

# More Than Words

THE NEW ZEALAND ADULT LITERACY STRATEGY

Kei tua atu i te kupu: Te mahere rautaki whiringa ako o Aotearoa



OFFICE OF THE  
MINISTER OF EDUCATION



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# CONTENTS

*Foreword* Pg 2

*Key Point Summary* Pg 3

**1** *Adult Literacy – An Urgent Priority* Pg 4 – 5

**2** *The Adult Literacy Strategy* Pg 6 – 7

**3** *Increasing Opportunities for Literacy Learning* Pg 8 – 11

**4** *Developing Capability* Pg 12 – 15

**5** *Improving Quality* Pg 16 – 17

**6** *The Government's Role* Pg 18 – 19

**7** *Implementing the Strategy* Pg 20

**8** *Appendix: New Zealand Results from the 1996  
International Adult Literacy Survey* Pg 21 – 28

# FOREWORD

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. Strong communication skills are also the foundation for families, from whom the next generation of successful learners come.

This document sets out a plan to improve New Zealand's adult literacy rates. The Government's Adult Literacy Strategy will make it easier for more New Zealanders to get help in a way that suits their needs.

The Strategy will involve many different learning opportunities. These will be available through workplaces, community-based education providers and tertiary institutions.

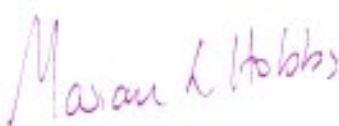
We are also introducing measures to improve the quality of literacy education so that genuine progress can be made. The new approach will include a strong system of quality assurance and will focus on developing the performance of people and organisations providing the literacy education programmes.

This Strategy is also part of a larger picture. The Government's Literacy and Numeracy Strategy, which addresses literacy needs from pre-school through the school years, is already underway. The Adult Literacy Strategy will add to this work.

Our long-term goal is to ensure all New Zealanders have the literacy skills to take part fully in all aspects of life – work, family and the community.



**Hon Trevor Mallard**  
Minister of Education



**Hon Marian Hobbs**  
Associate Minister of Education (Adult and Community Education)

May 2001

# Key Point Summary

Increasing literacy skills will be essential for the development of the knowledge society New Zealand needs for success in the 21st century.

Low levels of adult literacy in New Zealand, confirmed by a 1996 international survey, are a serious impediment to the development of a skilled workforce.

The strategy has the **broad goal** that over the long-term New Zealanders should enjoy a level of literacy which 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 strategy has three key elements:**

- **Developing capability to ensure adult literacy providers deliver quality learning through a highly skilled workforce with high quality teaching resources;**
- **Improving quality systems to ensure that New Zealand programmes are world class;**

- **Increasing opportunities for adult literacy learning by significantly increasing provision in workplaces, communities, and tertiary institutions.**

**Four principles underpin the strategy:**

- *gains for learners will be achieved as quickly as possible;*
- *programmes will match learners' needs in content and pace;*
- *best practice, evaluation, and research will guide programme development;*
- *programmes will be suitable for the wide range of learners.*

The Government, through the Ministry of Education, will provide overall direction and planning, and will co-ordinate the development of standards and best practice models.

# Adult Literacy

## – An Urgent Priority

Urgent action, sustained over the long-term, is needed to improve adult literacy levels in New Zealand. High levels of adult literacy are critical for the transformation and modernisation of the New Zealand economy, and the transition to a knowledge society.

Few would dispute that good literacy is essential for successful life and work in the 21st century. It is the foundation for the further learning that is needed to upskill New Zealand as a knowledge society, leading to economic and social benefits for all New Zealanders. Adequate levels of literacy throughout the New Zealand population are a fundamental prerequisite for the achievement of key social development goals. By raising levels of adult literacy we will be enhancing the nation's skills, developing a more responsive economy and a more inclusive society, with increased employment opportunities for all. We will also be strengthening our communities, particularly Māori and Pacific communities.

Literacy is “a complex web of reading, writing, speaking, listening, problem solving, creative thinking and numeracy skills.”<sup>1</sup> The International Adult Literacy Survey (IALS) in 1996, which produced information from 20 countries, examined peoples' ability to understand and employ printed information in daily activities, across three domains of literacy skills – prose, document and quantitative literacy.

The IALS results revealed that in New Zealand there are large numbers of people whose poor literacy severely restricts their choices in life and work. Poor literacy is strongly correlated with a greater likelihood of unemployment, lower pay when in work, poor health, less likelihood of owning a home, and poorer basic skills for children living with adults with poor literacy. On the other hand, high levels of literacy are associated with higher earnings, a greater likelihood of being in a white-collar high skill occupation, greater participation in voluntary community activities, and better health. The IALS final report concludes that good literacy is a necessary ingredient for citizenship, community participation and a sense of belonging.

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

<sup>1</sup> Workbase, The National Centre for Workplace Literacy and Language



## The Way Forward

The need for action to improve levels of adult literacy in this country is large, and addressing it will require a long-term approach over many years. There must be a significant commitment over the next generation to:

*raise levels of literacy of the current adult population who are “below the bar” of literacy adequacy;*

*invest in the current working age population who have adequate literacy to ensure that over time they remain literate as new technologies and work practices increase the literacy demands in their workplaces;*

*ensure that school leavers have adequate literacy so that those entering the workforce and adulthood are not in need of remedial literacy education.*

Intensive work is already underway to improve the literacy and numeracy of school-aged children. A long-term strategy is required to complement this work, co-ordinating effort from Government, education providers, employers, and other key stakeholders, to improve the literacy levels of adults.

The adult literacy strategy provides a framework and action plan for the development of new policy and improved funding. It will improve the capability and capacity of the adult literacy teaching sector, produce tuition resources appropriate for adult learners, and build an appropriate quality assurance system.

It also covers a comprehensive programme of research and evaluation on adult literacy in New Zealand, as there is currently very little high quality information on which to base policy decisions, and to inform practice in teaching and learning. □

# The Adult Literacy Strategy

## The Vision

Over the long - term, all New Zealanders should enjoy a level of literacy which enables them to participate fully in all aspects of life - including work, family and the community - and the opportunity to achieve literacy in English and Te Reo Māori.

## Key Principles

There are several key principles that the strategy aims to build across the adult literacy system.

First, the focus will be on achieving literacy gains for learners as quickly as possible. We must be working to develop effective programmes and skilled teachers who can maximise learning gains in literacy in the shortest possible time.

Second, programmes for adult literacy will match the learners' needs in terms of their content and pace of learning. Adult literacy teaching must be learner-focussed, challenging and outcome-focussed, using individuals' own goals as a focus for learning but not so demanding that learners become afraid of failure and leave. Provision should suit learners who are ready for literacy learning, using "windows of opportunity" such as workers adapting to new technologies, people looking for a job, or parents or other caregivers wishing to assist more effectively with their children's education.

Third, programme development will be informed by best practice through good evaluation and research. This will require improved co-operation and collaboration between providers and better dissemination of information. It should result in a better range of programmes that are appropriate for learners, and improve learners' ability to find the learning environment where their learning gains can be most effectively achieved.

Finally, provision must be culturally appropriate for the wide diversity of learners, especially Māori and Pacific peoples, and other ethnicities from non-English speaking backgrounds.

## Key Goals

The adult literacy strategy has three long-term goals:

- *increasing opportunities for adult literacy learning;*
- *developing capability in the adult literacy teaching sector;*
- *improving quality to ensure that adult literacy teaching programmes and learning environments in New Zealand are world class.*

### ***Increasing opportunities***

In order to respond effectively to the level of adult literacy need, we must increase the number of places in adult literacy programmes and broaden the scope of provision to cater for learners in a wide variety of locations and with diverse backgrounds. Learning is likely to be most effective if it is made available where and when learners can easily access it. The positive impacts of literacy learning – wherever it occurs – will flow over into other parts of learners' lives in their roles as parents, workers and community members.

### ***Developing capability***

To deliver good adult literacy programmes a high-quality provider sector with a professional and qualified teaching workforce is required.

