Barriers to Adult Literacy

A DISCUSSION PAPER

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Executive summary

This discussion paper explores perceived barriers to adult literacy in Wanganui and Districts, following in-depth, one-to-one interviews with participants in adult literacy training courses, among others. The study comprises one element within a major, longitudinal research programme. The paper is organised under three sections: Theoretical grounding; Initial findings; and Ways forward – first suggestions. In **Section I**: **Theoretical grounding**, we first explore the ways in which low adult literacy in NZ has been represented following the release of the International Adult Literacy Survey findings in 1997. We also address the differing perspectives and challenges that have characterised literacy research internationally.

The current study is described in **Section II: Initial findings**, within the context of the Wanganui community's concern to find ways forward in how adult literacy abilities may be enhanced, and the consequent local support for the research programme. Eight investigative methods are reported on here, providing a multi-method approach we hope will begin to do justice to the complexity of the subject.

The first two methods set the scene, being a telephone survey of Wanganui citizens, exploring the barriers to finding a full-time job, then interviews and focus group sessions with Wanganui employers. In-depth findings come from methods three to eight, all based on one-to-one interviews with two groups, participants in adult literacy training courses, and non-participants, to serve as a comparison group. In these interviews, the barriers both groups perceived as impeding their literacy aspirations are explored, along with what they see as conduits to improved literacy.

For participants in adult literacy learning, health and physical elements in their lives were shown to be important barriers. When barriers were grouped, issues with individuals' schooling were predominant in people not achieving their literacy goals, along with problems associated with goal orientation. Non-participants identified many similar barriers.

Perceived conduits to literacy provide insights into ways in which adult literacy policy and funding may be better targeted. In **Section III: Ways forward – first suggestions**, the paper provides initial observations about how literacy (or literacies) are to be understood, ways in which support for literacy learners can be made more systematic and focused via personal action plans and other 'directional interventions', and implications for marketing and promoting literacy courses.

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Section I: Theoretical grounding

Introduction

The International Adult Literacy Survey (IALS) of 1996 (OECD, 1997) suggested that 160,000 working age New Zealanders had literacy problems. This raised major concerns about literacy in employment in New Zealand and suggested the state of adult literacy in NZ was much worse than anyone had suspected. The IALS study found a wide gap between the most and least literate New Zealanders, with 20% of New Zealand adults apparently having very poor literacy skills. These findings contradicted the common understanding at the time, which was that New Zealand had "very good" adult literacy. The point was made that "poor literacy is strongly correlated with a greater likelihood of unemployment, lower pay when in work, poor health, less likelihood of owning a home, and poorer basic skills for children living with adults with poor literacy" (*More than words*, 2001).

After 1997, NZ policymakers, businesses and educators struggled to come to terms with the findings that over 40% of people apparently had literacy described as 'not functional' in the modern workplace (OECD, 2000). The release of these findings brought to the fore an issue of immediate concern to government, industry and society as a whole.

In this country there has been a variety of (mainly) one-off assessments of adult literacy learning initiatives (e.g., Benseman, 2002; Benseman & Tobias, 2003; Sutton & Benseman, n.d.). Yet until the present time, no New Zealand-based research of magnitude or duration has attempted a longitudinal and comprehensive evaluation of adult literacy or the training activities designed to increase literacy skills. The success or otherwise of adult literacy initiatives and their impacts upon workplaces and communities in New Zealand is therefore not yet well-understood.

Even internationally, as described by Mikulecky and Lloyd (1997), relatively few workplace literacy programmes in the research literature report rigorous programme evaluation or careful documentation of learner gains, impacts on productivity, or detailed descriptions of effective programme practices. Many evaluation procedures assumed as normal in year-long school courses, are noted as extremely difficult, sometimes impossible or inappropriate for workplace programmes. This is because the typical workplace literacy course has small classes of brief duration. In such classes, instruction is often targeted to job-related literacy needs, and participants' continuity in training (hence research access to them), often taken for granted in other forms of educational research, would usually not apply.

Government Strategies

In response to the NZ IALS results, the Government's Adult Literacy Strategy and Employment Strategy addressed low adult literacy, with some increased funding for literacy services and research. However, ambiguity surrounds how IALS findings should be interpreted. A major criticism of IALS is that it actually measures ability to score well on literacy tests, rather than assessing 'ability in literacy' – or literacies (Freebody, 1997; Gee, Hull & Lankshear, 1996; Go-

mez, 2000; Hamilton & Barton, 2000). Are New Zealand workers really as deficient as the IALS proposes? If so, how do businesses including small to medium size enterprises (SMEs) survive (and even flourish) though many of their workers allegedly have very low literacy in English? Johnston (2004) remarks that it seems unlikely New Zealand workplaces are really as afflicted by low literacy as IALS seems to suggest.

On the other hand, is the IALS really as irrelevant to workplace or community realities as its critics suggest (Jones, 1997)? If so, why are governments internationally using it as a key driver of adult literacy policy? It is timely for the current research to address issues such as those suggested here, especially considering the Government's intention to run IALS version II in 2005/2006.

A recent report from the N.Z. Treasury (Johnston, 2004) found little to suggest adult literacy training courses have had a measurable effect on improving literacy skills. Later in this report we will discuss our views on why this seems to be the case. Johnson (2000) had earlier noted that adult literacy learning approaches are in their infancy in New Zealand with various authors stating their concern with the fractured and voluntary nature of many interventions.

The Government's Adult Literacy Strategy *More than words* (2001) builds on work in the school sector. The Strategy has the broad goal that, over the long-term, New Zealanders should enjoy literacy to a level that enables them to participate fully in all aspects of life, including work, family, and the community, and to have the opportunity to achieve literacy in English and Te Reo Māori.

The Adult Literacy Strategy has three key elements:

- developing capability to ensure adult literacy providers deliver quality learning through a highly skilled workforce;
- improving quality systems to ensure that New Zealand programmes are world class; and
- increasing opportunities for adult literacy learning by significantly increasing provision in workplaces, communities, and tertiary institutions (*More than words*, 2001).

This imperative to upgrade workplace skills is reinforced by other government policy, including the New Zealand Employment Strategy, goal three: "Developing a flexible, highly-skilled workforce that is responsive to the needs of the labour market and an innovative economy" (Employment Strategy: Progress, 2003).

As already indicated, IALS was an important impetus for such strategies (OECD, 1997). It provided comparative data at an international level, but was unable to specify the nature and impact of literacy issues for persons at work. The result therefore was an overview of what seemed to be a problem, but with little information on its significance to individuals or groups in communities, let alone the outcomes from adult literacy training activities instigated in response to such concerns. Richard Skelsey, Service Centre Manager of Work and Income Wanganui, notes that while WINZ evaluates single adult learning initiatives, it has no access to long-

term research that would help determine the full scope of the issues (Skelsey, 2003, personal communication).

Workbase (The New Zealand Centre for Workforce Literacy Development) is an independent non-profit organisation that aims to improve New Zealanders' literacy, numeracy and communication skills at work (Workbase – Supporting Workforce, n.d.). As Workbase noted in a submission to the Government (2002, p.4), "In the past, adult literacy has been fragmented, with different arrangements for different parts of the sector. It has had a profile as a marginalised, remedial and often voluntary service."

A point often made is that while evaluations of individual programmes have occurred, and have provided insights into the state of adult literacy in New Zealand, such evaluations tend to possess differing foci, to the detriment of a broad or cohesive understanding of the field. To date no larger and comprehensive research project has taken a longitudinal overview of the problems associated with adult literacy, or of quality solutions, with the aim of distilling commonalities that could be shared. This is a point strongly supported by Johnson's (2000) review of adult literacy in New Zealand, which suggests the growing investment in adult literacy deserves greater research attention.

Differing perspectives in literacy research

Several theoretical traditions have helped shape thinking about adult literacy, including the ethnography of communication, activity theory, and what is now known as New Literacy Studies (NLS). Studies from the 1960s onward sought to bring anthropological and linguistic perspectives to analysing adult literacy within family and community contexts. One aim was to explore how urban schools might reach students from non-mainstream cultural, socioeconomic, and linguistic backgrounds.

Among the insights from this tradition was that diversely socialised children arrive at school quite differentially prepared to respond to school requirements (Jacobs & Jordan, 1993). This issue of the struggle experienced by learners who are not socialised for the prevailing school learning system will be addressed in a later report in this research, exploring learning styles.

Activity theory (Vygotsky, 1978, 1986) focuses on human activity, identifying human sign systems (e.g., language or mathematics) as possessing major implications for how we think and interact with others. Cole, Engestrom and Vasquez (1997) considered that one contribution of activity theory lies in its reminder to researchers to look beyond schools and laboratories to capture "human mental functioning and development in the full richness of its social and artifactual texture" (p. 13). This perspective demonstrated that literacy needs to be understood within broad social contexts and as part of countless everyday life activities in a person's daily experience, rather than as an isolated attribute (Hull & Shultz, 2001).

NLS investigates literacy and discourse in order to emphasise the task of understanding and addressing power relations in society. Gee (1996) defined discourses as "ways of behaving, interacting, valuing , thinking, believing, speaking and often reading and writing that are accepted

as instantiations of particular roles by specific groups of people" (p. viiii). By maintaining that the study of literacy must always transcend literacy alone and consider discourse, Gee refocused attention away from an orientation on learning and language in school settings towards a wider consideration of learning, literacy, and identity construction within the matrix of social and power relations, in and out of school and across the lifespan (Hull & Schultz, 2001).

The NLS tradition then attempts to link micro-analyses of language with macro-analyses of discourse and power. New Literacy Studies explores the varying landscapes of home, community and work, aiming to furnish both terminology and theory to connect literacy practices and social identities (Hull & Shultz, 2001).

Hull and Schultz (2001) propose several approaches to reshape the research agenda. First is a need to connect students' worlds with classroom practices, then a need to reconceptualise both students and communities. In their view, teachers need particular abilities to respond correctly to students who understand themselves as members of oppressed groups and whose own competencies may not be initially evident.

Functionalist perspectives on literacy

To date, much of the thinking behind policy-making for adult literacy within this country and beyond has been oriented to functionalist views of literacy, by which we mean the view that adult literacy comprises "a neutral set of decontextualized skills" (Baynham, 1995, p. 265). This kind of thinking has tended to inform strategy and policy documents such as the New Zealand *More than words* (2001) or an Australian equivalent from the then Department of Education, Science and Training, *Literacy for all* (1998). The major emphasis of these documents is on literacy in respect of the individual's ability to cope with reading and writing print materials.

Discussing literacy issues in Australia, in *Literacy in the new millennium*, Lonsdale and McCurry (2004) identified differing literacy ideologies, broadly expressed: first, a cognitive and individually-based model; second, an economics-driven model; and third, a sociocultural model. The first two tend to operate in terms of a single literacy oriented to the individual, to be measured by standardised objective testing. The third talks in terms of "literacies" or "multi-literacies", each grounded in social contexts and oriented to communities of practice rather than testing individuals. Most academic literacy researchers would locate their work within a sociocultural, social practice framework. Yet most governments' policies would align more closely with the cognitive and economics-driven literacy models (Australian Policy Online, 2004). This potentially leads to a disjuncture between research and policy design and implementation.

Lonsdale and McCurry (2004) identified the need for a new Australian national literacy policy which recognises wider contexts, supports community capacity-building, and is flexible to accommodate current and future literacies. At practitioner level, they believed all practitioners need to be able to recognise and teach the different literacies needed by different learners in varying contexts (Australian Policy Online, 2004).

Arguably, functionalist literacy concepts have been influenced by models of literacy engagement that focus either on **deficit** or on **deprivation** or both. Here deficit has to do with what is allegedly missing or wrong with the person of low literacy (such as an alleged uninterest in learning), and deprivation means the limits on that person's ability to access appropriate training (e.g., an absence of appropriate training, transport or childcare problems in attending classes). In some models adult literacy participants may be seen as either (or both) deficient or deprived. Yet there is much to suggest this view of adult literacy learners is too simple and needs to be corrected by taking into account other perspectives.

New Literacy Studies

Demetrion (2005) described three schools of thought and action regarding adult literacy in the US (each possessing its counterparts in New Zealand). He first identified "participatory literacy," a social-activist orientation with social justice and emancipatory goals. Second is New Literacy Studies (NLS), as noted above, a body of academic work oriented to multi-literacies and featuring critical approaches in assessing the acquisition of print literacy. Third is the orientation of the US Federal Government, which promotes the assessment of literacy in English via quantitative measures to devise teaching and learning outcomes that will achieve workplace readiness.

An important New Zealand counterpart for the US movement described as participatory literacy is Literacy Aotearoa, a national organisation of adult literacy providers and a frequent commentator on literacy issues. This organisation's fundamental vision is to "uphold the belief that literacy as a basic human right should be provided at no direct cost to the students, and thereby to help all the peoples of Aotearoa to fulfil their potential" (Literacy Aotearoa, n.d.).

In New Zealand to date the cohort of academic researchers undertaking adult literacy studies has not been large; however, NLS thinking has influenced local researchers. NLS holds the view that literacy should not be reified as a single and uni-dimensional phenomenon readily measured by a common objective test. Rather, adult literacy is better understood as multi-literacies, each located within a given social context or domain of social practice (e.g., Hunter, 2004).

NLS also possesses a critical theory orientation, as exemplified by Street (1984; 1993). He argued that a fuller conception of literacy means "challenges to dominant discourses, shifts in what constitutes the agenda of proper literacy, and struggles for power and position" (Street, 1993, p. 9).

