

Upskilling through foundation skills

A literature review

A report prepared for the Department of Labour

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Executive summary

Introduction

This literature review is intended to inform a work programme on lifting the literacy, language and numeracy (LLN) skills of the workforce. The work programme will include a plan of action and an accompanying evaluation strategy, and provide research evidence to inform the design of a wider strategy to upskill the workforce at the low-skilled end. The literature review is in two parts.

The report draws on New Zealand and international literature.

Part I addresses two main research questions:

1. What is the role of government in encouraging employers to engage in skill development?
2. What are the barriers that exist for employers to investing in training to lift literacy, language and numeracy skills?

Part II considers six research questions:

1. What are the links between lifting LLN skills of the workforce (both employed and unemployed who are seeking work) and productivity, and the drivers of productivity?
2. What are other benefits of lifting LLN skills to employers and employees/individuals?
3. What are the risks and/or unintended consequences of lifting literacy, language and numeracy skills of the workforce (both employed and unemployed who are seeking work)?
4. What are examples of evaluations undertaken on initiatives to lift literacy, language and numeracy skills?
5. What is the role of government, unions and other stakeholders in enhancing LLN skills of the workforce?
6. What industries have major issues of employees not having the LLN skills necessary to be competent in their jobs?

Literature was obtained:

- through the internet and, in particular, through the Literacy Portal on the Workbase website
- from a search undertaken by the Department of Labour Information Service
- from colleagues working in the area
- from policy staff in relevant government agencies.

Part I

Role of government

The literature identifies seven key areas where the government has a role in engaging employers in skill development.

1. Establishing a strategy for skills development

In developing a strategy, the literature argues for a broad-based approach that recognises the context in which skill development occurs; the drivers of increased training, including workplace change, the adoption of new work systems, new technology and product innovation, and a drive for quality; and the implications of skill development for employers and employees. The literature also refers to the relevance of the government's broader philosophical approach and the need for the government to be clear about what it wants to achieve.

2. Adopting a business-like and therefore a business-friendly approach

The literature supports government having a role in advocating with employers to convince them of the benefits of providing learning opportunities. For this advocacy to be successful, particularly for employees with lower-level skills, strategists need to understand employers' current level of awareness and act appropriately. The literature describes five typical stages in gaining understanding.

3. Undertaking specific activities in partnership with industry, employers and other stakeholders

The literature is united in its call for a partnership approach to the development of strategy, involving government, employers, unions, employees and training providers.

4. Developing and implementing an information campaign

Government has a role in developing and implementing an information and marketing campaign tailored to the needs and interests of workers and management in different contexts. The campaign needs to deliver clear messages about skill shortages, the effect they have on employers' businesses, and the benefits to employers of investing in employee training. This information needs to be as detailed and specific as possible.

Information may be delivered in several ways:

- directly by government agencies
- by industry associations or sector councils
- using media campaigns
- using the internet, including establishing, maintaining and promoting a literacy and numeracy information service using a website
- through conferences, workshops and other forums
- through peers learning from peers
- through a brokerage service
- through an outreach programme using training advisors attending employers' workplaces.

The most effective campaign will use a combination of approaches.

5. Funding a range of initiatives

Most employers see the provision of financial support as a key role for government. Support can be provided through an increase in training grants and subsidies, direct cost reduction, or simplified funding processes. Improved tax breaks for employers who engage in skill development are a possibility, as is a training tax, but the latter is rarely used.

Financial incentives could include:

- a tax credit, for example, where the company receives a certain percentage back from taxes for every dollar spent on training
- a training fund, whereby the government matches the company's training investment up to a certain amount.

6. Supporting appropriate programmes and activities

Educators and providers generally believe that the government should support broad-based approaches to skill development rather than those that are more narrowly focused. Employers clearly favour work-based learning tailored specifically to their needs. They value both formal and informal learning processes, and most use these in tandem. There is widespread agreement that firms increasingly require staff with good behavioural skills – problem-solving, communication and interpersonal skills, as well as technical knowledge.

7. Ensuring that providers and programmes are of high quality

The government has a role in ensuring that the providers that it funds or accredits are of high quality. This requires a commitment to supporting ongoing professional development for teachers and trainers, and ensuring that professional development includes strategies for setting up links with companies and analysing training needs.

Barriers to company investment in skill development

Management, organisational and other factors can act as incentives or obstacles to investment in workplace literacy programmes. Relevant factors include:

- management attitudes and commitment to training and to employees, including their perceptions of where training adds value
- job skill requirements and labour supply
- workplace organisation, including the proportion of staff employed under non-standard (part-time, temporary or off-site) contracts
- rate and type of industry and workplace change, decline or growth
- changing markets and customer requirements
- regulatory pressures
- industry conditions and training culture.

Other factors that create barriers for employers to supporting training in workplaces include:

- lack of employer awareness of the gains (economic and qualitative) from improved worker literacy skills
- lack of knowledge among most managers and workers about the many effective techniques for developing literacy skills in the workplace
- lack of union engagement in planning and delivering workplace learning
- limited strategic planning, applications instruction, technology training, and external links for mentoring and other developmental purposes
- scarcity of managers who know how to promote worker involvement in literacy programmes.

At an operational level, pressures on time and resources are the most frequently raised barrier to providing work-based learning.

The literature stresses that work practices and skill development need to be reviewed and improved if productivity is to increase. Where training is provided but work practices are poor, there is no opportunity for the worker to use their new learning. The knowledge will not be retained

Some studies suggest that training provision increases significantly with employer size. Others challenge this view, arguing that size is a proxy for the level of resources that can be committed to training and the diversity of skills required in the workplace. It may just be that smaller enterprises adopt more innovative, less formal methods of training that are not recorded.

Characteristics of workplace practice that support initiatives to improve skills

Adoption of new management practices, such as becoming a 'learning organisation' and teamworking, are generally, but not necessarily, favourable to skill development. The practices must be thoroughly implemented for success to ensue. The 'lean production' model is often associated with a reduction in expenditure on training.

A company 'driver' or 'champion' is important in obtaining a commitment to invest. The attitudes of supervisors, employees, senior managers and union officials towards learning are strong indicators of their future commitment to and support for a learning programme. Successful companies will:

- make worker development a corporate priority and include literacy training on management's agenda
- communicate to supervisors and workers, in a non-threatening way, about the organisation's training programme and how it will benefit them
- encourage the commitment of supervisors and workers to skills improvement by involving them in training development and delivery
- continuously market the training programme internally to all concerned.

Evidence on the efficacy of supportive personnel policies, such as gain sharing and reward systems, is inconclusive, but suggests that such practices are more effective used in combination than separately.

Quality partnerships at the organisational level between employers and unions, employees and training organisations are crucial in implementing training successfully.

Companies that support learning are able to find appropriate providers and access available funding. Providers with expertise in literacy provision can offer guidance, work in partnership and tailor programmes to a company's needs.

Part II

Links between lifting LLN skills and productivity

An extensive body of literature has explored the relationship between productivity and skill development in general. Relatively little literature has explored the relationship between LLN and productivity. All of it is cautionary about making such links because of the complexity of the relationship and problems of measurement.

Few studies have gathered performance (test) evidence on the impact of providing workplace basic skills training. Most rely on qualitative or subjective estimates, which are based on global judgements, and not on collection and analysis of hard data.

Companies need to be clear about why they are undertaking training, and understand whether the skill development has an operational focus, is designed to address an organisational threat such as a safety issue, or is being made to strategically position the organisation for the longer term. This will influence whether they want to:

- measure the effect of skill development to show that 'training pays'
- show how (that is, in what ways) skill development pays
- market the organisation's training function
- improve the quality of skill development, or
- help to decide priorities.

Reported or perceived benefits for companies from basic skills programmes typically include:

- improved quality of work
- better team performance
- improved capacity to cope with change in the workplace
- improved capacity to use new technology
- increased output of products and services
- reduced time per task
- reduced error rate
- better health and safety record
- reduced waste in production of goods and services.

While reports are consistently positive, numerous authors point out that, in attempting to assess the benefits and impacts of literacy programmes, it is extremely difficult to control for intervening factors such as external market influences, personal characteristics, incentives and disincentives for acquiring or displaying skills, the way work is organised and the degree of autonomy workers have.

Other benefits to employers and employees

A more stable workforce is an additional benefit for employers. Benefits for employees include opportunities to progress and the probability of higher wages. Although it is often unclear whether individual employers actively link wages to learning, at a national level, literacy has a persistent, positive and statistically significant association with people's earnings per hour or per week.

People who undertake LLN training are more likely to commit to further training. They typically experience an improved sense of self-worth and engagement, and are able to transfer skills to their community and family life.

Risks and unintended consequence of lifting LLN skills

Employers may be reluctant to invest because of fears of an inadequate return. They may have unrealistic expectations about how long learning might take or what can be achieved, and be unaware of the need to see LLN training in the wider context of the workplace. They need to be aware of flow-on effects on other staff and make sure that conditions in the workplace facilitate transfer of learning. Withdrawal from or non-completion of programmes is also a risk. Undertaking a risk-management analysis is a useful exercise for individual initiatives or interventions.

Evaluations of initiatives to lift LLN skills

Evaluations of LLN initiatives have to contend with issues of perspective, measurement and attribution. The relationship between training and outcomes is complex, and it is difficult to control adequately for extraneous factors, or to identify which component of the intervention—or whether the fact that there was an intervention at all—had most influence on the outcome. As with literacy programmes themselves, clarity about the goals of any evaluation is essential, along with reality about what outcomes can be expected in the short term.

Points to consider in designing evaluations include:

- being clear about what is being evaluated, on whose behalf and from whose perspective
- being clear about each stakeholder's aims/goals—stakeholders might include government, ITOs, training providers, employers, learners and unions
- clearly identifying the problem or issue that the programme seeks to address
- allowing enough time for impacts and effects
- teasing out extraneous factors and identifying expectations and assumptions through the development of a programme logic and/or mapping exercise
- undertaking a risk-management analysis as part of planning
- taking into account the feasibility, accuracy, credibility, cost and time commitments required for the evaluation
- using a multi-method approach to maximise the reliability of results—options include analysis of workplace and training documentation, reviews of system change, observation, surveys, interviews and focus groups, assessments of learning, and using techniques such as the success case method to explore why interventions are unsuccessful for some participants/companies
- ensuring that it is possible to identify participants in workplace data
- reporting aspects of the programme (and evaluation) that do not work well or could be done differently
- involving the evaluation team at the planning stage rather than undertaking an ex post evaluation.