We need:

- *suitable adult literacy teaching qualifications;*
- *dissemination of best practice examples;*
- *appropriate resources to help adults learn;*



- *an effective system for assessing and measuring learners' literacy gains that ideally would be linked to national benchmarks of literacy skills.*

### **Improving quality**

We need a quality assurance system for adult literacy to provide assurance that:

- *the literacy provided is "fit for purpose";*
- *learners are receiving quality instruction that will improve their literacy as quickly as possible;*
- *assures Government and other funders that their investment in literacy is cost-effective, and that the system as a whole is achieving good literacy gains.*

This system will assess the quality of providers, of adult literacy programmes and the quality of literacy outcomes achieved by learners.

### **Focus for the Next Three Years**

Short to medium-term goals for the implementation of the strategy over the next one to three years are:

- *expanding the range of opportunities for learners by building on existing experienced providers;*
- *increasing the provision of workplace literacy programmes where there is an obvious and urgent reason for literacy skill improvement to respond to new job demands and new technologies. An important part of this goal will be to ensure that the skills learned are continually reinforced and that learning is sustained through on-the-job application;*
- *trialing new provision in undeveloped areas, such as family literacy, and community-based partnerships between established providers and Māori, Pacific and other ethnic communities;*
- *building a robust system of quality assurance in which providers feel strong ownership;*

- *developing the capability of providers, by building a workforce of qualified teachers and through ongoing supportive networks and in-service training.*

Work will begin on all these short-term goals immediately. However, some degree of sequencing is important. Emphasis in the early years should be on investment in quality improvement and capability building. This investment will return dividends later in increased capacity to deliver high quality teaching in adult literacy. It is important to have a good quality assurance system in place to ensure the high quality of provision, and therefore value for money, before we invest in large-scale expansion of learner numbers.

### **Benchmarks for Success**

We expect that by the end of 2004, all learners in Government-funded adult literacy programmes will be receiving teaching from providers meeting accepted quality assurance requirements. We also expect that learners in these programmes will be making literacy gains measurable against a recognised national system of literacy measures or standards linked to the scores and levels used in the International Adult Literacy Survey, and ideally related to the National Qualifications Framework.

Also by the end of 2004, we should be in a position to develop realistic goals for increases in the number of learners and overall literacy gains, as we will have a clear picture of what progress is possible for a given level of investment and commitment of resources.

The ultimate benchmark of success will be a national measure of literacy, such as that provided by the IALS in 1996. Beyond 2004, we will have established the necessary systems to ensure delivery of quality adult literacy teaching, and will be beginning to reap the results of the investment in children's literacy at schools. If another International Adult Literacy Survey were undertaken at that time we should be able to say with confidence that New Zealand's results would be better than they were in 1996. □

# 3 Increasing Opportunities For Literacy Learning

## What We Need

### *Enough places of learning to meet all literacy needs*

If we are to provide learning opportunities for the large number of adults indicated by IALS to be needing literacy education, then the number of places available for adults to learn literacy skills must be substantially increased. We cannot, however, simply increase the number of people in current programmes, or increase class sizes. The level of need is too large for the current range of providers to meet. Further, adult literacy learning is very individualised, needing to be tailored to individual circumstances, and ideally contextualised into other learning.

### *A wide range of learning opportunities*

A wide range of provision is required to cater for the diverse group of adults needing literacy learning. Learning is most likely to attract and retain learners and to be most effective when it is located when and where learners are. The impact of literacy learning for adults will then flow over into other parts of learners' lives.<sup>2</sup>

Programmes need to be implemented or expanded in workplaces and tertiary education providers where literacy can be contextualised in other learning. In these programmes, the incentive to learn is high, and the returns to improved literacy are quickly experienced and easily measured.

Provision also needs to be expanded in families, whanau and communities across the country if we are to reach the large numbers of people with poor literacy who will

not be willing or able to access learning in established places of work or tertiary study.

Programmes for job seekers are well placed to reach adults with high literacy learning needs and a high motivation to learn. A large proportion of job seekers have poor literacy which restricts their employment opportunities.

Learning programmes in prisons focus on improving skills of inmates to reduce re-offending, including skills and qualifications that enhance employment prospects, and which improve integration back into family and community relationships.

### *A variety of learning options*

Within the range of learning opportunities a variety of programme options is required. For example, small employers will require different sorts of programmes from large single-site workplaces, so that lost work time is minimised and contextualised learning in the workplace is maximised. The role of voluntary and community organisations will be crucial in responding through community-based programmes to those who will not, or cannot, participate in formal learning. Flexible community-based learning is also well placed for those who have transport difficulties, or whose wide-ranging family responsibilities make scheduling learning hours difficult. Partnerships with Māori, Pacific peoples, and other ethnicities from non-English speaking backgrounds will be essential to develop innovative and appropriate ways of learning targeted to these high-need groups.

<sup>2</sup> Demetron, G. (1997). Student goals and public outcomes: the contribution of adult literacy education to the public good. *Adult Basic Education*, 7 (3) pp 145–164.

### ***More intensive learning***

The research record suggests that, ideally, adults should get substantial periods of intensive tuition.<sup>3</sup> The Moser report in the United Kingdom suggests that much more than two or three hours a week is needed. While it is not possible to determine the number of hours of learning required for an adult learner to reach a particular level of literacy, experienced providers suggest that from their experience a minimum of 100 hours learning is needed to make a “significant and lasting improvement” in adult literacy.

### ***Easy access for learners***

Adult literacy programmes should be easy for learners to enter, and be appropriate to their level of need and confidence in their ability to learn. Clear and flexible pathways are required for learners to make progress, and to move between different spheres or sites of provision to suit their circumstances and learning needs. There will need to be, located in communities, an adequate range of culturally-appropriate provision that is attractive to Māori, Pacific peoples and other ethnicities from non-English speaking backgrounds.

### ***Cost should not be a barrier***

Above all, the system must be able to overcome the barrier of cost to literacy learning. Those who have the greatest levels of need - people without employment, those with low skills and poor English, those in low paying and vulnerable jobs - are often those with the least ability to contribute financially to the cost of literacy education.

<sup>3</sup> Improving literacy and numeracy – a fresh start. The report of the working group chaired by Sir Claus Moser. Department for Education and Employment, United Kingdom. 1999.



## **Current Provision of Literacy Learning**

It is estimated that current provision delivers learning to fewer than 20,000 adult learners each year. Approximately half of these are in community-based programmes where the average education time per learner is less than 50 hours a year. The intensity of other types of literacy programmes varies.

Most providers report waiting lists, even though their programmes are not widely advertised and there is little funding for promotion of programmes to attract learners into literacy programmes.

There are estimated to be fewer than 2,000 literacy learners in workplaces yet IALS estimated that nearly 100,000 people currently employed in New Zealand have very poor literacy. There is some specific purchasing of literacy in programmes for job seekers. Programmes for job seekers do not have specific literacy outcomes. They are primarily focussed on other employment and education outcomes.

## The Way Forward

### *Building on what we have*

In the first instance, we will build on adult literacy providers already delivering quality programmes. Existing providers all report waiting lists for current programmes. Opportunities for literacy learners can be steadily built up in the immediate future in the following areas:

- *workplace literacy initiatives, especially in industry sectors where levels of literacy are lower than average;*
- *programmes for job seekers, particularly Pacific peoples and Māori, which focus on developing literacy skills before entry into job search programmes;*
- *community-based literacy programmes, especially in Māori and Pacific peoples' communities, where programmes with clear literacy outcomes can be developed as partnerships between those communities and quality providers;*
- *community-based programmes for other minority ethnic groups who have poor literacy and English as a second language;*
- *family literacy programmes where the educational needs of both adults and children are addressed with explicit planned programmes for both, as well as joint activities;*
- *programmes in tertiary education providers which focus on improving literacy for identified enrolled students to improve success in courses leading to higher qualifications, and to bridging programmes which provide intending students with the skills to enter tertiary study;*
- *programmes in prisons which focus on improving skills of inmates to reduce re-offending on release, including skills and qualifications that enhance employment prospects, and which improve family relationships.*

Any expansion in provision, at least in the short-term, will need to be carefully managed and recognise the need to reinforce the quality of provision, a strong focus on literacy outcomes, and attractiveness of the programme to learners. Programmes will seek to maximise literacy outcomes, and to encourage partnership opportunities with community groups, including iwi, to enable extension of capacity in the future beyond the existing providers.