In a governmental context, as in the US, New Zealand's approach is closely geared to adult literacy in respect of functional skills, especially for the needs of what is described as an emerging knowledge society:

> Too many New Zealanders lack the essential reading and writing skills to succeed in modern life and work. The 1996 International Adult Literacy Survey said one in five adult New Zealanders have very poor literacy skills. The future well-being of our

country depends on this situation being improved. High levels of literacy and numeracy are basic skills needed for participating in our high-tech, knowledge society. (*More than words,* 2001)

This trio of perspectives (participatory literacy, critical approaches, and functional literacy) evokes Donna Mertens' (1998) view of differing research philosophies in education and the social sciences. In her view these comprise three distinct paradigms: the emancipatory tradition characteristic of writers such as Giroux (1983); the interpretative/constructivist paradigm; and the positivist or post-positivist tradition. In this country, the differentiations between participatory literacy and critical/constructivist approaches have been less clear-cut, not least because of the relative absence of a strong academic tradition of researching adult literacy within the interpretative/constructivist paradigm.

In our view, progress in adult literacy has been seriously hampered by what we see as a "stuck" condition of its theory. An unhelpful polarisation of theoretical positions exists with, on one side, the modernist, individual-centred, often economics-based conceptions of functional literacy; on the other, a post-modern perspective that literacies are socially constituted and context-specific (Johnson, 2000).

Describing mainly the Australian scene, Lonsdale and McCurry (2004) referred to the "highly problematic nature of literacy definitions," and "a general recognition that the changes which have so transformed the world in recent years demand a reconceptualisation of literacy to encompass a broader range of capabilities than in the past" (p. 36). Not just in New Zealand but in many countries, we believe, worldwide progress in researching adult literacy has been held back because of philosophical differences leading to low consensus on what literacy is, how it should be researched, and what actions should be taken to ameliorate low adult literacy or literacies.

Later, this paper presents our early thinking about how insights from differing research paradigms should be approached, in the hope of a reconciliation of diverse perspectives. A contribution of the current research programme will be an attempt to create what Merton (1968) originally referred to as middle-range theory or what is currently better known as midrange theory (Lasiuk & Ferguson, 2005) in exploring adult literacy, its issues and programmes. Potentially such theory will help find a way to bring academic and policy perspectives closer together. Later papers in this series will explore this in more detail.

Health literacy

Much exploration of barriers and literacy has been carried out in health and health literacy. We include this section to provide an example of research carried out that has a predominant orientation to functional literacy. In health literacy studies, this kind of empirical research is more typical than attempts to generate a more holistic understanding of adult literacy in an individual's own personal environment (social, economic, family, whānau, etc.).

In our view, attempts to quantify relationships between functional literacy and access to such things as health care or other social benefits do serve a basic research role. They have contributed some insights into functional literacy in elements of a person's everyday life experience, given that quantitative research has now been carried out for many years (Dibartolo & McCrone, 2003; Kalichman et al., 2000; Pignone et al., 2005).

It should be noted here that most of these studies are about low literacy as a barrier to other outcomes, rather than barriers to literacy as such. However, we cite these studies by way of illustrating the most predominant style of the barrier-related research in the field to date.

The studies reported below are fairly typical cases in empirical health literacy research. Baker et al. (2004) reported that participants in their study with inadequate and marginal health literacy (as measured by the Short Test of Functional Health Literacy in Adults) were more likely to use a hospital emergency department's services than persons assessed as having adequate health literacy.

Low literacy in English was also seen as a barrier to older rural persons getting access to needed healthcare (Dibartolo & McCrone, 2003). Persons with low literacy in English were also less likely to undertake mammography screening (Guerra et al., 2005). In research into the appropriateness of anti-coagulation instructions for persons of colour with low literacy in English, using the Rapid Estimate of Adult Literacy in Medicine (REALM), Wilson et al. (2003) found that such instructions were typically ill-suited to respondents' reading needs. Kalichman et al. (2000), employing the Test of Functional Health Literacy for Adults (TOFHLA), found that poor health literacy formed barriers that prevented people from obtaining insights into their illness, health and treatments.

Also in health literacy, Pignone et al. (2005) examined interventions that seek to improve the health of people with low literacy. In a meta-analysis of research into adult literacy and medical interventions, they found the most common focus in the literature was health knowledge, with relatively little research attention to individuals' health behaviours, use of health resources or measures of disease prevalence or severity. According to Pignone et al. (2005), the effectiveness of health interventions appeared to be mixed among persons with low literacy. Further, uneven research quality and the general heterogeneity within the field made it difficult to draw sound conclusions about the likelihood of effective strategies.

The results found here characterise quite well the somewhat basic but meagre outcomes obtained by empirical research into adult literacy. Typically, there will be one or more independent variables (such as literacy in English) that are demonstrated to affect in some way a dependent variable (in these cases access to health services). In a stepwise fashion studies of empirically based correlations between such attributes as functional health literacy and access to medical care do advance the field in some respects.

Yet such empirically based studies have not so far provided richer and more satisfying accounts of the holistic contexts of persons with low literacy. Studies with genuine explanatory and pre-

dictive power have not been forthcoming and, considering the inherent complexity of the field, are unlikely to be obtained from studies employing narrow empirical mode.

This illustrates the need for a multi-method approach such as in the current programme, which incorporates qualitative approaches, along with some support from quantitative assessments. For this reason the current research has aimed to undertake what is quite a novel approach to literacy research by its longitudinal design and its multi-method and (mainly) qualitative approach.

Some studies of barriers in community also include a literacy element, such as barriers to accessing government services available electronically (e.g., Barnard, Cloete & Patel, 2003). The best electronic access studies attempt to take into account broader issues than just whether or not individuals possess connectivity to the internet (Barnard, Cloete & Patel, 2003). Yet as a generalisation there is still little attention to the broader, socio-cultural issues likely to affect successful use of internet-based information (Williams, Sligo & Wallace, forthcoming). Some evidence exists for an emergence of studies that permit more in-depth appraisal (e.g., Betts, 2003) but it still appears to be uncommon for adult literacy-related research to feature longitudinal assessments.

We are also aware that even the language we employ in the present study of "participants" and "non-participants" in literacy classes itself frames the debate in terms of who does and does not take part in literacy learning. That is, research participants are thus located within an agenda established by the predominant socio-educational authorities in a system not of the participants' making. In a sense, then, those attending literacy classes may be inferred to be "good" participants, while those not attending may be labelled as potentially deficient in some way. In the present research we aim to mitigate this via in-depth interviewing processes, designed to draw out rich contextual data around people's life circumstances.

The deficit model

One point often made about research into adult literacy is that seeing human performance via a deficit model (focusing on deficiency or what is apparently lacking in a person's attributes or skills) cannot achieve satisfactory insights into a person's situation. Yet this is not just an issue for research in adult literacy. Research into human learning in other diverse fields, which is based on a deficit view of human abilities, has been criticised as simplistic, inadequate, or potentially or actually faulty. This includes knowledge of environmentalism (Jenkins, 2003; Karjalainen & Habeck, 2004); understanding science (Sturgis & Allum, 2004); and understanding in psychology (Sutton, Smith & Swettenham, 1999).

Within literacy studies, writers such as Castleton (1999) have suggested that a deficit view of literacy capability tends to result in implicit blame being levelled against the individuals who are said to be lacking in this way. That is, the deficit approach has little to contribute, either to shed any light on individuals' personal situations or to enable research into adult literacy to make progress.

In the current research programme it was agreed early on that a deficit orientation to understanding literacy was unlikely to serve anyone's needs or move the field forward. Any research into adult literacy such as this would, however, still need to engage with a deficit-related conception of literacy to some extent. This is because previous research and policy, within and beyond this country, might employ such approaches and, if so, they would need to be taken into account for their impact to be assessed and discussed. Yet such an approach should be minimised to the extent possible in our own conceptualisation.

One challenging aspect of exploring barriers to literacy in participants' lives is that assessments of such barriers may feed into or even reinforce the unsatisfactory discourses in the field. These include especially the deficit discourse which holds, overtly or implicitly, that persons with low literacy lack motivation, ability, or willingness to better their knowledge, along with what Betts (2003) describes as the "deprived" voice.

The deprivation model

The deprivation model is based on the view that powerful barriers, whether economic, historical, social, cultural, gender-based or other, prevent individuals from improving their literacy by impeding their access to literacy classes. Those gathered under the deprived brand are not directly blamed for their non-attendance at literacy classes. Nevertheless, such individuals may attract a negative label through being defined in terms of what they are not (rather than what they are) as "non-participants" or "those who have quit or never tried." In this way the deprived discourse, even without any malign intent, becomes oriented to what is missing and so fails to explore what could be a fuller account or set of explanations for people's choices. Both deficit and deprivation terminologies risk creating a self-fulfilling identity label for those they describe.

As already noted, the present study aims to avoid the deficit discourse, except within the researchers' need to respond to it, and to take a stand on language evoking deficit should it appear in discourse. Similarly, we have attempted to employ the deprived orientation only to a limited extent, and mainly for two purposes.

The first is as a way to obtain a broad overview of what participants understand as major socioeconomic or other such barriers to their aspirations in their own lives. This is in order to build a macro-perspective of what our research participants collectively see as affecting their lives.

The second purpose to which we put the deprived approach is in a more micro-sense – to uncover what each individual thinks are the blocks to his or her participation in literacy activities. This should begin to capture key elements in individuals' lives. By this pathway we may uncover the more subtle and richer insights that occur when we start to realise the ways in which individuals enact their own environments (Weick, 1995) and we can thereby seek ways to empower individuals within those environments.

We are further committed to the view that building effective theory is central to making progress in adult literacy (and every other important field of human endeavour) as it is only on

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good theory that good practice can be built. Or, as the psychologist Kurt Lewin put it, "There is nothing more practical than a good theory" (Lewin, 1997). Yet the corollary is also presumably true – when theory is outdated or inadequate, then practice will also be unguided and deficient, despite its most committed practitioners' best efforts.

Our goal in relation to theory, therefore, is to find a way through the current theory-policy impasse and forge practical theoretical foundations for enhancing New Zealanders' literacies. This section has outlined substantial complexities and challenges to theory-building in adult literacy.

Why study barriers to literacy?

This report presents initial findings in just one area of literacy – barriers to literacy. Barriers that stand in the way of an adult enhancing his or her own literacy in English are potentially multitudinous. They range from barriers as perceived by the individual, and as understood to be under the individual's control, to very large socio-economic barriers often not fully understood or penetrable by a person acting alone.

The main justification for analysis of barriers to literacy is the desirability of identifying their nature, characteristics and extent. Once barriers to literacy are better understood, there will be a better prospect of making recommendations for improved access to literacy services.

As already mentioned, it is difficult to evaluate the success or otherwise of adult literacy training courses. Yet the current research assumes that individual learners will more successfully acquire information and develop knowledge when the perceived benefits (e.g., personal wellbeing, increased perceived self-efficacy, sensed purpose and value in their own and their family's or whānau's lives) exceed the costs and barriers that the person encounters. Therefore it is crucial to gain an understanding of exactly what those barriers might be.

Personal barriers may include fear of failure, sense of personal incompetence, and perceived discouragement from others. This perspective is closely aligned to what we learned from the one-to-one interviews we undertook with both participants and non-participants in adult literacy learning, who gave us excellent insights into their worlds. Socio-economic barriers might include limited family income, or direct and indirect cost expenses associated with attending classes.

The balance between benefits and barriers to literacy is personal, differs by individual, and is based on human perceptions. Literacy gains may occur in unexpected settings. For example, McGregor (2003, September 23, personal communication) reported from the Wellington Smart Newtown Computers in Homes intervention that an unanticipated outcome of placing computers in homes was that people using them for the first time were teaching themselves to read and write by sending and receiving e-mails. It seemed that the attraction of enhanced interpersonal communication with family or friends created a sufficiently strong motivation to empower people to engage with informal literacy learning.

Throughout the developed world and increasingly in developing economies, the information-handling segment of the economy is increasing in importance (*More than words*, 2001). Barriers to participation in such information-dependent economies include barriers to literacies of various kinds.

Although the nature of barriers to literacy depends on the (contested) nature of how literacy is to be defined, in general terms we might describe a barrier – following Nijkamp, Rietveld and Salomon (1990) who explored barriers pertaining to communication – as "all obstacles in space and time … that … impede a smooth transfer or free movement of information-related activities" (p. 239). Nijkamp, Rietveld and Salomon (1990) suggested barriers might include language disparities, cultural or socio-economic differences, physical barriers, lack of capacity in networks, differences in skill between potential senders and receivers, protectionist measures, "or even differently perceived bottlenecks in communication" (p. 239).

The community

A particular strength of the current study is that it has been initiated and promoted within the community by key community representatives from groups and institutions in Wanganui and Districts, who approached the Massey University researchers to address their adult literacy concerns. The lead community group which took the early initiative was the Wanganui District Library, later joined by the Whanganui Community Foundation, Literacy Aotearoa (Wanganui) and Te Puna Matauranga O Whanganui.

Under the Library's leadership, other local and national organisations quickly expressed strong support for the research, including Wanganui District Council, Enterprise Wanganui, WINZ, the Corrections Dept, Police, TEC, Ministry of Education, and GoodHealth Wanganui, among others.

Much impetus for this community support for the research came from the awareness that literacy, especially written, is considered fundamental to the quality of both employment and life for young and older New Zealanders. Technological and other quality-related changes at work have meant that many people who previously were able to contribute effectively in their jobs have found issues with literacy to be a significant stumbling block to their continued participation or advancement. Many New Zealanders also lack an employment history, in which instance, literacy often remains an important barrier to their participation in the labour market.

For these reasons the current study provided concerned people in the community and Massey University with an opportunity to give sustained attention to this important issue. As Geoff Hintz, Managing Director of Enterprise Wanganui noted in a letter of support for the proposal, "Enterprise Wanganui acknowledges the significance of literacy in securing employment within the community" (Hintz, 2003, personal communication).

The CEO of GoodHealth Wanganui, Memo Musa, in examining the current proposal, has identified possible "strategic merits for the local community by identifying ways of improving literacy, as the latter contributes to a better informed community to enable it to make informed

choices" (Musa, 2003, personal communication). In a similar vein, Wanganui Police noted the benefits of a focus upon adult literacy in progressing towards a safer society.

