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Department of Labour
TE TARI MAHI



Engaging young people/young adults in literacy, language and numeracy skill development: Summary Report

Authors

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New Zealand Council for Educational Research

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ISBN 978-0-478-36072-1

August 2010

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www.dol.govt.nz

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1. INTRODUCTION

The Department of Labour (the Department) is responsible for a cross-government programme of research and evaluation on workforce literacy, language and numeracy skills. Its purpose is to build the evidence base to inform practice and policy development around improving adult literacy, language and numeracy skills. This is in partnership with the Tertiary Education Commission, the Ministry of Education and the Ministry of Social Development.

This report provides a summary of research into young adults' engagement in literacy, language and numeracy (LLN).

The New Zealand Council for Educational Research (NZCER) conducted the research for the Department of Labour (DOL) in four phases:

1. literature review (Whatman, Schagen, Vaughan & Landers, 2009) and the annotated bibliography (Whatman & Robertson, 2009)
2. key informant interviews (Whatman, 2009)
3. case studies (Whatman, Brooking, Robertson, & Spiller, 2009)
4. exemplar of good practice (Whatman & Twist, 2009). The exemplar is a table listing factors that have a strong, moderate or low association with successful LLN learning. The success indicators were first derived from the literature review, with further indicators added in the key informant and case study phases.

NZCER wanted to answer three questions about young people's engagement in LLN:

- How do young people 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 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 best engaged, recruited, retained and supported in education and training programmes, so as to meet their LLN needs?

This summary provides the responses to these questions and raises a number of issues and ideas that the researchers think are important. The approaches to the research and definitions used are described at the end of the report.

2. RESEARCH FINDINGS

Young people who have left school with no or few qualifications and poor literacy and numeracy (LLN) skills are very vulnerable in our society and the Government wants to improve their skill levels so that they can have a more fulfilling and productive life. There is little international and New Zealand research that directly addresses young people, improving their LLN skills and the effect of this on their lives. This research is primarily about the kinds of programmes and learning experiences that are likely to make a positive impact on young adults' LLN learning.

2.1 LLN outcomes

The most obvious outcome from LLN learning is improvement in LLN skills, but this can be hard to measure and is not always evident. Other wider benefits include attitudes to learning, personal growth (improved self-confidence and self-esteem) and social capital.

NZCER could find no definitive evidence for the economic impact of improving young people's levels of LLN. However, one important report identified that improving LLN skills may matter for those who are least skilled to start with (Tyler, 2004). Tyler's recommendation is that schools and adult LLN programmes need to pay particular attention to developing skills in youth with low education and little or no work experience.

One of the clear messages from some of the research (for example, Rahmani et al., 2002) is that it is difficult 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 are worthy but not always easy to achieve. LLN gain in its own right should be seen as a 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.

2.2 Young adults and the labour market

A Department of Labour (2009) factsheet shows that the overall unemployment rate rose to a five-year high of 4.6 percent in 2009. This reflects the recent economic downturn and is expected to keep rising to above 6 percent by early 2010. During 2008, the employment rate of young people fell by 3.5 percent and their unemployment rate went up from 9.7 percent to 11.1 percent. In May 2009, the unemployment rate for 15–19-year-olds was 14.3 percent and that figure was predicted to surpass general unemployment rates by three to one.

Some groups of young people are even more likely to struggle in the labour market—those who are defined as at risk and NEET. The OECD (2008) found in a country report on youth and employment that in New Zealand:

- 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 vocational education and training
- tertiary institutions are not providing youth with the requisite skills
- policies make it difficult to reach disengaged youth (for example, benefits and allowances).

2.3 Young people in tertiary education

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 NCEA 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.

2.4 About the young people in this research

The people interviewed by NZCER had an interesting range of perspectives on young people. Some described “selfish” Gen Y behaviour or an apparent lack of motivation and readiness for “the real world”, while others felt young people were more ready than older adults to adapt to and embrace the 21st century.

Many of the young people NZCER spoke to were referred to the organisation they were studying at by WINZ, although a significant number had enrolled because a friend or family member recommended it. The researchers found some research that identified that young people were more likely to be engaged when they had voluntarily enrolled (Cooper & Baynham, 2005; Hayes, 1999; Perin et al., 2006; Salisbury, 2004; Topper & Gordon, 2004) but this aspect didn’t seem significant in the case study sites visited, nor was it an issue for key informants.