Most of the evaluations reviewed report positive results. They rarely discuss why some people do not succeed in learning or in transferring their skills. One exception was a government initiative in the United Kingdom that did not attract resistant or less aware employers. Another, called **learnirect**, had more impact on individuals than on organisational performance. The Union Learning Fund in Scotland was successful in engendering a learning culture among employees but was unable to satisfy the demand for training, particularly in numeracy and literacy.

Industry or sector-specific training is successful where there is:

- careful front-end interviewing and enrolment processes for applicants
- trial periods at the beginning of training
- development of training content and a training culture that reflect industry norms
- fitting of the training to the student
- tailored and flexible support during and after training.

The role of government, unions and other stakeholders in enhancing LLN skills of the workforce

The role of government in enhancing the LLN skills of the workforce encompasses the same strategies described in Part I. This section records a particular need for policies and strategies to support learning, skill and enterprise in small businesses.

Roles for unions in enhancing LLN skills include supporting members to cope with change, creating a learning culture in a workplace, and establishing a foundation for ongoing learning. Workplace literacy programmes also offer unions the opportunity to expand services to members and increase member involvement and activity. Members with improved skills often take a more active part in union committees and programme development. Arrangements can include union consortia, joint union/company partnership funds, individual unions forming partnerships with employers and educators, and a government-supported union-learning fund.

Employer financing plays a central role in supporting LLN initiatives. Other key stakeholders are industry organisations and training providers who need to work in partnership with government and employers.

Industries that have major issues with employees not having LLN skills

Sector-specific information is difficult to come by, but generally agrees that there is a high need for communication, problem-solving and LLN training for both new entrants and existing employees, particularly in manufacturing, construction and agriculture. LLN skills may also be an issue in hospitality and retail where staff turnover is high, businesses are small and career development options are limited.

The literature also identifies the need for ongoing training and support to match the rate of change occurring in many industries, which is often associated with the introduction of new technologies. Industries with a high proportion of transient workers working in small businesses face particular challenges and need sector-wide support.

Research gaps

Workplace literacy is a developing area here and overseas, and the development of evidence-based policy and practice is ongoing. Areas where further research or work would be useful include:

- the costs and benefits of LLN interventions for small businesses
- ways to develop e-learning and blended learning strategies for small businesses
- the elements of effective partnerships between government and other stakeholders and among various stakeholders
- the influence of non-training factors on learning outcomes in workplaces
- the nature and impact of informal learning in workplaces
- strategies that work well in different contexts, such as mentoring and peer support.

Payne (2003) argues for research that integrates theory and practice to ensure that policy and practice are based on what employers and learners actually need. He believes such research should draw on quantitative data, for example, the number of learners, existing skill levels and projected skill needs in the labour force, as well as qualitative data, such as the factors that motivate learners, and the perceived benefits for learners and employers deriving from LLN programmes.

1. Introduction

This literature review is intended to inform a work programme on lifting the literacy, language and numeracy (LLN) skills of the workforce. The work programme will include a plan of action and an accompanying evaluation strategy, and provide research evidence to inform the design of a wider strategy to upskill the workforce at the low-skilled end.

A key goal of the strategy is to shift workplace practices in New Zealand industries, sectors and enterprises to help employers improve the LLN practices of their employees and make better use of their skills to lift productivity, profitability and pay.

The literature review has an introduction and three parts.

1.1. Scope of report

Part I addresses two main and several sub research questions:

1. What is the role of government in encouraging employers to engage in skill development?
 - How should government work with the business sector to get them effectively engaged in the process of shifting workplace practices and providing sufficient support for skill development and utilisation within the workplace?
2. What are the barriers that exist for employers to investing in training to lift LLN skills?
 - Do the management, organisational and work structures, or other workplace practices, create barriers to engagement in a workplace learning programme? If so, how?
 - What are the characteristics of workplace practice (such as links to performance management systems and reward structures) that support initiatives to improve skills?
 - What initiatives have been successful in shifting workplace practices to better support skill development and utilisation? Are there any examples or results of evaluation?
 - What other factors create barriers for employers to supporting training in workplaces?
 - Lack of awareness of benefits of lifting skill levels, or of responsibility in this area?
 - Lack of access to appropriate training provisions?
 - Cost or time?
 - Anything else?
 - What levers/initiatives can be used to encourage employers to overcome the barriers? Are there any examples or results of evaluation?

Part II addresses six research questions:

1. What are the links between lifting LLN skills of the workforce (both employed and unemployed who are seeking work) and productivity, and the drivers of productivity?
2. What are other benefits of lifting LLN skills to employers and employees/individuals?

3. What are the risks and/or unintended consequences of lifting LLN skills of the workforce (both employed and unemployed who are seeking work)?
4. What are examples of evaluations undertaken on initiatives to lift LLN skills?
5. What is the role of government, unions and other stakeholders in enhancing LLN skills of the workforce?
 - International experience in forms of intervention in encouraging and supporting businesses to invest in the literacy, language and numeracy skills of their employees.
 - Distinctive roles for government, industry sectors, individual employers, individuals and trade unions.
6. What industries have major issues of employees not having the LLN skills necessary to be competent in their jobs?

1.2. Method and limitations

Literature was obtained:

- through the internet, and in particular through the Literacy Portal on the Workbase website
- from colleagues working in the area
- from policy staff in relevant government agencies
- for Part I, from a search undertaken by the Department of Labour Information Service.

The review for Part I was carried out over four weeks from April to May 2006. This timeframe necessarily limited the scope of the work, with most emphasis given to recent material (that is, from 2000 onwards) and previous literature reviews. No attempt was made to revisit the original material covered in these reviews. The review focuses closely on the research questions without discussing the historical, social and economic context in which these issues have arisen. The approach is practical and policy-oriented rather than theoretical.

Part II was completed in August 2006 and adopts a similarly pragmatic approach. There is a recognised shortage of reliable evaluations of workplace literacy initiatives and limited material on sector-specific initiatives. Most reports draw on stakeholders' perceptions of change or outcomes rather than on documentary evidence.

Most of the material comes from Australia, Canada, the United Kingdom and New Zealand, with smaller amounts from the United States and other countries.

1.3. The report

The report is presented in three segments:

1. Introduction

Chapter 1 introduces the review and describes the research questions and methods used.

2. Part I

The findings are reported in two chapters:

- Chapter 2 looks at the role of government in encouraging employers to engage in skill development.

- Chapter 3 looks at the barriers that exist for employers to investing in training to lift LLN skills.

3. Part II

The findings are reported in six chapters:

- Chapter 4 considers links between lifting LLN skills of the workforce and productivity, and the drivers of productivity.
- Chapter 5 considers other benefits of lifting LLN skills to employers and employees/individuals.
- Chapter 6 looks at the risks and/or unintended consequences of lifting LLN skills of the workforce.
- Chapter 7 discusses examples of evaluations undertaken on initiatives to lift LLN skills.
- Chapter 8 considers the role of government, unions and other stakeholders in enhancing LLN skills of the workforce.
- Chapter 9 focuses on industries that have major issues of employees not having the LLN skills necessary to be competent in their jobs.

PART I

2. Role of government in engaging employers in skill development

This chapter considers the role of government in engaging employers in skill development. It discusses areas in which the literature identifies a role for government. These are:

- establishing a strategy for skills development
- adopting a business-like and therefore a business-friendly approach
- undertaking specific activities in partnership with industry, employers and other stakeholders
- developing and implementing an information campaign
- funding a range of initiatives
- supporting appropriate programmes and activities
- ensuring that providers and programmes are of high quality.

Only a small proportion of the literature reviewed to date refers to the government having a role in shifting workplace practices in order to support skill development. Most describes strategies aimed directly at increasing investment in skill development.

2.1. Establishing a strategy

Literature from Australia, Canada, England, Scotland and New Zealand agrees that there is a role for government in engaging employers in skill development, particularly in relation to literacy and numeracy, with the first step being the development of a strategy. Almost all literature argues for a broad-based approach that recognises the context in which skill development occurs, the drivers of increased training and the implications of skill development for employers and employees. Authors also acknowledge the complexity of the issue, the relevance of the government's broader philosophical approach and the need to be clear about what the government wants to achieve.

Philosophy and goals

The Learning and Skills Research Centre in England considers that the broader policy environment sets the scene for specific policy formulation in this area. It identifies three relevant features of the policy environment in England. They are:

- a philosophy of efficient public service delivery under which inducement-type policies are devolved to the local level
- a belief that, if the government provides enough information on the labour and learning market to employers, they will make the 'right' sort of provision, and individuals will make the 'right' decisions about their engagement in learning
- an emphasis on creating a 'demand-led' system, where the government is willing to support and encourage but not to regulate. Here the challenge is to stimulate the 'right' sort of demand, yet retain the principle of voluntary participation and engagement (Learning and Skills Research Centre 2004).

The Performance Innovation Unit (2001) in Britain picks up the philosophical debate and concludes that, while there is no one answer to tackling lack of investment in the skills of workforces:

- government should take responsibility where there are social benefits from workforce development and barriers to the market achieving optimal outcomes

- employers should take responsibility in the workplace, but in partnership with their employees and government
- individuals should accept personal responsibility for the development of higher level transferable skills, and should share responsibility with employers and government for developing other skills.

How these various responsibilities are divided and managed depends on how the goal of skill development and work-based learning is articulated. In discussing literacy and numeracy programmes, D'Amico (2003) asks whether the goal is:

To raise literacy levels as measured by standardised assessments of literacy per se, or to achieve a combined level of literacy and job skills that gets the worker to the next step in an industry, a workplace, or his or her own trajectory. [D'Amico 2003:7]

Glass et al (2002) agree that work-based learning can be defined in broad terms as a means to:

- help employers and individuals respond to constantly changing labour markets
- provide a basis for the provision of continuous learning opportunities which such change implies.