### **Initiatives Currently Underway**

Emphasis is already being placed in 2001 on developing and expanding new modes of provision for learners. Development of family literacy programmes, involving parents and children together, has proved overseas to be a particularly successful way of helping adults improve their own literacy. Programmes of this nature will be trialled for Māori and Pacific people beginning in 2001.

Increased workplace literacy funding has been provided to top up existing Industry Training Organisation and/or employer contributions, to enable employees with low levels of literacy to receive workforce literacy skills at work. Learners may also achieve credits on the National Qualifications Framework, although these will not be specifically in literacy.

New ways of delivering work-related literacy initiatives will be explored, particularly for smaller workplaces and in industry sectors where levels of literacy are particularly low.

Pilot adult literacy programmes will be established in 2001 with Māori and Pacific communities which are committed to raising their adult literacy levels, in partnership with established providers in their area.



Providers will be required to link with Māori and Pacific communities to deliver quality adult literacy programmes appropriate to the communities' needs. The focus of these programmes will be building capacity across communities for the educational achievement of both children and adults.

A bilingual literacy pilot has been established in Auckland with refugee groups, leading to entry into classes in English for speakers of other languages with native speakers of the refugees' own language.

A rolling programme of new initiatives, informed by focussed monitoring and evaluation, will be supported in successive years as resources permit.

### ***The role of tertiary institutions***

The role of tertiary institutions – universities, polytechnics, wananga and colleges of education – in supporting literacy programmes will be investigated in 2001. Several providers have already identified significant literacy needs among enrolled or intending students, but identified the cost of literacy learning on top of other course fees as a barrier to students. The feasibility of providing support to top up current equivalent full-time student funding (EFTS) for literacy programmes in tertiary education institutions will therefore be scoped.

### ***Literacy outcomes in other programmes***

During 2001, Government officials will be exploring how to encourage better literacy improvement through the education objectives in Training Opportunities and Youth Training.

## **Achieving Our Longer-term Goals**

The focus of the adult literacy strategy over the next two to three years is designed to establish the effective groundwork of a comprehensive system for the delivery of adult literacy improvements over the longer-term. At present we lack any comprehensive way to measure learner gains consistently across the sector. In the first two to three years, priority will be given to the development of effective tools to measure learners' progress and an effective quality assurance system.

Once these initiatives are bedded down, consideration will be given to developing realistic goals for adult literacy improvement commensurate with available resources and sector capability, that will stretch and motivate funders, providers and learners alike.

Targets based on quality information are a powerful incentive for progress. Unrealistic targets, however, can be equally demotivating when they are not achieved. Effective targets need to be based on a sound knowledge of what is achievable. Once we are able to develop a realistic picture of the capability of the adult literacy provider sector to deliver literacy gains then we can assess what the longer-term goals and expectations for adult literacy should be. □

# 4 Developing Capability

## What We Need

### *A skilled teaching workforce*

We need a workforce of appropriately-skilled, trained adult literacy teachers who can meet the growing demand. Learners of adult literacy should be receiving the most effective teaching possible to improve their literacy as quickly as possible.

The roles and responsibilities of trained and experienced adult literacy teachers in formal programmes need to be integrated with those of volunteer tutors in more informal community-based provision, and effective training programmes implemented for all teachers, with ongoing in-service support.

Information from international best practice and from the developing quality assurance system will be useful in helping to identify the skill requirements needed to raise the professional capability of the sector.

### *Relevant qualifications for adult literacy teachers*

Adult literacy teacher training programmes will be required, delivering high quality professional qualifications for all adult literacy teachers, full-time and part-time, paid and volunteer.

### *Incentives to attract and retain high quality teachers*

Adult literacy teaching will need to be an attractive career option for skilled people, with a good range of full and part-time options. There need to be incentives

which will attract suitably skilled people to train as adult literacy teachers, and retain them across all parts of the sector.

### *Quality teaching resources*

High quality teaching resources are needed, appropriate to meet the needs of the wide variety of adult learners and their cultures, and the learning contexts in which their teaching will be embedded.

### *Models of best practice programmes*

We require clearly-described models of learning that are adaptable to the wide variety of adult learners' needs. Models of, and information about, best teaching practice need to be freely available and widely distributed among adult literacy teachers so good practice can be extended. Research and evaluation of best practice should be communicated through regular seminars and conferences.

### *Measures of learners' level of literacy and learning achievement*

Appropriate diagnostic and assessment tools for teachers are essential. Teachers must be able to assess the level of a learner's literacy on entry to a programme so that an appropriate learning programme can be developed. Learners' progress also needs to be assessed, to be able to provide objective feedback, to plan future programmes, and to inform the quality assurance of providers.



## The Current Capability of Literacy Provision

The adult literacy provider sector is currently poorly developed. There is a limited number of providers, insufficient professionally-qualified adult literacy teachers, few appropriate teaching resources, a lack of professional development opportunities, and very few qualifications available for adult literacy teachers. Much of the adult literacy sector is characterised by short-term contracts and lack of job security or any real career path. While there are qualifications in community-based provision required for volunteer tutors, with on-going professional development, there are difficulties in retaining experienced volunteers in the under-resourced community sector.

## The Way Forward

### *Commitment to the professionalisation of adult literacy teaching*


Raising the level of adult literacy will require a large increase in the number of specialist qualified adult literacy teachers. Significant resources have been invested in specialist literacy teachers for the school sector to improve children's literacy, through specialist resource teachers. A similar type of investment will be needed, at least in the short to medium term, to make significant gains in improving adult literacy.

### *Training current providers*

We must start immediately to build on what we have – upskilling the existing adult literacy teaching workforce. We need to make a specific commitment to training current providers, and invest in doing so. At present, limited funding and resources are available to provide training programmes in workplace literacy, tutor training in community-based networks and provider development in literacy teaching for Training Opportunities and Youth Training providers.

### *Development of adult literacy teaching qualifications*

Expansion and improvement of existing adult literacy teacher training programmes is required, as well as the



development of new ones. The Open Polytechnic is already working on providing a new qualification. Other institutions providing certificates of adult teaching and other adult education qualifications such as the Diploma and Certificate in Tertiary Teaching should be encouraged to examine the literacy teaching component of these courses.

### ***Production of quality resources***

A specific programme of resource production across the sector is needed urgently. Investment in the production of quality teaching resources for adult literacy programmes needs to be informed by quality work, and international best practice.

### ***Development of an assessment system to measure and report literacy gains***

A critical element in raising adult literacy achievement is clarifying expectations of learner achievement, and

measuring learner progress in improving literacy. Clear national literacy benchmarks will be essential for providing learners with objective feedback on their progress, and on what skills they still need to acquire. These benchmarks are also vital to monitor the cost-effectiveness of provision. Effective assessment tools to provide good baseline data on learners' skills when entering programmes will also be essential.

The process of developing national measures for adult literacy will involve an advisory group of key stakeholders and extensive consultation.

The resulting system of standards and associated indicators of a person's literacy will need to be credible to employers, education institutions and other stakeholders. It must also be attractive to potential learners, and useful to them in their current jobs, in seeking work, in accessing and achieving in further education and training, and in helping them meet other



personal goals. The standards should relate to the National Qualifications Framework, and IALS literacy levels, and to the National Certificate of Educational Achievement literacy achievement standards.

### ***Enabling providers to invest in staff development***

As funding for learners increases to reflect the cost of quality provision, providers will be able to take responsibility for the development of a quality professional workforce. Stable, consistent funding for adult literacy will support ongoing skill development of the teaching workforce.