If the IALS report is accurate, in many New Zealand small-to-medium-size (SME) enterprises, both owner/manager and staff may have either relatively undeveloped literacy and/or numeracy skills, coupled with relatively undeveloped levels of sophistication in analytical skills. Restricted literacy, numeracy and analytical skills (whether of owner/manager or staff) will combine to undermine enterprises' ability to exploit existing business opportunities, discern future prospects, or modernise business processes such as by adopting computing technology.

While focusing on Wanganui, we have also sought possibilities for generalisation to ensure the current study has the potential to improve outcomes valuable to all New Zealanders. That is, while the nucleus of the current study is at the Wanganui community level, the nature of adult literacy interventions means results will be relevant elsewhere in the country, given the goal of finding pathways for better use of the country's increasing investment in adult literacy.

The next section introduces what we see as first steps in the way forward.

Section II: Initial findings

The current study

The present study aims to develop deeper insights into the issues surrounding adult literacy and employment, eventually to develop solutions for participants, practitioners, and policy-makers. One important goal is to increase the likelihood that the growing investment in adult literacy in New Zealand is used effectively to benefit both individuals and the country as a whole.

This aim is in line with the Government's strategic priority to improve participation in employment, earnings, and quality of employment. Key approaches being employed in this study include researching the perspectives of employers, individual adult literacy participants, persons with low literacy in English who are not participating in training, adult literacy providers, and associated community groups.

The research objectives

Following preliminary advice of funding support from the Foundation for Research, Science and Technology (FRST), four research objectives, indicated below, were determined via negotiation with the Foundation. The study sets out to benefit New Zealand by providing rigorous attention to an inadequately researched issue of growing significance for a country which seeks to participate fully in the "knowledge society" world of the 21st century.

All four objectives were designed to help policy makers, adult literacy practitioners, adult literacy participants and employers better understand the issue's extent and significance as well as better prepare participants and practitioners for the challenges they face. The current study's four objectives are to:

1. establish the adult literacy needs of both employed and unemployed in Wanganui and Districts
2. identify the social, attitudinal and economic barriers to adult literacy, numeracy and analytical thinking skills of employed and unemployed in Wanganui and Districts
3. evaluate how effectively adult literacy programmes secure employment outcomes
4. examine adult literacy learning processes and their relationship to employment.

At the time of writing, in this relatively early stage in the research, we are attending mainly to the preliminary evidence pertaining to objectives one and two. The current report's purpose, focussing on Objective 2, Barriers, is to identify the main insights and implications pertinent to barriers to literacy that can be discerned from the evidence to date. Through identifying individual, group and regional social and economic barriers one important aim is to better target adult literacy programmes and help policy makers identify real needs.

It should be stressed, however, that this is a highly complex study with many inter-related issues to explore, and the bulk of our investigation is still to take place. Hence, findings in this

and other early reports should be read in the awareness that as our understanding becomes more sophisticated over time, later reports will add different and complementary (or possibly contrasting) insights.

As already noted, Objective 2 was to identify the social, attitudinal and economic barriers to adult literacy, numeracy and analytical thinking skills of employed and unemployed in Wanganui and Districts. The main outcome for this objective is that employment-disadvantaged adults will be enabled to overcome barriers and engage more readily with literacy programmes and resources. Learning from the research programme should lead to recommendations for better co-ordination of adult literacy activities in Wanganui and beyond.

This research also explores the multiple causes of variation in social outcomes, which is a key knowledge question for New Zealand Government social agencies (Hong, 2001). Determining the most significant barriers to literacy and their impact on social outcomes could aid in the development of well-targeted initiatives.

While acknowledging this country has literacy problems as measured by IALS, so far little is known about what specific issues truly need addressing, or how adequately current programmes are providing solutions. Nor is it well understood how problems in literacy, numeracy and analytical thinking skills impact on people's employment, and what are the pathways to employment for literacy-disadvantaged New Zealanders.

Methodologies

The current research programme features a diverse array of projects and methodologies, each possessing the potential to reveal new attributes of adult literacy and employment in Wanganui and Districts. The most important methodological approach being undertaken within the current study is a qualitative field study involving case study, longitudinal and action research designs. Qualitative approaches recognise the unique nature of adult literacy interventions in local communities. A complete listing of methodological approaches in use at the date of writing is:

1. A comprehensive telephone survey (N = 400) providing an initial overview of how Wanganui citizens regard topics such as the importance and applications of adult literacy, skills necessary for employment, and employment related issues in the community
2. An extensive annotated bibliography and two literature reviews on adult literacy and employment. One literature review is broadly within a Western social research paradigm, the second is from an indigenous research perspective
3. Twelve detailed surveys with adult literacy training providers in and around Wanganui to determine services available to persons with literacy needs
4. Follow-up in-depth interviews of training providers to explore the issues and challenges providers face in the Wanganui and District region, as well as finding out more about how they operate and the services they offer

5. Eighty-eight one-to-one interviews with participants in adult literacy and numeracy training

6. Forty interviews with persons not currently participating in adult literacy and numeracy training. Both the interviews with participants and those not currently participating in adult literacy training look at identifying respondents' literacy and employment needs, as well as the barriers that may exist to obtaining literacy training and/or employment in the Wanganui community. The interviews also examine respondents' socioeconomic and educational history, motivational characteristics and community involvement

7. Iwi-based research exploring issues including ancestral literacy and bi-literacy in the traditional rohe of River Iwi

8. Focus groups with Wanganui employers in large and small enterprises

9. One-to-one interviews with employers in small and medium-sized enterprises

10. Empirical correlational research into the motivational factors associated with enhancing participants' learning and persistence in literacy training programmes, and subsequent goals outside the programme

11. Focus groups with Wanganui residents on literacy and employment

12. Focus groups with Wanganui stakeholders and community agencies on literacy and employment

13. Action research exploring outcomes for literacy training participants (specifically effects of teaching self-reflection on literacy ability)

14. Case studies employing in-depth investigations into specific groups of people or individuals linked to the two theme areas of literacy and employment.

Spin-off research projects deriving from the Wanganui L&E programme are also currently completed, underway or in planning. Presently completed or underway are:

1. A data analysis report commissioned by the Ministry of Education where Wanganui L&E team members analysed the New Zealand data from the International Adult Literacy Survey (IALS) to determine which demographic factors tend to predict low literacy levels (Culligan, Arnold, Noble & Sligo, 2004)

2. An interpretation of the IALS data analysis report, commissioned by the Ministry of Education, to support the Ministry's on-going communication with adult literacy providers and other stakeholder groups

3. Interviews with employers in Auckland, Hastings, and elsewhere in the North Island who have funded in-house literacy programmes, and with personnel who have successfully completed such programmes

4. Analysis of data from a nation-wide survey of small-to-medium-size enterprises on the importance of literacy and numeracy in enterprise growth and development

5. A study of adult literacy and metaphor using narrative therapy (Literacy & Employment Methodologies, n.d.).

At the date of writing most of these 19 approaches are still in their early stages, and it is planned to release findings from them sequentially as data are obtained and interpreted. Be-

cause of this research programme's range and scope, it represents a substantial extension of New Zealand research in adult literacy.

Evidence of the nature of barriers to literacy can be found in several of the data-gathering methods specified above. Of these, the most important are the one-to-one interviews conducted with participants and non-participants in adult literacy training courses, and much of the rest of this report will focus on this area. However, some valuable insights are also available from other methods employed in this research, such as the community telephone survey, and one-to-one interviews with employers and employer focus groups. We will first describe some findings from these sources.

It should be stressed that this preliminary report is based on only an interim selection of the entire data set that will progressively become available during this longitudinal research programme. For example, in some methods listed above, data have not yet been analysed or interpreted, and in no instance has a full discussion of findings been completed. In some future reports, findings from two or several of the methods listed above will be triangulated. This is aimed at obtaining more comprehensive insights than available from any single source.

Method one: Telephone survey of Wanganui citizens

The first data we address are concerned with perceived barriers to employment, in the view of respondents to our first data-gathering means, the community survey. This issue is of course not the same as barriers to literacy, but serves as a base-line indicator of local thinking about impediments to people obtaining full-time work and so sketches some relevant context. A fuller outline of the method and key findings is available in another report in the present series, 0502, *Perceptions, needs and issues: A discussion paper.*

What are the barriers to finding a full-time job?

The respondents (N = 400) suggested 47 different barriers to full-time employment, shown in the following graph. Fourteen% of the sample did not know, but less than two per cent said there were no barriers ("nothing"). The 10 most frequently listed barriers are shown in Table 1 below.

Table 1. Top barriers to finding full-time work

Ranking	Top barriers	Percentage of sample
1.	Not enough job opportunities	18.5%
2.	Don't know	14.0%
3.	Lack of education	12.5%
4.	Need experience	10.8%
5.	Not any or enough motivation/ attitude/ lazy	9.8%
6.	Need for other skills	9.5%
7.	Not the right sort of jobs available	7.8%
8.	Other	5.8%
9.	Lack of qualifications	5.3%
10.	Only part-time work available	4.5%

It is noteworthy that of this top ten listing, three items (not enough job opportunities, not the right sort of jobs available, only part-time work available) suggest systemic barriers to employment were considered as important as shortages of skills, education and experience. Relatively few answers indicated a perception that it was people's own fault for not finding employment (the deficit approach).
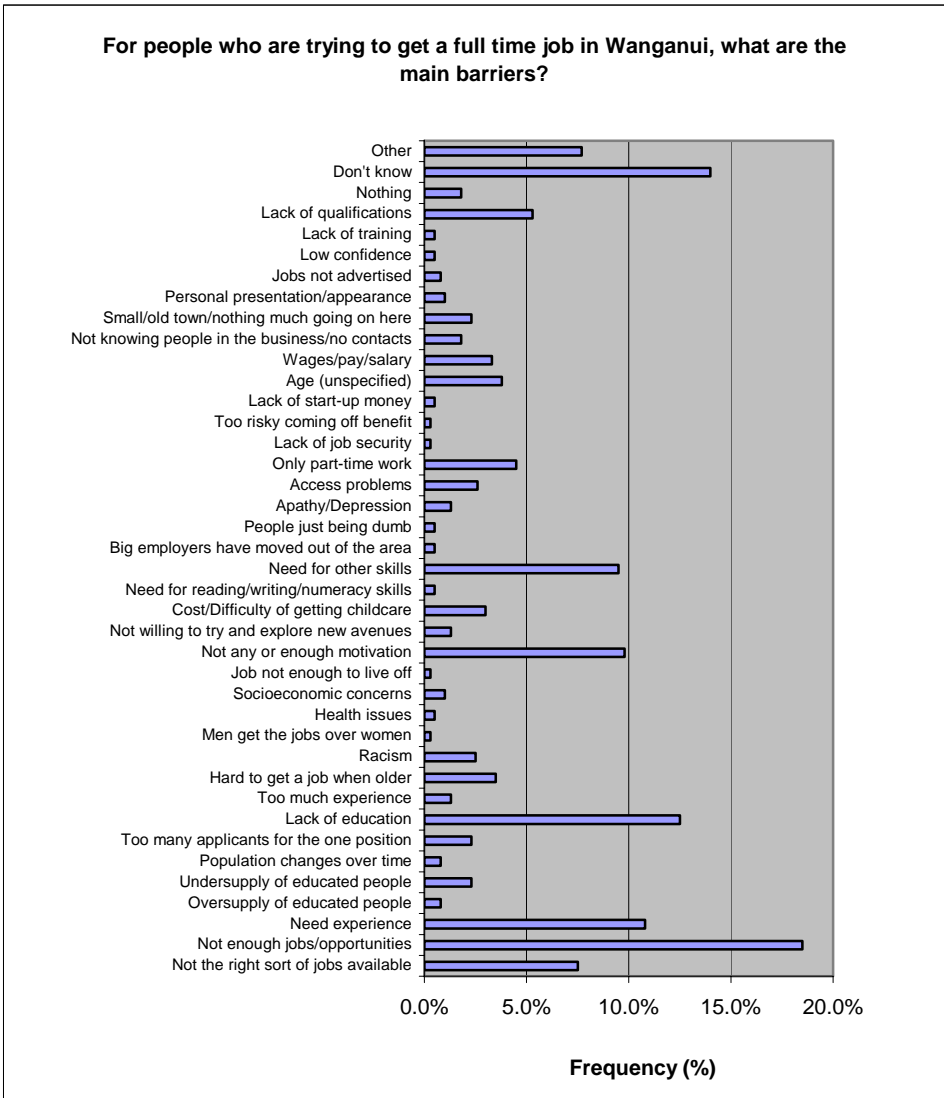
Fig. 1. The main barriers to finding full-time work in Wanganui

N.B. "Other" category includes the following:

- employment is specialised (people need to get those skills for those jobs)
- opportunities
- skills
- gender
- insufficient skills
- still at school
- attitudes of employers
- bad job turnaround (people stay in jobs for a long time)
- age and ethnicity
- individual barriers
- housing
- there's more jobs in trade than in ones like office management
- people are too fussy
- lack of opportunities and industry
- never have enough qualifications (always wanting to pay minimum wage for degrees)
- just a lack of people willing to learn and work
- overqualified
- luck
- depends on individual
- depends on profession, i.e. for factory workers it's easy
- holidays
- needs qualifications
- bureaucracy
- lack of communication, e.g., …when apply for jobs you never get a reply to say why you were rejected
- receiving a pension
- good personal presentation
- parental advice
- their own availabilities
- the way young people present themselves.

Table 2 below groups respondents' answers into six major categories, and includes all responses except those of 'don't know' and 'nothing'. As individual respondents gave more than one answer, percentages are calculated out of 502 responses.