It can also refer to any training that relates directly to the requirements of the jobs on offer in a particular organisation.

The Adult Literacy and Numeracy Australian Research Consortium (ALNARC 2000) notes the tension between regarding training as a short-term strategy for improving productivity versus investing in training as part of a longer-term commitment to organisational learning and as an investment in future productivity.

Much needs to be done to persuade employers of the value of working towards a 'training culture' and acknowledging the central importance of involving employees at all levels with opportunities to gain new skills and knowledge. [ALNARC 2000:3]

Others such as Figgis et al (2001:6) prefer the term 'learning culture' because it "better captures the sense that a broad and dynamic engagement with knowledge and innovation is needed". Authors agree that clear articulation of the goal of skill development, and particularly of literacy and numeracy initiatives, is an important element of a training and learning strategy.

Finally, Frank and Hamilton (1999) describe what they call 'domains' in the workplace literacy curriculum. These treat the basic skills student as a whole person, as in any other form of basic skills intervention. Learning should allow these students to:

- carry out their present job
- get their next job
- do their next job
- cope with periods of unemployment and with official bureaucracy
- take part in community/political activities
- access education and training
- support their children at school
- take part in leisure activities, write letters, use ICT.

The context in which skill development takes place

The literature is consistent in its view that enterprise training is primarily driven by workplace change and the adoption of new work systems, new technology and product innovation, and a drive for quality (Capelli and Rogovsky 1994, Curtain 2000, Smith and Freeland 2002, Smith et al 2002). A paper prepared for the 2004 EU Presidency Conference (EC 2004) argues that:

Governments have a key role to play in encouraging the diffusion of new workplace models and practices. Work by the OECD on competitiveness in the knowledge-based economy has identified three areas where governments have an important role:

- *stimulating the adoption of organisational strategies that foster knowledge generation and innovation*
- *alleviating obstacles to diffusion, such as lack of awareness, inadequate capacity for change within SMEs, information 'gaps' facing investors, and weakness in the institutional framework*
- *providing support for workers in a changing environment. [EC 2004]*

At the enterprise level, MacDuffie and Kochan (2005) argue that public policies that boost the supply of skills through mandated training are likely to be ineffective if firms do not take action to adopt new approaches to organising work. On the other hand, if firms move towards flexible production and are unable to find an adequate supply of workers with the necessary skills in reading, numeracy and analytical problem-solving, the implementation of new work structures may be slowed. A two-pronged approach is needed:

Firm choices about production strategy will still be the primary determinant of training effort... Thus, the role for public policy may lie primarily in encouraging the demand for skills by the firm. Policies that promote the adoption and diffusion of flexible production and new approaches to organising work (often labelled "high performance" work systems) should have a positive by-product of increasing the level of training. [MacDuffie and Kochan 2005:165]

Curtain (2000) refers to an increase in non-standard work practices, including an increase in part-time and casual work, self-employment, and workers having multiple employers, open-ended contracts and variable places of work. People in these situations may find it harder to access training and learning opportunities and have different skill development requirements. A strategy needs to address this.

Changes in work practices have also led to a demand for new kinds of skills. As well as wanting employees to have technical knowledge and basic literacy and numeracy skills, employers increasingly expect their staff to have good communication, problem-solving and interpersonal skills and to be computer literate. This indicates a need to provide a range of training opportunities.

Employer awareness

Not all employers see it as their responsibility to give their employees training in basic skills (Comrie et al 2005). The literature supports government having a role in advocating with employers to convince them of the benefits of providing learning opportunities. For this advocacy to be successful, particularly for employees with lower level skills, strategists need to understand employers' current level of awareness and act appropriately (Gagnon, Bloom and Watt 2005).

Employers' interests and efforts in training and skills development fall along a continuum of awareness and change. Any efforts to address changes to employers' behaviours about training must recognise this continuum and the different steps along the way. [Gagnon, Bloom and Watt 2005:3]

The authors describe five typical stages in gaining understanding as:

- gaining awareness of the general importance of skills
- recognising and understanding the significance to their own organisation
- making choices to act or not to act
- taking action
- maintaining or increasing the training effort.

It is apparent from the literature that many employers begin with a narrow organisational perception of the importance of skill development. Their primary concern is to achieve returns from their investment in the form of improved performance and cost savings (Campbell 2003). Employers who engage in work-based learning do so to:

- improve quality of service or product
- make the company more competitive
- improve competence in the job
- keep up with technological developments
- increase the flexibility of employees
- increase productivity
- increase compliance with health and safety requirements (Glass et al 2002, Smith and Freeland 2002, Campbell 2005, Schick 2005).

In her study of New Zealand companies, Schick (2005) concludes that:

There was not a single factor that drove a company's decision to implement a literacy programme; rather it seems that a cluster of variables work together to bring employers to the point of recognising their need to improve literacy levels. [Schick 2005:10]

While advocacy initiatives need to recognise this, they also need to take into account the drivers for employee participation and the benefits of skills development for individuals and society as a whole. Employees may be driven by a desire to increase their earnings and employability in the short and medium term, but also by a desire to improve their general education, and gain self-confidence and broader living skills (Folinsbee 2001, Glass et al 2002, Long and Middleton 2001). D'Amico (2003) argues for investments in workers that provide education, training, and opportunities for advancement, grounded in partnerships that unite stakeholders and boost regional economies.

Working in partnership

The literature is united in its call for a partnership approach to the development of strategy. Writers from a variety of perspectives agree that increasing employer engagement in skill development requires a broad effort involving government, employers, unions, employees, sector organisations and training providers (Folinsbee 2001, Holland et al 2002, Smith et al 2002). In her briefing paper on *Literacy and the Canadian Workforce*, Folinsbee argues for such an approach:

Partners should include but not be limited to all levels of government, business, labour, education, community groups, learners, volunteers, social services and the media. Themes around partnerships include accountability

and the financial commitment of all partners, and coordination among all levels of government. There must be inter-ministerial partnerships at the level of the federal government. In addition, partnerships are important for sharing information, successes, resources, and developing collective efforts and systems. [Folinsbee 2001:11]

The Skills Alliance in England (described in Case Study 1 in Appendix 1) is one example of a partnership approach. As well as bringing together relevant organisations, it includes new national and regional delivery partnerships. Other examples are included elsewhere in this review (see Case Study 2 in Appendix 1).

2.2 Specific activities

The literature identifies a number of activities that might develop out of a government strategy. They include an information campaign, financial support for skills development, the development of a broader range of training initiatives, and quality assurance mechanisms for providers.

Developing an information campaign

Almost all writers see a role for government in developing and implementing an information and marketing campaign. Gagnon, Bloom and Watt (2005) caution that:

Employers operate in different sectors and markets, sell different goods and services, and come in different sizes. Consequently they have different training issues and needs—which means there is no training panacea. Changing employers' behaviour requires a combination of how employers are reached, such as information campaigns and outreach programmes, and what employers are offered, such as financial incentives, training tools and programmes. [Gagnon, Bloom and Watt 2005:7]

Messages and strategies obviously need to be tailored to the needs and interests of workers and management in different contexts (Figgis et al 2001, Folinsbee 2001, Johnston and Hawke 2002, Schick 2005). Writers have come up with different ways of categorising enterprises as the possible basis of a 'marketing' campaign. Figgis et al (2001) suggest that they be divided along one of three lines.

1. According to the factors which are known to drive enterprises to increase their training. They include workplace reorganisation, new technology, introduction of quality protocols, awards or industrial agreements, performance management, and business plans that include training.
2. According to the enterprises' current attitude towards and use of training and learning. That includes those who value all forms of training, those who value non-work employee learning and those who see problems associated with training.
3. According to the outcomes wanted. They include specific skills to comply with external standards, meeting an enterprise's internally identified need for action (including need for innovation), changing the way people at work relate to one another to change the culture, or identifying a new business opportunity.

Figgis et al prefer the third option because of its focus on skills and knowledge and because it separates training and learning from business results. It also makes clear that there are many ways to achieve the different learning outcomes and

underscores the fact that a number of individuals in an enterprise may have roles to play in fostering different aspects of learning and training.

Schick's (2005) grouping is more along the lines of option two and is similar to the model developed by Gagnon, Bloom and Watt (2005). She categorises companies in terms of their readiness to invest in workplace literacy programmes, describing them as:

- unaware and unfavourable: employers do not see literacy as an issue or consider it their problem to address
- Phase I—unaware and favourable: companies have conditions and attitudes that highlight their need to address issues and invest in training
- Phase II—aware: companies recognise that some of their needs and issues can be addressed by focusing on literacy and numeracy
- Phase III—doing it: companies take action, usually because of at least one committed manager who drives the programme.

Some writers, such as Glass et al (2002), suggest that it might be appropriate to prioritise sectors for support. Priorities could be based either on bringing lagging sectors up to speed or on supporting industries that will be at the forefront of developing the country's competitiveness. The government may decide to focus on encouraging employers to invest in their lower-skilled workers to both improve productivity and enhance people's life chances.

Payne (2002), on the other hand, believes there is an assumption that the main effort should be concentrated on those with the lowest level of skills. But LLN needs in the workplace are not limited to the lowest-skilled workers, and there may be significant advantages in emphasising the needs of those with supervisory roles in the workplace. This may include, for example, training in areas such as drafting 'user-friendly' notices and memos or giving oral rather than written instructions.

Implementing an information campaign

The literature discusses what an information campaign should cover and the means through which it might be delivered.