### **Longer-term Issues in Developing Capability**

Developing the capability of the sector to the required levels of professional teaching quality will take time. Establishing how many teachers will be needed is dependent on better information on effective

measurement of learners' progress, and on the intensity and number of hours of learning needed to reach a specified level of literacy achievement.

In two or three years time, following the development of national measures for adult literacy, effective tools for assessing learners' progress, and a quality system with appropriate quality indicators, consideration will be given as to whether additional investment will be needed to attract and retain skilled teachers. Recruitment of qualified teachers for Māori and Pacific peoples, who are significantly over-represented among those with poor literacy skills, may need to be specifically addressed. □

# Improving Quality

## What We Need

### *A quality assurance system*

A system of formal quality assurance is needed to cover adult literacy provision in which:

- *providers are assessed: first through some form of up-front registration and accreditation, attesting to their financial viability and professional capability to provide quality adult literacy learning programmes, and secondly through a regular follow-up audit process to ensure providers are continuing to meet quality requirements;*
- *adult literacy programmes are assessed: for example, as to whether programmes use good teaching principles and concepts, are culturally appropriate for learners, and use appropriate materials;*
- *literacy outcomes are assessed: through a clear process of assurance that programmes are achieving satisfactory literacy gains.*

Experience suggests that an effective quality assurance system would have a number of key characteristics. Most importantly, participants in the quality system – that is those providers subject to its requirements and other key stakeholders with an interest in the quality of adult literacy education – should feel ownership of the system and be supported to find the best ways

themselves of achieving quality adult literacy provision. In this way, the expertise of the providers is acknowledged, and the interests of other stakeholders incorporated in the design of the system.

### *Other key characteristics are:*

- *that the system supports iwi and other Māori communities to achieve quality provision and literacy learning gains according to their requirements and aspirations;*
- *that the system needs to be flexible, accommodating the variety of student needs and provider approaches;*
- *that the quality system supports and facilitates further quality improvement;*
- *that quality is regarded as being of international standard, recognising the international environment.*

The resulting system will be one where there is sector-wide co-operation and sharing of expertise, resources and best practice and where the compliance burden on providers is as low as possible. Information on the quality of providers and programmes will be freely available to learners, funders, and other stakeholders, and will allow for quick and easy quality assurance of new programmes to respond to new learner demands, or quality improvements.



## The Current Situation

Much of current adult literacy provision is not covered by any formal quality assurance, although most providers have their own internal quality systems.

Many providers are registered with the New Zealand Qualifications Authority (NZQA) and some are accredited to deliver qualifications. However, there are no unit standards specifically in literacy and there is no formal quality assurance for adult literacy provision.

The quality of adult literacy programmes and of learner outcomes is variably assessed. Literacy is often embedded in other learning and not registered as separate learning. The achievement of the other learning will be recorded, and the quality of provision of that learning assessed, but not the literacy component. Emphasis tends to be on numbers of learners in programmes rather than on quality of provision or achievement of the best possible literacy gains.

Indicators of quality for workplace or vocational literacy programmes are being developed through a steering group of vocational literacy providers. Other providers are also continuing to improve internal quality standards.

## The Way Forward

### *Increase focus on quality from current providers*

From 2001, all providers funded through Vote Education will be required to improve their own quality assurance mechanisms, and place increased emphasis on achieving quality outcomes for learners. All providers already have some systems for assuring quality and measuring learners' achievements, but in 2001 they will be required to document these systems and outcomes for learners, to inform a process for the development of a commonly applicable quality assurance system for providers.

### *Establish the process for developing a quality assurance system*

A system which covers all aspects of adult literacy provision will be required. This will build on work already being undertaken by providers and will involve all key adult literacy sector stakeholders in 2002.

It is likely that this process will take at least two years to establish, with a subsequent bedding-in process.

### *Government funding contingent on providers meeting quality requirements*

Once the components of the quality assurance system have been established and agreed, then Government funding for adult literacy programmes can become contingent on providers meeting quality standards. Only those providers and literacy programmes which have been quality assured by a quality approval body would then be able to access Government financial assistance for adult literacy provision. This is consistent with all other tertiary education funding provision, including industry training funding, Training Opportunities and Youth Training.

# 6

## The Government's Role

The implementation of the components of the adult literacy strategy outlined above will involve a partnership between Government agencies, other funders, adult literacy and other tertiary education providers, community groups, iwi, and other key stakeholders. On the Government side, there will be several key contributions to implementing the strategy.

### ***Develop a new funding system***

Policy work will be needed on the options for improving funding to optimise incentives for learners to access literacy programmes, and for other funders and stakeholders, such as employers, communities, iwi, schools, and tertiary education providers to invest in improving adult literacy. In addition to considering options in Training Opportunities, Youth Training and Industry Training, the feasibility of extending EFTS funding for literacy programmes will be considered, and options for the expansion of support for community-based literacy programmes will be investigated.

### ***Improved co-ordination of Government activity***

There will be a clearer leadership role for Government through the Ministry of Education. Leadership from the Ministry will direct the improvement of quality and sector teaching capability, the management of information from monitoring, evaluation and research which is required to inform future policy and programme development, and ensure that new and ongoing initiatives in adult literacy are effectively planned and co-ordinated.

Reporting systems, information gathering and information dissemination from Government agencies will be co-ordinated so that the best use can be made of available information to and from all stakeholders. Examples of best practice and experiences to be avoided will be shared more effectively across all sectors.

### ***Research, monitoring and evaluation***

Adult literacy education in New Zealand is not well informed by New Zealand research and information on adult learning, or through monitoring and evaluation of successful adult literacy programmes. A co-ordinated research, monitoring and evaluation programme will be developed to inform future policy and programme development in adult literacy, and to ensure future Government investment is well directed into effective programmes.

### **Key Interfaces with Other Initiatives**

There are a number of other related policy initiatives within Government that will inform, effect, and be informed by, the adult literacy strategy.

#### ***Literacy and Numeracy Strategy***

The adult literacy strategy is part of the New Zealand Literacy and Numeracy Strategy which provides a comprehensive single overview of the development of literacy and numeracy from early childhood, through the early school years to secondary school, the NCEA, and adult literacy. As the focus of work to improve

literacy and numeracy in the compulsory schooling sector moves to secondary school, and the establishment of literacy achievement standards for the NCEA, there will be considerable overlap between literacy and numeracy policies and programmes for children and young people, and those being implemented for adults.

### ***ESOL strategy***

An adult ESOL strategy will be developed as part of the migrant and refugee settlement strategies being led by New Zealand Immigration Service. Policy for adult ESOL delivery will build on current education policy in ESOL in the compulsory sector, and will be closely linked to developments in adult literacy. A similar range of quality, capability and funding issues need to be resolved in adult ESOL provision, as are being tackled in the adult literacy strategy. For many recent New Zealanders from non-English speaking backgrounds, their needs for ESOL learning will be closely connected with their need for literacy learning, especially for refugees.

### ***Industry Training***

Almost 50% of those identified in the IALS survey as needing to improve their literacy were in employment. In addition, a further 12% were unemployed and actively seeking work. How literacy is improved in the workplace is crucial to the success of the adult literacy strategy. In addition, the importance of proactive training policies in workplace literacy, to keep the workforce up to date with changing skill and literacy demands in their jobs, will be essential in the future as the literacy bar is raised with the increasing use of new and different technologies in workplaces.

Sector capacity limits the scale of investment that can be sustained in any one year. Further, addressing literacy and numeracy skill needs in the workplace requires specialised trainers and assessors to ensure the quality of

learning and assessments of skill gains. This makes workplace literacy provision different from most industry training where the employer or other staff member is effectively the trainer. However, it is important that workplace literacy programmes be a priority, and that increasing opportunities in workplace literacy programmes, improving quality, and developing provider capacity are aligned with other industry training.