Table 2. Community views about barriers to employment: Major groupings

Grouping		Number
Structural or systemic barriers	Not enough job opportunities	74
	Not right sorts of jobs available	30
	Only part-time work	18
	Wages/pay/salary	13
	Too many applicants for one position	9
	Small/old town/nothing much going on here	9
	Population changes over time	3
	Big employers moved out of the area	2
	Job not enough to live off	1
	Lack of job security	1
	Too risky/not worth coming off a benefit	1
	Lack of start up money	2
	Jobs not advertised	3
	Oversupply of educated people	3
		169 (33.7%)
Skills shortage	Need experience	43
	Lack of education	50
	Need for other skills	38
	Lack of qualification	21
	Under supply of educated people	9
	Lack of training	2
	Need for reading/writing/numeracy skills	2
		165 (32.9%)
Individual Fault	Not any or enough motivation/attitude/lazy	39
	Not willing to explore new avenues	5
	Apathy/depression	5
	Personal presentation/appearance	4
	People just being dumb	2
		55 (11.0%)
Discrimination	Age	15
	Hard to get job when older	14
	Racism	10
	Too much experience	5
	Men get jobs over women	1
		45 (9.0%)
Personal Circumstances	Cost/difficulty of childcare	12
	Access problems	9
	Not knowing people / no contacts	7
	Socioeconomic concerns	4
	Health issues	2
	Low confidence	2
		36 (7.2%)
Others		**32** (6.4%)
		100%

As the table shows, just over one third of the responses related to structural or systemic barriers outside the control of the individual. Particularly important were the shortage of jobs and the kind of jobs available. Just under one third of the responses related to skills shortages: the need for experience, education, skills and training. It is interesting to note that only two responses referred specifically to a shortage of literacy skills. This suggests that while Wanganui residents are well attuned to structural barriers to full employment locally, issues of adult literacy are not uppermost in local thinking.

Method two: Interviews and focus group sessions with Wanganui employers

In the following section we present interim and abbreviated results from a series of interviews and focus group sessions with private sector employers in Wanganui. A fuller account of this element in the research programme will appear in later publications, but is provided here for a short overview. The interviewees represent a mixture of both large and small to medium-size businesses. Again, most of the focus is on their perceived barriers to employment, and as such provides a complementary perspective to the views expressed in the community phone survey.

Employers from Wanganui and Districts were interviewed in one-to-one meetings and in focus groups during late 2004 and early 2005. The sample is small and largely self-selected, so may be representative of employers who are more interested in matters to do with literacy and communication in Wanganui. For this reason the sample is not necessarily representative of other local employers, yet it does usefully provide a possible baseline of common concerns about local employment issues.

At the date of writing, analysis of this employer data is at an early stage, but comments made by respondents may still suggest the following seven categories:

- Skills shortages
- Reasons for skills shortages
- Reading barriers
- Barrier of agencies/ providers
- Education systems
- Lack of understanding about NZQA
- Motivation and personal barriers.

The comments below illustrate these categories. We have avoided summarising or paraphrasing to allow the comments to 'speak for themselves.'

Skills shortages

- If we could find them, we'd hire them. There's a lot of industries in Wanganui like that
- There are shortages across the board from unskilled labour (to supervisors) to management
- Reliable, punctual people hard to find, all ages, young more so
- Most people coming to this town are imports.

Reasons for skills shortages

- Wanganui has had a bad reputation. Now got better
- Training put in and, they use it as a springboard. They're young people and they don't come back

- We wasted a lot of time an effort and money in employing and training these people only to lose them to somewhere else
- They want to go to… a bigger centre because the opportunities are that much greater
- The only way to gain loyalty is to pay well over and above what the going rate is.

Reading barriers

- On the shop floor we expect people to be able to read instructions and fill out control sheets
- If they become supervisors, we expect them to use a computer and fill out Production Incident Reports
- Their work attitude, not what they do but how they do it; and future potential
- I don't care how smart the technology is, if you can't read or write, you can't understand
- Adult literacy, we know, is a major problem. What sort of road block is that for employing?
- We need employees to read stock references, write customer orders, calculate numbers
- If no literacy, then no employment
- No literacy equals no progression in workplace, e.g., machine operator, driver
- Lion Red book club ad is subversive. Cool blokes don't read books!

Barrier of agencies/providers

- We won't go through WINZ
- We'd never employ through WINZ now. We'll go down there with real specific detail of what I want, and they'll send me 20 CVs with nothing like what I want
- You get this fluffy stuff saying, 'We know this and we know that.' In fact, if you gave them a test you would soon discover they couldn't. Sometimes the representation that comes from the agency we contact is contrary to what even the young trainee says… because they've got their objectives
- Ring the organisation saying, 'We've got a problem here, and we've got someone who needs some training, can they have some?' … The training wasn't happening at those organisations either … I'd go down to them with a student and talk to them and I was sort of rubbed out, like you're a difficult client, customer, interfering old busy body and yet my interest was with the student and to encourage the student and enable the student to apply her skills in my business
- You send the kid down there. The kid's there and comes back really distressed because it wasn't meeting their expectations either. They've wasted their own time. They've haven't received the training that meant and expected to get and … so then we have to pick up a distressed kid
- So it was a matter of finding the right provider who can actually… And I think that's a dilemma for employers, is that there are so many providers…
- They almost increase their friend base to more undesirables that have been close to drugs, alcohol and cars, and so you have to be careful what you're putting your child into
- There are providers that are out there that are not doing the work that they are being paid to do and these students are still slipping through the system and then it comes down to employers, only for those employees that you can see the potential and the benefit in the long term. But have I got that time?

- What you need is actually a provider with a passion to actually see it through
- NZQA not relevant – training is industry based, continuous improvement programmes. Have own benchmarks/standards.

Education systems

- So we're trying to pick up the problem that's entrenched, or we simply can't because we've got too much to pick up and we can't afford to do all that picking up and training
- Why would you, as an employer, have to train somebody to do basic stuff? That's not what you employed them for. It's costing you money
- I will probably spend most of the time being a school teacher
- Even though they were doing a degree (food tech), the 3 R's weren't there. They've done a diploma course, and they come to us and they can't spell. Their grammar – we won't go there…
- If we have enough specific job training, like sign writing, they should also have a compulsory or a core subject in there where you have to fill out forms which are more directed to what their jobs are.

Lack of understanding about NZQA

- Don't think we should go there
- Enterprise Wanganui running a course to understand NCEA.

Motivation and personal barriers

- It goes back even further than the schools. It's the child wanting to learn, needing to learn, doesn't acknowledge that it needs to learn
- It's like an STD almost to know what you can't do… So there's the whole shame thing
- There's motivation if it's economically worthwhile
- He could be embarrassed to admit it and so, therefore, they're not going to seek help and it can quite often be maybe a partner that will help him.

From this list it is interesting to note, as in the community phone survey, that for these employers, systemic problems rather than problems under the individual's control are of first importance. The problems are seen to be with **Agencies/Providers**, and the **Education** system, which has at times not produced the results employers seek. In particular, employers perceive a mismatch between their needs and what they feel they get from the education system and agencies. Overall, while perceived shortcomings of job-seekers feature in the employers' views, systemic limitations concerning the preparation of job candidates clearly occupy most of their attention/response.

Method three: Participants' perceptions of barriers to literacy

Because of the challenges inherent in obtaining meaningful evaluation of adult literacy training programmes, an important element in the current research is building an understanding of how participants in literacy learning programmes perceive their learning success. These individuals are, after all, at the heart of the issue. The ways in which literacy learners view their own situation must be one of the key elements to whether or not they feel encouraged and empowered to continue literacy training.

An aim of the current report is to discern commonalities in what participants in literacy programmes and other informed observers perceive as literacy learning success. From this we derive the goal of developing a model of critical success factors in learning, and in turn, the aim of deriving implications for future literacy planning and interventions.

Interview methodology

It was important to obtain the views of both participants and non-participants in adult literacy training programmes. We looked for insights into the views of people who had had first-hand experience of adult literacy training, and the perspectives of others, in a comparison group, who for whatever reasons were not involved.

Participants

The sample comprised 88 interviewees of working age (between 16 and 65 years), all undertaking a course of study at one of the 12 identified adult literacy providers in the Wanganui and Districts region. Eighty-three of the participants completed demographic questionnaires. A little fewer than 70% were less than 30 years of age, and nearly half of the sample was in the age group 16 to 20.

Of the sample 48% were male, and 52% female. English was given as their first language by 87%, and 28% reported Iwi affiliation. Of those affiliating with an Iwi, almost half stated they were either Whanganui Iwi or Te Atihaunui-a-Paparangi. Over half the sample had had three years or less of primary schooling or up to three years of secondary schooling, with another 30% reporting four-plus years of secondary education. About 75% of the sample indicated they were student/trainees or unemployed.

An exploratory, qualitative interview process was chosen to hear the participants' stories and obtain rich data. The interview structure was developed by community partners/subcontractors and Massey University collaborating to prepare open-ended questions, designated under theme areas and by the key information required. Interviewers were encouraged to be flexible in their approach, and to use the questions and key information required as guidelines to the topic areas they needed to cover in the interview. Interviews were not required to follow a strict question sequence and flexibility to adapt wording of questions was encouraged if desirable. The nine theme areas covered in these interviews were: socioeconomic context;

schooling; learning and their views on their course; employment; motivation; persistence; resistance; barriers; and power dynamics.

Procedure to date

Ethics approval for the interview process was first obtained from the Massey University Human Ethics Committee. To ensure informed consent, the Information Sheet was explained and presented to the potential participant, along with signing a Consent Form, or audio-recording verbal consent.

Adult literacy providers in the Wanganui and Districts region were next contacted by a community subcontractor and informed of the project and why we wished to undertake interviews. Providers were invited to assist the project team in identifying potential participants. On some occasions participants self-identified from a direct presentation of the project and interview invitations to a group of potential interviewees. The adult literacy providers then approached potential participants on the project's behalf, explaining the research and handing potential participants the Information Sheet. If a person was willing to be interviewed, an interview time was then established, and the individual offered the opportunity to have a support person present if they wished.

Consent to participate in the interview was undertaken at the beginning of the meeting. Time was taken to ensure the participant was comfortable before, during and after the interview. Interviews were audio-taped where the interviewee gave permission for this to occur and the tapes sent back to Massey University for transcribing and analysis. Once the analysis is completed, feedback processes to the participants, community agencies, and other interested parties will begin to take place.

It is important to note that only preliminary findings derived from 45 interviews out of what will eventually be approximately 88 literacy course participants, once all coding and analysis are completed, are presented in this report. This report therefore represents a general snapshot of the data analysis results at the point of writing. Coding is continually refined as data analysis progresses. As more interviews come in and overall patterns emerge more clearly, some of the categories we present below may be absorbed by others, divided into subcategories or renamed to better reflect their content. For now, however, these are indicators emerging of themes in barriers and conduits.

The written transcripts of the one-to-one interviews were studied, which allowed the words used by the interviewees to be considered without knowledge of any respondent's demographics, thus allowing the words to speak for themselves. Literacy barriers in these cases are organised in a series of codes stated below. These codes represent broad categories emerging from participants' comments as areas of particular or repeated mention.

The categories or codes were derived from interview data by grounded theory approaches (Glaser & Strauss, 1967; Glaser, 1992), to allow categories and constructs, collapsed into codes, to surface from the participants' own words. By this means we would establish codes well

based in participants' statements. The aim in each case was to ensure that each code could be supported by comments within the transcripts comprising "extensive amounts of rich data with thick description" (Charmaz, 2000, p. 514).

Coding of interview transcript data followed a protocol of line-by-line examination, to surface key constructs or insights, which were then written onto transcripts. It was important to stay in touch with respondents' viewpoints, yet at the same time prepare codes that would systematise an overview of participants' perceptions.   In a sense this continuing focus on the words and phrases of participants, coupled with a schedule of codes, would create a bridge between analysis and interpretation of data, connect respondents' perceptions and our own, and facilitate a reflexive element in the research.

Examination of emergent codes was supported through the HyperResearch data analysis package (ResearchWare: Simply powerful, n.d.). The codes for barriers to literacy to date were as follows:

1. attitude or motivation
2. confidence
3. economic
4. family environment
5. geographical isolation or lack of transport
6. goal orientation
7. health or physical
8. lack awareness services
9. lack positive role models
10. learning style not catered for
11. literacy not needed
12. no positive reinforcement
13. not taught Te Reo because of social pressures
14. other
15. school behaviour at

16. school curriculum
17. school moving
18. school not meeting needs
19. school overcrowded
20. school peer pressure
21. school streaming
22. school teaching
23. school truancy
24. stigma using literacy services or being literate
25. time employment commitments
26. time family or community commitment
27. training at wrong pace or level
28. training not helpful
29. training structural management issues
30. training teaching

Individual barriers: Health/physical; schooling and goals

The most frequently mentioned single individual barrier to literacy is a **health**-related or **physical** barrier (see Table 3 below), followed by **schooling** not meeting interviewees' needs, followed by **goal** orientation. Goal orientation as a barrier refers to incidences in which respondents indicated they did not have a goal or a reason for pursuing literacy. However, it also refers to those situations in which people felt they had a goal but were unable to reach it.

As many respondents mentioned these barriers of health, schooling and goals multiple times, we interpret these barriers as those with which they are most concerned. That is, we equate frequency of times mentioned with respondents' level of concern.

When we re-analysed according to the number of respondents who mentioned a particular barrier however, health, schooling and goals remained the top three barriers, although goal orientation increased in importance. In other words, these three items are both more widespread, and of more intense concern, than all other barriers.

The prevalence of health and physical concerns as barriers to literacy suggests examination of the ways in which children who miss school are assisted to catch up is also necessary. Several respondents felt that missing school due to illness had been a turning point in their learning and had had a lifelong impact on their subsequent educational achievement levels. For example, one respondent commented on an illness-related absence from school: "That was a huge … and I felt that with that gap and even my parents said that's where they feel I might have gone wrong somewhere." The comments also indicate that better identification and support systems for those with problems of poor eyesight, hearing, ADHD, dyslexia and related conditions that affect participation in traditional classroom situations are important, and are not yet optimum.

