possible through a "joined up services" approach where funding and support was sourced from multiple agencies. The authors contend that the projects need an energetic, creative and entrepreneurial community liaison co-ordinator to engage with communities, parents, businesses, government agencies and educators who is fully supported and working in true partnership with the community and agencies.

In the US, Hayes (1999) suggested that adult education should be a viable option for young people and that the Government should provide additional support to those adult education programmes that successfully serve young people/young adults. She also contends there should be co-ordination of funding strategies for young people/young adults.

Reder (2004) described the changing nature of young people/young adults involved in LLN provision and the need for government to accommodate these changes. Reder suggested that the US needed to have much better co-ordination and clearer transitions between programmes of adult education (where learners tend to be working towards a GED or tertiary education entry) and postsecondary education. Reder urged educators working with adults in different domains to share knowledge and resources and for educators in workplace settings and those in educational settings to better understand each other. Reder also suggested a number of areas for further research including examining of skill gain in different settings, building engagement with literacy practices in tertiary education, follow-up studies of literacy assessments and the differential influences of social and economic circumstances on tertiary persistence and performance.

Fernandez (1999) considered the Canadian Government needed to invest in young people/young adults not dropping out of school and that this had its roots in good early childhood education. He considered government should take a leadership role in establishing partnerships with community-based young people/young adults' organisations to help reach young people/young adults. At a micro level, Fernandez identified that programmes needed to reflect the lives and needs of young people/young adults being targeted, and that each young person needs an individual learning plan.

The policy recommendations from the countries where we have reviewed research are consistent with many of the policies being adopted in New Zealand.

6.3 Further research

In acknowledging the lack of international research into adult literacy and numeracy, Clair (2008) identifies the difficulties inherent in building a research programme around research about literacy and research in literacy (programme and instructional issues). It is useful to consider the following four options through a "youth" lens. He suggests four options a coherent, properly funded research programme should address:

- creating models of literacy (this would involve looking at how adults interact with text, physically, culturally and socially)
- the benefits of adult literacy and numeracy education (distinguishing between the benefits of literacy and other social and educational programmes)
- effective instructional practices (this is difficult to research when the benefits of literacy are not clear)
- the effects of context.

Our literature review has highlighted areas for further research, particularly where there is a small and somewhat unreliable research base or where there are opposing perspectives about what constitutes effective practice. There are also groups of young people we have not specifically sought research on, including young people in care or in prison and ESOL young adults. Some questions worth answering include:

1. How can negative experiences of schooling best be addressed in engaging young people/young adults in LLN?

2. Should young people be taught in groups and classes separate from other adults?
3. What kinds of recruitment will most effectively reach young people? How do communities best utilise their local networks and encourage participation of young people/young adults in LLN?
4. How can young people who are most at risk best be reached? What kinds of programmes will be most effective at retaining them and improving their LLN skills?
5. How is LLN best delivered to young people in workplaces?
6. What do we know about young peoples/young adults' wider literacy skills, especially with ICT and mobile technology? How can these skills be harnessed to improve LLN in more traditional contexts?

What kind of embeddedness is most effective with young people in New Zealand? To what extent is this different according to whether the young person is in work or education and training?

REFERENCES

Airini, Rakena, T. O., Curtis, E. T., Sua-Huirua, T., Townsend, S., Savage, T., et al. (2008, November). *Success for all: Improving Maori and Pasifika student success in degree-level studies.* Paper presented at the New Zealand Association for Research in Education conference, Palmerston North.

Allen Consulting Group. (2008). *The economic benefit of investment in adult community education in Victoria*. Melbourne: Department of Planning and Community Development.

Alton-Lee, A. (2004). Guidelines for generating a best evidence synthesis iteration 2004. Wellington: Ministry of Education.

Anae, M., Anderson, H., Benseman, J., & Coxon, E. (2002). *Pacific peoples and tertiary education: Issues of participation: Final report*. Wellington: Ministry of Education.

Ananiadou, K., Jenkins, A., & Wolf, A. (2003). *The benefits to employers of raising workforce basic skills levels: A review of the literature*. London: National Research and Development Centre for Adult Literacy and Numeracy.

Appadurai, A. (1996). *Modernity at large: Cultural dimensions of globalization*. Minnesota: University of Minnesota Press.

Australian Council for Educational Research. (2009). Engaging students for success: Australasian student engagement report: Australasian survey of student engagement. Camberwell, Victoria: Author.

Balatti, J., Black, S., & Falk, I. (2006). *Reframing adult literacy and numeracy course outcomes: A social capital perspective*. Adelaide: National Centre for Vocational Education Research.

Balatti, J., Black, S., & Falk, I. (2007). Teaching for social capital outcomes: The case of adult literacy and numeracy courses. *Australian Journal of Adult Learning, 47*(2), 245-263.

Barón, J. D. (2009). Exploring the factors associated with youths' educational outcomes: The role of locus of control and parental socio-economic background. Canberra: The Australian National University.

Barton, D., & Hamilton, M. (2000). Literacy practices. In D. Barton, M. Hamilton & R. Ivanic (Eds.), *Situated literacies: Reading and writing in practice* (pp. 7-14). New York: Routledge.

Beder, H., Lipnevich, A., & Robinson-Geller, P. (2007). A typology of adult literacy instructional approaches. *Adult Basic Education and Literacy Journal, 1*(2), 63-72.

Benseman, J. (2001). Making learning happen: A study of effective teaching in training opportunities. Wellington: Skill New Zealand.

Benseman, J. (2004). "I'm a different person now". An evaluation of the Manukau family literacy programme (MFLP). Wellington: Ministry of Education.

Benseman, J. (2006). "They're not even on the radar": An evaluation of the Papkura Youthworks Programme for NEET (Not in Employment, Education or Training) young people. Auckland: Critical Insight.

Benseman, J., & Sutton, A. (2007). A synthesis of foundation learning evaluation and research in New Zealand since 2003. Wellington: Department of Labour.

Benseman, J., Sutton, A., & Lander, J. (2005). Working in the light of evidence, as well as aspiration: A literature review of the best available evidence about effective adult literacy, numeracy and language teaching. Wellington: Ministry of Education.

Benseman, J., Sutton, A., & Lander, J. (2006). Foundation learning in Aotearoa/New Zealand: Mapping the nature and extent of provision, 2003. Wellington: Ministry of Education.

Benseman, J., & Tobias, R. (2003). First chance for a real education: An impact study of adult literacy: A follow-up study of training opportunities and youth training adult literacy students in Christchurch, New Zealand. Wellington: Tertiary Education Commission.

Birrell, B., & Rapson, V. (2006). *Clearing the myths away: higher education's place in meeting workforce demands*. Glebe, New South Wales: Dusseldorp Skills Forum.

Boyd, S., McDowall, S., & Ferral, H. (2006). *Innovative pathways from school: Taking the first step: Final report: 2006*. Wellington: New Zealand Council for Educational Research.

Brittan, J., & Grief, S. (2005). Case study two: Doing as learning: 'It's not like doing maths at school – here you know it's to do with what you're doing'. London: National Research and Development Centre for Adult Literacy and Numeracy.

Bynner, J. (2002). *Literacy, numeracy and employability*. Retrieved 5 February 2009, from http://www.staff.vu.edu.au/alnarc/onlineforum/AL_pap_bynner.htm

Bynner, J. (2008). Never too early, never too late. *Adults Learning, 19*(7), 18-20.

Casey, H., Cara, O., Eldred, J., Grief, S., Hodge, R., Ivanic, R., et al. (2006). "You wouldn't expect a maths teacher to teach plastering…": Embedding literacy, language and numeracy in post-16 vocational programmes – the impact on learning and achievement. London: National Research and Development Centre for Adult Literacy and Numeracy.

Chan, S. (2006, July). *Falling into a trade: Apprentices' perceptions of becoming a baker.* Paper presented at the 15th National Vocational Education and Training Research conference, Sunshine Coast, Queensland.

Chan, S., & Ford, N. (2007, February). *Mlearning and the workplace learner: Integrating mlearning eportfolios with moodle.* Paper presented at the Mobile Learning Technologies and Applications conference (MoLTA) conference, Auckland.

Chandler, R., Tobias, R., Boyd, V., Cates, J., Shanahan, K., & Solomon, C. (2008). *Who, what, how, and why?: Profiles, practices, pedagogies, and self-perceptions of adult literacy practitioners*. Wellington: Teaching and Learning Research Initiative.

Chilvers, D. (2008). *Segmentation of adults by attitudes towards learning and barriers to learning*. London: Department for Innovation, Universities and Skills.

Clair, R. S. (2008). Terra incognita: How research can help to chart unexplored terrain in adult literacy. *International Review of Education, 54*, 565-579.

Clark, S., Ramasamy, S., & Pusch, H. (2006). *Adult literacy interventions 2001/2002 to 2003/2004: Monitoring report*. Wellington: Ministry of Social Development.

College Sector Committee for Adult Upgrading. (2008). Report of the adult student pathways to college postsecondary programs project. Ontario: Author.

Collison, B., & Drayton, J. (2002, September). *How different target groups change the way we teach.* Paper presented at the second conference of the New Zealand Association of Bridging Educators, Auckland.

Cooper, B., & Baynham, M. (2005). Case study three: Rites of passage: Embedding meaningful language, literacy and numeracy skills in skilled trades courses through significant and transforming relationships. London: National Research and Development Centre for Adult Literacy and Numeracy.

Cranmer, S., Kersh, N., Evans, K., Jupp, T., Casey, H., & Sagan, O. (2004). Putting good practice into practice: Literacy, numeracy and key skills within apprenticeships: An evaluation of the LSDA development project. London: National Research and Development Centre for Adult Literacy and Numeracy.

Culligan, N., Arnold, G., Noble, A., & Sligo, F. (2005). Analysis of New Zealand data from the International Adult Literacy Survey: Demographic predictors of low literacy proficiency: Executive summary. Palmerston North: Massey University.

Curson, R. (2004). Completion issues in industry training and effective learning in the workplace. Wellington: Industry Training Federation.

Curtis, D. D., & McMillan, J. (2008). *School non-completers: Profiles and initial destinations*. Camberwell, Victoria: Australian Council for Educational Research.