The researchers heard many stories from young people and staff of difficult family life, of young people being “kicked out of school”, having gained few if any credits towards NCEA at school, being fired or made redundant from work, lack of motivation, addiction and abuse. It is a testimony to the learning environments that the young people who were interviewed and observed all appeared involved, cheerful and often highly engaged learners.

All the young people enjoyed their tertiary studies and ranked it much higher than being at school. The prospect of employment or studying something that interested them gave them the motivation to improve their LLN skills, as the LLN was contextualised and embedded in other learning. Young people valued highly practical and hands-on experience, either in sporting or creative activities or in vocational or trade workshop situations. Another key motivator was that their place of study accepted them as adult—providing an adult environment, empathetic and friendly tutors who built good relationships and a good balance of support and independent learning. Young people reported on the strength of friendships formed with classmates and the satisfaction gained from working at

their own pace through their work (which in most cases involved working towards a National Certificate in Employment Skills). They were mainly in classes without older adults, but the literature and the key informants are divided about whether this matters. It seems to depend on the structures within the organisation and the preferences of the staff and managers.

Some key informants and people who were interviewed during the case study research recognised the unique qualities of young people as a group and asked that they be treated with respect and that the ease with which they used ICT be acknowledged. The informants and case study participants considered young adults to be different from, but no better or worse than, older adults. Some asked that recent encouraging brain research into adolescence be heeded in policy and programme planning.

Zepke, Leach, and Isaacs (2008) sought to find out how foundation learners experienced their learning, what they considered to be success and the factors that helped learners achieve success. They found that the strongest indicators of success were considerations for the future, motivation, basic literacy, learning to learn, self-esteem and relationship building. Participants in their study 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.

2.5 Young adults and engagement

Research on young people/young adults and adult participation, motivation, recruitment, retention and persistence shows that motivation and persistence in particular are highly relevant to young young adults as a general group. A key theme appears to be that young people are harder to motivate and/or less motivated than other adults. Four features are distinct for young adults:

1. the importance of extrinsic motivation which appears to be more heavily weighted to paid work rather than learning (separate from paid work)
2. "hooking in" to learning through different kinds of approaches, including involving parents
3. the importance of mentoring and counselling
4. the attitudes to anything that is like school.

A fifth important point is that young people need the opportunity to access LLN programmes. NEET young people are in a position to readily access LLN and may just need the motivational support to engage.

An important Scottish study (Hall, Maclachlan, Tett, & Edwards, 2008), identified that young people were recruited and retained through activities that covered a very wide range, including digital photography, magazine making, cinema visits and outdoor pursuits. Goals included those that would improve young people's health, employment, housing and educational prospects. With reference to persistence, The Quality Improvement Agency (2008) acknowledges that some of the practical barriers to persistence (for example, travel costs, shift patterns) can be extremely hard to tackle. They cited evidence suggesting that incentives could play a part, but teaching and good teachers were more important. They

considered it was vital to take a “holistic” approach to the learner in addressing lack of persistence.

Some indicators developed from the key informants and the case studies provide further evidence about what works specifically for young people. NZCER found they are more motivated when the learning is clearly work-related. Learners who reported being unmotivated by the school curriculum appeared to be keen to improve their LLN skills because they could see the value of the skills in work and adult life. Productive tutor–learner relationships and the organisation creating a sense of belonging were obviously very important to young people. Young people wanted to be treated as adults (for example, no unnecessary rules), and they responded to being treated as individuals—being able to work at their own pace, at work which was meaningful and with ready access to one-on-one help.

It was obvious to the researchers that whilst LLN was being embedded into pre-employment and vocational programmes, measuring LLN success could not easily be separated from social and personal outcomes. Young adults were learning skills such as motivation, persistence, decision making and problem solving, responsibility, self-confidence, reflection on actions and co-operation with peers and employers. At the same time they were gaining unit standards or entry to further education and training or to employment.

2.6 Programmes and organisations

NZCER did not find anything about the programmes they investigated that contradicted the adult LLN literature reviewed, with effective teaching being the key to success. Researchers did find areas of strength in approaches which valued the voice of young adults.

Key ingredients of effective programmes are that: they embed LLN into vocational programmes; programmes are personalised with small classes; the environment is not like school; 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.