Grouping barriers

We next grouped respondents' comments on barriers into the following categories:

- issues with schooling
- issues with adult training
- economic or social issues
- attitudinal issues (self or social)
- other.

In this analysis, school and learning issues are by far the most frequently mentioned, and constitute more than half the comments by respondents (see Table 3 below).

It should be noted that some of these divisions are somewhat arbitrary. For example, moving schools could also be categorised as a social or economic issue. In some instances, behaviour at school could also be seen as an attitudinal issue. However, where respondents mentioned these issues in the context of schooling, we have categorised them under school. This is intended to indicate that this is the stage in their life when respondents perceived the barrier to arise.

When the number of respondents mentioning a barrier is grouped by category, schooling issues remain the most prominent – indicating this is not only an issue on which some respondents made multiple comments, but is in fact a widespread view (see Figure 2, below). Participants' comments below are ranked by total.

It is also important to note that the tables and figures presented in the following methods do not display quantitative data gathered via random or even representative sampling, but qualitative interview data, which are most useful for qualitative illustrative purposes. The numeric snap-shots shown in tables and figures provide a background to frame the qualitative information.

Table 3. Participants' perceived literacy barriers: Frequency

Category	Respondents/ comments
Health or physical	26/45
School not meeting needs	20/33
Goal orientation	23/29
School teaching	16/25
Learning style not catered for	11/22
School, peer pressure	9/15
School, behaviour at	10/14
No positive reinforcement	8/14
Time: employment commitments	10/13
School, moving	9/12
Geographical isolation or lack of transport	6/11
Time: family or community commitment	9/10
Stigma of using literacy services or being literate	4/6
Literacy not needed	4/5
School curriculum	¾
School, truancy	¾
Lack awareness of services	2/4

School streaming	3/3
Other	2/3
Lack positive role models	1/3
Not taught Te Reo because of social pressures	2/2
School overcrowded	2/2
Training not helpful	2/2
Training teaching	2/2
Training at wrong pace or level	1/1
Training: structural management issues	1/1

Table 4. Participants' top ten perceived literacy barriers: Frequency

We rank these individual barriers by total comments, with illustrative comments.

| Category	Comments	Sample Comments to Illustrate Category
Health or physical	45	"I had a kidney operation, and that put me back a year, I had two years in Standard 3 …" "When I was young I was, um, what's the word, is it dyslexic …" "After the operation … I couldn't really go to school, for a while … I was really behind anyway so … that only made it worse …" "I could do all the hand work, all the … like anything. It was my eyesight. … I can't see small print."
School not meeting needs	33	(This category includes any general negative comments by respondents about school which were not specifically about teaching, learning style, etc., and therefore not covered in the other specific categories. This category will be subdivided in future as other trends become clearer.) "It was boring, because I wasn't really interested in school …" "It's like, you know a waste of time going back to school 'cos I'm nearly 16, so I'll just get on a course …" "I didn't like school. I'd always run off and do my own thing. I'd be too far ahead of the class and it wasn't funny, or I just wouldn't bother because it was just a waste of time."
Goal orientation	29	"It was probably my own … never showed any great ambition to do anything, so …" "Well, I found out what a lawyer does and I decided not to because then I'd have to go to summer school or whatever, but … I just thought it would be a really big ask so I just decided not to."
School teaching	25	"Teachers were saying … they were just giving all these negative things to me and say, 'Oh, you'll come to nothing. You're no good. You can't even do this. You can't do that.'" "They still had that downtrodden teaching. I call it downtrodden because that's how we became. You can't do this. Look, you can't even spell." "I didn't like the teachers."
Learning style not catered for	22	"Learning off the black board wasn't my cup of tea … Not learning a lot unfortunately at school." "I was a hands-on person, but a lot of work they'd given me was theory, book work. Mine … my understanding was not how they understood. If I did it by hands on I could show them, but that's not what they wanted. They wanted me to be what they wanted me to be."

School, peer Pressure	15	"When you're young you've got like all your peers and that, they were doing their thing, you wanna be like that so you guys do it as well and …" "Just going through a big teenage thing, you know? I was trying to be like everybody else." "A bit of pressure from the mates, drugs and the business."
School, behaviour at	14	"I don't know I just destructive in classrooms those days, ratbags you'd call them ... Never really had a chance." "Sometimes I feel I got cheated on my education, but that's only myself to blame … I was suspended for swearing at the teacher."
No positive reinforce-ment	14	"I don't get any support from my friends." "You're called stupid and idiot and dumb and you'll never succeed … like that crap … and I'm quite angry about that … I never, I'll, never let anyone speak to a child like that if, if I ever hear them … because I know what, what it's done to me."
Time: employ-ment commit-ments	13	"No time on my hand at working seven days virtually so yeah pretty hard." "I just wanted to get a job and earn some money."
School, moving	12	"Couldn't get the stability … forever going to new schools and not finding the sort of friendships or the people that make you feel comfortable and stable … not fitting in." "Oh, moving backwards and forwards to my parents and my mum's sister and back to my parents and to my mum's sister."

As already indicated, the tables show qualitative interview data, not randomly sampled numerical data. The data here provide the background in which to assess the qualitative information, and do not provide a statistically valid measure. In interpreting the table below, note, for example, that the first item (health or physical issues) shows 26 respondents made a total of 45 comments on this issue. For multiple issues, such as the five items listed in the first grouping, 81 comments were made by those interviewed (N = 45), totalling 53 persons making comments on this economic/social category.

Table 5. Participants' perceived literacy barriers: By category

Category	Respondents	Comments
Health or physical	**26 respondents**	**45 comments**
Time: employment commitments	10	13
Time: family or community commitment	9	10
Geographical isolation or lack of transport	6	11
Not taught Te Reo: social pressures	2	2
Economic and social issues (including health/physical)	**53 respondents**	**81 comments**
School not meeting needs	20	33
School teaching	16	25
Learning style not catered for	11	22
School, peer pressure	9	15
School, behaviour at	10	14
School, moving	9	12
School curriculum	3	4
School truancy	3	4
School streaming	3	3
School overcrowded	2	2
School/ learning	**86 respondents**	**134 comments**
Goal orientation	23	29
No positive reinforcement	8	14
Stigma using literacy services	4	6
Literacy not needed	4	5
Lack positive role models	1	3
Attitudinal	**40 respondents**	**57 comments**
Other	**2 respondents**	**3 comments**
Lack awareness of services	2	4
Training not helpful	2	2
Training, teaching	2	2
Training at wrong pace or level	1	1
Training, structural management issues	1	1
Training	**8 respondents**	**10 comments**

The table above displays barriers now grouped into major categories, to explore ways in which inter-relationships appear to be occurring among barriers identified by these literacy course participants.
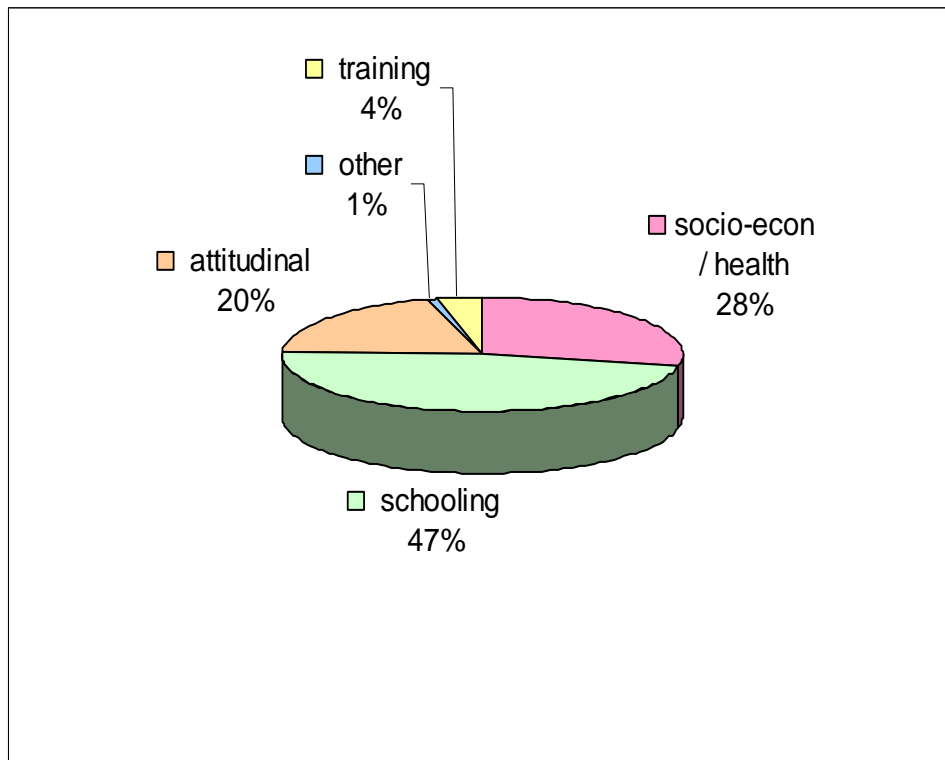
Figure 2. Participants' perceived literacy barriers by comments per category

Comments from participants

It is noteworthy that nearly half (47%) of the total comments relate to problems at **school** that, in the perception of respondents, impeded successful literacy. Many of the health and physical issues mentioned also occurred during school time, becoming a literacy or learning issue for participants. Examples included difficulty in catching up when returning to school, or physical learning style-related difficulties (such as not being able to see the blackboard), which appeared on occasion to have gone unrecognised. The actual impact of schooling issues may therefore be even higher than noted here. In nature and extent these are diverse issues, yet their common grounding in the school environment indicate clearly what created or is associated with a literacy achievement that is less than the respondents' own aspirations.

While ten different sub-elements occurred in this broad school category, four account for over 70% of the total comments on school: school not meeting needs (25% of comments); teaching at school (19%); learning style not catered for (16%); and peer pressure at school (11%).

It could be argued that the fourth item, peer pressure, is not only a "school" issue. For example, respondents commented that their schooling became unsuccessful when they "started hanging out with mates who liked to smoke weed", or "going out and wagging school all the time and getting on the piss." In such cases it is arguable whether these are 'school' issues, or wider social issues. Yet we include peer pressure here because school appears to be the site of a student climate inimical to literacy, which may be an element in the students' informal school culture. In some schools there will be opportunities for assertive action by principals, trustees, parents, teachers and others to reframe that culture in ways that privilege rather than undermine students' literacy aspirations.

It is interesting to note which school items, including curriculum and overcrowding, are viewed by the respondents as **low** in importance as barriers. Respondents' own behaviour is in fifth place (10%). That respondents identified their own behaviour as an element in their difficulties suggests a level of self-reflection and objective assessment of the problems involved.

Comparing these results with what we have already learned from the employers under Method Two, it is noteworthy that the employers interviewed were focused on problems concerning prior preparation of job candidates, which reinforces from a different direction the participants' views on the ways in which their own prior preparation, their experience at school, did not help achieve their aspirations.

Given the data reported here are perceptual rather than 'objective', different observers' opinions are likely to differ. Also, this report occurs at approximately the mid-way point in analysing participant respondents' data. Therefore findings may change once the full dataset is obtained.

The second largest category concerns **economic/social barriers**, including respondents' health. In a number of instances respondents were able to identify a single health issue in their lives which they connected with the onset or worsening of their literacy problems. One respondent who missed school for six months for health reasons commented, "That was a huge … and I felt that with that gap and even my parents said that's where they feel I might have gone wrong somewhere. I still had the work, but it just wasn't sufficient. I needed more and because of that space and that time …." Health comprised the largest single category; approximately half the economic/social comments.

(A lack of) goal orientation has already been noted as a significant barrier, and it is possible other barriers stated above interact with one another to make a goal more difficult to achieve. For example, persisting experience of low achievement and perceived discouragement at school, coupled with adverse peer pressure and difficult home circumstances, will come together to undermine the possibility of a strong focus on any goal.

Another major concern is time available for undertaking literacy training. In some instances participants' work commitments were such as to make attendance at courses difficult. Family or community commitments were also common, such as for sole parents attempting to juggle childcare with work or other responsibilities.

## Method four: Non-participants' perceptions of barriers to literacy

In this section we report on in-depth interviews with 29 persons, non-participants in adult literacy training. While the whole complement comprised 40 persons, for the purposes of this first report, 29 transcripts were received in time to be analysed. Later reports will provide fuller insights into all respondents in this category.

The sample of non-participants included 40 interviewees, all at least 16 years of age, who were sourced from places of employment and community groups or agencies in the Wanganui and Districts region; all filled in demographic questionnaires. Local community groups, agencies and employers were contacted by a community subcontractor and informed of the project, and the intention of the interviews, and invited to assist the project team in identifying potential non-participants.

Sometimes non-participants would self-identify after a direct presentation of the project and interview invitations to a group of potential interviewees. The community groups/agencies and employers then approached potential non-participants on the project's behalf. If a potential non-participant was willing to be interviewed, an interview time was then set up, with the non-participant offered the opportunity to have a support person present for the interview. This sample was derived from a multiple literacies approach, which allowed varying levels of literacy across differing types of literacy to be explored.

Of the sample 43% was male, and 57% female. English was reported as their first language by 90%. One third stated an Iwi affiliation and of those, 39% reported they were either Whanganui Iwi or Te Atihaunui-a-Paparangi. The non-participants' employment profile was quite different from that of the participants, with just 25% being students or unemployed. A third of the sample was employed full time, with another 30% being employed part-time, casual workers, house persons or retired.