Glass et al (2002), Campbell (2003, 2005) and Gagnon, Bloom and Watt (2005) believe that an information campaign needs to deliver clear messages about skill shortages, the effect they have on employers' businesses, and the benefits to employers of investing in employee training. Where possible, information needs to be detailed and specific. In its review of English policy relating to vocational training, the LSRC (2004) found little benefit in using tools such as proclamations, speeches and public relations campaigns that simply exhort people or organisations to follow a particular line. Convincing employers that their organisation will benefit from investing in training may be challenging. As Levenson (2001) points out:

Precisely quantifying the benefits of such programmes can be difficult. And even where a benefit can be shown, it is difficult to guarantee the same benefit will be realised in a different organisational setting. The key factors underlying the success of a programme can be very different from company to company. These include, but are not limited to, the company's industry, leadership, and geography, and its philosophy on the importance of training and the role of the human resources function. [Levenson 2001:9]

In an Australian study, Figgis et al (2001) found that enterprises were more interested in getting real and detailed information on how other enterprises handled

problems or issues of concern to them, including the difficulties as well as the rewards, than in listening to or reading 'good news' stories. They also wanted information on the way that informal approaches to training and learning can contribute to the development of skills, knowledge and innovation in an effective and cost-effective way. They used 'informal' in an inclusive way to cover any form of learning that was not formal, structured training. Enterprises pointed out that formal procedures are often costly and inflexible, while informal processes appear to be more economical (Figgis et al 2001).

Lack of specific information about programmes, funding, options and resources also limits companies' willingness and ability to engage in skill development (Carstensen 2004, Glass et al 2002). Information campaigns need to address this lack. They need to:

Provide information on the 'how to' of training and skills development: how to assess employee skills; how to identify skills gaps; how to find the right training programme; how to finance the needed training; and how to evaluate the training initiative. [Gagnon, Bloom and Watt 2005:10]

Information may be delivered in a variety of ways:

- directly by government agencies
- by industry associations or sector councils
- using media campaigns
- using the internet, including establishing, maintaining and promoting a literacy and numeracy information service using a website
- through conferences, workshops and other forums
- through peers learning from peers
- through a brokerage service
- through an outreach programme using training advisors who attend employers' workplaces (Carstensen 2004, Figgis et al 2002, Gagnon, Bloom and Watt 2005).

Almost all authors recommend using a combination of techniques to provide information across all the stages of engagement identified by Schick (2005) and Gagnon, Bloom and Watt (2005). Case Study 2 is an example of one delivery mechanism.

Gagnon, Bloom and Watt (2005) favour Sector Councils, working with government agencies, industry associations and other organisations, bringing together employers in a peers-learning-from-peers forum:

These facilitated workshops would offer employers first-hand insights and experiences from their peers, on how to assess skills gaps and implement effective training strategies. They would also give them the opportunity to discuss questions they have about how to make training work in their organisations. [Gagnon, Bloom and Watt 2005:6]

Glass et al (2002) propose establishing a service that focuses on brokerage, that is, helping to identify the appropriate type and quality of training for a particular enterprise rather than simply listing what is available. The authors believe that such a service is likely to be particularly useful for smaller enterprises that need guidance as well as information. Others favoured personal interaction, 'because it allows for conversation and the "receivers" of messages about training and learning have the opportunity to think out loud about how the information might apply in their

circumstances' (Figgis et al 2002). Targeting people within industries who have an interest in training and learning, along with senior management, may also be beneficial. Schick (2005:7) disagrees with a one-to-one approach to persuade employers of the business benefits of workplace literacy. In her view, 'this approach will never achieve the level of investment necessary to address the literacy challenges we face'.

Case Study 3 in Appendix 1 is an example of a brokerage service in England, offered as part of a broader initiative.

Financial support

Most employers see the provision of financial support as a key role for government, through an increase in training grants and subsidies, direct cost reduction, or simplified funding processes (Glass et al 2002, Levenson 2001).

The Learning and Skills Research Centre (LSRC 2004) reports that education and training policies in a number of countries, including England and the United States, often use some form of inducement as the dominant policy instrument. The authors believe that, for inducements to work, policy-makers must estimate the costs that recipients are willing to bear and the value of the incentive that will gain their participation. Under this model, the government has direct service costs, but recipients may also incur costs, such as:

- opportunity costs in lost production while employees are studying or learning
- excess costs where, for example, the cost of attending courses is higher than the grant
- costs associated with having to match funds provided through a grant.

Weighing up the likely impact of these costs is a challenging but necessary exercise. Early findings from an English initiative under which employers received financial incentives to provide training (Abramovsky et al 2005) show that the programme largely attracted employers who would have offered training anyway and who had a relatively positive attitude to training compared with average employers. Additional strategies are needed to encourage more resistant or less aware employers.

Glass et al (2002) believe that particular attention should be paid to the needs of small and medium-sized enterprises, including:

- greatly simplifying the funding support regimes for these businesses
- devising less demanding application and monitoring procedures
- promoting more extensive use of e-learning
- brokering more effective, externally-provided training on behalf of groups of businesses.

Levenson (2001) agrees. He argues that external grants that cover at least part of the costs of programmes are critical for getting a programme started and developed to the point where it can demonstrate initial success. It then becomes much easier to convince operations managers and/or senior management to foot the costs of ongoing training. He warns that, if grants come with too many conditions, companies are liable to refuse them. The out-of-pocket costs are only one component. The implicit costs of employees' and managers' time may be much larger.

Case Study 4 in Appendix 1 is an example of an initiative giving start up funds and grants to enterprises.

Tax breaks

Three reports argue for improved tax breaks for employers who engage in skill development (Folinsbee 2001, Glass 2002, Gagnon, Bloom and Watt 2005). The latter report suggests that the government could consider offering financial incentives directed at employer-sponsored training, such as:

- a tax credit, for example, where the company receives a certain percentage back from taxes for every dollar spent on training
- a training fund, whereby the government matches the company's training investment up to a certain amount.

A training tax is also a possibility, but one that is rarely used. One example is the Quebec Training Tax, which was implemented in 1998. This legislation requires employers with payrolls over \$250,000 to demonstrate that they spend 1 percent of payroll per year on government-approved training, otherwise they must contribute an equivalent amount to a province-wide training fund. The paperwork required to prove they have invested in training can be a disincentive, and some businesses prefer to pay the tax rather than fill out the forms. According to the Quebec Ministry of Employment, about 68 percent of eligible businesses claim their training activities, and employer-supported training in Quebec increased 66 percent between 1997 and 2002, far more than in other provinces in Canada (Gagnon, Bloom and Watt 2005). Folinsbee (2001) suggests that it is important that the training fund is used effectively:

A significant portion of the money that is funnelled back to companies through grants needs to target basic education and be based on the principles of equity and joint decision making. Criteria for receiving money need to reflect these principles. Recognition also needs to be given to employers who demonstrate exemplary practice for their contributions. [Folinsbee 2001]

In an Australian study, Smith and Hayton (1999) concluded that few of the enterprises they studied were engaged with the National Training Reform Agenda in operation at that time. The introduction of a training levy on employers (since abolished) appeared to have little impact on the level of training provided. The availability of grants for innovative training programmes had persuaded some enterprises to make substantial investments in training infrastructure.

Developing a range of learning options

There is considerable discussion in the literature on what kinds of programmes the government should support and on the appropriateness of supporting informal as well as formal learning options.

As an advocate for literacy and numeracy skills development, Folinsbee (2001) believes that the government should support broad-based approaches to skill development rather than those that are more narrowly focused:

Within a skills framework (on literacy and work), the solution is often skills-based; a functional, task-based approach, often referred to as functional context. This approach focuses on what workers need to be more competent at their present jobs or the skills they need to get a job. Policy decisions directing programmes and services using this perspective address increasing workers' literacy skills by focusing on job or employment-related skills and tasks. However, critics see this solution as too simple. For example, Connon Unda and Clifford (1997) assert that 'Short term job-specific literacy programmes do not develop the broader potential of workers to acquire

portable skills and become self-directed learners. Such approaches not only cheat workers and fail to meet the needs of the changing workplace, they also cheat a society where public funding is involved' (p.160). [Folinsbee 2001:23]

Waterhouse and Virgona (2004) make a similar case in their review of adult literacy in the call-centre and aged-care industries. They call for resistance to the narrowing of literacy and generic skills for company requirements and suggest that off-site training can provide an opportunity to address broader educational issues.

Glass et al (2002), on the other hand, found that employers clearly favoured work-based learning tailored specifically to their needs. In their view, work-based learning that provides employer-specific skills is more effective than industry-wide training, particularly in achieving increased employee productivity and improved quality of products and services. They believe that the development and enhancement of core skills, flexibility, staff loyalty and organisational image are also better served by employer-specific skills training, although not to such a great extent.

Reports agree that more and more firms require staff with good behavioural skills—problem-solving, communication and interpersonal skills—as well as technical knowledge. Training prompted by national government policies or institutionalised through the national industrial relations system may not provide this. MacDuffie and Kochan (1995) believe that such training is more likely to emphasise the development of technical skills that are portable across jobs and are therefore taught, evaluated and certified according to national standards. They conclude that:

Public policy focused on training standards should emphasise not only technical skills but also the more broadly applicable cognitive and interpersonal skills that are commonly taught in flexible production settings. [MacDuffie and Kochan 1995:166]

Training can be delivered through nationally accredited vocational education and training systems, either in-house or off-site, but learning can also take place more informally. Following a study of Australian organisations with well-established learning cultures, Johnston and Hawke (2002) argue for a flexible and inclusive approach to the mode of training delivery:

Initiatives to encourage learning in organisations need to be more wide-ranging than the provision of formal training classes offered by training institutions or in-house. Even in the organisations which had more formalised training and assessment systems, a number of programmes offered included, as part of the learning process, substantial work-based components directly related to employees' participation in the workplace. Such programmes were reported to be beneficial to the organisation as well as to the individual. [Johnston and Hawke 2002:37]

Curtain (2000) agrees, arguing that the vocational training system will need to develop two types of flexibility to meet employers' needs. One he calls context flexibility and the other temporal flexibility. The former refers to the need for training providers to arrange for learning to take place in a range of contexts. The latter refers to tailoring delivery modes in terms of times, venues and format to meet the requirements of an increasingly diverse group of users.