Cushnahan, M. (2009). Beyond Mayer: Learning from delivering and assessing generic employability competencies. Adelaide: National Centre for Vocational Education Research.

Department of Labour. (2009). *Employment and unemployment - December 2008 quarter*. Wellington: Author.

Derrick, J., & Ecclestone, K. (2008). *English-language literature review: Teaching, learning and assessment for adults: Improving foundation skills*. Paris: Organisation for Economic Co-Operation and Development Publications.

Dymock, D. (2007a). Community adult language, literacy and numeracy provision in Australia: Diverse approaches and outcomes. Adelaide: National Centre for Vocational Education Research.

Dymock, D. (2007b). Engaging adult learners: The role of non-accredited learning in language, literacy and numeracy. Canberra: Adult Learning Australia.

Dymock, D., & Billett, S. (2008). Assessing and acknowledging learning through non-accredited community adult language, literacy and numeracy programs. Adelaide: National Centre for Vocational Education Research.

Education Review Office. (2008). Evaluation of Creating Pathways and Building Lives initiative. Wellington: Author.

Eisen, M. J., & Tisdell, E. J. (2002). Team teaching: The learning side of the teaching - learning equation [Electronic Version]. *Essays on Teaching Excellence: Toward the Best in the Academy*, 14, 96-109. Retrieved 3 June 2009, from http://oregonstate.edu/ctl/articles/packet1/team%20teaching.html.

Evans, K., & Waite, E. (2008, November). *Challenging the 'skills crisis': Workplace 'skills for life' provision in the UK.* Paper presented at the Asia-Europe conference on Lifelong Learning, Beijing.

Fernandez, P. (1999). Research into providing literacy/upgrading programs for youth who have dropped out of school. Toronto: Frontier College.

Florida, R. (2002). The rise of the creative class. And how it's transforming work, leisure, community and everyday life. New York: Basic Books.

Garner, B. (2004). *Separate yet happy*. Retrieved 14 April 2009, from http://www.ncsall.net/?id=134

Gee, J. P. (2004). Situated language and learning: A critique of traditional schooling. New York: Routledge.

Gee, J. P. (Ed.). (2008). *Social linguistics and literacies: Ideology in discourses* (3rd ed.). New York: Routledge.

Gilbert, J. (2005). Catching the knowledge wave? The knowledge society and the future of education. Wellington: NZCER Press.

Glass, B., Kallio, S., & Goforth, D. (2007). *Essential skills for success in college postsecondary and apprenticeship programming*. Ontario: College Sector Committee for Adult Upgrading.

Gordon, M. E. (2008). Literacy in New Zealand and Literacy Aotearoa in the international context. Omarama: Market Truths Limited.

Gray, A. (2006). Upskilling through foundation skills: A literature review. Wellington: Department of Labour.

Gray, A., & Sutton, A. (2007). *The workplace literacy fund: A review*. Wellington: Department of Labour.

Green, D. (2001). *Literacy skills, non-cognitive skills and earnings: An economist's perspective*. Retrieved 2 June 2009, from http://qed.econ.queensu.ca/pub/jdi/deutsch/edu_conf/Green.pdf

Hall, S., Maclachlan, K., Tett, L., & Edwards, V. (2008). *Mapping youth literacies practice with the 16-25 age group: Final report*. Edinburgh: The Scottish Government.

Halliday-Wynes, S., & Beddie, F. (2009). *Informal learning: At a glance*. Adelaide: National Centre for Vocational Education Research.

Harper, S. R., & Quaye, S. J. (Eds.). (2009). Student engagement in higher education: Theoretical perspectives and practical approaches for diverse populations. Oxon: Routledge.

Hartley, R., & Horne, J. (2006). *Social and economic benefits of improved adult literacy: Towards a better understanding*. Adelaide: National Centre for Vocational Education Research.

Hayes, E. (1999). *Youth in adult literacy programs*. Retrieved 3 June 2009, from http://www.ncsall.net/?id=524

Higgins, J., Vaughan, K., Phillips, H., & Dalziel, P. (2008). *Education employment linkages: International literature review*. Lincoln: AERU Research Unit.

Hindmarsh, J. H., & Davies, L. (1995). *Adults' learning pathways: A pilot study in the Wellington region*. Wellington: Victoria University of Wellington.

Hipkins, R., Vaughan, K., Beals, F., Ferral, H., & Gardiner, B. (2005). Shaping our futures: Meeting secondary students' learning needs in a time of evolving qualifications: Final report of the Learning Curves project. Wellington: New Zealand Council for Educational Research.

Holland, C., Hunter, J., & Kell, C. (2002). *Working literacies: A literature review for Skill New Zealand*. Wellington: Skill New Zealand.

Isaacs, P. (2005). Literacy, adult education and value for money. *New Zealand Journal of Adult Learning, 33*(1), 66-78.

Jacobs, J., & Tolbert-Bynum, P. (2008). *Shifting gears: Community colleges and adult basic education*. Retrieved 2 June 2009, from http://www.communitycollegesymposium.net/documents/ABE_paper_final.pdf

Jarvis, P. (1995). *Adult and continuing education* (2nd ed.). London: Routledge.

Johnson, A. (2000). Changing skills for a changing world: Recommendations for adult literacy policy in Aotearoa/New Zealand. Wellington: New Zealand Department of Labour.

Johnston, G. (2004). *Adult literacy and economic growth*. Wellington: The Treasury.

Kenway, J., & Bullen, E. (2001). *Consuming children: Education – entertainment – advertising*. Buckingham: Open University Press.

Krsinich, K., & Roberts, W. (2008). 'Two heads working together': A model of integrating foundation skills into other courses. In J. Benseman & A. Sutton (Eds.), *Facing the challenge: Foundation learning for adults in Aotearoa New Zealand* (pp. 165-178). Wellington: Dunmore Publishing.

Lavery, L., Townsend, M., & Wilton, K. (1998). Computer-assisted instruction in teaching literacy skills to adults not in paid employment. *New Zealand Journal of Educational Studies, 33*(2), 181-192.

Loader, M., & Dalgety, J. (2008). *Students' transition between school and tertiary education* (2nd ed.). Wellington: Ministry of Education.

Lonsdale, M., & McCurry, D. (2004). *Literacy in the new millennium*. Adelaide: National Centre for Vocational Education Research.

Mahoney, P. (2008). *Modern apprenticeships: Completion analysis*. Wellington: Ministry of Education.

Manu'atu, L. (2000). Tulio ke Ma'u Hono Ngaahi Malie, pedagogical possibilities for Tongan students in NZ secondary schooling. Unpublished doctoral thesis, The University of Auckland.

Marr, B., & Hagston, J. (2007). *Thinking beyond numbers: Learning numeracy for the future workplace*. Adelaide: National Centre for Vocational Education Research.

Marshall, J., Baldwin, K., & Peach, R. (2008). Te rau awhina: The guiding leaf. Good practice examples of Maori and Pasifika private training establishments. Wellington: New Zealand Qualifications Authority.

McCarthy, C. (2004, July). *Where are they now? Making the transition - three years on.* Paper presented at the 17th annual conference of the National Advisory Committee on Computing Qualifications (NACCQ 2004), Christchurch.

McGivney, V. (2002). A question of value: Achievement and progression in adult learning: A discussion paper. Leicester: National Institute of Adult Continuing Education.

McGuinness, S., Bennett, J., & McCausland, G. (2008). Service sector SMEs and essential skill provision in the 16-25 year old labour market: Evidence from Northern Ireland. *The International Journal of Human Resource Management, 19*(2), 356-371.

McKenna, R., & Fitzpatrick, L. (2005). Integrated approaches to teaching adult literacy in Australia: A snapshot of practice in community services. Adelaide: National Centre for Vocational Education Research.

McMurchy-Pilkington, C. (2008). Te Pakeke hei Akonga: Mäori adult learners: Final report to the Ministry of Education. Unpublished draft, The University of Auckland.

McNeil, B., & Dixon, L. (2005). *Success factors in informal learning: Young adults' experiences of literacy, language and numeracy*. London: National Research and Development Centre for Adult Literacy and Numeracy.

Mertens, D. (2005). Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative and mixed methods. London: Sage Publications.

Ministry of Education. (2001). More than words. The New Zealand adult literacy strategy. Wellington: Author.

Ministry of Education. (2002). Te aro whakamu: Building futures: The final report on the review of training opportunities and youth training. Wellington: Author.

Ministry of Education. (2005). Draft descriptive standards: Describing the literacy, language and numeracy competencies that adults need to meet the demands of their everyday lives. Wellington: Author.

Ministry of Education. (2007). *Staying at school*. Wellington: Author.

Ministry of Education. (2008a). The development and state of the art of adult learning and education: National report of New Zealand. Wellington: Author.

Ministry of Education. (2008b). Youth apprenticeships pilot. A draft guide for secondary schools. Wellington: Author.

Ministry of Education. (2009a). How well do qualifications predict literacy and numeracy? Wellington: Author.

Ministry of Education. (2009b). *The National Administration Guidelines (NAGs)*. Retrieved 17 June 2009, from http://www.minedu.govt.nz/educationSectors/Schools/PolicyAndStrategy/PlanningReportingRelevantLegislationNEGSAndNAGS/TheNationalAdministrationGuidelinesNAGs.aspx

Morgan, C. J. (2003). Challenges to educators in meeting the needs of students bridging into tertiary education. Unpublished master's thesis, Massey University.

Murray, N., Parsons, H., Clarity, Q., & Kumekawa, G. (2009). *Evaluation of the embedded literacy and numeracy in the workplace pilot*. Retrieved 5 June 2009, from http://www.itf.org.nz/user/file/534/Session%206LT1%20-%20Watson.pdf

Nash, A., & Kallenbach, S. (2009). Making it worth the stay: Findings from the New England Adult Learner Persistence project. Boston: New England Literacy Resource Center.

National Adult Literacy Agency. (n.d.). *Access and participation in adult literacy schemes*. Dublin: Author.