The age profile was also very different, with just 40% being less than 40 years, and another 55% being between the ages of 41 and 60. This non-participant group was much more educationally qualified: 35% had tertiary study experience; 25% had four-plus years of secondary study; and 40% had up to three years secondary education, as shown in Figure 3 below:
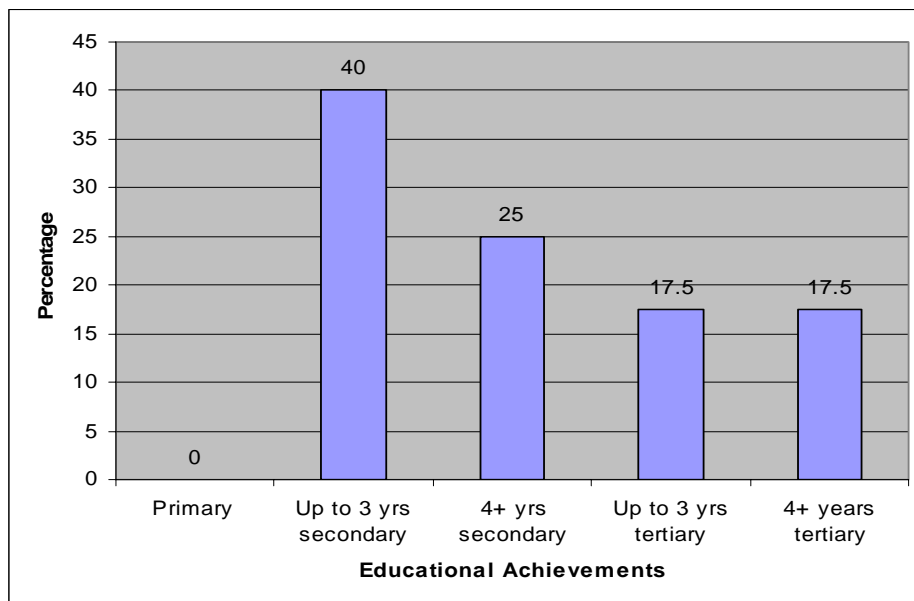
Figure 3. Non-participants' educational achievements

The interview approach was identical to that described for the participants above, except that the 'Learning and Course' theme area was removed. Thus, the eight theme areas in these interviews were: socioeconomic context; schooling; employment; motivation; persistence; resistance; barriers; and power dynamics.

The procedure was similar to that used with the participants and explained above, with approval being obtained from the Massey University Human Ethics Committee. Once again, explanation and presentation of an Information Sheet to potential non-participants occurred, as did the signing of a Consent Form, or the audio-recording of verbal consent.

Consent to participate in the interview was undertaken at the beginning of the meeting, with time being taken to ensure the non-participant was comfortable both before, during and after the interview process. The interview was audio-taped where the interviewee gave permission for this to occur and the tapes were then sent back to Massey University for transcription and analysis. How this analysis was undertaken is indicated above under Method Three. Once the analysis of all interview data is finished, feedback processes to the non-participants, community agencies, and other interested parties will begin.

Here we address insights that emerged in respondents' perceptions of barriers to literacy. Working from the interview transcripts enabled us to approach the words these respondents used without knowledge of their demographics, thus the words speak for themselves.

Barriers to literacy identified by these individuals were categorised within the following codes, following a similar methodology to that described above in Method Three:

1. academic pursuits (seeing academic study and life skills as mutually exclusive)
2. age
3. attitude
4. confidence
5. economic
6. family environment
7. geographical isolation or lack of transport
8. health or physical
9. lack positive role models
10. learning style
11. literacy not needed
12. motivation
13. no positive reinforcement
14. not taught Te Reo because of social pressures
15. school behaviour at
16. school curriculum
17. school moving
18. school not meeting needs
19. school overcrowded
20. school peer pressure
21. school streaming
22. school teaching
23. school truancy
24. stigma using literacy services or being literate
25. time employment commitments
26. time family commitment own
27. training at wrong pace or level
28. training difficult
29. training not helpful
30. training structural management issues
31. training teaching
32. training unavailable.

Comments from non-participants

It is interesting to note that the emerging issues although similar were not identical to the participants' issues. Non-participants nominated age, and a stigma associated with literacy seen as an 'academic' pursuit (a pejorative term in their lexicon) as barriers additional to those nominated by participants. Whereas participants proposed their own lack of awareness of literacy services as a barrier, some non-participants were adamant that suitable training did not exist.

Going by a straight count of respondents' comments, the most frequently mentioned single perceived barrier to literacy by these non-participants is **learning style** (see Table 6 below), followed by **economic** barriers. Given many respondents mentioned these barriers multiple times, these could be interpreted as the barriers about which respondents are most passionate or concerned, if number of mentions can be deemed as indicating level of concern.

However, when the ranking is reordered according to the number of **respondents** who mentioned a particular barrier, economic issues become the most widely mentioned, followed by family environment. In other words, more respondents mentioned these barriers, but returned to them less frequently throughout the interview. These might therefore be more widespread than learning difficulties, but are perhaps more 'acceptable' to or tolerated by respondents, whereas learning style difficulties appear to arouse significant emotions.

We next grouped the numbers of **comments** on barriers by category into: issues with schooling; issues with adult training; economic or social issues; and attitudinal issues (self or social). Here, **school** and **learning** issues are by far the most frequently mentioned (see Table 6 below). When the number of **respondents** mentioning a barrier is grouped by category, however, economic and schooling issues are almost equal in prominence. Again, this suggests that while respondents mention schooling issues more often, economic and social issues are equally, or more, widespread.

One interesting schooling issue is that the practice of **streaming** students is invariably mentioned as having a detrimental effect on learning. All respondents who report being streamed, whether into 'higher' or 'lower' streams, indicated this had a negative impact on their subsequent schooling.

Table 6. Non-participants' perceived literacy barriers: Frequency

These are ranked by total comments per individual barrier.

Category	Respondents/ Comments
Learning style	12/55
Economic	17/33
School not meeting needs	13/25
Family environment	14/23
Health or physical	12/20
School teaching	11/20
School streaming	8/12
Time: family commitments	8/11
Motivation	7/11
Confidence	8/10
School, behaviour at	7/9
School curriculum	4/6
Geographical isolation or lack of transport	5/5
Stigma using literacy services or being literate	5/5
Attitude	4/5
School, moving	4/5
'Academic' pursuits not for me	4/4
Training not helpful	3/4
Training, structural management issues	2/4
Lack positive role models	3/3
No positive reinforcement	3/3
Age	2/3
School truancy	2/3
Time: employment commitments	2/2
Not taught Te Reo because of social pressures	2/2
School overcrowded	2/2
School, peer pressure	2/2
Training difficult	2/2
Literacy not needed	½

Training at wrong pace or level	1/1
Training teaching	1/1
Training unavailable	1/1

Table 7. Non-participants' perceived literacy barriers: By category

Category	Respondents	Comments
Health or physical	**12 respondents**	**20 Comments**
Economic	17	33
Family environment	14	23
Time: family commitments	8	11
Geographical isolation or lack transport	5	5
Age	2	3
Not taught Te Reo because of social pressures	2	2
Time: employment commit-ments	2	2
Economic and social issues (including health/ physical)	**62 respondents**	**99 Comments**
Motivation	7	11
Confidence	8	10
Stigma using literacy services or being literate	5	5
Attitude	4	5
'Academic' pursuits not for me	4	4
Lack positive role models	3	3
No positive reinforcement	3	3
Literacy not needed	1	2
Attitudinal issues	**35 respondents**	**43 Comments**
Learning style	12	55
School not meeting needs	13	25
School teaching	11	20
School streaming	8	12
School, behaviour at	7	9
School curriculum	4	6
School, moving	4	5

School truancy	2	3
School overcrowded	2	2
School, peer pressure	2	2
School or learning issues	**65 respondents**	**139 Comments**
Training not helpful	3	4
Training, structural manage-ment issues	2	4
Training difficult	2	2
Training teaching	1	1
Training unavailable	1	1
Training at wrong pace or level	1	1
Training issues	**10 respondents**	**13 Comments**

This table displays barriers grouped into major categories, to explore ways in which inter-relationships appear to occur among barriers identified by these non-participants.
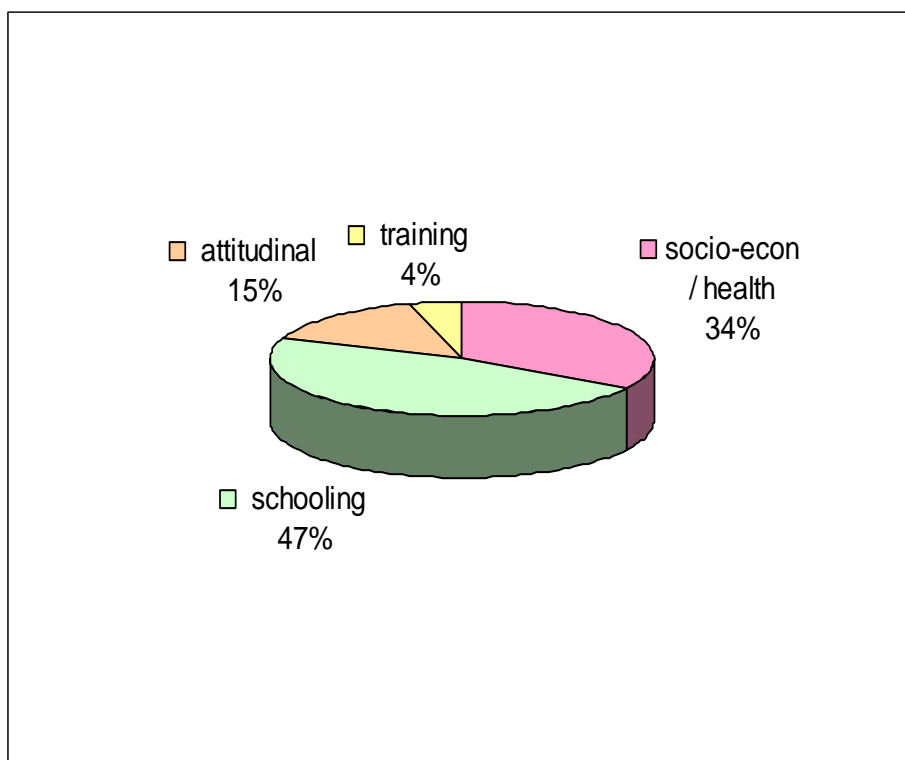
Figure 4. Non-participants' perceived literacy barriers by comments per category

It is noteworthy that there are broad similarities between the perceptions of these non-participants and those of the participants reported above. For both groups problems about training are noted, but in neither instance do these constitute major impediments. Barriers associated with schooling remain at a high level for these persons, just as for the participants noted earlier. Economic/social matters (including health issues) account for around one third of barriers. Health presents as less of an issue for these non-participants, but the economic barrier looms much larger for this group, and family environment also assumes a much larger profile.

These results illustrate the importance of the economic barrier to taking part in literacy training. An implication to be drawn from this finding is that financial considerations are of especial importance when it comes to improving non-participants' access to training. This will include direct costs of training courses, associated or indirect costs such as transport, child-care and the like, and the opportunity costs of missing time at work.

Method five: Participants' perceptions of barriers to employment

In Method One, we explored community perceptions of barriers to employment. In the next two methods, we have assessed the interview data for participants (Method Five) and non-participants (Method Six) to obtain a sense of their perceived employment barriers. The following observations are based on 45 participant interviews. Perceived barriers to employment mentioned by these respondents were arranged under 10 codes, representing broad categories that emerged from participants' own comments, as areas of particular or repeated mention.

Table 8. Participants' perceived barriers to employment

Barrier to employment	Respondents/ comments	Illustrative comments
Technological skills required	8/11	"No manual jobs out there now because everything is computerised."
Health or physical	6/7	"I've had three back operations and they tried to force me back into work straight away and I think, well hang on, there are eight more people out there on the dole who can work and you are trying to get me out there before, before I'm ready. And each time they put me back to work. ….My back would pack up again."
Confidence	5/7	"Yes, yes, I, because … I've been on ACC for … close on twenty years … yeah, my self esteem and everything was shot. Shot to pieces like talking about being at rock bottom …. I was there and I thought there is no way out of this and ... I keep saying my, my literacy."
Family commit-ments	2/2	"Since that time she's been a full-time mother and she puts her energy into her two children."
Attitudinal	1/1	"They are not interested in getting a job. The just rely on that benefit, smoke and drink, have no money and go steal."
Forms, filling out	1/1	Was interested in truck driving but was put off because they have to fill in forms.
Lack social skills people skills	1/1	"If you can't relate to people then you're not going to get a job."
Literacy required	1/1	Put off by the writing and because … can't use a computer.
Time for study to improve skills	1/1	"They've also got to remember that you only get a certain amount of time to do your studies."
Other	13/19	"There was no job at the end of that six weeks, they said, um, they, um, gave me a little certificate thing and said, you know, how good I was, 'cos I was always

		punctual and did my work well and was cheerful and everything, but then they said there was no job there, but I could come back and work for free if I liked."

Barriers to employment are not mentioned as frequently as barriers to literacy, and are much more diverse, rather than in clear categories. Given that the questions focused fairly evenly on employment and literacy, this lower intensity in discussing employment issues could reflect this particular group of respondents is currently more focused on training and aware of the issues to do with training in their lives, than on seeking employment.

The biggest category so far is 'other'. Further emerging patterns may generate new distinct categories from the 'other' group in future, but at present it includes such things as insufficient experience, insufficient qualifications, racism in the workplace, and particular work being perceived as unfulfilling or insultingly low-paid.

The next most frequently mentioned perceived barrier to employment is the need to have technological skills (computing) for most jobs. Health and physical barriers were again quite prevalent, with respondents concerned about leaving time for study or family commitments, indicating that in their experience employers were fairly inflexible in these areas. None of the participants mentioned age as a barrier to employment, in contrast with the non-participant group for whom it was perceived as a barrier.