Research shows that small to medium-sized enterprises generally prefer informal training, due to the lower numbers of people they can train at any one time, the amount of training time they can provide, and limited finances. Much of this training is

undocumented (Gagnon, Bloom and Watt 2005). Overall, enterprises value both formal and informal learning processes and most use them in tandem. Indeed, some see informal strategies as more important and effective than formal training (Figgis et al 2001, Johnston and Hawke 2002, Smith et al 2002). Figgis et al summed up their experience:

What we found was that across the wide range of size, industry and location, enterprises were interested in the way informal approaches to training and learning—in terms of both guidance and goals—could contribute to the development of skills, knowledge and innovation in an effective and cost-effective way. [Figgis et al 2001:62]

The authors suggest that employers need more information on:

- informal approaches including information on types, how they work, and how to impose discipline and rigour on them
- the interplay between formal and informal approaches and the way they relate to problems such as cost and staff retention.

In the informal setting, much of the learning is individually based, and ALNARC (2000) believes that the government may need to consider funding individuals in workplaces rather than programmes.

Developing quality providers

The government also has a role in ensuring that the providers it funds or accredits are of high quality. This requires a commitment to supporting ongoing professional development for teachers and trainers, and ensuring that the professional development includes strategies for setting up links with companies and analysing training needs (ALNARC 2000).

Both Levenson (2001) and Holland et al (2002) note that specialist literacy practitioners working in industry often lack knowledge of the culture of the workplace and of industry training. Holland et al also point out that:

The reverse is often true for vocational trainers, coordinators in modern apprenticeship programmes, health and safety representatives, union representatives, supervisors and managers. While their understanding of the workplace and the industry is likely to be strong, they are likely to have significant needs in terms of professional knowledge of adult learning. [Holland et al 2002:41]

Supporting key people within industry to enable them to identify literacy issues as they arise may be a useful means of increasing the uptake of programmes that will improve employees' literacy. The government also needs to support efforts to build and sustain networks of practitioners to facilitate professional training and knowledge sharing. This should foster more effective workplace basic skills programmes (Levenson 2001, ALNARC 2000).

ALNARC (2000) also recommends that the government consider establishing an Education ITAB (equivalent to an ITO in New Zealand) to regulate and monitor the standards of workplace trainers and assessors and to improve quality and ensure parity of qualifications across providers.

3. Addressing barriers for employers to investing in training to lift LLN skills

This chapter considers the barriers that limit employers' investment in training and strategies to address them. It first looks at management, organisational and work structures, and at other workplace practices that act as barriers to engagement in a workplace learning programme. It then reviews operational and practical barriers to increasing skill development and concludes with a review of the characteristics of workplace practice that support initiatives to improve skills.

3.1 Management, organisational and work structures, or other workplace practices as barriers to engagement in a workplace learning programme

Management and organisational factors, and workplace practices can contribute both negatively and positively to a company's willingness to invest in training and to its productivity and performance (Johnston and Hawke 2002, Smith et al 2002, Burt 2004, MacDuffie and Kochan 1995, Schick 2005). The literature also cautions that work practices and skill development need to be reviewed and improved if productivity is to increase (MacDuffie and Kochan 2005). Authors argue that, where training is provided and poor work practices remain, if there is no opportunity for the worker to use their new learning, the knowledge will not be retained.

Not all workplace misunderstandings are due to the poor English skills of some workers. Problems may arise from diverse causes such as poor organisation of workflow; poor supervision; and poorly written workplace materials e.g., signs, manuals, and memos. On a larger level, worker productivity deficits may be due to the way the workplace itself is structured. For example, use of technology, labour management relations, and compensation offered may also affect worker performance. Basic skills or English language training will not ameliorate these issues. [Burt 2004:5]

In her study of New Zealand employers, Schick (2005) pays particular attention to the management, organisational and other factors that present incentives or obstacles to investment in workplace literacy programmes. They include:

- management attitudes and commitment to training and to employees
- job skill requirements and labour supply
- workplace organisation
- rate and type of industry and workplace change, decline or growth
- changing markets and customer requirements
- regulatory pressures
- industry conditions and training culture.

Managers' attitudes about training influence their decisions to invest in training

Employer attitudes and levels of training investment vary significantly within industries and among comparably sized companies. Smith and Hayton (1999) conclude that, in the enterprises they investigated in Australia, the prevailing notion among managers, especially at the middle and junior levels, was that training should be short, sharp and highly relevant to specific problems faced by the business, such as the introduction of quality assurance programmes or the implementation of teamwork. They did not view training as a long-term investment in the development of employee commitment. In other cases, managers take a long-term view of training.

In these organisations, learning initiatives are a response to strategy and policy rather than a prime driver or shaper of strategy or part of the strategy formation process (Johnston and Hawke 2002).

Managers' attitudes can also affect the sustainability of training. As Campbell (2005) points out:

Management's attitude toward learning will undoubtedly be perceived by the rest of the organisation, and it will colour everyone else's opinion of the value of [a] programme. [Campbell 2005:7]

The industry effect

Figgis et al (2001) and Smith and Hayton (1999) found that industries have their own traditions of training, and these influence the attitudes and behaviour of businesses within a particular industry. Schick's (2005) research suggests that manufacturing firms, in particular those in industries, such as plastics, that have an industry-wide commitment to training, are more likely to view training as a strategy to address skill needs. On the other hand, a higher-than-average proportion of companies in the wholesale and retail industries were not interested in literacy and did not see it as their issue.

In Scotland, Glass et al (2002) found that on-the-job learning was most popular among employers in manufacturing, and least popular in the largely public-sector service industries such as education and health. Employers in the growing business and financial service sectors lay in between in terms of the extent of their preference for work-based learning on the job.

The way employers view training is affected by labour supply

Labour supply issues, and skill shortages in particular, drove much of the training undertaken by case study companies cited in this report (see Appendix 1). Schick (2005) reported that 48 percent of respondents to the Business New Zealand survey identified skill shortage as a reason to invest in training. In telephone interviews, nearly half the companies identified skill shortages or a shortage of qualified/trained staff as their key human resource issue.

She believes that, in industries with an oversupply of skilled labour, employers may be tempted to 'buy' rather than 'make' skilled employees. In this situation, a firm may adopt a competitive strategy built on high-skill job designs—creating an incentive to invest in job-specific training and higher-skill rather than basic training. Firms that draw on a less educated workforce design jobs that do not require advanced skills and perceive less need for training.

This view was confirmed to some extent in a British study where the authors considered incentives for training in eight companies in four sectors (Raper et al 1997). The driving forces behind their training practice were restructuring stemming from intensified competition in product markets, changes in the market, concern with improving quality and the introduction of new technology. The last factor actually led to deskilling in the textile and banking sectors and a reduction rather than an increase in training.

Other employers have taken a different approach. A small Canadian company making belting for chain conveyors invested in workplace education when skill deficiencies on the shop floor started to affect productivity:

Several employees were experiencing trouble reading and understanding work orders, doing the required calculations and solving day-to-day production problems. [The manager's] observation that his employees faced literacy, numeracy and problem-solving challenges was confirmed when he administered a standardised test and discussed the results one-on-one with employees. [The Conference Board of Canada 2005:2]

Companies in labour intensive industries operating in relatively remote or scarcely populated areas may have little option but to upskill their staff. Three companies in Canada engaged in mining and forestry all employed local staff, many of whom came from a strong oral rather than written culture and had little or negative experiences with schooling. Many had good practical skills and, in some cases, good critical-thinking and problem-solving skills, but were unable to use documents, read well enough to understand the materials connected with their jobs or follow safety instructions. Each company established a basic skills programme to address the company's concerns as well as the needs of staff (The Conference Board of Canada 2002c, 2005a, 2005c).

A fourth company added a new linerboard machine to increase its capacity. Many of the employees, some of whom had 20 or more years working for the company, lacked the necessary skills to operate the machine. The company quickly realised that, while it had made a significant investment to bring the new machine online, it also needed to raise the basic literacy and work skills of its employees. Once those had improved, the company could move on to provide technical training on the new equipment (The Conference Board of Canada 2005b).

In Australia, two factors led the construction industry to address literacy issues. One was high attrition rates among apprentices and trainees, which the industry believed was due in part to literacy levels. The other was the introduction of a new General Safety Induction Course, mandatory for all workers in the industry. A number of stakeholders were concerned that the literacy demands of the course would cause difficulties for some workers, putting their employment at risk. The industry and the Commonwealth Department of Science and Training funded a literacy project to support workers through this process and maximise their success. The course was an opportunity to assess workers' literacy and numeracy skills and provide additional help where needed (Carstensen 2004).

In a study of businesses in Wanganui, Comrie et al (2005:48) found that, in a tight labour market, large employers saw upskilling their internal workforce as a good investment, particularly in relation to specific identified competencies within the industry.

Management attitudes to training are affected by their perceptions of where training adds value

The literature agrees that, in most industries, employers place greater value on training for higher-skilled jobs and more qualified employees. Companies with higher-skilled jobs are more likely to see training as a key business strategy. Employers also look for different outcomes from programmes for higher- rather than lower-skill jobs and employees (Glass et al 2002, Schick 2005).

Levenson (2001) agrees, commenting:

If a company believes in the principle of training already, then the necessary building blocks are in place. However, most companies devote a

disproportionate amount of training dollars to managerial, technical, and professional employees. The key is to make the argument that training dollars spent on front-line workers can have as large an impact on organisational effectiveness and the bottom line as training dollars spent on higher-level employees. [Levenson 2001:13]

Almost all the workplaces Levenson studied viewed the workplace basic skills programme as complementing or explicitly being part of the company's training initiatives.

A third of the companies in the Schick study did not think literacy was a problem or their responsibility. Almost half had experienced conditions and concerns that could cause them to invest in literacy training but none had considered this. They had not associated changing skill requirements with literacy needs. Ten percent knew they had literacy issues but had done nothing to address them, in part because they were unable to justify the expenditure to senior management.

Comrie et al (2005:48) came to similar conclusions. Employers did not see it as their responsibility to teach basic literacy skills, although some small business employers indicated that, when dealing with a young person with a good work ethic, they did engage in teaching basic numeracy skills. They were more willing to provide specific on-the-job or vocational context training. Large employers had not confronted the problem of literacy skills in their workplace, other than through pre-screening to eliminate applicants with poor literacy skills.

A report on literacy in the construction industry in Queensland (Carstensen 2004) also identified a failure by management to recognise literacy needs at other than the lowest levels of the workforce.