National Institute of Adult Continuing Education. (2002). *Success factors in informal learning: Young adults' experiences of literacy, language and numeracy*. Retrieved 4 June 2009, from http://archive.niace.org.uk/Research/keyfindings/PDF/success-factors.pdf

National Research and Development Centre for Adult Literacy and Numeracy. (2007). *Learning for and in the workplace*. London: Author.

National Research and Development Centre for Adult Literacy and Numeracy. (n.d.). *Research briefing: Progression*. London: University of London.

New Zealand Council for Educational Research. (2006). Assessment for foundation learning: The importance of purposeful assessment in adult literacy, numeracy and language courses. Wellington: Ministry of Education.

New Zealand Skills Strategy. (2008). *New Zealand skills strategy: Action plan*. Wellington: Department of Labour.

New Zealand Treasury. (2008). Working smarter. Driving productivity growth through skills (New Zealand productivity paper 08/06). Wellington: New Zealand Government.

Open Training and Education Network. (2006). DEADLY (Distance education and training to develop literacy skills for youth): Final report to DEST, June 2006. Canberra: Department of Education, Science and Training.

Organisation for Economic Co-Operation and Development. (2000). Literacy in the information age: Final report of the international adult literacy survey. Paris: Author.

Organisation for Economic Co-Operation and Development. (2004). PIAAC draft strategy paper. Policy objectives, strategic options and cost implications. Paris: Author.

Organisation for Economic Co-Operation and Development. (2007). *OECD reviews of innovation policy: New Zealand*. Paris: Author.

Organisation for Economic Co-Operation and Development. (2008). *Jobs for youth – New Zealand: Des employs des jeunes*. Paris: Author.

Ormond, A. (2004). *The voices and silences of young Maori people: A world of (im)possibility.* Unpublished doctoral thesis, The University of Auckland.

Ovens, C. (2002). *Literacy for youth: What counts as success in programs for youth at risk?* Melbourne: Adult Literacy and Numeracy Australian Research Consortium.

Pemberton, S. (2008). Tackling the NEET generation and the ability of policy to generate a 'NEET' solution - evidence from the UK. *Environment and Planning C: Government and Policy, 26*, 243-259.

Penman, R. (2004). What do we know about the experiences of Australian youth? An easy reference guide to longitudinal surveys of Australian youth research reports, 1996-2003. Camberwell, Victoria: Australian Council for Educational Research.

Perin, D., Flugman, B., & Spiegel, S. (2006). Last chance gulch: Youth participation in urban adult basic education programs. *Adult Basic Education, 16*(3), 171-188.

Pink, D. (2005). A whole new mind: Moving from the information age to the conceptual age. New York: Riverhead Books.

Powers and Associates (Australia) Pty Ltd. (2003). *Breaks in the road: Evaluation of the Indigenous Youth Partnership Initiative (IYPI): Final report*. Canberra: Department of Education, Science and Training.

Prebble, T., Hargraves, H., Leach, L., Naidoo, K., Suddaby, G., & Zepke, N. (2005). Impact of student support services and academic development programmes on student outcomes in undergraduate tertiary study: A synthesis of the research. Wellington: Ministry of Education.

Pricewaterhouse Coopers. (2008). Adult and community education: Economic evaluation of adult and community education outcomes. Wellington: Pricewaterhouse Coopers.

Quality Improvement Agency. (2008). *Stick with it! Messages from the development projects*. London: National Research and Development Centre for Adult Literacy and Numeracy.

Quigley, B. A. (1997). Rethinking literacy education: The critical need for practice-based change. San Francisco: Jossey-Bass.

Rahmani, Z., Crosier, T., & Pollack, S. (2002). *Evaluating the impact of the Literacy and Numeracy Training Programme for job seekers*. Canberra: DEST, Commonwealth of Australia.

Raw, J. (2002). Teaching and learning practices in a vocational programme within a tertiary education institution: Students' perceptions and experiences. Unpublished master's thesis, The University of Auckland.

Reder, S. (2004). *Adult literacy and postsecondary education students: Overlapping populations and learning trajectories*. Retrieved 3 June 2009, from http://www.ncsall.net/?id=523

Reid, S. (2008). Learning it on the job: Foundation skills in the workplace. In J. Benseman & A. Sutton (Eds.), *Facing the challenge: Foundation learning for adults*. Wellington: Dunmore Publishing.

Roberts, C., Baynham, M., Shrubshall, P., Brittan, J., Cooper, B., Gidley, N., et al. (2005). *Embedded teaching and learning of adult literacy, numeracy and ESOL: Seven case studies*. London: National Research and Development Centre for Adult Literacy and Numeracy.

Sagan, O., Waite, E., Cowan, S., Casey, H., & Evans, K. (2007). Putting good practice into practice: Literacy, numeracy and key skills in apprenticeships: Part two: Revisiting and re-evaluating (May 2005). London: National Research and Development Centre for Adult Literacy and Numeracy.

Salisbury, J. (2004). Clients, claimants or learners? Exploring the joined-up working of new deal for 18-24 year olds. *Journal of Education Policy, 19*(1), 81-104.

Sanford, K., & Madill, L. (2007). Understanding the power of new literacies through video game play and design. *Canadian Journal of Education, 30*(2), 432-455.

Satherley, P., & Lawes, E. (2007). *The Adult Literacy and Life Skills (ALL) Survey: An introduction*. Wellington: Ministry of Education.

Satherley, P., & Lawes, E. (2008a). *The Adult Literacy and Life Skills (ALL) Survey: Age and literacy*. Wellington: Ministry of Education.

Satherley, P., & Lawes, E. (2008b). The Adult Literacy and Life Skills (ALL) Survey: Gender, ethnicity and literacy. Wellington: Ministry of Education.

Schick, R. (2005). Employer investment in workplace literacy programmes. Auckland: Workbase.

Schochet, P. Z., Burghardt, J., & McConnell, S. (2006). National job corps study and longer-term follow-up study: Impact and benefit-cost findings using survey and summary earnings records data: Final report. Princeton, NJ: Mathematical Policy Research.

Scott, D. (2005). Retention, completion and progression in tertiary education in New Zealand. *Journal of Higher Education Policy and Management, 27*(1), 3-17.

Simmons, J. (2007). *M-learning: A partnership project*. Edinburgh: Learning Connections.

Skill New Zealand. (2001). Sharing for success: Good practice and issues for Māori education. Wellington: Author.

Skill New Zealand. (2002). Workplace literacy fund: Interim evaluation report. Wellington: Author.

Spielhofer, T., & Sims, D. (2004). Modern apprenticeships in the retail sector: Stresses, strains and support. *Journal of Vocational Education and Training, 56*(4), 539-558.

Sutton, A. (2009, May). *Understanding 'very low' literacy: A discussion paper.* Paper presented at the Department of Labour research seminar, Wellington.

Tertiary Education Commission. (2003). *Evaluation of the Gateway pilot*. Wellington: Author.

Tertiary Education Commission. (2007). *Industry training 2007*. Wellington: Author.

Tertiary Education Commission. (2008). *Literacy, language, and numeracy action plan 2008-2012*. Wellington: Author.

Tertiary Education Commission. (2009). Embedding literacy and numeracy: Theoretical framework and guidelines. Wellington: Author.

The Office of the Prime Minister. (2002). *Growing an innovative New Zealand*. Wellington: The Office of the Prime Minister.

The Treasury. (2008). Briefing to the incoming Minister of Finance: Economic and fiscal strategy – responding to your priorities. Wellington: Author.

Tolley, A. (2009). Principals' study tour, Mercure Hotel, Auckland. Retrieved 29 April 2009, from http://www.beehive.govt.nz/speech/principals%E2%80%99+study+tour+mercure+hotel+auckland

Tomoana, J., & Heinrich, J. (2005). *Evaluation of the 2004 Youth Training Post-Placement Support initiative*. Wellington: Tertiary Education Commission.

Topper, B., & Gordon, M. B. (2004). *A comprehensive professional development process produces radical results*. Retrieved 24 February 2009, from http://www.ncsall.net/?id=125

Tout, D., & Schmitt, M. J. (2003). The inclusion of numeracy in adult basic education. In J. Comings, B. Garner & C. Smith (Eds.), *Annual review of adult learning and literacy* (Vol. 3, pp. 152-202). San Francisco: Jossey-Bass.

Townsend, R., & Waterhouse, P. (2008). Whose responsibility?: Employers' views on developing their workers' literacy, numeracy and employability skills. Adelaide: National Centre for Vocational Education Research.

Tyler, J. (2004). *Skills matter in the types of jobs young dropouts will first hold*. Retrieved 4 June 2009, from http://www.ncsall.net/?id=771&pid=124

Unwin, L., & Wellington, J. (2001). Young people's perspectives on education, training and employment: Realizing their potential. The future of education from 14+ series. Sterling, VA: Stylus Publishing.

Vaughan, K. (2008a). Student perspectives on leaving school, pathways and careers (report no. 4 from the age 16 stage of the Competent Children, Competent Learners project). Wellington: Ministry of Education.

Vaughan, K. (2009). A taste of possible futures. Making the most of STAR short introductory courses. *Via Vejledning (Danish Careers Guidance Journal), 20*.

Vaughan, K. (2009, forthcoming). *Dispositions for work and learning in young New Zealanders.* Paper presented at the 6th international conference on Researching Work and Learning, Roskilde University, Denmark.

Vaughan, K., & Boyd, S. (2004). *An evaluation of Youth Pathways/He Ara Rangatahi*. Wellington: New Zealand Council for Educational Research.

Vaughan, K., & Gardiner, B. (2007). *Careers education in New Zealand schools*. Wellington: New Zealand Council for Educational Research.

Vaughan, K., & Kenneally, N. (2003). *A constellation of prospects: A review of STAR*. Wellington: Ministry of Education.

Vaughan, K., Roberts, J., & Gardiner, B. (2006). *Young people producing careers and identities: The first report from the Pathways and Prospects project*. Wellington: New Zealand Council for Educational Research.

Waterhouse, P., & Virgona, C. (2004). *Two dimensional work: Workplace literacy in the aged care and call centre industries*. Adelaide: National Centre for Vocational Education Research.