Method six: Non-participants' perceptions of barriers to employment

Employment barriers within the cases to date were categorised according to the following nine codes:

Table 9. Non-participants' perceived barriers to employment

Category	Respondents/ comments	Comments to illustrate
Age	5/5	"Let's face it, once you're 50, nobody wants you." "You can talk about ageism as much as you like, but boy it is strong out there. Because they think…and I can understand it…they think you are past that."
Confidence	2/4	"I've been rejected so many times and that put me on a downer a bit." "Everyone loses heart. The minute you're un-employed, you do lose heart."
Other	1/4	"She was white and I was black and, I don't know, I must have had to be dumb so then she could teach me something other than me just watching her." "They don't know anything about my culture." "They weren't looking at my CV as their proof that I can do this and that. They wanted proof from other people, like written references to say that I could do that job. My CV was basically nothing."
Lack qualifications	1/2	"I haven't got the qualifications and they want the stuff on paper."
Lack social networks	2/2	"80% of jobs are filled by who you know." "It's very cliquey around here." Q: "What do you mean, it's very cliquey?" A: "A lot of word of mouth." Q: "So that's a factor in securing em-ployment locally?" A: "Yeah, I think so, in Wan-ganui."
Attitude	1/1	"They can't be bothered. When you interview them…you actually see it when you interview them."
Forms or application	1/1	"If you can't read the forms, you can't sign…you can't hack the job" "They said, 'We need a letter from you.' So I just got a piece of paper and wrote on it, 'I would like the job. Thank you.'"
Lack communication skills	1/1	"The last apprentice that I took on was com-pletely unable to go out of her time zone. She could only really relate to people her own age. She couldn't relate to a middle aged person, or an older person. It wasn't just her family, it was just how she'd been instructed in life. She hadn't

		learned to do that."
Self presentation	1/1	"They walk in the door; you know that they're not going to be any good, the minute they walk in. You just have the ability … like they'll come in, they haven't brushed or combed their hair, they haven't even done their shoelaces up and you know straight away that they're not going to be any good. You go through the motions with them." "That first impression that somebody gets when you walk through the door. Once they get that impression, it's hard to get it out of their mind."

Non-participants report experiencing discrimination (racist and ageist) as an employment barrier, with ageism actually the most widespread perceived employment barrier reported so far (five respondents mentioned it, of the 29 analysed to date). Confidence was the next most commonly cited barrier. Of the remaining categories, such as lacking qualifications, lacking experience, or lacking interview or self-presentation skills, none particularly stands out in prevalence at this stage of coding, with most categories receiving one or two comments from one or two respondents.   The 'other' category at this stage includes things such as racism and lack of experience; however these may develop their own categories later if more data support their prevalence.

At this early stage the data are most useful to show which issues concern non-participants rather than which of the issues mentioned are most widespread or pressing. To date only 23 comments were made by non-participants about employment barriers, suggesting it is not a high priority concern.

Some non-participants appeared to be in employment, and therefore their comments tended to speculate about others' employment barriers. Some were employers, and it is interesting to note the comment on 'walking through the door' from an employer's perspective (above, under self-presentation) which mirrors participants' comments on the need for tidy appearance and 'hygiene' to obtain employment.

Method seven: Participants' perceptions of conduits to literacy

This section is based on interviews with the same 45 participants currently in adult literacy training. During the course of coding for barriers and needs, it became apparent that many of the participant respondents were talking not only about obstacles and struggles but also about ways in which they had developed their literacy during the course of their life. A new series of codes was therefore created to record 'conduits to literacy'. This includes, at a purely pragmatic level, how participants found out about the particular literacy course in which they are participating, as well as factors such as family environment mentioned as positive influences. We employed the following selected codes for respondents and their comments:

Table 10. Participants' perceived conduits to literacy

Category	Respondents/ comments	Illustrative comments
Family environment	4/4	"The one thing that my parents taught me was education is important."
How they found the course	28/32	"It was word of mouth. My partner's sister told me."
Positive reinforcement from teacher or other	18/24	"A cousin came around. She sat down with me. She said, 'Come on. I'll teach you.' So for hours she used to come and teach me how to do these things." "I had a massive teacher … I'll always remember him … He treated me with respect and vice versa. I returned the same to him and I really got a good friendship with him when I was at school."
Goal orientation	24/47	"I'm looking at the future and I know that I can still go to school like, um, do correspondence to get to get the things that I missed out on and if I made enough money I'm still young I'm only nineteen I might still be able to go and do the things that I wanted to do before."

By far the strongest conduit to literacy was what might be categorised as internal motivation: having a positive goal. Twenty-four of the 45 participants analysed to date mentioned this, often more than once – 47 comments in total. External influences, most often a particular teacher who increased self-confidence and inspiration through positive reinforcement, were also mentioned as important. Eighteen of the 45 participants analysed to date mentioned such an influence as important in their life. By comparison, family background and support were mentioned only four times by four participant respondents.

Within these broad categories of internal and external influence, however, individual experiences of conduits to literacy are very diverse, comprising the least patterned area of response in the analyses carried out to date. External conduits, in particular, encompassed varied serendipitous and individual incidents that created personal pathways, such as an outstanding teacher or an inspiring role model such as an older sister.

Good teaching was important on a range of fronts. No correlation has yet emerged between a particular learning style and literacy success, but much data indicate individuals' particular learning styles were not catered for in early education and this was a barrier. However, when their particular learning styles are catered for all kinds of learners report being able to 'blossom.' No one learning style has resulted in more 'literacy' skill than others, but success does seem to follow when an individual teacher recognises a particular learning style and accommodates it.

Method eight: Non-participants' perceptions of conduits to literacy

As with participants' perceived conduits to literacy, this section explores conduits in the experience of non-participants in adult literacy training, examining ways in which they have experienced success in attaining literacy goals. Again a diverse range of pathways positively influenced their learning, here collapsed into six main categories: Family support or family role model; teaching; other; own goal orientation; other role model; and physical health.

Table 11. Non-participants' perceived conduits to literacy

Category	Respondents/ comments	Typical comments to illustrate
Family support or family role model	10/26	"He can learn from family members especially elders." "His aunties worked … to form a group after school to help with homework." "My mother gave me far more than school did, than education did."
Teaching	11/20	"A really cool teacher." "He was the only teacher I ever knew that created a space where everybody in the class was on equal footing." "They were warm, kind people who also had … taught you things. I think gave you self pride." "He recognised me as an individual person and he nurtured me through." "They treated you that you had a mind and that you were able to give an opinion and they would listen."
Other	4/5	Q: "What would keep you going to a programme?" A: "Money." Q: "What do you mean by money?" A: "Oh they pay you an allowance."
Own goal orientation	2/4	"I was very self motivated and I don't know where it came from." "When I grow up I want to own and manage my own broadcasting business."
Other role model	1/1	"The first place we went was to head (inaudible) to have a look at James K Baxter. Surprisingly, instead of finding sex and love and rock 'n roll, we found a pretty intriguing sort of a guy who sat and spoke quietly and let other people speak as well and drew out all sorts of things from people."
Physical health	1/1	"When I was little I spent quite a lot of time in hospital, I'm sure it contributed to my, my solitary nature and, not able to get out and about so read, constantly."

When non-participants' perceived conduits to literacy are ranked by number of respondents mentioning a particular issue, positive teaching is the number one conduit. Respondents describe inspirational teachers as having personal qualities of warmth, support, mutual respect, and nurturing that go beyond teaching, but also as using innovative teaching methods such as games and competitions to motivate.

Family support and role models comprised the next most important conduit when ranked by numbers of respondents. However, when conduits are ranked by number of comments, family support becomes the most important, conduit. Good family support is often mentioned, more so than good teaching. It is interesting to note that family support appears more important to non-participants than to participants. (See Method Six above, where family support was ranked much lower than the important conduits of goal orientation, reinforcement from the course they were on, and quality teaching.)

The 'other' category included one respondent who related a story of a relative who had learned to read and write solely through motivation to participate in a computer game that required written communication. Another was a person motivated to attend literacy training if collecting a monetary allowance. One respondent mentioned health and physical condition as conduits to becoming a life-long avid reader, in the instance of becoming a good reader while confined to bed as a child.

Conduits in general

Although these data provide a diverse range of possible external conduits, so far, however, we have found no standard external 'pathway' to success in literacy. Individual internal motivations also differed, although in general these could be expressed as a personal dream that motivated despite hardship. For non-participants, access to literacy success was strongly linked to family support and high-quality teaching. Participants, in contrast, tended to describe an attitude or personal outlook that characterised their discussion of conduits – aspiration or taking up a challenge with a focus on a future goal.

We acknowledge that discussion of personal aspirations and a 'future' orientation needs to be qualified by awareness of cultural and power issues, particularly postcolonial ones. It is especially important to recognise teleological discourses of 'progress' and the ways in which they have been hijacked by colonising cultures to legitimise displacement of indigenous cultures by suggesting they are 'past focused' (Low, 1996; Sheratt, 2001). This discussion therefore needs to be approached with caution in terms of the language used.

Nevertheless, there is an issue here with attitudinal conduits, on which we believe work needs to be done from both indigenous and non-indigenous perspectives. Comment has been made within the research team about a 'mourning' condition among some research participants. From this we understand it may be difficult for a person who is in a state of mourning to become focused on their literacy. Such grieving may have to do with a family member in jail, or grieving for one's own damaged self, culture, or family, etc. This is especially the case if literacy is understood only as institutionally defined measures of literacy in a language not of one's own

culture. In this way an indigenous perspective on attitudinal barriers exists, which is signalled here and which later strands of the current research programme could address.

Section III: Ways forward – First suggestions

## Implications for policy and funding bodies

This paper earlier proposed that in the light of the current impasse in adult literacy theory, this research programme would aim to create a mid-range theory approach to the description of adult literacy and its programmes. This section offers some thoughts on this.

During this investigation we have been privileged to meet and learn from many people who are participants on adult literacy programmes, and others who are not participants on such programmes, but who were selected for interview by a multiple literacies approach that allowed for differing levels of performance across varying types of literacy to be explored. What they, among many others such as employers and other citizens of Wanganui have taught us, is that adult literacy is a far from simple concept, and should not be viewed as a single, measurable entity. Rather, we have learned that we need to understand literacy as comprising three dimensions: A, literacy or functional skills; B, the whole person; and C, the person's lifeworld.

Some mechanics of literacy or functional skills (A) may be measured by tests such as the International Adult Literacy Survey (IALS). Conducted in 1996, the IALS survey assessed prose and document literacy and numeracy (quantitative literacy) through paper and pencil analyses of a person's ability to pass a standardised international literacy assessment. Tests of this nature provide insights into a person's capability in a standardised form and, within their own limits, are perfectly valid.

Second and equally important, is a picture of the whole person and his or her attributes. Some of these attributes comprise ability with words and numbers, already described in one sense under dimension A. Other attributes, equally relevant to an understanding of literacies, their applications and possibilities, are: self-confidence; self-esteem; perceived self-efficacy; a sense of belonging; a sense of purpose in life; and a sense of being a useful and valued citizen. All these intersect with functional literacy skills, and influence the extent to which the person is or feels permitted to learn and practise their abilities.

C, also equally relevant, is the context or life world in which literacies may be practised. This includes being at work, in a nuclear family, in a whānau, hapu or Iwi, in a community, a church, a sports club, among others, and any combination of the above. This dimension includes the social systems, strictures and structures shaping the individual's world, which present barriers and conduits for a person's participation in society, for employment, and for literacy.
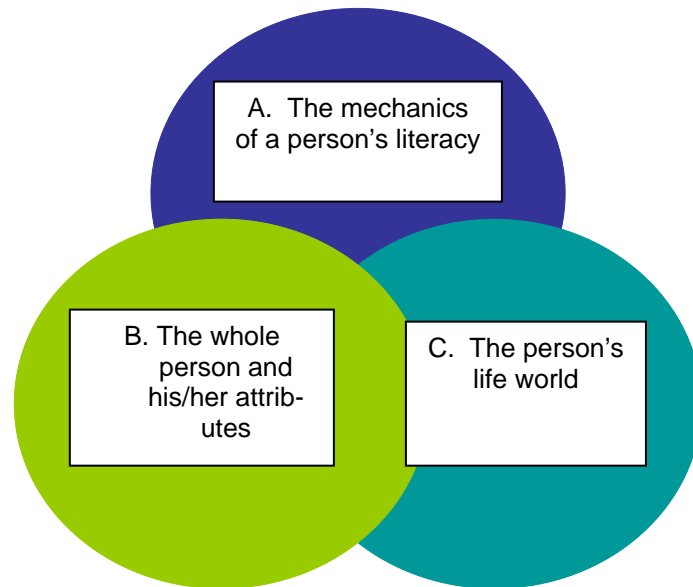
Figure 5. A midrange model of adult literacy

When the conditions affecting literacies are understood in a broad sense such as along these lines, the nature of barriers to literacy becomes more diverse. As understanding of barriers expands, problems affecting each of the three elements in the model also need to be taken into account. A broader conception of literacy such as the above also permits a fuller grasp of the nature of the barriers likely to impede access to literacies. In our view, reduction in literacy barriers will be achieved only when the implementation of literacy policy addresses all three areas simultaneously.

The principle of the whole person in context

These three dimensions collectively depict a dense array of factors that make up a person's literacy or literacies in use in applied settings. This comprises a collective view of an individual's skills, their understanding of themselves, how they see themselves in their activities and in community, and the constraints and opportunities within which they live. The practical implication is that policies and funding that do not take into account the whole person and where that person stands in community, may be ungrounded and unlikely to succeed.

The point of view presented here is along comparable lines to the perspective of Jarvis (1987), a key theorist in adult learning, who argued that learning, culture, and social roles cannot be separated. Later reports and papers will explore the intersections with adult learning theory.

We might think of literacies as a water-cooled, petrol-driven vehicle. To operate successfully this vehicle needs (among other things) the three components: petrol, oil and water. If you put only petrol into the car, and forget the oil and water, the vehicle will eventually fail. In the same way, literacy-funding schemes centred on dimension A, the mechanics of literacy, but giving insufficient attention to the other two dimensions, will contribute little to alleviating persistent low functional literacy.