### ***Adult Education and Community Learning Working Group***

The Government recognises the importance of the adult education and community learning sector in contributing to personal and community development education, to improving basic skills and learning confidence among adults with low skills and those who have not been involved in education for a long time, and to improving access to further more formal educational opportunities. The recommendations of the Adult Education and Community Learning Working Group will include advice on how this sector can contribute most effectively to improving adult literacy. The voluntary and community sector makes a significant contribution to current adult literacy programmes and is expected to continue to provide innovative ways for adult learners to access literacy education in the future.

### ***Other relevant initiatives***

The improvement of adult literacy will be a key contributor to many other Government strategies, such as regional and local economic development, crime prevention, and reducing criminal offending.

The focus of the Tertiary Education Advisory Commission (TEAC) on the broad tertiary sector means that its work on the shape of the sector and on funding options for the whole tertiary system will be highly relevant to the adult literacy strategy. □

# Implementing the Strategy

## Implementing an Effective Adult Literacy Strategy

As a country and as a people we need concerted action to raise levels of literacy among our adult population. There will be no sustainable future for our growing knowledge economy without urgent action. In partnership with key stakeholders and communities, this Government is committed to implementing a comprehensive adult literacy strategy, which tackles the problem on the scale required.

The adult literacy strategy and action plan outlined in this document will respond to the immediate need for more provision to meet current unmet demand, and give priority to the improvement of quality and capability building over the next three years. The long-term strategy outlined will develop high quality adult literacy education supported by a funding system supporting quality provision, which can achieve measurable literacy gains for learners.

The Ministry of Education will provide leadership for the implementation of the strategy. The Ministry will dedicate specialist staff and resources to manage the improvement of quality and sector teaching capability, the gathering and dissemination of information from monitoring, evaluation and research and ensure effective co-ordination across the adult literacy sector.

The combined impact of the initiatives proposed in the adult literacy action plan, and the work undertaken in the other Government initiatives noted above, will improve participation and the range and quality of adult literacy provision. Over time, the result will be a significant improvement in the levels of adult literacy in New Zealand.

# 8

## Appendix:

### New Zealand Results from the 1996 International Adult Literacy Survey

Adult literacy is considered to be vital to the economic wellbeing of developed countries. The increasing complexity of our society and the need for a more flexible and highly-educated workforce mean that individuals need to be able to comprehend and apply information of varying difficulty from a range of sources to function effectively at work and in everyday life. Therefore, governments and international organisations are especially keen for some insight into any possible deficiencies in literacy and numeracy skills.

The information presented below provides a summary of the preliminary findings from a survey of adult literacy in New Zealand<sup>1</sup>. The survey was conducted in New Zealand in March 1996, as part of a series of international surveys known as the International Adult Literacy Survey (IALS)<sup>2</sup>. By the end of 1998 more than 20 countries will have completed their collection of data. This is the first comprehensive study of its type in New Zealand and provides us with the opportunity to benchmark ourselves against other comparable nations, to establish a baseline from which to measure changes in the literacy skills of New Zealand's population over time, to identify 'at risk' and disadvantaged groups with low literacy and numeracy skills, and to assist in setting strategic directions aimed at addressing skill needs of the population.

#### Key Findings

*The distribution of literacy skills within the New Zealand population is similar to that of Australia, the United States and the United Kingdom.*

*Approximately one in five New Zealanders is operating at a highly effective level of literacy.*

*New Zealanders do less well at document and quantitative literacy than at prose literacy.*

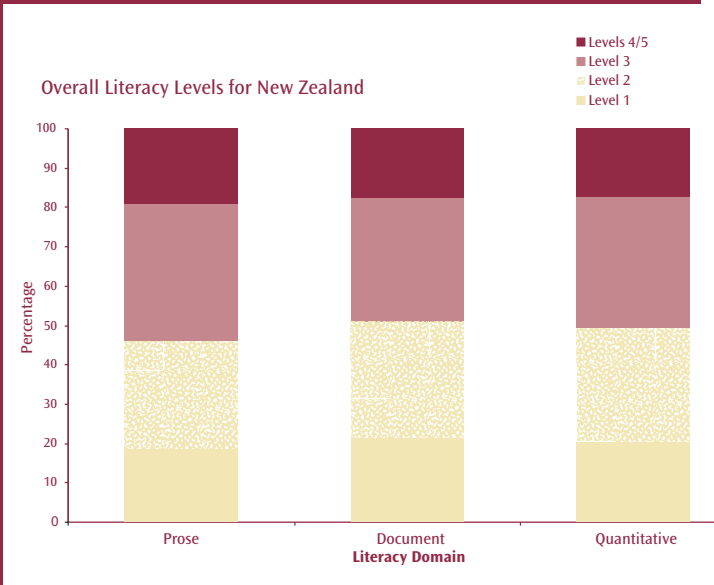
*The majority of Māori, Pacific Islands people and those from other ethnic minority groups are functioning below the level of competence in literacy required to effectively meet the demands of everyday life.*

*Labour force status and income are related to level of literacy.*

*Increased retention into the senior secondary school appears to be associated with higher literacy levels.*

*Māori with tertiary qualifications have literacy profiles similar to those of tertiary educated European/Pākehā.*

Figure 1



## Defining Literacy

Measuring literacy is not simply a case of classifying someone as either 'literate' or 'illiterate'. Literacy forms a continuum from those people in society who have only minimal or basic reading skills to those who possess highly-developed skills to allow them to comprehend complex information. In acknowledging this continuum, this study has covered a wide range of literacy and numeracy skills in a number of different contexts. The definition used is:

*Using printed and written information to function in society, to achieve one's goals and to develop one's knowledge and potential.*

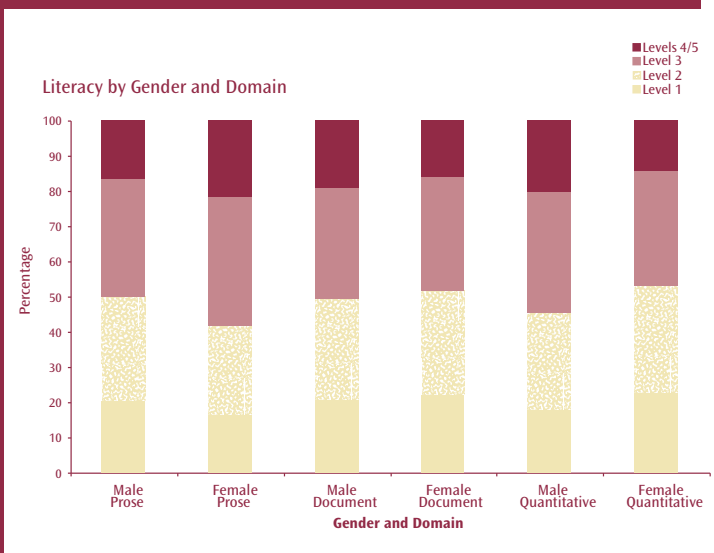
Literacy was examined across three domains:

**Prose literacy:** the knowledge and skills required to understand and use information from texts such as passages of fiction and newspaper articles;

**Document literacy:** the knowledge and skills required to locate and use information contained in various formats such as timetables, graphs, charts, and forms; and

**Quantitative literacy:** the knowledge and skills required to apply arithmetic operations, either alone or sequentially, to numbers embedded in printed materials, such as calculating savings from a sale advertisement or working out the interest required to achieve a desired return on an investment.