Watson, S., Van Wichen-Miller, J., & Bowen, E. (2006). Literature review examining key factors that motivate or impede adult learners to enrol and remain in literacy, language and numeracy initiatives. Wellington: Ministry of Social Development.

Weber, J. (2004). Youth cultural competence: A pathway for achieving outcomes with youth. *Focus on Basics: Connecting research and practice, 7*(A), 6-9.

White, H., Oxenham, T., Tahana, M., Williams, K., & Matthews, K. (2008). *Mā te huruhuru ka rere te manu: How can language and literacy be optimized for Māori learner success?* Unpublished draft, Ministry of Education.

Wickert, R., & McGuirk, J. (2005). *Integrating literacies: Using partnerships to build literacy capabilities in communities*. Adelaide: National Centre for Vocational Education Research.

Wolf, A., & Evans, K. (2008). *What works in the workplace?: Why current policy is not achieving its aspirations*. Retrieved 4 June 2009, from http://www.tlrp.org/dspace/retrieve/3769/009906B1_IOE_A1_Posters(batch4)_WOLF_HR.pdf

Wolf, A., Evans, K., Aspin, L., & Waite, E. (2006). *Workplace learning and adult basic skills: Newsletter 6*. London: National Research and Development Centre for Adult Literacy and Numeracy.

Workbase. (2006a). Part 1: Synthesis of Workbase development and research projects: 2000-2005. Auckland: Author.

Workbase. (2006b). Part 2: Project-based syntheses of Workbase development and research projects. Auckland: Author.

Workbase. (2006c). Part 3: Summaries of projects conducted by Workbase from 2000-2005. Auckland: Author.

Wrigley, H., & Powrie, J. (n.d.). *Report on national youth literacy demonstration project*. Retrieved 3 June 2009, from http://www.youthliteracy.ca/reports/reports_research/new_school_final_report.pdf

Zepke, N., Leach, L., & Isaacs, P. (2008). *Foundation learning in the ITP sector: Experiences of foundation learners*. Wellington: Massey University.

Zimmer-Gembeck, M. J., & Mortimer, J. T. (2006). Adolescent work, vocational development, and education. *Review of Educational Research, 76*(4), 537-566.

APPENDIX A: ANNOTATED BIBLIOGRAPHY

The following documents are important in terms of the contribution they make to the literature on young people/young adults and/or LLN. The annotations are arranged alphabetically but they fall into four distinct but overlapping categories:

1. The international research that addresses young people/young adults and LLN.
2. New Zealand research in foundation or bridging programmes where the age of participants is discussed and information about young people/young adults is available.
3. New Zealand research on young people's motivations and expectations through a focus on their career/work identities and transition to tertiary education and/or work (including school-based programmes aimed at preparing young people for work).
4. Literature reviews and syntheses on young people/young adults and/or LLN.

We have marked each annotation with a number corresponding to the categories listed above.

We have not cited all of the reviews and syntheses in the literature review as we did not want to repeat material that was available unless it added new insights or was key within the New Zealand context.

Benseman, J., & Sutton, A. (2007). A synthesis of foundation learning evaluation and research in New Zealand since 2003. Wellington: Department of Labour. (4)

This report looks at research and evaluation conducted from 2003–07 on New Zealand adult LLN initiatives. The aim was to identify the main findings and gaps in the research; understand what makes a successful LLN initiative; determine how LLN initiatives can be monitored; and look at the standard of the research and evaluation in this area. This research found that there is a need for employers to be more aware of LLN needs. The authors also identified a number of factors that influenced the success of setting up LLN programmes (e.g., the role of ITOs in promoting LLN). They also discuss issues to do with the providers of LLN, the quality of LLN initiatives, the role of tutors and the types of learners.

Benseman, J., & Sutton, A. (2008). Facing the challenge: Foundation learning for adults in Aotearoa New Zealand. Wellington: Dunmore. (4)

Facing the Challenge is a collection of chapters on foundation learning for adults in New Zealand. Benseman provides an overview of foundation learning in New Zealand and this is followed by 15 chapters divided into three categories: perspectives on foundation learning (Mäori, Pacific Islands and learners); provision in different contexts (community learning, ESOL learners, tertiary institutions, workplace and family literacy); and teaching and learning (including numeracy, ESOL, assessment, integrated teaching and learning and ICT). The final two chapters provide insights from England and Ireland. The chapters are a combination of practical and theoretical perspectives, useful for researchers and practitioners.

Benseman, J., Sutton, A., & Lander, J. (2005). Working in the light of evidence, as well as aspiration: A literature review of the best available evidence about effective adult literacy, numeracy and language teaching. Wellington: Ministry of Education. (4)

The literature included in this literature review looked at the effectiveness of adult LLN practices and programmes, particularly in terms of improvements in literacy skills. The researchers had to exclude a significant amount of research from their review due to insufficient reporting or a lack of empirical data. They identified a number of factors that were related to learning outcomes (e.g., having teachers with the appropriate skills to identify the learners' skills and gaps in their speaking, reading, writing and numeracy; having programmes that allow high participation level with more than 100 hours of teaching time etc.). They also found a number of factors that were only tentatively related to positive learning outcomes and found other factors that had no association with positive learning outcomes (e.g., there was not evidence that one-on-one teaching was better than larger group teaching). They make a number of research recommendations as well as programme recommendations.

Benseman, J., & Tobias, R. (2003). First chance for a real education: An impact study of adult literacy: A follow-up study of training opportunities and youth training adult literacy students in Christchurch, New Zealand. Wellington: Tertiary Education Commission. (2)

Benseman & Tobias evaluated two year-long programmes of Youth Training and Training Opportunities at Christchurch Polytechnic and Institute of Technology (CPIT) and Hagley High School. The study included surveys of participants plus interviews with 83 participants who had been enrolled in the programme between 1996 and 1998 plus 49 trainees from 1999. Ten of the interviewees were under age 25. Most participants were enrolled in their programme for between six months and two years. The authors concluded that "access to a well resourced adult literacy programme for a substantial period of learning can significantly improve the literacy skills and self-confidence of many participants … In particular [participants] appreciated the small class sizes, the use of small groups and the one-to-one tuition provided; they also appreciated the flexibility of the curriculum and the length of the programme as well as the camaraderie, peer support and the non-competitive environment which allowed them to continue learning at their own pace and in their own way. They appreciated the fact that they were treated with respect and dignity by skilled tutors and others associated with the programme, and many valued the opportunities provided for access to computers and other facilities" (pp. 158–159).

Boyd, S., McDowall, S., & Ferral, H. (2006). *Innovative pathways from school: Taking the first step: Final report: 2006*. Wellington: New Zealand Council for Educational Research. (3)

This study looked at nonconventional programmes in seven low-decile schools which supported "at risk" Years 12 and 13 students. The programmes helped students to gain qualifications, make contact with employers and higher education providers, and gain skills that would be essential in the workplace.

Case studies of the programmes were informed by interviews with students, school staff parents and external providers. Follow-up interviews at the end of the year with students, staff and parents occurred. Further follow-up interviews with the students occurred around two years later. The aim of the study was to find out how to promote school engagement and how to best prepare students for their time after school. Seven factors were identified that helped young people with these tasks. These were: offering a relevant curriculum; using student-centred pedagogies to build relationships; providing access to careers and transition support; learning by doing; providing connections to tertiary education; providing opportunities to gain qualifications; and providing opportunities to develop life skills.

Brewer, L. (2004). *InFocus programme on skills, knowledge and employability*. Geneva: International Labour Organization. (4)

This report looks at skill development for youth at risk by reviewing the literature on successful training programmes. The first section of this review looks at unemployment figures from around the world. The second section looks at the costs of youth unemployment/underemployment (at the individual and societal levels). The third section examines some possible explanations as to why youth are at greater risk of being unemployed. Possible solutions to some of these issues are addressed in section four on mainstream education and training. The final section looks at ways in which training can cater for youth who are marginalised. Included in this section are 50 examples of training programmes.

Britan, J., & Grief, S. (2005). Case study two: Doing as learning: 'It's not like doing maths at school—here you know it's to do with what you're doing'. London: National Research and Development Centre for Adult Literacy and Numeracy. (1)

This case study is of an Entry to Employment or E2E programme (in engineering) delivered by a training organisation, in which seven to 10 young men were enrolled, between the ages of 16 and 19. The E2E trainees attended two days a week, for approximately 6½ hours of teaching per day. This qualitative study explored "some of the ways in which numeracy skills are taught, negotiated and learned in a vocational (engineering) setting"(p. 3). The researchers found that emotional support had an impact on learning, lack of confidence was a major barrier to learning, motivation increased when the maths task was part of doing a vocational task, engagement was associated with individual attention and respect from the trainer, and learning might be enhanced when the situation was relevant to the learner; that is, when the activity was practical and related directly to achieving a personal goal.

Casey, H., Cara, O., Eldred, J., Grief, S., Hodge, R., Ivanic, R., et al. (2006). "You wouldn't expect a maths teacher to teach plastering...": Embedding literacy, language and numeracy in post-16 vocational programmes—the impact on learning and achievement. London: National Research and Development Centre for Adult Literacy and Numeracy. (1)

This large-scale NRDC project involved a total sample size of 1,916 learners in over 79 vocational programmes that were selected to cover five curriculum areas,

both level 1 and 2 courses and both embedded and separate provisions of LLN. Most of these were based in Further Education Colleges all of which had volunteered to be part of the study because they were interested in embedded LLN provision. The number of learners on each course ranged from six to 108. The research team developed 30 questions relating to features of embedded provision, based on initial observations; they used respondents' answers to these questions to place each of the programmes on a four-point scale, representing the extent of "embeddedness". The purpose of this study was to investigate learners' achievement, retention and attitudes to LLN, within vocational programmes. Data were gathered from the teachers, learners and managers. The strongest findings were that learners on nonembedded courses had higher retention rates, and more positive attitudes towards LLN study, than those on non-embedded courses, and that more learners on the embedded courses achieved literacy/ESOL or numeracy qualifications (43 percent and 23 percent more respectively) than on nonembedded courses.