Commentators such as Johnston (2004) have stated there is "little evidence that programmes (i.e., adult literacy training courses) have increased people's literacy skills" (p. 45). If the three-dimensional model of literacy/literacies is valid, an orientation to just one component of the model (functional skills) is unlikely to have many meaningful outcomes.

This is not intended as a criticism of adult literacy training schemes. Our discussions with adult literacy training providers (to be described in a later report) have provided us with many instances of providers being funded essentially for dimension A, but working from their own resources to take into account dimensions B and C because their own professional experience demonstrates that literacy training needs to be grounded in real contexts.

But despite providers' best efforts, and because funding arrangements do not really take into account dimensions B and C, it is difficult for such providers to do justice to the areas of the whole person and the person in context. These, we argue, are basic to preparing a person for the lived experience of literacy.

The ways in which our respondents have identified problems about their health as impeding their literacy, for example, suggest the need for literacy interventions to be built on individualised plans that meet a person's particular needs. If, for example, a person's historical and initial impediment to literacy has been a medical condition of glue ear in childhood or nearsightedness undiagnosed in adolescence, then an effective action plan for building their literacy will take these conditions into account.

In some cases, people of low functional literacy report being unable to acquire reading and writing skills through a highly visual learning style, such as is typically used in the classroom. If so, then other methods need to be found – perhaps aural and/or kinaesthetic.

Likewise, the work or social environment the person is in or the one they aspire to enter are equally integral to an action plan for grounded acquisition of literacy because it is at the level of particular human activity (such as a job) and its associated work, related jobs, or other community activities, where community of practice exists. If literacy is to be understood in the context of community of practice, then literacy training needs to be situated within some context that is meaningful to the individual concerned (Gee, 1996; Hull & Shultz, 2001). As already noted,

many providers of literacy services already work hard to take dimensions B and C into account. Yet, so long as adult literacy policy and funding are not required to address all three dimensions, outcomes are likely to be haphazard and uncertain.

The Johnston (2004) report was useful in providing evidence that investment in adult literacy classes to date has at best had mixed outcomes. Implicitly, then, the Johnston report, directs attention to the need for better theory to inform investment in adult literacy, and to research approaches that enable illumination of the complementary areas of individual and lifeworld.

Johnston (2004) has also commented that programmes focusing on workplace-specific training may give staff a grasp of particular tasks, and may increase productivity rather than literacy. We might account for this along the lines that even when people are not literate, they may still be very smart. New employees watch, listen, and learn, then find their own pathways around the requirements of their workplace. They observe and adapt to the rhythms of their tasks, and may learn how to succeed in them by devising their own means that make sense within the context – though possibly still unable to pass a standardised literacy or numeracy test. Although this element of our research is in its early stages, our coding of participant and non-participant interviews for coping strategies shows ways in which this occurs.

Yet what evidence is there that an approach along the lines of the three-dimensional model should underpin funding policy decisions? From a researcher's perspective, the good news is that, over recent times and in various fields of research, qualitative research methods have become more sophisticated and capable of delivering quality insights into the human condition and achievement. Research methods into multifaceted topics will often include qualitative measures in the first instance, but may well be backed up by quantitative approaches.

Where possible, researchers will look for ways to triangulate data, theories, methods or observers' perspectives (Denzin, 1978; Patton, 2002) to maximise their learning in the real world. Well-designed qualitative research techniques are becoming widely accepted in the research and policy communities as valid and reliable ways to gain insight into complex and problematic subjects. These have good potential applications for adult literacy research. Highly planned and triangulated, longitudinal research approaches such as the Massey University Wanganui Literacy and Employment programme are now seen as the best way to obtain rich insight into the actuality of people's circumstances. On such insight meaningful policy can be built. Given growing expectations about more sophisticated and subtle assessments of skills in action, one-shot surveys and simple assessments of mechanical skills such as IALS are increasingly perceived to be unsuitable as descriptors of "literacies".

This suggests new responsibilities both for researchers into adult literacy and for policy makers who formulate funding and action programmes. If the field is to move forward, the old polarisation between the main body of academic adult literacy researchers and those providing literacy funding must be resolved. Researchers must find ways in which viable mid-range models such as the three-dimensional view of literacy in community or at work can be represented for the benefit of policy makers and funders. More detailed suggestions along these lines will be made in later reports.

In turn, policy people are entitled to ask, "So, according to this kind of model, how might human performance be measured?" The short answer to this is that performance in literacies is part of a holistic set of personal attributes that should be measured within specific contexts. The policy community needs to work with researchers to devise well-grounded means by which funding can be built on valid research. Briefly, and without trying to second-guess later findings from this research programme, assessment of literacy training needs is likely to encompass a mixture of traditional and ethnographic approaches.

Without doubt there is a connection between increased literacy and organisational productivity. It is interesting that Johnston (2004) notes that increased literacy *at any level* is associated with improved productivity. The challenge now is to create robust policy, based on a full understanding of literacy, as via the three-dimensional literacy model, to create meaningful change.

What about cost? Would policy and funding based on a mid-range three-dimensional model be more expensive than current practice? Yes, it would, but the current cost of paying for ineffective systems is wasteful and greater in the long term. Also, to do nothing is not an alternative. New Zealand has an opportunity to take a strong leadership role in providing exemplary international practice in re-gearing ourselves for a fuller conception of adult literacy as indicated earlier in this paper.

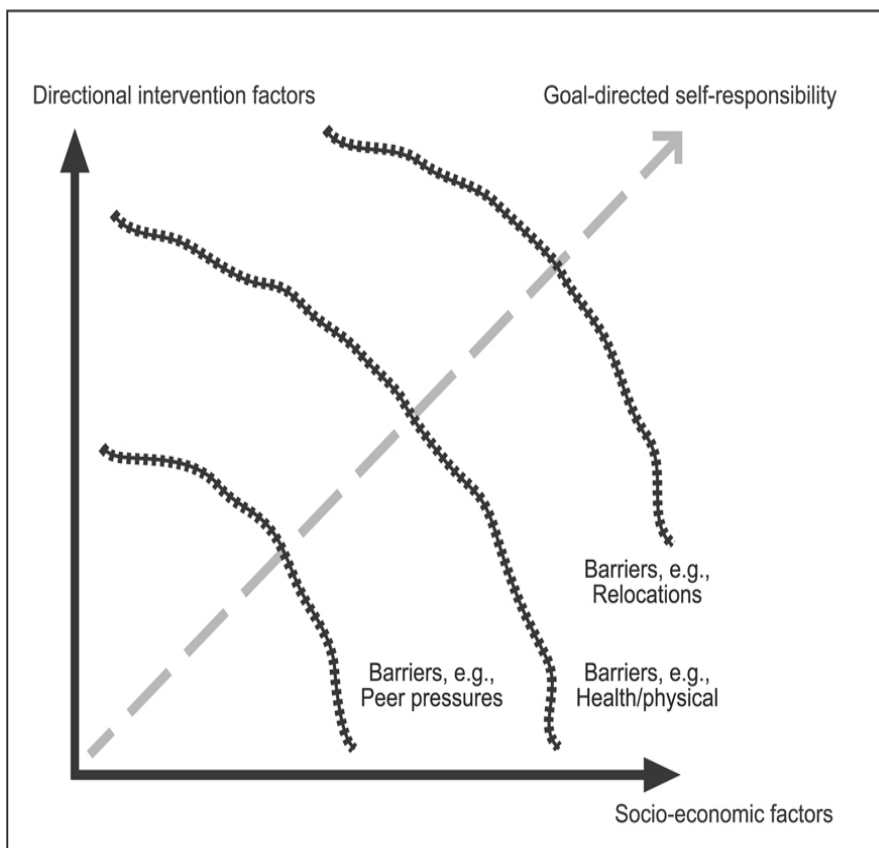## Personal action plans and other 'directional interventions'

One way in which the broad 3D model might be translated into an applied and specific policy addressing barriers relates to personal action plans. Earlier in the sections on individuals' barriers, then in the conduits section, we noted the importance of **goal orientation** in motivation towards literacy. It would therefore appear that goal orientation is a key area to develop both internal and external conduits to literacy, and worthy of more sustained attention.

In countries such as the United Kingdom (Personal action plans, n.d.) significant work is now being carried out with adult learners on personal action plans or personal development plans (Personal development plans, n.d.). These appear to show very good results in supporting students' literacy, professional learning, and life aspirations. Given the prevalence of goal orientation as a barrier to literacy, it is timely to explore whether this concept may be similarly employed in New Zealand to assist students to develop not only personal aspirations but also staged plans for reaching them.

Given the importance of the schooling stage, this approach could be a useful adjunct not only to adult literacy training but also for school-aged students. Many respondents reported that their meeting with someone who helped them to articulate their ambitions, feel confidence in their abilities, and work towards goals was a serendipitous or chance encounter. We believe the beneficial processes and outcomes introduced by such individuals are too important to be left to chance. Personal action plans could help change this luck or chance encounter into a more formalised part of the person's development process.

From our learning about barriers in the view of those interviewed and surveyed, we suggest below how personal action plans and other 'directional interventions' (our term for strategies that assist individuals to formulate and reach goals) might work.

Figure 6 suggests barriers can be broadly categorised into economic and social factors on the one hand, and directional intervention factors on the other. These are shown on two axes: on the horizontal axis are barriers such as few resources in the home, isolation, or economic-related work pressures. The vertical axis comprises directional interventions, such as direct encouragement by a teacher or role model, careers counselling or goal planning, and active family or peer support for a person's aspirations.

Figure 6. Barriers and personal action plans

When factors on both of these axes are low, so also is a person's self-image, self-esteem, or confidence. There will be a concomitant likelihood of lowered motivation and lessened goal-directed self-responsibility for learning. Based on what participants and non-participants say about literacy barriers, an increase in factors along both these axes will result in probable improvements in goal-direction and self-responsibility in learning.

However, it is important to note that factors on **both** axes need to strengthen for improved learning to occur. There is little point in throwing money at a problem unless an individual sees the point of personal commitment to a goal. And conversely, even if a person has been inspired by someone who has shown them a pathway to attaining their aspirations, little progress is likely if the resources are not there to pay the bills.

Along the way, an individual's learning must break through a series of other barriers, the exact nature and mix of which will be unique to each person. What we have learned from the interviews is that these barriers may often include peer pressure, problems with health, issues with frequent family relocation, and the like. Yet when the individual experiences capacity-building on each of the two axes (i.e. directional intervention resulting in strong goal orientation, and socio-economic capacity) higher motivation and facility should follow and barriers can be overcome.

In our view, adult literacy provision needs to go through a phase of planned adjustment. The serendipitous and chance factors of directional intervention must be replaced by comprehensive directional support systems. Important among such systems are counselling for career and life direction, and the systematic means by which people can be provided with strong role models. When combined with socio-economic improvements, these will facilitate directed or motivated living as opposed to just survival.

Marketing and promoting courses

The data on goal orientation as both barrier and conduit also have relevance for work on the marketing of literacy courses, given the importance indicated for positive role models and the awareness of available and relevant training. We found many gaps in our respondents' understanding and awareness of literacy-training opportunities open to them. Some implications of this will be explored in a later report.

The conduit data also contain, in the section on how respondents found their course, a clear indication that most find such a course through word of mouth or personal contacts. This again has relevance for marketing and promotion of courses in the broadest sense. Many respondents appear to seek some sort of personal recommendation from another participant before considering adult literacy training.

This illustrates the importance of word-of-mouth discussion and the power of the informal social group in validating individual decisions to undertake or reject literacy training. The act of recruiting people into adult literacy training therefore needs to occur with a knowledge that people find their way into new learning activities via means Lave and Wenger (1991) called "legitimate peripheral participation."

Typically, from what is initially some kind of peripheral or boundary status, we are drawn into eventual full membership in our adult learning activities. Personal and social acceptance into a

new circle of learning needs to be legitimised by both open and tacit socialisation– facilitating the journey from non-participant to participant in literacy activities.

Therefore, drawing people into adult literacy means not simply helping them overcome those personal, health, social and economic barriers about which our respondents have told us in this study. Importantly, adult literacy learning needs to be seen as "cool," as receiving the unqualified approval of personal key social reference groups.

As we have seen, barriers are diverse, but some are attitudinal. A percentage of respondents (both non-participants and participants) believe, 'I don't need literacy' (because I'm going to be a football player, truck driver, etc., and my uncle, brother, etc., is one of those and he doesn't need it). Such a belief suggests the importance of marketing courses to potential participants in ways that are attractive, that tap into the important dimension of peer sanction, and that provide a realistic insight into the excellent depth and range of learning available from many courses. An aspect of future research plans to address this directly and in more detail.

We have found that barriers to literacy include stigma and information gap barriers, especially for persons not undertaking adult literacy courses. The perception of such courses by non-participants tends to be narrow, and dependent on a traditional and outmoded view of "literacy" as comprising the 3Rs. However, feedback from adult literacy participants shows such courses are, in fact, much more.

This suggests a marketing issue about the way literacy training is presented, positioned, and 'sold', and through what channels. Participants themselves have many useful suggestions about how this marketing should occur. Most mention word-of-mouth through positive role models and opinion leaders. Our observations on conduits (above) show most participants arrive at a literacy course once they have developed a sense of 'needing to do this', usually through personal encouragement from a peer.

The present report occurs a little over a year into this three-and-a-half year research programme. Data gathering is still, therefore, at an early stage and, as noted above, more complete data will provide different results and insights. Nevertheless, the quality of data received to date via multiple investigative methods is of a high standard, allowing us to lay a solid foundation for future reports. All these will come together to build an insight into adult literacy and employment in Wanganui and beyond.

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This discussion paper explores perceived barriers to adult literacy in Wanganui and Districts, following in-depth, one to one interviews with participants in adult literacy training courses, among others. The study comprises one element within a major, longitudinal research programme exploring issues around adult literacy and employment.

In this paper the authors also describe conduits to literacy, being the ways in which people find pathways to achieve their aspirations. The paper reflects on ways in which policy and funding for adult literacy may be strengthened in the light of research evidence.