An important Australian study, Ovens (2002), reported that success was reliant on a number of factors interacting inside and outside the LLN programme. Her findings included: 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 some programmes were using innovative approaches that drew on brain research and “complementary and psycho-dynamic therapies” (p. 8).

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” refers to LLN teaching in the context of another subject (usually vocational studies). 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)

The international research supports embedding LLN. Hall et al. (2008) surveyed 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).

The NRDC provides the most significant research on the value of embedding. Casey et al. (2006) collected data on almost 2000 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. Their strongest findings were that learners on embedded courses had higher retention rates, and more positive attitudes towards LLN study, than those on nonembedded 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.

Cranmer et al. (2004) 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. 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). A Canadian study (Fernandez, 1999) identified elements of effective LLN programmes for young adults living in poverty in two areas of Canada (Toronto and Newfoundland). 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). Fernandez (1999) considered that additional help such as financial support, transport, mentoring, daycare and work experience would attract young people and help to guarantee the success of a programme.

Integrated or separate classes for young people

Researchers disagree on whether or not young people should be taught in the same classes as older adults. In a New Zealand study of Youth Training and Training Opportunities programmes, Benseman and Tobias (2003) 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 as people with learning difficulties and psychological difficulties. Older participants were concerned that 16-year-olds disrupted the learning environment.

Personalised programmes (that are not like school)

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, Oxenham, Tahana, Williams, & Matthews, 2009). NZCER 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., 2009).

McMurchy-Pilkington (2008) 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. Learners felt comfortable within the physical environment and with the staff: "Comfort comes from the emotional security of 'belonging to the whānau'" (p. 28). McMurchy-Pilkington (2008) identified that younger learners engaged in learning because the environment was not like school. Classes were small and personalised, learners were trusted and had choices and they were treated as adults. Rewards and bribes, such as being able to smoke at intervals, worked well to encourage learning.

Marshall, Baldwin, and Peach (2008) looked at effective teaching and learning, 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. Tutors were seen as critical to learner success. Effective tutors were flexible, committed, passionate about teaching, focused on learners and able to motivate learners. Learners were seen to be motivated by having clear boundaries and expectations and setting goals. Effective teaching used an holistic approach, met learners where they were at and used humour and celebration. Successful programmes were flexible and designed around learners' needs with plenty of opportunity for assessment provided.

The use of ICT and multimedia is highlighted in the research on young people and LLN (Cooper & Baynham, 2005; Fernandez, 1999; Hall et al., 2008). The Quality Improvement Agency (2008) reported 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)

Effective teaching

Researchers highlighted two key themes under effective teaching: having a team approach and having culturally sensitive and emotionally supportive teachers.

Almost all the research read, some of which is discussed above, 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. For example, 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.

McMurphy-Pilkington (2008) identified success where tutors were caring, approachable, passionate about their work, firm, humorous and committed. Learners regarded them as mentors. White et al.’s (Oxenham, Tahana, Williams & Matthews, 2009) report reiterated these points, and focused on the tuakana-teina¹ 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, whakawhanaugatanga² and experiential learning. The researchers identified the importance for learners of holistic Māori pedagogical perspectives and practices. Small class size was seen to be critical so that more personal tutor–student relationships, and individual attention are possible.

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 nonjudgemental; understand young people’s issues; be able to develop quality resource materials; recognise very small progress steps; be flexible; and 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.

Staff in organisations

Researchers’ impressions of the staff working with the young adults were that they are dedicated and have the interests of the young people at heart. What they may lack in qualifications and teaching experience they make up for in common sense, strength of personality and good humour. These qualities, and the fact that many had similar backgrounds to the young people, are much appreciated by the young people. Managers had all of these attributes and also a keen awareness of how their businesses needed to be run to satisfy young people as well as government.

¹ Symbiotic relationship.

² Process of relationship building.

Organisations deal with a number of systemic issues. Young people's attendance is erratic and they tend to enrol or leave a programme on any day of the year which makes continuity in teaching problematic. In some sites, resources were slim and often had to be prepared by individual tutors. Having ready access to purpose-built texts and workbooks, as well as computers and other ICTs, could help solve problems for many tutors.

Many staff members have undertaken or are undertaking professional development in teaching LLN—most often *National Certificate in Adult Literacy Education* (NQF 1212 or 1253). Some tutors appeared to resent having to give up their time to do extra study but most agreed that they had learnt a lot and that their teaching had improved. Researchers saw evidence of new resources and teaching approaches that embedded LLN into programmes in fun and interesting ways across whole organisations.