Chan, S. (2006, July). *Falling into a trade: Apprentices' perceptions of becoming a baker.* Paper presented at the 15th National Vocational Education and Training Research conference, Sunshine Coast, Queensland. (2)

This paper reports on an initial data analysis of how 10 young apprentices from throughout New Zealand become bakers. The study was based on semistructured interviews with first-year apprentice bakers aged 17–18. Chan reports that, after six months, the apprentices were beginning to become a part of the bakery community and were still adjusting to their shiftworking life. Their identities as bakers were beginning to form. The research will follow the apprentices for three years.

Chan, S. (2008, March). *Belonging, becoming and being: The role of apprenticeships.* Paper presented at the New Zealand Vocational Education and Training research forum 2008, Wellington. (2)

Chan (2006) suggests we need to rethink the role of knowledge and learning in the workplace. Her study on how eleven 17- and 18-year-old people became bakers in New Zealand investigates processes of belonging, becoming and being through an apprenticeship. Young workers' facility with mobile technology and computers may make them an "expert" in some areas rather than the novice that is usually conferred on apprentices.

Chan, S., & Ford, N. (2007, February). *Mlearning and the workplace learner: Integrating mlearning eportfolios with moodle.* Paper presented at the Mobile Learning Technologies and Applications conference (MoLTA) conference, Auckland. (2)

This paper reports on ongoing research into developing mlearning packages for apprentice bakers. Technologies being trialled included mass text messaging, Web 2.0 applications, using mobile phone to gather evidence in the form of photos, videos or audio files and developing eportfolios, with the latter being incorporated into CPIT's learning management system.

Collison, B., & Drayton, J. (2002, September). *How different target groups change the way we teach.* Paper presented at the second conference of the New Zealand Association of Bridging Educators, Auckland. (2)

The researchers responded to growing numbers of school leavers in their university by running two parallel programmes: for school leavers and for adults. According to the authors, the school leaver group needed to be taught differently and separately from the adult group (mostly aged 18–20) because their expectations and motivations were different from those of adults. The school leavers brought expectations of schooling with them (fro example, the teacher is responsible for my learning; the important thing is to pass, rather than to learn; the classes are boring and I have to be here; my experiences are important but those of others aren't). The adult group was reported to be intrinsically motivated and bringing greater life experience and a willingness to share this with the class. The authors acknowledged that the structure of the courses (lectures and tutorials versus workshops), the compulsory nature of the school leavers' classes and class size were also important variables.

Cooper, B., & Baynham, M. (2005). Case study three: Rites of passage: Embedding meaningful language, literacy and numeracy skills in skilled trades courses through significant and transforming relationships. London: National Research and Development Centre for Adult Literacy and Numeracy. (1)

In this study, the authors sought to "understand … the complex and dynamic nature of the process of embedding" (p. 3). The research involved formal semistructured interviews with seven staff members and informal conversations with other staff. Three interviews were held with students. There were also "over 12 hours of classroom observations written up as narrative accounts and 16 hours of informal interactions" (p. 4). In the construction course described in the research, the LLN tutors and ICT tutors often worked in the classrooms with the vocational tutors. The authors claimed that the embedded approach worked most effectively, with full-time students working intensively over an extended period of time. They also considered that there should be both a vocational tutor (experienced in the profession) and a basic skills tutor (also experienced in their field) with small class sizes and positive, supportive and collegial relationships between tutors, and between tutors and students. Classes should involve engaging interactive multimedia games, joint construction of knowledge and formal and informal time.

Cranmer, S., Kersh, N., Evans, K., Jupp, T., Casey, H., & Sagan, O. (2004). Putting good practice into practice: Literacy, numeracy and key skills within apprenticeships: An evaluation of the LSDA development project. London: National Research and Development Centre for Adult Literacy and Numeracy. (1)

This evaluation of the Learning and Skills Development Agency (LSDA) development project aimed to explore different models of delivering LLN within apprenticeships, so as to make these skills a higher priority, and more integral to the course. The project covered eight centres, 13 occupational areas and a cross-

section of providers. Eight case studies are appended to the report. The researchers found that learners improved LLN when the whole organisation believed key skills were essential for learning vocational skills and that learners' motivation and engagement improved where employers were actively involved. They considered front-end delivery model to be effective as early success was motivational and advocated focusing on LLN early on and gradually decreasing its emphasis. These claims were based on retention and achievement rates as LLN outcome data were not available.

Derrick, J., & Ecclestone, K. (2008). *English-language literature review: Teaching, learning and assessment for adults: Improving foundation skills*. Paris: Organisation for Economic Co-Operation and Development Publications. (4)

This review covered literature on formative assessment and adult learning. The authors firstly defined formative assessment in adult learning and then looked at a number of different themes from the literature. These were: developing an atmosphere and culture conducive to learning; dialogue between teacher and learners; peer assessment and self-assessment; learners' understanding of assessment and the language of assessment; feedback and marking of work; questioning and checking learning; planning and differentiation; improving motivation and confidence, autonomy and citizenship; using different types of assessment formatively; and practising assessment: learning for the future.

Fernandez, P. (1999). Research into providing literacy/upgrading programs for youth who have dropped out of school. Toronto: Frontier College. (1)

This Canadian study identified elements of effective LLN programmes for young people/young adults living in poverty in two areas of Canada (Toronto and Newfoundland). Fernandez conducted "oral testimony" interviews with a small number of 18–24-year-olds in each area. Participants identified a number of situational, dispositional and institutional barriers that had led them to drop out of school. They provided advice on LLN programmes (flexible, goal-oriented and work-related), staff (flexible, open-minded, culturally sensitive and patient instructors who could help them set realistic goals) and the value of small-group work and computers. Fernandez reported that support such as financial support, transport, mentoring, daycare and work experience would attract young people and help to guarantee the success of a programme.

Franzak, J. K. (2006). Zoom: A review of the literature on marginalized adolescent readers, literacy theory, and policy implications. *Review of Educational Research, 76*(2), 209–248. (4)

This report summarises literature on theories and research regarding adolescents' classroom reading instruction experiences and related policy. The following questions are addressed:

- What theoretical paradigms are current influences on literacy instruction in the English language arts classroom?
- What do qualitative studies reveal about the reading habits and values of adolescent readers, and what inferences can we draw regarding the

experiences of students who struggle with school reading in a general education context?
- How does reading policy address struggling adolescent readers?

Gray, A. (2006). Upskilling through foundation skills: A literature review. Wellington: Department of Labour. (4)

Both New Zealand and international literature were included in this literature review. The review sought to find out about employers' engagement in skill development, the benefits and risks of improving LLN skills of the workforce, the role of government and other stakeholders in raising LLN, where the major LLN problems are and what evaluation of LLN programmes there have been.

Gray, A., & Sutton, A. (2007). *The workplace literacy fund: A review*. Wellington: Department of Labour. (4)

This study looked at what the Workplace Literacy Fund (WLF) (which is administered by the Tertiary Education Commission (TEC)) was used for and how successful this was in 2006. The WLF was set up to subsidise workplace LLN programmes. This study aimed to find out about the type of organisations and providers that were involved in LLN programmes; why organisations were involved; how providers were chosen; what the aims of the programmes were; how employees were chosen; the delivery of the programmes; the types of learners involved; and about the costs and benefits of the programme. Information was obtained in the form of document analysis (of reports from providers to the TEC), and interviews with organisations that were given WLF funding (who went ahead with the programme and those who did not), providers of these programmes and providers that had not applied to the WLF.

Hall, S., Maclachlan, K., Tett, L., & Edwards, V. (2008). *Mapping youth literacies practice with the 16–25 age group: Final report*. Edinburgh: The Scottish Government. (1)

This report provides a picture of youth literacies learning in Scotland plus nine case studies of effective practice. The researchers used postal/email surveys and interviews. They avoided the term "embedded" but instead asked their respondents to classify their approach as either *dedicated* (focuses exclusively and explicitly on literacy or numeracy goals), *integrated* (LLN explicit, but complementary to other activities) or *stealth* (literacies element hidden and not made explicit to learner). They found that the integrated approach was most common (94 percent), but a large majority used some form of dedicated provision (84 percent) and more than half used a stealth approach (54 percent). The majority of young people in the literacies programmes were 16–19 (rather than 20–24) and male. Seven of the nine case studies targeted vulnerable young people and only one described themself as primarily about LLN. The authors report on the variety of provision with key points being the need to identify need and interest among young people in order to recruit them, and for flexible provision with trusting relationships between tutors and young people. Providers felt that staff should: be committed and relate well to young people; be good listeners; be nonjudgemental; understand young people's issues; be able to develop quality resource materials; recognise very small progress steps; be flexible; be trained in youth work and/or specialist skills, including literacies.

Hayes, E. (1999). *Youth in adult literacy programs*. Retrieved 3 June 2009, from http://www.ncsall.net/?id=524 (1)

Hayes presented statistical data to argue the case that a trend exists that there is a growing number of 16–21-year-olds enrolling in adult literacy education, in the US. She provided an assessment of the impact of this trend on adult literacy education, based on interviews she conducted with adult educators. Hayes described the general characteristics of young people enrolling in adult programmes, and went on to briefly identify four types of young people/young adults. These characteristics were seen to be at odds with the requirements of adult programmes and therefore she discussed the issue of integration versus separation. The adult educators told her about strategies they used to integrate young people/young adults, and the benefits this could bring, changes they made to the way they taught (setting rules, providing more structure, small class size, building rapport, different teaching strategies), changes they made to the curriculum to make it more relevant and topics for staff development.

Holland, C., Hunter, J., & Kell, C. (2002). *Working literacies: A literature review for Skill New Zealand*. Wellington: Skill New Zealand. (4)

This review looked at international literature to determine the main issues facing young people in their transition from school to work. A transdisciplinary analysis was used to look at the literature. The following themes were discussed in the literature review: choice in education–employment linkages; crafting identities; discovery and development of abilities; opportunities and structures; and systems linking education and employment choices.