Figure 2

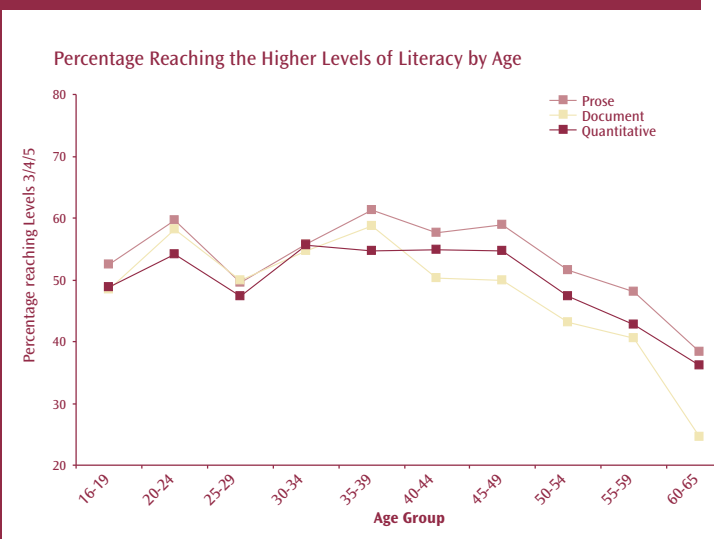


## The Survey

The results from the survey are based on a random sample of 4223 New Zealand adults ranging in age from 16 to 65 years<sup>3</sup>.

The survey used a 'task-based' methodology to assess skill level developed by Statistics Canada and the Education Testing Service in the United States. It utilised a wide range of prose, document and quantitative literacy texts containing the type of information that people encounter in everyday circumstances (such as reading a train or bus time table, interpreting newspaper extracts, or instructions from a medicine bottle). This methodology has been found to be valid in producing population estimates of literacy across countries. The items contained in the survey were each reviewed and adapted in terms of their appropriateness to a New Zealand context by a panel of New Zealand experts. Items were then pre-tested and piloted prior to the main survey being conducted. In New Zealand the assessment was in English, and all participants were tested in their homes by trained interviewers.

Figure 3





## Literacy Skill Levels

The achievement attained on each of these literacy domains (above) is grouped into one of five 'skill levels'. Level 1 represented the lowest ability range and level 5 the highest. Literacy level 3 is regarded by experts as being the minimum required for individuals to meet the 'complex demands of everyday life and work' in the emerging 'knowledge society'<sup>4</sup>.

**Level 1:** People at this level have very poor skills, and could be expected to experience considerable difficulties in using many of the printed materials that may be encountered in daily life.

**Level 2:** People at this level would be able to use some printed material, but this would generally be relatively simple.

**Level 3:** This level represents the ability to cope with a varied range of material found in daily life and at work. People at this level would not be able to use all printed material with a high level of proficiency, but they would demonstrate the ability to use longer, more complex printed material.

**Level 4:** People at this level have good literacy skills, and display the ability to use higher order skills associated with matching and integration of information.

**Level 5:** People at this level have very good literacy skills, and can make high-level inferences, use complex displays of information, process conditional information and perform multiple operations sequentially<sup>5</sup>.

## Analysis of New Zealand Literacy Levels

The results of this adult literacy study reflect not only the output of an education system over successive decades but also the influence of a range of other factors including regular use and maintenance of learnt skills, the nature of work, source of new migrants, and level of those from non-English speaking backgrounds in the population. These results have been weighted to be representative of the New Zealand population, taking into account such factors as gender, age, level of education, size of the household and size of the community.

The relative proportion of adult New Zealanders (aged 16–65 years) estimated to be at each level of literacy for each domain is illustrated in Figure 1.

New Zealanders were stronger in the prose literacy domain than in the document and quantitative literacy domains. Fifty-five percent of New Zealanders were at the higher levels (level 3 and above) in prose literacy compared with 51% in document and 50% in quantitative<sup>6</sup>. However, over a million adults are below the minimum level of competence in each of the three domains required to meet the demands of everyday life. Within this group, 20% of New Zealand's adult population was found have very poor literacy skills (level 1).

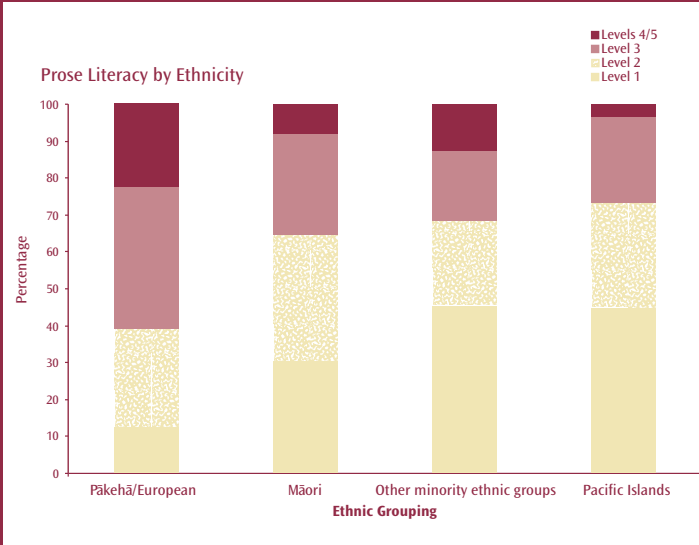
### *Gender*

Women performed better than men in prose literacy, having 58% at the higher levels compared with 50% of men (Figure 2). However, there is a greater proportion of men at the higher levels of quantitative literacy than women (55% compared with 47%). Differences between men and women in document literacy were negligible.

### *Age*

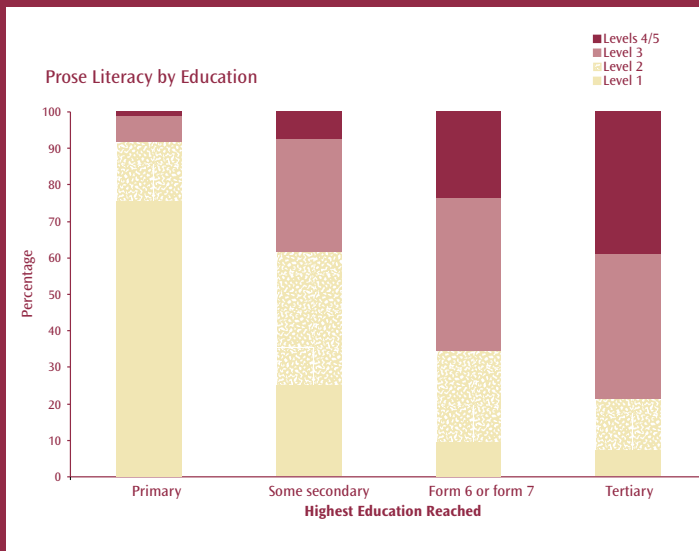
In all three domains there was found to be a peak at both the 20 to 24 years and 35 to 39 years age groups, and a downward trend in literacy levels among those above 50 years of age (Figure 3).

Figure 4



An examination of the international data revealed that in many countries there was a trend of increasing literacy between 16 and about 35 years of age. This trend is considered to be due to the increased use of certain literacy skills during adult and work life experiences. In New Zealand there appears to be a similar trend in operation. However, there is another effect modifying this which is manifest in relatively higher levels of literacy in the 20 to 24 years old group (ie, the peak). This effect is associated with an increased proportion of the cohort who are staying on to senior levels of schooling (forms 6 and 7). Moreover, as the section on educational qualification (below) points out, those who complete form 6 are more likely to have higher literacy levels than those who do not. This is reinforced here in an analysis of the age/literacy profile which shows that 70% in the 20 to 24 years age group had gone to at least form 6, compared with less than 50% in the 25 to 29 years age group.