Company culture and attitudes towards training are affected by the proportion of staff employed under non-standard (part-time, temporary or off-site) contracts.

Schick (2005) found that employers invest less in staff who have non-standard work arrangements because they feel they are less likely to recoup training expenditures. These jobs may be more heavily concentrated in particular industries, making these industries less likely to invest in training. In reviewing training in construction businesses in Queensland, Carstensen (2004) noted that, over the last 10 years, the average size of businesses had reduced. At the same time, the use of specialist sub-contractors and outsourcing increased, all of which had a negative impact on training. Training also had to compete with project timelines and contract bonuses. Commitment to training among contractors and supervisors varied, and release of workers was often difficult.

In a 2002 study, Ridoutt et al found that workforce permanence was positively and significantly related to five indices of training activity—training diversity, external reliance, formalisation, individual support and individualisation. While there were correlations between workforce permanence and the *nature* of training, there was no relationship between workforce permanence and the volume or extent of training activity. They concluded that a stable workforce does not necessarily result in more training, but in more formal outcomes.

Changes in markets, technology and the organisation of work can affect managers' attention to the skills requirements of jobs and their willingness to consider training as a response to human resource challenges.

An OECD report (OECD 2000) comments that pressures on firms to become more competitive have led to an increase in flexible management practices, including multi-skilling, extensive use of teamwork, reduced hierarchical levels and a delegation of responsibility to individuals and teams. These have led firms to demand more flexibility and higher levels of skills from their workforce.

International research confirms that training investments increase with the introduction of multi-skilling and teamwork, increased focus on customer service, quality improvement drives and the introduction of new products, processes and technology (Glass et al 2002, Smith et al 2002, The Conference Board of Canada Case Studies 2002, 2005). However, as Smith and Dowling (2001) point out, the relationship between work organisation and training is not straightforward. Much depends on the degree of autonomy that enterprises accord their employees. Teamwork, for example, can be used to increase employee decision-making or to increase control of employees. Similarly, the introduction of new technology may lead to differentiated access to training within the workforce, with only those employees with direct access to the technology receiving training to upgrade their skills.

Schick (2005) found that companies with a combination of predisposing conditions were more likely to invest in literacy programmes. They typically had 100 or more employees and 100 or more line workers, and reported issues with line workers' performance that could be addressed by workplace literacy programmes. This group:

- saw skill shortage as the main human resource issue facing them
- found it important that line workers have at least basic spoken communication, reading, numeracy and writing skills
- found it difficult to recruit people with basic literacy skills
- had undertaken workplace training in the past
- was currently involved in providing some kind of training for line workers
- was experiencing issues with:
 - following instructions, wastage, errors, or re-work
 - employees filling out forms or reports, employees explaining or giving instructions, customer service or complaints, or compliance with health and safety issues
 - oral communication
 - estimating or calculating quantities, contributing to meetings, or willingness to participate in training.

In Wanganui, employers identified a range of reasons for improved functional literacy skills. Industries have to understand and deal with non-tariff barriers, such as the hygiene and sanitation legislation of other countries. Workers also need to engage in more documentation, and reading and understanding regulations, including health and safety regulations. Auditors now test workers' comprehension skills on the shop floor, and poor worker performance in communicating or applying instructions can result in closure of a plant (Comrie et al 2005: 34-35).

The various case studies included in this report—Workbase 2002, The Conference Board of Canada Case Studies 2002 to 2005, and Schick 2005—show that other factors also indicate a need for training but not necessarily literacy training. They include:

- heightened attention to operations due to growth
- the introduction of new equipment

- changing customer requirements
- concerns about productivity
- employee turnover and the associated expense of repeated job training
- positive attitude towards employees as valuable contributors to the company.

Smith and Hayton (1999) caution that only short, simple training measures may be needed in response to the introduction of new technology. Where organisations are seeking to increase adaptability to changes in work organisation they are more likely to increase their broader training activity.

Managers and employees in hierarchical or highly structured workplaces may not perceive the need for line workers to understand the overall production process, and the significance of their performance of particular tasks in that process.

Schick (2005) concluded that employees in this type of workplace have less opportunity to interact and communicate across job levels or work areas. These barriers to workplace learning have an attitudinal component which extends to attitudes to training, and to perceptions of the value of training. Increasing staff understanding, skills and confidence in communicating through a workplace literacy programme could challenge managers' confidence and sense of status and authority.

Others have identified a relationship between a commitment to organisational change and development and a commitment to increasing skills training. Smith et al (2002), for example, found that companies that were prepared to adopt new management practices such as total quality management, teamworking and being a learning organisation, were also more committed to increasing skills training, whether through formal channels, or in the case of small businesses, through less formal and more innovative methods. Where training was linked to business strategy, both the volume and diversity of training provision increased.

MacDuffie and Kochan (1995) agree. In their study of automobile assembly plants in the United States, they found that training levels had virtually no relationship with the level of technology in the plants, or with the plants' scale, product mix, or parts complexity. Two factors drove investment in training—the production strategy employed by the organisation and some characteristics of the national environment of the parent firm. Plants with flexible production models were more likely to invest in training simply because the model demands it.

Size

Studies in Canada, Australia and England suggest that training provision increases significantly with employer size (Figges et al 2001, Glass et al 2002, Ananiadou, Jenkins and Wolf 2003, Cully 2005, Gagnon, Bloom and Watt 2005). Schick (2005) also found that New Zealand employers who were not interested in literacy and did not see it as their issue typically came from smaller companies with a smaller number of line workers.

Smith et al (2002) and Ridoutt et al (2002) challenge this view, arguing that size is a proxy for the level of resources that can be committed to training and the diversity of skills required in the workplace. They found that employers in smaller workplaces are high adopters of new management practices, such as teamworking and TQM, which are typically associated with higher levels of training. It may just be that smaller enterprises adopt more innovative, less formal methods of training that are not recorded.

In Scotland, Glass et al (2002) found that the smaller the employer, the more likely they were to favour on-the-job training as the most valuable means of skilling their staff.

3.2 Other factors that create barriers for employers to supporting training in workplaces

The literature suggests that some of the most important issues affecting literacy and basic skills development are:

- lack of employer awareness of the gains—economic and qualitative—from improved worker literacy skills
- lack of knowledge among most managers and workers about the many effective techniques for developing literacy skills in the workplace
- lack of union engagement in planning and delivering workplace learning
- limited strategic planning, applications instruction, technology training, and external linkages for mentoring and other developmental purposes
- scarcity of managers who know how to promote worker involvement in literacy programmes (Glass et al 2002, Campbell 2003, Schick 2005).

In a British study of the benefits to employers of raising workforce basic skills levels, Ananiadou, Jenkins and Wolf (2003) found no systematic data available for the United Kingdom on the benefits to employers of investing in basic skills training. International evidence is also limited, but some studies suggest that employer-provided LLN courses may raise productivity, improve the use of new technology in the workplace, contribute to enhanced customer satisfaction, save time and reduce costs. The authors agree that these results are based on only a tiny handful of research studies and must therefore be treated as extremely tentative and in need of much more corroboration. Employers who had sponsored basic skills training were generally positive about the experience. Although not all had perceived any impact on measured outcomes (such as productivity), there was no evidence that they found it either burdensome or an unnecessary expense. Far more evidence is available on training in general than on basic skills training, and a number of well-constructed studies show a positive impact on firm performance.

Campbell (2003) cites Canadian research that ‘confirms’ that employers gain significant financial benefit from improving their workers’ literacy skills, including increased output of products and services, reduced error rates, increased customer and worker retention, and higher profits. Other reasons employers cited for supporting workplace literacy programmes included improvement in the ability to transfer workers between jobs, departments or business units. Employers in the case studies cited in Appendix 1 list numerous benefits that they attribute to staff training and skill development.

Levenson (2001) agrees that there are potential benefits to companies that provide workplace basic skills training. These include:

- higher productivity, quality and customer service
- fewer errors, injuries and miscommunications between management and front-line workers
- reduced employee turnover
- increased loyalty/commitment
- better internal job promotion.

Yet he believes that the promise of a benefit alone is not sufficient for a company to support a workplace basic skills programme. The company also has to value that benefit as higher than the cost of providing the programme.

In the Schick (2005:21) study, employers who had invested in literacy training reported that it:

- helped their employees to better understand their job and the whole organisation
- improved employee confidence
- improved employee communication on the line
- increased employee willingness to participate in meetings
- increased employees' morale and loyalty—employees generally appreciated the company investing in them
- reduced employee turnover
- led to fewer mistakes and fewer accidents
- resulted in more accurate completion of forms.

The case studies cited throughout this study report similar benefits.

Schick also described difficulties faced by managers from companies that had invested in justifying the expenditure to senior management. Without a clear payback for the company, they could not have justified the programme. Business New Zealand data indicates that employers look for cost savings, reduced accidents and reduced absenteeism as benefits of training for lower-skilled jobs. Schick believes that convincing employers of the value of literacy programmes for lower-skilled jobs will require evidence that shows that they can achieve these and other benefits from their investment.

In a Scottish study (Glass et al 2002), employers gave a number of other explanations for a lower investment in work-based learning:

- Unlike other forms of investment, human capital does not provide collateral for loans and so is more difficult to finance.
- It is difficult to secure reliable information on the financial returns from investing in skills.
- Large numbers of adults in work have low basic educational achievement, which can be a difficult foundation upon which to build work-based learning.
- Employers fear that they will not capture the returns on work-based learning because of the risk of their upskilled employees being poached or simply moving on.

Ananiadou, Jenkins and Wolf (2003) agree that concerns are sometimes raised about the poaching of trained workers but, in their review of the literature, the evidence pointed strongly in the opposite direction. Workplace training was associated with longer job tenure and reduced probability of quitting for individuals, and with lower labour turnover for the company as a whole. Researchers also found a statistical relationship between provision of training and higher levels of worker commitment to the organisation (as measured by expressed loyalty, pride in the organisation and agreement with its values).