Holland, C., Hunter, J., & Kell, C. (2002). *Working literacies: A literature review for Skill New Zealand*. Wellington: Skill New Zealand. (4)

This literature review looks at recently published international and national literature regarding literacy provision (in particular that focused on adult learners). The challenges facing New Zealand, relevant theories and models, stakeholder perspectives and different literacy provision approaches are all discussed. Some of the issues that were identified from the literature were: the global historical, social and economic/political context; international policy development; and literacy paradigms. New Zealand policy perspectives, models and approaches as well as good practice and core values are reported on.

Krsinich, K., & Roberts, W. (2008). 'Two heads working together' A model of integrating foundation skills into other courses. In J. Benseman & A. Sutton (Eds.), *Facing the challenge: Foundation learning for adults in Aotearoa New Zealand* (pp. 165-178). Wellington: Dunmore Publishing. (2)

This book chapter reports on a study that investigated 135 students in three programmes: Business Administration; Tourism and Travel; and pre-apprentice Technology. The research resulted in a model of LLN integration into vocational courses, which they called team-teaching. Following an overview of the ways embedded or integrated LLN is defined, the authors presented a case study of their approach to teaching LLN within another learning programme, in a tertiary education setting. Distinct features of this mode of delivery included:

organisational factors (such as management support, number of hours the LLN tutor is involved, funding, joint meetings, office space); quality of provision (staff training and professional development); roles and relationships (goodwill, trust, anxieties, shifting practice); and matching learners' needs to programme requirements (designing tools for initial needs analysis and individual learning plans). The authors describe three different modes of delivery which they call up-front teaching (the vocational and LLN teachers take turns to teach), roving (the LLN teacher provides support to individuals in workshop or group activities), and tag or tandem teaching (the LLN teacher addresses a specific LLN point at the moment it is required), and as well identify the importance of having drop in times, and LLN tutorials.

Litster, J. (2007). *Literature review: Final report to the Quality Improvement Agency*: Coventry: Quality Improvement Agency. (4)

This literature review looked at research on adult learner persistence. There were four phases involved in generating this literature review: the first involved generating a working definition of the term "persistence", the second was a broad literature review that looked at the different parts of persistence, e.g. motivation; the third phase involved making changes and additions to this review after receiving feedback; the fourth phase involved including the findings within "the framework of existing research" for comparison purposes.

Looney, J. (2008). *Teaching, learning and assessment for adults: Improving foundation skills*. Paris: Organisation for Economic Co-Operation and Development. (4)

The first section of this report is "Context and conditions" and looks at reports from nine countries as well as the results from international surveys (e.g., Adult Literacy and Life Skills Survey) in order to understand the context and conditions of adult LLN provision in these different countries. The second section examines teaching, learning and assessment by using case studies and literature reviews and outlines the steps involved in the learning process. In the third section, seven principles are identified that could help for both policy and practice.

Mahoney, P. (2008). *Modern apprenticeships: Completion analysis*. Wellington: Ministry of Education. (2)

This Ministry of Education report examined completion rates of Modern Apprenticeships and the factors that affect these rates. This was done by following a cohort undertaking a Modern Apprenticeships programme. Different factors were statistically analysed (e.g., demographics, programme and industry factors). Some of the factors affecting completion rates are: the type of industry; the volume of learning; the qualifications the apprentice has; the location of employment; ethnicity and age of the learner; and the qualities of the co-ordinator. The report is made up of two parts: the first describes the cohort of learners in the study, and the second section outlines the statistical model of the factors associated with completion.

Marshall, J, Baldwin, K., & Peach, R. (2008). Te rau awhina: The guiding leaf. Good practice examples of Mäori and Pasifika private training establishments. Wellington: New Zealand Qualifications Authority. (2)

This study undertook to look at effective teaching and learning and programme design and development in 13 nominated Mäori and Pasifika PTEs. The researchers found that the key elements of success were a whänau/aiga approach, making sure there was a sense of belonging and having a sense of "greater humanity" (p. 7) and cultural inclusivity. Interviews were conducted with 41 people over 18 months. Tutors were seen as critical to learner success and being flexible, committed, passionate about teaching, focusing on learners and being able to motivate learners were seen as characteristics of effective tutors. Learners were seen to be motivated by having clear boundaries and expectations and setting goals. Teaching that used an holistic approach, met learners where they were at and used humour and celebration was seen as effective. Successful programmes were flexible and designed around learners' needs with plenty of opportunity for assessment provided. Organisations were seen to be successful when they had good-quality management systems, when their tutors fitted in well and when good relationships were maintained with community and other groups. Learner, tutor and organisational goal setting, reflection and evaluation were described as important aspects of good practice.

McGuinness, S., Bennett, J., & McCausland, G. (2008). Service sector SMEs and essential skill provision in the 16–25-year-old labour market: Evidence from Northern Ireland. *The International Journal of Human Resource Management, 19*(2), 356–371. (1)

A survey of employers in Small and Medium Enterprises (SMEs) in the UK (in the wholesale and retail trades; hotels and restaurants; transport, storage and communication; finances; and real estate) assessed the nature and extent of labour market shortages arising from a lack of basic skills (LLN) among 16–25-year-olds. The survey found that "relative to literacy and numeracy skills, employers were found to place a slightly heavier weight on the more generic skills or attitude, communication and motivation" (p. 356). About half the respondents thought that young people/young adults' lack of basic skills was attitudinal; about half thought it was a schooling problem. Whilst employers reported being open to a variety of training options for upskilling young people/young adults, the research showed they were ill-informed about existing options for LLN provision and the range of qualifications and providers available that they could tap into. They rated IT skills highly as evidence of LLN capability.

McLaren, K. (2002). Youth development: Literature review: Building strength—A review of research on how to achieve good outcomes for young people in their families, peer groups, schools, careers and communities. Wellington: Ministry of Youth Affairs. (4)

Literature included in this review focused on young people aged 12 to 24 years old. The review was used to inform the *Youth Development Strategy Aotearoa*. The aim of the research was to find out "how to contribute good outcomes for young people in their families, peer groups, schools, training, careers and communities" (p. 3). The following themes were discussed in this review: the key

stages of young people's development (including the key tasks in adolescence and adulthood); and the key influences on good outcomes for young people (family, peer, school, work/career, neighbourhood/community and environmental influences).

McMurchy-Pilkington, C. (2008). Te Pakeke hei Akonga: Mäori adult learners: Final report to the Ministry of Education: Unpublished draft, The University of Auckland. (2)

The researchers interviewed a number of CEOs, tutors and adult Mäori learners in Auckland, Whangarei, Whakatane and Gisborne. They found that success for young learners was more likely to occur when contexts were "real-life" and where learning was based on practical, "hands on" activities. This appeared to be particularly important for numeracy. PTE and Iwi organisations set out to include and celebrate Mäori identity in a Mäori-centred, whänau environment (whakawhanaugatanga). The authors identified that younger learners engaged in learning because the adult learning environment was not like school. Classes were small and personalised, learners were trusted and had choices and they were treated as adults. Tutors were caring, approachable, passionate about their work, firm, humorous and committed. Learners regarded them as mentors. Teaching approaches that worked linked LLN to real contexts (catering on the marae, for example). The emotional and social environment was as important as the physical one, and living as Mäori and tautoko or support of learners for each other were critical within this.

McNeil, B., & Dixon, L. (2005). *Success factors in informal learning: Young adults' experiences of literacy, language and numeracy*. London: National Research and Development Centre for Adult Literacy and Numeracy. (1)

This final report on young people's experiences of informal learning and LLN describes the two phases of the project. In phase one the researchers reviewed the literature, mapped the territory, surveyed providers who were working informally with young adults, followed up with phone interviews and selected 10 case study sites. In phase two they sought to identify practitioners' needs and address them, reviewed teaching materials and undertook the case studies. The researchers identified the following as some of the key findings: the need to address young people's personal and social issues; providers were focused on NEET young people obtaining employment or further training; and engagement can be more important than LLN skill development (providers balanced sticks and carrots). Researchers also reported ongoing debate about terminology, whether or not embedding LLN should be explicit or not and no common use of assessments or resources. Teacher qualities "associated with effective youth work, such as patience and empathy, were considered essential" (p. 8) but very few practitioners were specifically trained in LLN teaching.

Ministry of Education. (2008a). The development and state of the art of adult learning and education: National report of New Zealand. Wellington: Author. (4)

This report provides a comprehensive overview of the current state of adult learning and education (ALE) including LLN. The report covers topics such as the

tertiary education system, the legislative and policy frameworks for ALE, public funding and quality of provision, participation and provision. There is a section on research findings about teaching and learning, some case studies and definitions of literacy. Although not specific to young people/young adults, it is a good place to start in terms of getting to understand the complexity of LLN delivery in New Zealand.

Ministry of Education. (2002). Te aro whakamua / Building futures: The final report on the review of training opportunities and youth training. Wellington: Author. (2)

This government review of Training Opportunities and Youth Training programmes looked at the contribution these programmes have made to lifting foundation skills and therefore to help contribute to building a highly skilled workforce and community. The review recommended that continuing programmes be flexible, better integrated within educational opportunities and agency assistance (including with schools and with TEC and MSD), and have outcomes that have a dual focus employment and/or further education. The review team considered that there needed to be greater clarity about eligibility and that learner support should be improved into, within and from programmes. Training Opportunities and Youth Training should have a strong focus on foundation skills (including LLN).

Morgan, C. J. (2003). Challenges to educators in meeting the needs of students bridging into tertiary education. Unpublished master's thesis, Massey University. (2)

Morgan's thesis explored the challenges that educators encounter in meeting the needs of students bridging into tertiary study. The study identified a number of areas of tension between philosophical assumptions and practice that educators need to consider in meeting current student needs in their learning. These tensions are the learning environment, the people who interact with these environments and future directions for pre-entry programmes. Morgan considers that qualities required of a good foundation studies teacher include genuineness, acceptance and empathy, with an emphasis of the personal relationship between teacher and learner in establishing a climate conducive to learning. The 11 foundation studies teachers Morgan interviewed highlighted the importance of bridging programmes having a very particular purpose, namely staircasing into academic study. They also acknowledged the tension in attempts to reconcile the current educational climate with the assumed purpose of programmes in addressing social equity (with particular reference to underrepresented groups, especially Mäori and Pasifika). Tutors described the close link between the social orientation of adult learners, their emotional predisposition and cognition and the need for personal, group, academic and institutional connectedness.