Learners appreciated organisations that operated in a family-friendly way. Environments were not always ideal but staff helped establish warm, welcoming, learning environments. A variety of organisations and organisational approaches appeared to cater for a wide range of learners. Recruitment appeared to be about matching to learners' specific needs, including access and availability. The PTEs visited appeared to attract those who don't have clear career intentions (or enough credits to get into a programme of choice) and for whom free access through Youth Training and Training Opportunities was important.

2.7 Discussion

Why do young people who did not flourish at school begin to experience success in foundation learning? Some of the answers lie in: high tutor-to-learner ratios; adult-friendly environments; learning set within an accessible and meaningful context where study is likely to lead to employment; and learning that is chunked and which has manageable and rewarding goals, so that success breeds success. And some of the answers lie with the young people themselves and their maturity and the motivation offered by preparation for work and the adult world. This will depend on the young person's self-efficacy and resilience. NZCER met many young people who had clear goals and directions and who aspired to undertake study at a higher level so they could enter a trade or a profession.

The different programmes that the young people are enrolled in cater for a range of needs and skills. It is critical to provide easy access to programmes that acknowledge individual learning needs. Getting young people into such programmes is half the battle—most young people researchers spoke to had been referred from Work and Income New Zealand (WINZ) or had heard via word of mouth. Retaining learners is also an issue as many have multiple demands on their lives. But once they are engaged, young learners seem to flourish. New Zealand needs to retain the variety of options currently available and to consider ways to expand them and to encourage other disengaged young people to participate.

There is no one right way or silver bullet for engaging young adults in LLN. There is much good practice and also much that could be improved. There is a general

feeling among key informants and LLN programme staff that many government policies are heading in the right direction. There is also a sense of frustration from many of the people NZCER talked to that there are unrealistic demands being made on organisations to be accountable for LLN outcomes in a way that does not recognise the social, emotional and personal problems that are barriers to be overcome for many young people and the organisations that enrol them.

NZCER's recommendations

There are four key areas that NZCER thinks should be further debated, either because there is not enough conclusive evidence, or because there is conflicting evidence. These are:

1. a 21st century conceptualisation of literacy and numeracy including LLN outcomes
2. a focus on young people who are “most at risk”
3. a consideration of specific teacher education for people working with young people/young adults
4. an acceptance of multiple approaches to integrating LLN into vocational training and work.

The question remains about what it really means to be literate in the 21st century. Currently we address one aspect—albeit an important one—of the LLN needed for an individual to succeed in the present and for the country to prosper in the immediate future. But this does not take into account how young adults’ facility with ICT and their approach to living with technology can be harnessed to improve their LLN and help with New Zealand’s longer-term prosperity. There would seem to be a place for government to invest in developing specific resources and assessments that are tailored to young adults’ needs and interests, and which utilise phone and other digital technologies and other ICTs.

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

Researchers would also urge that vocational plus LLN teaching and learning opportunities for young people are not locked into a single “best practice” way of doing things, as the research has not found any evidence that there is one best way. The inconclusive evidence 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.

The case studies and the key informants provided the New Zealand context that indicates there is no one right way to approach LLN and the engagement of young people. PTEs, ITPs, apprenticeships, workplace learning all have their place. The

researchers would like to see more focus on recruiting the young people who most need to engage in LLN to the most appropriate place to further their learning. WINZ plays a significant role in referring people and word of mouth is also important. What was not clear to the researchers was whether the young people are being given good advice and being helped to make good choices for beginning and furthering employment and post school education.

As well, the status and conditions for employees in many organisations do not align with importance of the job. Therefore these jobs do not attract enough of the highly skilled teachers young people need. This is similar to the situation ECE was in almost 20 years ago and may require the same wide-ranging approaches that are being put in place in the early childhood sector (for example, teacher education, training and registration).

Further research

NZCER researchers still do not consider they can confidently say how different teaching LLN should be for young people as opposed to older adults. Critical factors appear to be the learner's immediate prior experiences which affect motivation. New brain research indicates adolescent brains are as open to new learning as newborn babies and suggests we should be adjusting teaching and learning in school and beyond to accommodate this.