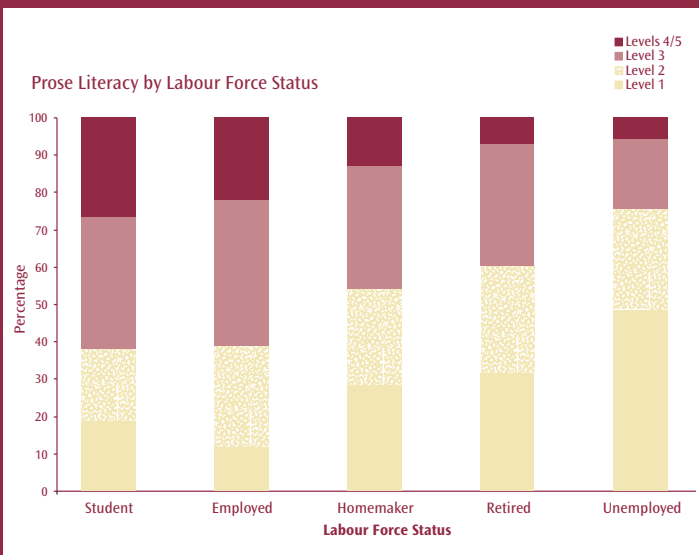
Figure 5



The relatively poor performance of those in the eldest age group may be related to factors such as the much lower proportion of this cohort receiving post-primary education — for example, only 45% of those in the 55 to 64 years old cohort completed upper secondary education, compared with 60% of the 35 to 44 years old cohort<sup>7</sup>. Other possible considerations include the ageing process itself which is known to adversely affect the cognitive functioning of some individuals.

Those in the eldest age group had less than 40% at the higher levels of prose and quantitative literacy, and this age group has a particularly low level of ability to locate and use information contained in documents, with only 25% at the higher levels of this domain.

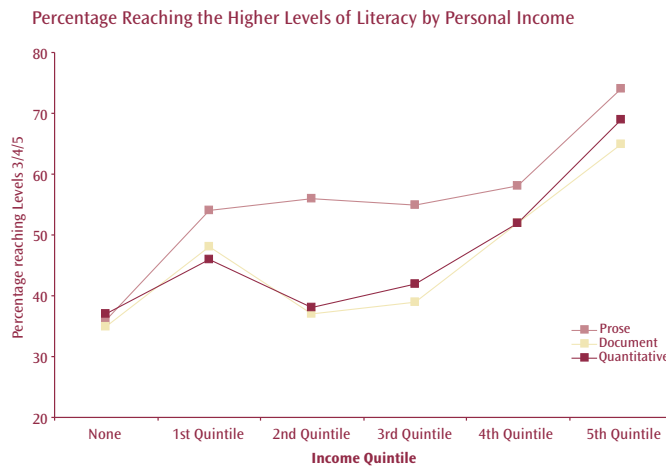
Figure 6



### Ethnicity

For the purpose of this study, respondents were clustered into four ethnic groupings: Māori, Pākehā/European, Pacific Islands, and 'other ethnic minority groups'.

There was a discernible trend across the three literacy domains, with Pākehā/European consistently having a larger proportion in the higher levels and the Pacific Islands group consistently having the smallest. Māori had a greater proportion than 'other ethnic minority groups' in the higher levels of prose literacy but this was reversed in the document and quantitative literacy domains. A majority (60%) of Pākehā/European were above the considered minimum level of competence to meet the prose literacy requirements of the knowledge society. This contrasts with the majority Pacific Islands

**Figure 7**

people, Māori and the ‘other’ minority ethnic group who were below the considered minimum level of competence (Figure 4).

The document and quantitative literacy domains revealed similar profiles, with 70% Māori and about three-quarters of Pacific Islands people failing to meet the minimum level of competence (ie; level 3 or higher). In fact, between 40% and 45% of Pacific Islands adults were at the very lowest level of literacy (level 1) in each domain, although 70% of Pacific Islands people at level 1 were born outside of New Zealand which may account for this.

In the document and the quantitative domains, there were considerable gender differences favouring males among Māori and, more markedly, Pacific Islands people which were not found among Pākehā/Europeans. For example, only 18% of Pacific Islands females were at the higher levels of quantitative literacy compared with 42% of Pacific Islands males. For Māori, the gender disparity was not as great but was still substantial, with 26% of females at the higher levels of quantitative literacy compared with 36% of males.

### **First Language**

Approximately 10% of New Zealand’s population have a first language other than English. Unsurprisingly, about 70% of these people do not reach the higher literacy levels across the three domains. This was true both for those born in New Zealand and for those born overseas. However, those born overseas had a considerably higher percentage at the very lowest literacy level (level 1).

About one-half of those for whom English was not their first language were from ‘other minority ethnic groups’ and one-quarter were from Pacific Islands ethnic backgrounds. Only 35% of those whose first language is other than English are employed, compared with 57% of those whose first language is English. Those who did not speak English as their first language had more than

twice the proportion of unemployed and students as did those who spoke English as their first language.

### **Level of Educational Qualification**

There was a strong relationship between educational attainment and literacy (Figure 5).

Seventy-five percent of those who had not gone beyond primary school were at the lowest level (level 1) of prose literacy compared with only 7% of those who had tertiary qualifications. Overall, 79% of tertiary-qualified respondents were at the higher levels of prose literacy, compared with 65% of those who had completed form 6 but were not tertiary qualified, 38% of those who had some secondary education but had not completed form 6, and 8% of those who had not gone beyond primary school. Very similar distributions were evident in both document and quantitative literacy.

The reasons that some tertiary-qualified persons have low literacy skills may relate to such factors as the respondent’s first language being other than English, or qualifications in subject areas that require relatively little prosaic elaboration.

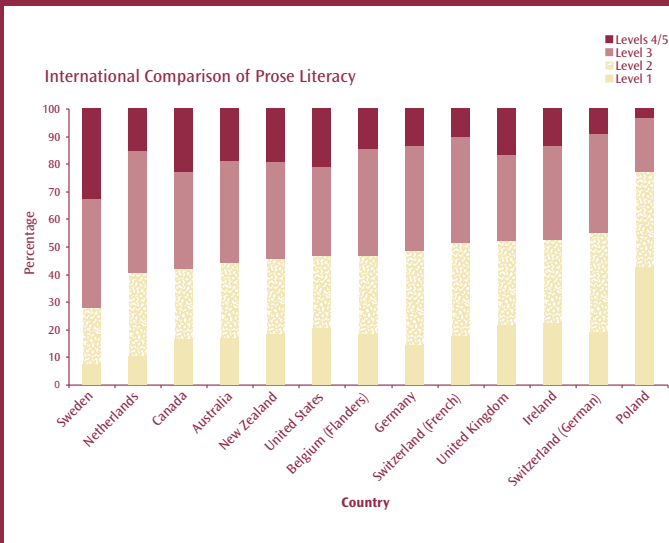
These data, together with the age/literacy results, suggest that senior secondary schooling is indeed adding value to students’ educational outcomes, certainly regarding the wide range of literacy skills covered in this study.

Māori with tertiary qualifications had similar literacy profiles to tertiary-educated Pākehā.

### **Labour Force Status**

Within the labour force there were found to be stark contrasts in the literacy skills of those who were unemployed and those who were in work. Almost half of all unemployed were at the very lowest level of literacy (level 1) in each domain (Figure 6).

Figure 8



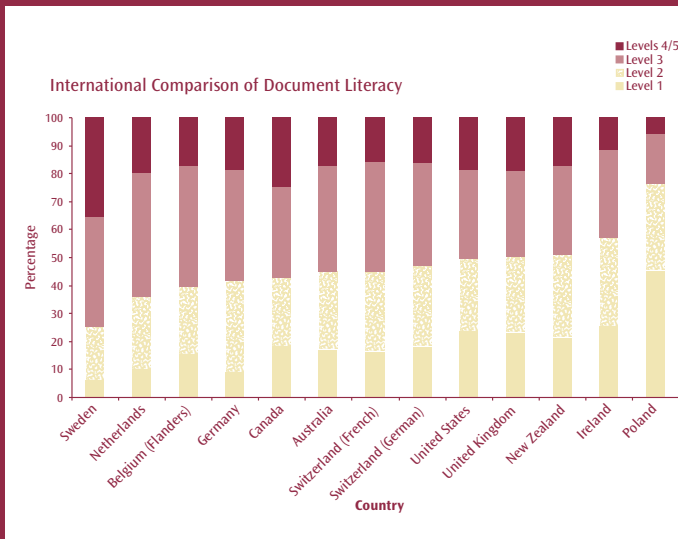
Retired people also performed poorly in each domain especially in document literacy where only 15% were able to operate at a proficient level. This suggests that documents used by this group need to be in a form that is accessible.