Organisation for Economic Co-Operation and Development. (2008). *Jobs for youth—New Zealand: Des employs des jeunes*. Paris: Author. (2)

This publication is part of a thematic review of policies to facilitate the transition of school to work and to improve the career perspectives of youth. Sixteen countries are taking part in the review and New Zealand's findings are seen in the light of the other countries' performances and policies. There are four chapters,

each with a number of tables and side boxes. The review begins by looking at the labour market performance of young people and recommends that New Zealand should: improve retention rates at school; improve tertiary vocational education; monitor potential issues with demand-side policies (e.g., financial barriers for youth); and improve strategies for youth most at risk.

Ovens, C. (2002). *Literacy for youth: What counts as success in programs for youth at risk?* Melbourne: Adult Literacy and Numeracy Australian Research Consortium. (1)

The researcher set out to examine the discourses around success in programmes for youth "at risk" through a literature review, surveys, focus groups and six case studies. She employed a social justice framework (as opposed to an "at-risk") framing. The project gathered data from selected samples of young people in nationally funded literacy and numeracy programmes, researchers of such programmes, policy makers, managers, teachers and practitioners of programmes for young people. Ovens reported that success was reliant on a number of factors interacting inside and outside the LLN programme. She found that all successful programmes embedded literacy and numeracy, their curriculum allowed for flexible and multiple pathways, the programmes employed a range of activities to engage learners and that some programmes were using innovative approaches that drew on brain research and "complementary and psycho-dynamic therapies". Ovens also attempted to measure success against the Ausyouth (2001) *Good Practice in Youth Development Framework* which provides success indicators for policy, program and organisation.

Penman, R. (2004). What do we know about the experiences of Australian youth? An easy reference guide to longitudinal surveys of Australian youth research reports, 1996–2003. Camberwell, Victoria: Australian Council for Educational Research. (4)

This report contains the key themes from 36 reports produced between 1996 and 2003 based on the Longitudinal Surveys of Australian Youth (LSAY). It describes the transition period of young people from education/training into the workforce. The report is divided into three sections describing different stages: the first is about educational experiences; the second about transitions between school and the labour market; and the third is about experiences in the labour market and other aspects of life.

Perin, D., Flugman, B., & Spiegel, S. (2006). Last chance gulch: Youth participation in urban adult basic education programs. *Adult Basic Education, 16*(3), 171–188. (1)

The authors looked at why young people (aged 16–19) enrolled in Adult Basic Education (ABE) courses in the US. In some cases the young people believed that new requirements had made it more difficult to obtain a high school graduation diploma, and believed (wrongly) that it would be relatively easy to obtain the theoretically equivalent General Educational Development (GED) qualification. Some preferred being taught with older students, or regarded ABE as a safer environment than high school, with less disruption and fighting. But other young people were attending because they had no alternative: it was dictated by family circumstances (so that their parents could continue to collect public assistance) or

because they were mandated to do so by the courts or by drug rehabilitation programmes. In the four US case studies conducted interviewees reported sporadic attendance and low retention for all age groups, not just for the young people with whom the researchers were chiefly concerned.

Powers and Associates (Australia) Pty Ltd. (2003). *Breaks in the road: Evaluation of the Indigenous Youth Partnership Initiative (IYPI): Final report*. Canberra: Department of Education, Science and Training. (1)

This evaluation involved over 1,000 learners aged eight to adult. Although the evaluators were supposed to evaluate the contribution of the projects to the improvement of indigenous young people's literacy and numeracy, the projects themselves were not set up to meet this kind of objective and they did not collect data that could be used to measure LNL gain. Instead, the projects were set up to achieve engagement-related objectives and so the team focused instead on finding the ways the projects may have contributed to the development of LNL skills. Therefore the main conclusion of this evaluation report is that "the primary contribution that the projects made was to keep the project participants engaged in both general and vocational education" (p. 6). Eight types of strategies were identified that "in one way or another, supported the development of core literacy, numeracy and employability skills" (p. 73). The report also noted the importance of cultural recognition, acknowledgment and support to securing motivation and commitment and key factors to achieve this. Other strategies involved workplace engagement strategies where the effectiveness of the co-ordinator in co-ordinating work placements was the key to success.

Prebble, T., Hargraves, H., Leach, L., Naidoo, K., Suddaby, G., & Zepke, N. (2005). Impact of student support services and academic development programmes on student outcomes in undergraduate tertiary study: A synthesis of the research. Wellington: Ministry of Education. (2)

This literature review looked at how academic staff development programmes and student support services (particularly for students from diverse backgrounds) affect the academic success and course completion rates of undergraduate students. There was not strong evidence for a direct link between academic development programmes and students' study success. However, academic development programmes were found to influence teachers' teaching beliefs and behaviour which in turn affected student outcomes. The authors also looked at different types of training courses and how effective these were. From looking at the relationship between student support services and student outcomes, 13 suggestions were made that were either ways that diverse students could fit into the existing "institutional culture", or ways that institutions could change to benefit diverse students.

Rahmani, Z., Crosier, T., & Pollack, S. (2002). *Evaluating the impact of the Literacy and Numeracy Training Programme for job seekers*. Canberra: DEST, Commonwealth of Australia. (1)

The Australian Government evaluated a Literacy and Numeracy Training (LANT) programme to determine the extent to which training improved unemployed job seekers' literacy and numeracy skills and their participation in the labour market. Whilst LANT was initially focused on young people/young adults, it was extended

to cover other groups. The evaluation surveyed by telephone a sample of the 6,248 job seekers eligible for the programme between August 1998 and October 1999. Literacy and numeracy gain was assessed using an NRS rating scale and self-perceived improvements in literacy and numeracy. According to the data, 17 percent of participants who started the programme achieved a successful NRS outcome. Many (over 60 percent) left the programme before completing and therefore didn't have their skills assessed. Employment outcomes did not appear to be influenced by participation in the programme. The authors urged caution in interpreting these findings because 30 percent of people who did not start the programme had found a job. Results for income status, including no longer receiving income support, were similar to employment outcomes. About 25–30 percent of people who were referred to LANT went on to further training or study. People who stayed longer in the programme or who completed the training were more likely to do further study or training. Taking part in the LANT programme helped the vast majority to gain entry to another course.

Roberts, C., Baynham, M., Shrubshall, P., Brittan, J., Cooper, B., Gidley, N., et al. (2005). *Embedded teaching and learning of adult literacy, numeracy and ESOL: Seven case studies*. London: National Research and Development Centre for Adult Literacy and Numeracy. (1)

This significant research project consisted of seven case studies. The project aimed to gather evidence about the "characteristics of embedded LLN teaching and learning" (p. 6). The project's strength is in the rich descriptive nature of the case studies. In addition, as the main report cautions, "we must still be cautious about the generalisations which follow from this small and diverse range of courses" (p. 7). The report summarised findings from across all the reports, made some conclusions and recommendations and briefly discussed the methodology used. It then outlined each case study in terms of their methodology, the context and conclusions. Some case studies had additional sections; for example, about the programme, or issues and implications.

Roberts, J., Gardiner, B., Gilbert, J., & Vaughan, K. (2008). *Trading choices: Young people's career decisions and gender segregation in the trades*. Wellington: Ministry of Women's Affairs. (3)

This study sought to investigate "how and why young people navigate or avoid trades-related pathways" (p. v). The researchers looked at gender differences in the career decision making process and ways to increase the number of women working in the trades. Interviews and focus groups were conducted with young people in trades or trades-related subjects at school generally dominated by one gender. Participants then took part in a workshop to discuss the findings of the study. The research found that many gender stereotypes still exist which influence young people's identities and decision-making processes. It also found evidence of those who thought outside of this narrative. The authors identified a number of factors that made nontraditional trades options more accessible to women, and made a number of suggestions about how to reduce gender segregation in the trades.

Sagan, O., Waite, E., Cowan, S., Casey, H., & Evans, K. (2007). Putting good practice into practice: Literacy, numeracy and key skills in apprenticeships: Part two: Revisiting and re-evaluating (May 2005). London: National Research and Development Centre for Adult Literacy and Numeracy. (1)

In the follow up to the report on *Putting good practice into practice: Literacy, numeracy and key skills within apprenticeships* (Cranmer et al., 2004) six of the original sites were revisited, and semistructured interviews conducted with project managers. Data were also collected on completion and retention. This brief report presents the progress made by each centre separately, and then gives a summary of findings, including the benefits of front-loaded models of delivery, the benefits of combining front-loaded and embedded models of delivery and additional features impacting on success and training for staff.

The usefulness of this report lies in its distinction between two models of delivery rather than the provision of any strong evidence for the effectiveness of one over the other. That is, most of the centres now implemented key skills at the beginning of the apprenticeship (rather than after the vocational training as they had done before participating in the development project). The findings are of use insofar as they support larger, more rigorous studies. However, this is the only research related to young people/young adults and LLN that described the front-loading approach.

Schochet, P. Z., Burghardt, J., & McConnell, S. (2006). National job corps study and longer-term follow-up study: Impact and benefit-cost findings using survey and summary earnings records data: Final report. Princeton, NJ: Mathematical Policy Research. (1)

This report is a summary of the main evaluations undertaken for the National Job Corps Study, between 1994 and 2006. This experimental study had a very large sample: "from late 1994 to early 1996—of the 81,000 eligible applicants, 15,386 were randomly assigned to either a program group ... or to a control group" (p. 8). Job Corps is the largest education and training programme in the US for economically disadvantaged young people/young adults (16–24 years). The LLN outcomes were measured using an assessment tool developed by the Educational Testing Service for the National Adult Literacy Study. A random subsample of the program and control group members was selected (2,300, i.e. nearly 15 percent), and 60 percent of those responded. The report claimed that "program group had higher average scores on the assessment measures than the control group" (p. 18) and that Job Corps "improved participants' functional literacy" (p. 18).