There has been little independent research that has followed young people over an extended period of time so that LLN gains can be accurately measured and links made to improved social and economic outcomes. It would be useful to undertake a longitudinal study in New Zealand that could also determine whether LLN gain was more likely to occur in one context or another. While there is some evidence about apprenticeships, it is not clear if young adults are likely to make stronger LLN gains in further education and training or in employment or a combination of the two.

Nor it is clear the extent to which voluntary or compulsory enrolment in LLN makes a difference for young people in New Zealand. There are also groups of young people that this research did not specifically address, including young people in care or in prison and ESOL young adults. There is mixed evidence about whether young adults should be taught as a group or in classes and/or organisations with older adults. There would also appear to be a dearth of research in the area that includes the voice of young people.

At the conclusion of the literature review NZCER researchers posed seven questions they considered needed addressing:

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 ICTs (including cellular phone technologies)? How can these skills be harnessed to improve LLN in more traditional contexts?
7. 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 in education and training, or a combination of the two?

Near the end of the research they added:

8. How can career education (including career guidance counselling) help young people/young adults make informed decisions about further education and training and/or employment?

Limitations in research

It is not possible to present a definitive set of factors that will lead to improved LLN outcomes for young people. 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, NZCER concludes 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).

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 informed this review. 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.

2.8 Final exemplars of factors associated with successful LLN learning

The table or exemplar below shows the key success factors from the literature, the key informants and the case studies in relation to young people/young adults'

engagement in LLN. Similar factors are lined up across the different sources. Strong indicators were mentioned in almost all the relevant research and by most of the people interviewed; moderate indicators were mentioned in much of the relevant research and by some of the people interviewed; low indicators were mentioned in some of the relevant research and by a few of the people interviewed.

2.9 Key success indicators of LLN programmes for young people/young adults – key informants and case studies added to the literature³

Table 1. Key indicators: strong associations with success

Organisational level (literature)	Programme level (literature)	Key informants (staff/adult)	Learner level (case study)
Programmes respond to those most at risk, i.e., those with the lowest skills	Programmes respond to those most at risk, i.e., those with the lowest skills	A strengths-based approach is used	Learning programmes take account of students' current skill level
LLN is embedded into vocational courses	LLN is embedded into vocational courses	LLN is embedded by "stealth"	
Marketing targets young people/young adults directly—word of mouth works best			Marketing targets young people/young adults directly—word of mouth works best
Learning is unlike that done at school. The learning environment is unlike school			Learning environment is seen as hassle-free (no pressure, unnecessary rules, etc) Students are treated as adults
Academic, social and personal services are integrated	Team teaching combines LLN, vocational, and mentoring/counselling expertise Teachers provide emotional support for learners	Young people's needs are addressed holistically	
The roles of learning and working are acknowledged as ever changing and interrelated		Young people are seen as unique and valued for their particular qualities Schools and families serve young people well	Students are motivated by realistic and achievable career pathways There are productive relationships between all parties involved with young people's work and learning

³ Strong indicators were mentioned in almost all the relevant research and by most of the people interviewed; moderate indicators were mentioned in much of the relevant research and by some of the people interviewed; low indicators were mentioned in some of the relevant research and by a few of the people interviewed.

Organisational level (literature)	Programme level (literature)	Key informants (staff/adult)	Learner level (case study)
	Small-group learning is the norm/common		One-on-one teaching is used to meet individual needs
	Contexts and content are authentic and relevant	Learning (including LLN) is contextualised	
	Programmes meet individual needs		Tutors are responsive to individual learning needs in a "just in time" manner
	Goals are achieved within a short timeframe are quickly achieved		Learning goals are achieved quickly and easily
	Learners and teachers jointly construct learning and knowledge		
	Teachers are culturally sensitive and empathetic to young people/young adults	Young people are valued as different from (but not better or worse than) older adults	
	Teachers are well trained and knowledgeable	Recent brain research drives LLN approaches	Tutors clearly explain what students do not understand Tutors break learning into manageable steps Learning progresses at students' pace
	ICTs are used to enhance good teaching	Young people's facility with ICT is acknowledged	
	Teachers use a range of activities and innovative approaches		Learning programmes include fun activities
	Teaching is relaxed and informal but focused		
		Respect is given to young people	There are respectful relationships among everyone in the organisation Friendships with others are facilitated by the programme