Operational barriers

At an operational level, pressures on time and resources are the most frequently raised barrier to providing work-based learning. In exploring why companies are reluctant to invest in training, Schick (2005) found that:

In all of the sources we consulted, companies identify cost as a significant burden and a potential barrier to literacy training. Employers can be reluctant to invest in training because of the direct costs involved, the cost of staff down time, and the difficulties of organising and co-ordinating training. In particular, small firms are less able than larger firms to take advantage of economies of

scale and to accommodate down time. Business New Zealand Skills and Training Survey data indicated that 52% of businesses saw cost of training as a barrier. [Schick 2005:16]

Some employers felt that government subsidies were inadequate or that it was not their responsibility to invest in literacy. Most companies seemed unaware of funding support until they read about it in the paper or were informed by the ITO or a provider.

In a Canadian study (Campbell 2003), employers reported that lack of funding for new programmes was a significant barrier. Much of the time allocated to training they spent seeking and applying for funding from government and other sources. Most external funding was for short programmes, which led to a stop/start style of training.

Other common barriers include:

- irregular work schedules
- lack of information to make training decisions
- difficulty evaluating effectiveness
- worker resistance
- the high cost of trainers
- top management is not supportive
- difficulty identifying potential providers and evaluating course content and quality
- training that does not understand the role of workplace culture and communication systems (Campbell 2003, Glass et al 2002, Holland et al 2002, Schick 2005).

In Comrie et al's (2005) study in Wanganui, employers said that they did not know how to select from providers. Many did not know what providers, particularly literacy providers, offered in the area. At the same time, they saw a need to identify the 'right' provider and to work with a provider who would carry through training with the individual to the workplace.

Some employers interviewed by Schick (2005) reported 'lack of employee interest' as a reason not to invest in training. Employers who had had a programme identified employee resistance as an issue they had to overcome.

3.3 Characteristics of workplace practice that support initiatives to improve skills

Most of the workplace practices described in this section support initiatives to improve skills in general, rather than specifically supporting foundation skills training. Some authors are cautious and point out that, in some circumstances, the low-skilled may be disadvantaged by some of the management practices described below.

Management approaches

A background paper prepared for the European Commission (EC 2004) suggests that organisations that will thrive in a dynamic, knowledge-based economy are those that can achieve a high degree of organisational 'fitness'. They define these as:

- high levels of innovation, change and performance
- organisation-wide commitment to innovation
- openness to new organisational models and new ways of gaining competitive advantage.

It identifies key characteristics of such workplaces as:

- the approach to management is participative rather than hierarchical
- employees are considered essential to innovation
- there is investment in skills and training in the context of the workplace
- diversity is treated as a source of competitive advantage
- the value of better work-life balance is recognised
- leadership capability is built at all levels of the organisation.

Case Study 5 in Appendix 1 gives examples of organisations that have adopted innovative work and training practices.

Smith et al (2002) explored the extent to which Australian companies are adopting new management practices and the correlation between particular approaches and the uptake of training. One model they considered was the 'learning organisation'. Learning organisations generally have a greater commitment to the development of the potential of the individual employee, rather than a straightforward commitment to raising the overall level of skills or volume of training. The commitment to the individual is linked to the notion of 'capturing' their knowledge and skills so that the whole organisation can benefit.

They found that being a learning organisation is more common in small to medium-sized businesses, with some industry concentration in the manufacturing, retail, construction and finance/business sectors. Having a learning orientation approach is highly correlated with:

- a higher level of training expenditure
- a proportionately greater attention to the training of managers
- a focus on training for behavioural skills
- a greater use of coaching and mentoring
- a greater level of decentralisation of responsibility for training to line managers.

Learning organisations have a positive approach to learning. Figgis et al (2001) summed up their characteristics as:

- people talk to one another about what they have learned
- people are willing to share their knowledge and expertise
- skill, knowledge and information are *applied* to the work at hand—where necessary, the organisation shifts so the new skill and learning can be applied
- many different forms of learning are used and supported (from the formal, certified course to lunch-time meetings and modelling) and they are accessible to those who need or want them
- everyone in the enterprise is accorded genuine respect
- there is a can-do climate—that it is *not* all too hard, too daunting or too much trouble
- the environment encourages and supports people pushing at frontiers, taking justifiable risks
- there is genuine curiosity about solving problems together.

Johnston and Hawke (2002) concluded that a learning culture is often associated with the development of systems and structures that support learning. These include more visible documentation about work processes, work roles, formal learning and development programmes, or performance data provision, and performance review systems and formal meetings for review of work processes.

The company described in Case Study 6 in Appendix I is an example of this model. One of Formway Furniture's group goals is to develop a learning organisation across

all their operations. They value the different viewpoints brought by their largely Pacific and Māori staff and see them as a resource rather than a liability.

Learning organisations are also more likely to see literacy programmes as a long-term investment. As Campbell (2005) notes:

Those who are looking for a 'quick fix' to improve literacy and basic skills are not being realistic. Literacy skills improvement requires an ongoing, long-term strategy based on an understanding that the rewards will be boundless, but typically will not arrive before the medium to long term. [Campbell 2005:2]

Case Study 7 describes a long-term approach to learning in a large Canadian organisation.

While the learning organisation model is generally seen as positive, Raper et al (1997:9) are more critical. They conclude that, while some organisational practices do accord with the learning organisation model, in the main, the abstract and aspirational character of the concept 'renders it a poor guide to understanding the dilemmas and activities of real organisations and that, on balance, the concept is more of a hindrance than a help'. They found that the application of on-the-job training techniques were restricted to a limited number of tasks and to the initial stages of learning required to undertake those roles.

There were few signs that continual learning beyond the introductory phase—still less to the level of enabling and fostering innovation in methods—was being fostered... We uncovered as many inhibitors to the 'learning company' ideal as we did factors impelling change in that direction... There was also a significant measure of resistance to the acceptance of responsibility for training by lower-level line managers. [Raper et al 1997:19-20]

Smith et al (2002) explored the use of teamworking as a management practice in Australia and found that, while two-thirds of respondents said that they used teamwork in their enterprise, in most cases, the teams had relatively little decision-making autonomy. Most were controlled by supervisors appointed by management, with some increase in training for front-line managers. The authors concluded that teamworking appears to drive:

- a more even distribution of training among all categories of employees
- a higher level of workplace delivery of training and use of coaching/mentoring
- greater decentralisation of the training function.

Case Studies 8 and 9 in Appendix 1 give two Canadian examples of training in a teamworking environment—one in a large enterprise and one in a small business.

A third of participants in the study by Smith et al (2002) said they used Total Quality Management (TQM) or a related quality assurance programme in their organisation, usually in association with other management practices. TQM was more common in small to medium-sized enterprises in manufacturing, construction and retail. TQM related to:

- a higher level of engagement with the vocational education and training sector (use of competency standards etc.)
- a lower level of reliance on external training providers
- a focus on training for behavioural skills
- decentralisation of responsibility for training to in line managers.

The lean production model, which Smith and Freeland (2002) found to be common in Australian enterprises, is associated with a reduction in training due to cost-cutting measures, a more informal approach to training and less likelihood of having training specialists within the company.

The company driver

Schick's (2005) research showed that three factors were consistently involved in a company reaching the decision to invest. They were:

- a committed company driver—with the support of senior management, who valued employees, supported employee loyalty and knowledge building
- contact with an ITO and provider
- access to funding and an appropriate programme.

Companies that had invested in skill development had at least one person who, with the support of senior managers, drove the literacy training. Some drivers had a personal interest or saw a need and carved out a niche for this responsibility. Others inherited the role with a new position. The driver was usually the person who dealt with the ITO and the provider, presented the case for literacy to senior managers, and liaised with line leaders and supervisors. They were also the initial contact with the literacy provider. The person valued employees and saw the benefit of investing in them to develop a loyal long-term workforce with company experience and corporate knowledge.

The driver had a variety of job titles—HR manager, plant manager, production manager, education and training director, manufacturing coordinator, or general manager. However, the company driver is not effective in isolation, nor does senior management reach the decision alone. The research suggests that literacy training needs are identified by the managing director or chief executive in conjunction with others. The relevant job titles vary significantly across industry groups and according to the size of the companies. They include human resource or training managers and divisional managers/heads of divisions.

Australian authors Boothroyd and Hight (2001) identified the essential role of a champion in implementing and maintaining a literacy programme in a large packaging company. In this firm, the key people were the national training manager at the senior level and the section supervisor at the ground level. The authors note that the person at ground level is particularly important on a day-to-day basis, as they will ensure workers are kept informed and organise things to facilitate their participation.

Schick (2005) found that, among manufacturing businesses, the production manager or line supervisor was likely to be involved in identifying literacy training needs. For businesses in the wholesale and retail trades, it was more likely to be a divisional manager or head of department. For businesses in health and community services, the principal nurse, nurse manager or medical officer was more likely to be involved in the decision-making. The larger a business was, the less likely it was that the managing director or chief executive would be involved in identifying literacy training needs, but even in the large businesses, the managing directors and chief executives were commonly involved in the decision. These findings were consistent with firms' experience that the ultimate success of a programme depends on widespread support within the company (from training managers and chief executives, as well as line supervisors and learners).

Campbell (2005) agrees, arguing that support from the top down—or lack thereof—can make or break a learning programme. The case studies cited in this report fully support this view. According to Campbell:

Training should be tied to corporate strategy. Training programmes ought to have a significant profile—and the buy-in of the main players in an organisation, including management, unions and workers. Each organisation needs to develop its own literacy programme; one size does not fit all.

[Campbell 2003:1]

In her opinion, the attitudes of supervisors, employees, senior managers and union officials towards learning are strong indicators of their future commitment to and support for a learning programme. She suggests that enterprises with successful programmes will:

- make worker development a corporate priority and include literacy training on management's agenda
- communicate to supervisors and workers, in a non-threatening way, about the organisation's training programme and how it will benefit them.
- encourage the commitment of supervisors and workers to skills improvement by involving them in training development and delivery
- continuously market the training programme internally to all concerned.

Some companies have recognised the need to equip managerial staff with new skills to enable them to operate in a changed work environment (Johnston and Hawke 2002). AstraZeneca Australia, for example, established a leadership development programme loosely linked with performance management and appraisal systems to develop managers who had often been promoted for their technical skills and moved into managerial positions that required new skill sets.