Tertiary Education Commission. (2003). *Evaluation of the Gateway pilot*. Wellington: Author. (2)

This is an evaluation of the Gateway project, a programme offered to senior secondary school students. Gateway provides these students with an opportunity to undertake learning in workplaces while they still attend school, providing them with qualifications or general skills. The aims of the study were to: look at the benefits of the programme for students; determine the best ways for Gateway to be run; look at the relationships between industry and schools; and compare the Gateway course to other work-based learning programmes. Both quantitative

(e.g., students' credits achieved) and qualitative data (e.g., interviews with students, employers, co-ordinators) were used in this evaluation.

Tomoana, J., & Heinrich, J. (2005). *Evaluation of the 2004 Youth Training Post-Placement Support initiative*. Wellington: Tertiary Education Commission. (2)

This was an evaluation of the Post-Placement Support (PPS) pilot which was designed to help young people move between training and employment/further training. There were three different PPS options that were piloted which were as follows: Option 1: continued learning while in employment; Option 2: enhances support to complete training at levels 3 and 4; Option 3: fee for support services to sustain employment or further progressive education/training outcomes. Tomoana and Heinrich acknowledge a number of weaknesses in the evaluation, including the lack of a comparison group. With that in mind, they reported that the PPS programme appeared to have been successful in meeting the needs of a particular group of young people for support, mentoring and modelling by trusted advisers. Positive outcomes were defined for each of the options, and achieved by 71 percent of the sample. Overall, Option 1 proved to be the least successful. Providers reported that quality tuition was not feasible given funding levels, and there was some doubt about whether young people entering their first job were interested or motivated to continue formal learning.

Topper, B., & Gordon, M. B. (2004). *A comprehensive professional development process produces radical results*. Retrieved 24 February 2009, from http://www.ncsall.net/?id=125 (1)

Topper and Gordon reported on how ABE practitioners in Kansas City were trained over 18 months in a Youth Cultural Competence (YCC) strategy, since half of the GED learners there were young adults (aged 16–24). YCC separates young people/young adults from older learners into small classes and integrates elements of youth culture into an academic curriculum that would give young people/young adults the equivalent of a school leaving diploma (the GED). The authors reported improved outcomes for youth in enrolment, retention, attendance and graduation. They also reported changes in teaching with practitioners responding readily to new strategies and approaches.

Tyler, J. (2004). *Skills matter in the types of jobs young dropouts will first hold*. Retrieved 4 June 2009, from http://www.ncsall.net/?id=771&pid=124 (1)

Tyler studied the data on GED candidates in Florida between 1995 and 1998 aged 16–18 and determined that numeracy skills do matter for those who are least skilled in terms of economic advantage of first employment. Tyler's recommendation is that schools and adult LLN programmes need to pay attention to developing skills in young people/young adults with low education and little or no work experience.

Vaughan, K. (2002). Turning barriers into opportunities: A literature review on small to medium-sized enterprise (SME) engagement with formal training. Wellington: New Zealand Council for Educational Research. (4)

This literature review includes international and New Zealand material on SMEs involvement in formal training. The following sections are included in this review: understanding SMEs; barriers to SME engagement with formal training; drivers and opportunities for SME training. Many barriers (both resource-based and perceived) to undertaking training were identified. The author identified ways to rethink these barriers so that they instead become opportunities, aligned with the particular characteristics and drivers identified for SME involvement in formal training.

Vaughan, K. (2008). *Workplace learning: A literature review*. Wellington: New Zealand Council for Educational Research. (4)

This literature review looked at workplace learning and best-practice examples of workplace learning pedagogy. It was also concerned with looking at learning in different contexts (i.e., taking into account societal and economic factors). The literature review aimed to answer the following questions:

- What are the best-practice examples of workplace learning and what is it that makes the best practice?
- What connections can be made between on-the-job training and off-the-job training?
- How do workers' previous learning experiences and beliefs about learning affect their workplace learning experiences?
- What can theories about learning and knowledge tell us about learning in the workplace?
- Given learning theories, what are the implications from best-practice examples for workplace learning programmes and providers, and further research, in New Zealand? (p. 8)

Vaughan, K., & Boyd, S. (2004). *An evaluation of Youth Pathways/He Ara Rangatahi*. Wellington: New Zealand Council for Educational Research. (3)

This reports on an evaluation of "a one-on-one career guidance and general wellbeing support service set up to support "at risk" young people in their transition from school". Both consultants and clients were interviewed as part of this evaluation. The evaluation found that HAR had helped most clients significantly. For example, it gave them greater confidence and a better direction. The researchers identified some of the reasons that the HAR programme had been helpful as well as identifying what some of the changes had been for participants.

Vaughan, K., & Gardiner, B. (2007). *Careers education in New Zealand schools*. Wellington: New Zealand Council for Educational Research. (3)

This report was based on an analysis of secondary and area school principals and careers staff perspectives on careers education gathered through a nationwide survey. The analysis showed that careers staff described activities and

approaches that were largely targeted at at-risk students, and an understanding of careers education as an intervention to predicted or predictable ends (for example, getting a job placement) than ongoing development (for example, being able to get more jobs in the future). On the other hand, careers staff acknowledged facing new challenges in their role related to all students (not only at-risk ones) grappling with more and weightier decisions throughout schooling and well beyond in their lives. Careers staff prioritised the provision of information over teaching long-term strategies, such as helping students develop self-awareness or teaching students how to make good decisions. This priority could fit with NAG 1.6's emphasis on preparation but seemed at odds with the Ministry of Education careers education handbook's emphasis on long-term skills and dispositions, such as helping students to develop self awareness, become aware of opportunities, make decisions and plans, take action. The authors suggest that NAG 1.6's emphasis on preparedness for work *or* further education/training would be more realistic if it were "work *and* further education/training", given the increasing prevalence of earning-while-learning options.

Vaughan, K., & Kenneally, N. (2003). *A constellation of prospects: A review of STAR*. Wellington: Ministry of Education. (3)

Secondary–Tertiary Alignment Resource (STAR) is available for all secondary school students and allows these students to do nonconventional tertiary-level courses. The aim of this research was to look at how STAR was operating; what key stakeholders' opinions of STAR were; and to collect information on the successfulness of the programme. The research involved interviews and questionnaires for key stakeholders as well as visits to schools that were using their STAR funding well. The report covers the following topics: the purpose of STAR; the different STAR courses and systems; student participation in STAR programmes; student views of their STAR experiences; the role of the STAR co-ordinator; STAR funding and use; case studies of STAR schools; and successes and challenges for schools. The report made ten recommendations (nine of which have been implemented).

Vaughan, K., Roberts, J., & Gardiner, B. (2006). *Young people producing careers and identities: The first report from the Pathways and Prospects project*. Wellington: New Zealand Council for Educational Research. (3)

This report covers the first two years of a longitudinal study investigating young people's career views and experiences postschool as well as their identity production. Two interviews each with over 100 young people from different career pathways (modern apprenticeships, the army, polytechnic courses, university degree, university bridging courses and youth training courses) were conducted approximately one year apart. The interviews were analysed both quantitatively and qualitatively. The researchers identified three major security and exploration factors which allowed four different cluster profiles to emerge: hopeful reactors, confident explorers, anxious seekers, and passion honers. The authors argue that identity production and career–as-process are important concepts that best allow us to understand young people's experiences and motivations.

Workbase. (2004). *Small to medium enterprises project: Final report for the Tertiary Education Commission*. Auckland: Author. (4)
This project examined the literacy needs of SMEs and ways to address these needs. Firstly, previous research was examined. Information from ITOs, PTEs, enterprise boards and government agencies involved in training businesses was gathered. SMEs were involved in specially designed workplace literacy initiatives and were then interviewed. Some of the things they report on were what issues SMEs identified and how they wanted to overcome these; the process of working with SMEs, SMEs; knowledge of literacy training; and the barriers to taking up training.

Workbase. (2006). Part 1: Synthesis of Workbase development and research projects: 2000–2005. Auckland: Author. (4)
This is a summary of projects conducted by Workbase between 2000 and 2005 that have focused on workforce literacy development and research. Workbase projects have aimed to improve literacy in the following ways, and these are the headings of different sections in the synthesis: building provider supply; supporting ITO leadership; understanding what influences employers; and building practitioner quality. The key overall findings are also included.

Workbase. (2006). Part 2: Project-based syntheses of Workbase development and research projects. Auckland: Author. (4)
This is a summary of the findings from different Workbase projects organised under the following categories: provider projects; industry training organisation projects; company/employer projects; and practitioner projects. Under each of these categories the following is outlined: key themes, trends, issues and changes in research over 2000–2005; and outlining what providers have found to be successful in terms of workplace literacy.

Workbase. (2006). Part 3: Summaries of projects conducted by Workbase from 2000–2005. Auckland: Author. (4)
This report includes details of all of the projects included in the above syntheses (organised under the same above categories: provider projects; industry training organisation projects; company/employer projects; and practitioner projects). For each of the projects, the following is outlined: the purpose; environment; funder; participants; approach; outcomes; and what was learnt.

Zepke, N., Leach, L., & Isaacs, P. (2008). *Foundation learning in the ITP sector: Experiences of foundation learners*. Wellington: Massey University. (2)
The project sought to find out how foundation learners experienced their learning, what they considered to be success and the factors that helped learners achieve success. The researchers used a qualitative, interpretive framework to interview 96 learners in 18 focus groups from six ITPs. The age of participants was described as "loosely representative" (p. 14) and it is not known how many of the participants were under 25. The authors coded the findings into four categories of "soft outcomes"—work skills, attitudinal skills, personal skills and practical skills. They found that the strongest indicators of success were: considerations for the future; motivation; basic literacy; learning to learn; self-esteem; and relationship

building. The participants considered that they got very strong support from their institutions which contributed to their success. Compared to school, the foundation programmes contributed to “learning transformations”. Participants reported that they liked working in teams and problem solving. Many were extrinsically motivated although others were motivated by being able to learn and by the environment. For those learners in level three programmes, improved self-esteem and confidence were reported as success factors. Growing self-awareness was seen by many to be a success factor. Participants reported being extremely positive about their teachers, for their passion and caring and for the environment they established and maintained. This was in contrast to their school experiences. Participants also provided an interesting perspective on retention, citing advantages and greater success for those remaining when less-motivated class members dropped out.