Table 2. Key indicators: moderate associations with success

Organisational level (literature)	Programme level (literature)	Key informants (staff/adult)	Learner level (case study)
Low or no cost for learners		Low or no cost for learners	
Participation is voluntary			
	Young adults' extrinsic motivations regarding employment and qualifications are acknowledged	Learning staircases to achievable qualification—e.g., apprenticeship Employment is a strong motivator for improving LLN	LLN seen as relevant to vocation or career pathway LLN embedded by "stealth" Learning staircases to an achievable qualification
Environments are youth friendly	Programmes are based on youth popular culture	Dedicated learning environments—whānau / marae approach or enabling work environment	The organisation has a "family" environment

Table 3. Key indicators: low associations with success

Organisational level (literature)	Programme level (literature)	Key informants (staff/adult)	Learner level (case study)
LLN is learnt first, and vocational learning follows		Learning focuses on oral communication	
	Teachers are at a similar age and stage to learners		
		Differences between males and females in programmes are acknowledged	

The exemplar that follows began with evidence from the literature review. We added a column of indicators that came from key informant interviews and another from the case studies. The final exemplar combines the columns into two—at programme level and organisation level. A factor that was identified as important in the policy context (and therefore less obviously at an organisational level) is the importance of programmes targeting those most at risk, that is, those with the lowest skills. We have not added this to the exemplar as a "success factor" at the organisational level. We saw very little evidence in our case study visits of learners and teachers jointly constructing learning and knowledge but in other areas we were able to substantiate and add to the first set of exemplars.

Table 4. Factors associated with successful literacy, language and numeracy (LLN) learning

	Programme level	Organisational level
Strong association with success* (Factors were identified in most of the literature and by many key informants and case study participants)	<p>Small-group learning is the norm/common; one-on-one is effective in some circumstances</p> <p>LLN is embedded into vocational courses ("by stealth" is often the best approach)</p> <p>Contexts and content are authentic and relevant</p> <p>Programmes meet individual needs (personalised); learners are motivated by realistic and achievable career pathways</p> <p>Goals are achieved within a short time frame</p> <p>Learners and teachers jointly construct learning and knowledge; learning programmes take account of learners' current skill level</p> <p>Team teaching combines LLN, vocational and mentoring/counselling expertise</p> <p>Teachers culturally sensitive, respectful of and empathetic to young people/young adults</p> <p>Teachers provide emotional support for learners (incl one-on-one mentoring, counselling)</p> <p>Teachers well trained and knowledgeable; clearly explain what learners don't understand; they break learning into manageable steps; learning progresses at learners' pace</p> <p>ICTs are used to enhance good teaching; learners' facility with ICT is acknowledged</p> <p>Teachers use a range of activities and innovative approaches, including fun activities</p> <p>Teaching is relaxed and informal but focused</p> <p>Schools and families have served young people well; good career advice is provided</p>	<p>Programmes target those most at risk, i.e., those with the lowest skills</p> <p>LLN is embedded into vocational courses</p> <p>Marketing targets young people/young adults directly—word of mouth works best</p> <p>Learning is unlike that done at school. The learning environment is unlike school</p> <p>Academic, social and personal services are integrated</p> <p>The roles of learning and working are acknowledged as ever- changing and interrelated</p>
Moderate association with success* (identified by some sources)	<p>Programmes are based on youth popular culture</p> <p>Young adults' extrinsic motivations regarding employment and qualifications are acknowledged</p> <p>A strengths-based approach is used</p> <p>Young people are seen as unique and are valued for their qualities</p>	<p>Low or no cost for learners</p> <p>Participation is voluntary</p> <p>Environments are youth friendly</p> <p>Friendships among learners are facilitated</p> <p>Dedicated learning environments, e.g., marae, sports centre or enabling work environments</p> <p>LLN embedded in pre-employment/ employment opportunities (including short work experiences)</p>
Limited association with success	<p>Teachers are at a similar age and stage to learners</p> <p>Learning focuses on oral communication</p>	<p>LLN is learnt first, vocational learning follows</p> <p>Recent brain research drives LLN approaches</p> <p>Differences between males and females is acknowledged</p>

* According to research data available to date, key informant interviews and case studies

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APPENDIX A: DEFINITIONS USED IN THE RESEARCH

Engagement

NZCER used a wide definition of engagement, based on the way organisations offer learners a “sense of connectedness, affiliation, and belonging, while simultaneously offering rich opportunities for learning and development”. (Harper & Quaye, 2009, p. xxiii). Engagement is also about commitment: according to Bean (1995, 2005, as cited in Harper & Quaye, 2009), students leave institutions when only marginally committed to them. 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 researchers referred to young people/young adults’ engagement as participation, motivation, recruitment, retention and persistence. They focused in particular on motivation as it would appear that this area is where young people/young adults are most likely to differ from other adult learners.