Students and employed people had the highest levels of literacy, with between 55% and 62% in the higher levels of literacy across all three domains.

### Income Level

Respondents who reported income were rank-ordered and grouped into quintiles. A separate grouping consisted of those who reported 'no personal income' (5% of the sample). In each of the three literacy domains, the top 20% of earners consistently recorded the highest levels of literacy (Figure 7).

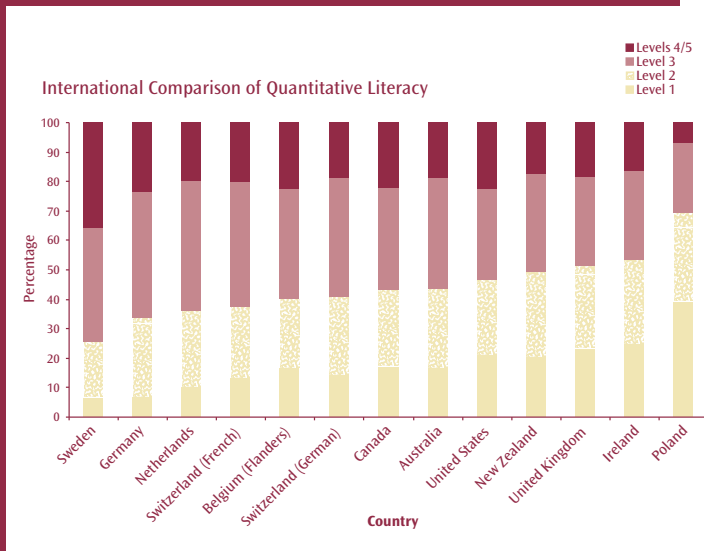
Figure 9



Interestingly, there was little difference in the prose literacy profiles of those in all except the upper 20% of income earners. The highest earning quintile and the 'no personal income' were polarised, with 75% and 37% respectively at the higher literacy levels. Moreover, 36% of the 'no personal income' group were at the lowest literacy level compared with only 6% of the highest earning quintile.

The document and quantitative literacy domains differed markedly from the prose literacy domain but were similar to each other. It was surprising to find that there was a higher overall level of literacy among those in the lowest 20% of income earners than among those in the next two higher earning groups, but this may be accounted for by a high concentration of students within the former.

Figure 10



### Other Points of Interest

Respondents were asked to provide information on their home environments and recreational activities. There were only small differences (if any) between those in the higher and those in the lower levels of literacy regarding the presence of daily newspapers, weekly newspapers, dictionaries or encyclopaedias. However, almost 95% of those at the higher levels of literacy had at least 25 books in the home, compared with less than 80% of those at the lower levels of literacy.

There were also considerable differences between the more and less literate regarding their amount of television/video viewing. For example, only 20% of those in the higher levels of literacy watched more than three hours a day, compared with 35% of those in the lower levels.

## International Comparisons

The comparison of international data must be interpreted cautiously. While every attempt was made to ensure the rigour of the methodology, it is not always possible to eliminate all differences between countries' samples using statistical methods. Inter-country comparisons must also take into consideration the range of different population contexts which influence literacy.

These include different educational and training experiences, differing levels of dominant-language speakers, and differing age profiles. The specific mix of migrant groups, people who have been educated at home and abroad, as well as those who have recently completed qualifications, and those who may have completed their schooling many decades ago is unique to each country. Having said this, comparisons do allow a degree of benchmarking and highlight similarities and differences between countries.

In comparing countries' mean scores on prose literacy, only Sweden and Netherlands had significantly higher scores than New Zealand<sup>8</sup>. Ireland, Poland, Switzerland (French), Switzerland (German) and the United Kingdom all had mean scores significantly lower than New Zealand's (Figure 8). It is interesting to note, however, that the results for European/Pākehā New Zealanders compare closely with those of the Netherlands' population.

The results were not as encouraging for the other two domains. Belgium (Flemish), Canada, Germany, the Netherlands and Sweden all had significantly higher mean scores in document literacy than New Zealand, while only Ireland and Poland had mean scores that were significantly below that of New Zealand (Figure 9). All other countries had significantly higher mean scores than New Zealand in quantitative literacy, with the exception of Ireland, the United Kingdom and the United States, where there were no significant differences, and Poland, whose mean score was significantly lower than that of New Zealand (Figure 10).

## Conclusion

Literacy skills are critical tools for effectively coping within our society. Successful transition to a knowledge-based economy will rest with our capacity to manage, sift, interpret and exploit vast sums of information. Critical to this will be ensuring widespread mastery of the literacy skills assessed in the course of this study. Literacy has been shown here to have a significant influence on life chance, as witnessed by the differentials in income and labour market outcomes.

This study has shown that around one in five New Zealanders are operating at a highly effective level of literacy (Level 4 or 5), able to manage abstract concepts and employ specialised knowledge in interpreting information. Over half of New Zealand adults are operating at a level considered as a requirement to meet the demands of 'everyday life'. This distribution of literacy skills within the population is similar to that of Australia, the United States and United Kingdom, but lags dramatically behind Sweden, where close to three-quarters of their population is effectively operating at this very high level. Within New Zealand, document and quantitative literacy skills were found to be poorer than skills in prose literacy.

No evidence was found to suggest that literacy levels within New Zealand were deteriorating. Rather, literacy skills appear to be improving in line with improved participation in education.

Of particular concern for New Zealand, as with a number of the nations in this study, is the high concentration of adults with poor literacy skills (around 1 in 5 New Zealanders). As the availability of low-skilled jobs within our economy diminishes, such groups will become increasingly vulnerable. The effect of this is witnessed by the overall poorer literacy levels among the unemployed. Three-quarters of all unemployed were found to be in the two lowest literacy levels across each literacy domain.

Poorer literacy was also found to be concentrated within the Pacific Islands and other ethnic minority groups and within the Māori population. Results for Pacific Islands and other ethnic minority groups were reflected in the relatively poor English literacy skills of those for whom English was not their first language.

The findings of this study are far reaching and they highlight a need for ongoing focus on adult literacy in New Zealand. While schools offer an initial opportunity to develop these skills within the population, it is clear from the results of this study that remedial programmes and programmes targeted at those for whom English is a second language will be critical to improving the extent to which these groups come to fully participate in social and economic activity. In this respect employers also have a responsibility both in acknowledging the skill differences which may reside within their workforce, and secondly to assist in addressing them if they are to harness the full potential of their employees. □

<sup>1</sup> In New Zealand, the survey was undertaken by the National Research Bureau (NRB) under contract to the Ministry of Education. This study represents the first, large-scale national literacy survey of working-age adults in New Zealand.

<sup>2</sup> The final international results for the survey are published in *Literacy in the Information Age*, OECD and Statistics Canada, 2000.

<sup>3</sup> The sample was stratified by geographic region and population size. Smaller regions or 'meshblocks' were randomly selected within the strata. Households were then randomly selected within the meshblock. Finally, one person was randomly selected within the household. There was a 75% response rate.

<sup>4</sup> I.P.Felligi & T.J.Alexander, 'Editorial' in *Literacy skills for the knowledge society*. OECD and Statistics Canada, 1997.

<sup>5</sup> Level 4 and 5 data have been aggregated for the analyses due to the small number of respondents achieving at Level 5.

<sup>6</sup> Throughout this summary 'high' levels of literacy refers to levels 3,4 and 5.

<sup>7</sup> *Education at a glance*. OECD, 1996.

<sup>8</sup> 'Significance' here, and throughout this summary, refers to statistical significance.

## Acknowledgement

We are indebted to the assistance of both Statistics Canada and the Educational Testing Service (USA) who developed the instruments employed in this study and assisted in the preparation of survey results. New Zealand field work for this survey was conducted by NRB.

*This report was prepared by Maurice Walker, Karl Udy, Nicholas Pole, Steve May, Glenn Chamberlain and Fiona Sturrock.*





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