Young people/young adults

The report categorises young people aged 16–24 as “young people/young adults”, and refers to them either by that phrase, or as “young people” or “young adults” interchangeably. 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”. NZCER chose to use the term “young people/young adults” or “young people” alternating with “young adults” because of the negative connotations often associated with the word “youth”. Some research the researchers looked at focused on “disadvantaged” or “at-risk” young people. Many of these young adults are also not in employment or education and training (NEET). NZCER was especially interested in finding out more about how this group of young people/young adults engaged with LLN.

Literacy

NZCER use the definition of literacy 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).

Language

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) and 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).

Numeracy

Literacy and numeracy are closely related and often overlapping skills, and sometimes it may be impossible to draw a dividing line between them. In recognising that numeracy is separate from literacy, we use the definition of numeracy 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).

APPENDIX B: RESEARCH METHODOLOGY

NZCER's early search of the literature identified that there was little research that had explicitly set out to link young people and their engagement in LLN. Three important studies (Ovens, 2002; Powers and Associates (Australia) Pty Ltd, 2003; Rahmani, Crosier, & Pollack, 2002) were conducted in Australia. Most of the other research that directly links young people/young adults and LLN has been conducted in the UK by National Research and Development Centre (NRDC) and National Institute of Adult and Community Education (NIACE). Much of this UK research is evaluations of programmes that embed or attempt to embed LLN into general or vocational education and training programmes or workplaces. In order to back up the research that links young people and LLN NZCER also read research on: young adults in the labour market; adult engagement; transitions from school to further education and training or employment; adult LLN programmes; and programmes that engage young people, especially those who are NEET. Researchers used a backward mapping approach described in the Best Evidence Synthesis Guidelines (Alton-Lee, 2004) whereby they identified probable outcomes for young people/young adults engaging in LLN and identified those features of the adult LLN literature, literature on youth engagement and literature on adult engagement to generate indicators that appeared to lead to effective LLN programmes for young adults.

To manage the review of the literature the search was confined to research written in English from New Zealand, the UK, the US, Canada, Australia and Ireland since 2000. Researchers did not seek out literature that specifically addressed English Speakers of Other Languages (ESOL) learners or that reported on LLN and youth in prison or correctional facilities. They did not reproduce material about adults and LLN except where young adults and older adults were discussed as distinct groups. Researchers were aware of significant literature reviews already undertaken in New Zealand, specifically Benseman and Sutton (2007), Gray (2006) and (Benseman, Sutton, & Lander, 2005). They only used these in their analysis if a piece of research specifically referenced young people, or supported key themes in the literature about young people and LLN. NZCER included important research in the annotated bibliography, especially if it was written in New Zealand. The annotated bibliography and the full bibliography are available on request from DoL.

NZCER interviewed 17 "key informants" – policy makers, researchers, literacy experts and people who work with young adults. They then carried out six case studies of sites offering literacy programmes to young adults. The key informant interviews and the case studies confirmed the findings from the literature review. Participants also provided some new insights and enriched literature review findings by providing a New Zealand overlay, in particular through the voices of young people and the older adults who work directly with them. Researchers deliberately tried to find out about young people in Private Training Establishments (PTEs) or workplaces to add to the existing or current research

about young people in foundation programmes in other tertiary organisations (universities and Institutes of Technology and Polytechnics (ITPs)) and apprenticeships. They visited two Education Plus sites, Manukau Institute of Technology's TradeSUP programme, Future Skills, South Pacific Academy and Te Hoa Community and Sports Development Association. The lead researcher also talked to Mandy McGirr of McGirr Training about the interview questions and LLN teaching and learning in PTEs. The sites were recommended by the key informants as providing worthwhile programmes for particular learners. Unfortunately NZCER was not able to arrange a site visit to a workplace where young people/young adults were in LLN programmes.