Smith and Dowling (2001:149) argue that training is only stabilised or firmly established in an enterprise by a combination of factors inside and outside the firm. Within-enterprise factors include the existence of a training 'champion', senior management commitment, training infrastructure within the enterprise, budgetary constraints and trade unions acting as a watchdog on training provision. Outside factors include the availability of skills on the labour market, external support for training, such as grants, and legislative requirements.

Case Study 10 in Appendix 1 is an example of a New Zealand organisation where a company champion or driver has been instrumental to the success of the programme.

Gain-sharing and reward systems

There is relatively little focus in the literature on workplace practices on links between training and performance-management systems or reward structures. Smith and Hayton (1999) conclude that, in Australian enterprises at least, training appears to be seen as an activity separate from other human resource activities. Research into large assembly plants in the United States automobile industry suggests that human resource practices, including compensation systems that are partially contingent on performance, are most effective when they are an integral part of a flexible work system (MacDuffie 1995).

Cappelli and Rogovsky (1994) believe that there is considerable evidence that supportive personnel policies do produce the desired effects, but in combination, rather than separately:

For example, job security obviously reduces turnover, making it easier to train employees in firm-specific practices, and the return on training can be recouped over a longer period of time... There is strong evidence that the combination of profit-sharing and participation has a stronger effect on performance than either has individually (indeed profit-sharing alone has little positive effect); there is also evidence from the MIT automobile project that high levels of training have little effect unless matched to high performance production systems. [Cappelli and Rogovsky 1994:211]

Dyer and Reeves (1995) are more cautious. They conclude that research into the effects of human resource strategies on organisational effectiveness, while promising, is still in its infancy. In their view, the few studies that are available lack conceptual sophistication and overwhelmingly focus on a shrinking component of the United States workforce, namely blue-collar workers in heavy manufacturing.

Johnston and Hawke (2001:17) include reward flexibility among the characteristics of a learning organisation. They describe reward flexibility as 'flexibility in the types of rewards used and in the way in which systems of financial rewards are structured and delivered. Assumptions underlying rewards systems are made public and reviewed collectively'. In their case studies, some organisations made information available about performance either through quality data systems or performance review systems and mentoring approaches.

Campbell (2005) also believes that it is important to recognise, reward and provide incentives to workers who take part in training. D'Amico (2003:12) suggests that structured career ladders that tie advancement in wages and promotions within an industry to training and education opportunities are necessary to provide pathways out of poverty for low-income workers.

Case Studies 11 and 12 include reference to a rewards system.

Working in partnership

The argument has already been made for working in partnership at the national level. A number of writers also stress the importance of partnerships at the organisational level between employers and unions, employees and training organisations (Campbell 2005, Folinsbee 2001).

Successful strategies and programming need to be developed on worker-centred principles and joint labour/worker and management decision making. [Folinsbee 2001]

McGuirk (2001) concludes that quality partnerships or relationships between the workplace and the training provider are crucial in implementing training successfully. She cites an example of a successful workplace that set up a training committee. This meant that the partnership was between senior members of management, the shop floor and the union. The training provider became an independent and equal partner, rather than being obliged to 'take sides' and being seen to support either management or employees.

Access to information on training and finding providers and funding

In Schick's (2005) study, companies found appropriate providers and accessed available funding in three ways:

1. **Through providers:** Those working with a provider for unit standards qualifications drew on the provider for support. The provider working on site

identified literacy issues, offered a programme that would be integrated with the unit standards training, and arranged funding subsidies. Once a provider was in place, the company worked in a partnership to help the provider tailor the programme to the company. Providers handled the funding subsidies, paperwork and planning. Providers' expertise in literacy provision was essential. Interviewees talked of 'guidance', 'partnerships' and 'tailoring' to the company. Without the support of the provider, they could not see much beyond the problem.

2. **Through ITOs:** ITOs also played a strong role in taking initiative in approaching the company, and in planning, accessing funding, and handling paperwork and bureaucracy.
3. **Through other sources:** Companies without strong ITO or provider relationships found information on their own, and drew on a variety of sources:
 - They contacted their ITO for information and support.
 - They searched through Ministry of Education material and news media articles on workplace literacy.
 - They sought information from training consultants and sometimes from employees.
 - They referred to industry or business contacts, and some found providers through business conferences or seminars. (Seventy percent of employers interviewed by telephone get information on training from business organisations and industry associations.) Business New Zealand data indicates that small firms are very unlikely to obtain information from associations, but that large firms do. This does not appear to depend on the industry in which the firm operates.
 - They were contacted by an industry provider.

A number of companies reported that they had tried several providers before they found one that they felt was satisfactory.

Comrie et al (2005) found that Wanganui employers in their study lacked awareness of what providers, particularly literacy providers, offered in their area. Employers did not know how to select from the providers, and experiences with providers had been both positive and negative. They saw a primary need to identify the 'right' provider and to work with a provider who would carry through training with an individual to the workplace. Some suggested that current government programmes did not fit employer need. Comrie et al (2005) cited one employer who said:

Tertiary providers don't cater for us; any literacy programme introduced would have to be relevant to us as a company. [We have] lots of minority ethnicities working for us, they may have a different learning style. [Comrie et al 2005]

3.4 Contributors to successful learning

A range of writers have considered key factors that contribute to successful training programmes. They generally agree that, from the employers' perspective, these include the following:

- Creating a learning environment. This involves developing an organisational culture conducive to learning as well as providing a safe, secure and positive environment for participating employees.
- Recognising literacy needs by conducting a needs assessment of the organisation and of individuals to gain a focus point for training. Tightly focused

training goals, based on a needs assessment, can save training time and effort in the long run. This work can be outsourced to conserve internal resources.

- Planning before initiating and finding adequate funding and support. This might include seeking government or local authority funding, or funding from a local sector council, partnering with a local education institute, providing adequate release time, or paying employees for off-site courses (when successful).
- Making programme design a collaborative effort that involves employees at all levels of the organisation, not just top management, as well as union representatives where appropriate, and educators.
- Designing an effective curriculum. Hiring an external training provider who specialises in professional programme development and delivery can bring a fresh perspective to an organisation's learning needs and reduce internal time demands for learning programme design.
- Selecting the right instructor and using the best delivery mix. This might include peer tutors as well as professional literacy and other skills teachers. It will almost certainly involve worker-centred learning in which content is relevant to programme participants' goals and learning styles.
- Marketing and selling the programme to managers, supervisors and employees through notices, posters, email and news items, or a formal launch.
- Recognising achievements.
- Including supervisors on the learning project team and asking for their feedback on the programme's success.
- Evaluating programmes realistically, by having clear goals, keeping good records and doing regular assessments.
- Considering the interests of all parties (Folinsbee 2001, Campbell 2003, 2005).

Case Study 13 is an example of a company that benefited from finding a qualified literacy trainer who was able to work with a multicultural workforce.

From an educator's and practitioner's perspective, successful programmes depend on the quality of the practitioner as well as the quality of the programme and the commitment of the employer. Holland et al (2002) suggest that mentoring, through industry placements of literacy practitioners, could enhance the quality of delivery of basic skills in the workplace. They note that:

Practitioners have no New Zealand-based formal training in vocational literacy available to them. They need formal professional development as well as opportunities for informal development (such as work placements). [Holland et al 2002: 40]

This means providers need to be funded to provide release and fees support for practitioners to undertake formal and informal training in educational institutions and workplace settings, and to work collaboratively with workplace personnel and other stakeholders.

From a learner's perspective, Benseman, Sutton and Lander (2005:7–9) identify 10 factors that are likely to enhance learner gain in LLN teaching. These can be summarised as:

- appropriately skilled teachers who can identify the strengths and weaknesses learners have in speaking, reading, writing and numeracy
- deliberate and sustained acts of teaching, clearly focused on learners' diagnosed needs
- a curriculum that is linked to the authentic literacy events that learners experience in their lives

- programmes that allow for high levels of participation—probably more than 100 hours of tuition (particularly for learners with low levels of skill and ESOL learners)
- explicit teaching of reading by teachers who are well trained in the reading process and skilled in identifying reading difficulties and using appropriate teaching strategies to address them
- ongoing assessment that takes into account the variation in learners' skills across the dimensions of reading and writing
- programmes that deliver clearly structured teaching using a range of methods
- writing programmes that use writing based on expressing learners' experiences and opinions
- making efforts to retain learners, including pro-active management of the positive and negative forces that help and hinder persistence.

Benseman et al (2005:94) conclude that, while the research points to key factors in success in the workplace being company commitment, an environment supportive of learning, adequate time and funding, a real-life curriculum, a programme tailored for specific needs, employee involvement and in-worktime provision, there is no guidance as yet about teaching methodologies.

Smith et al (2002) warn that the decentralisation of training and the extensive role now being played by untrained workplace trainers raises the question of whether enterprises are getting the most from their extensive training investments.

There may be an important emerging role for training providers in acting as consultants to enterprises, to ensure that they reap the full benefits of their training investments, by ensuring the quality of the process at the enterprise level. [Smith et al 2002:62]

3.5 Initiatives that have been successful in shifting workplace practices to better support skill development and utilisation

Initiatives aimed at shifting workplace practices

A briefing paper for the EU Presidency Conference (EC 2004) proposes that governments seek to encourage innovative workplaces by:

- supporting 'demonstration' projects in organisations
- developing diagnostic tools to help organisations assess the benefits for them of new forms of work organisations.

Initiatives aimed at enhancing skill development

While there have been a number of initiatives aimed directly at increasing enterprise investment in skill development, relatively few have been evaluated.

One that has been evaluated is the Employer Training Pilots (ETP) programme in the United Kingdom. Abramovsky et al (2005) reviewed the impact of ETP on the take-up of training among employers and employees. The ETP 'offer' is of free or subsidised training leading to a basic skills or first level 2 qualification for employees, where the employees receive paid time off in which to train, and for which the employers are compensated. The study found small positive effects of ETP on employer and employee training, but did not find across-the-board, systematic evidence that ETP had significantly increased employer provision of, or employee engagement in, training in its first year. It appeared that ETP largely attracted employers who would have offered training in the absence of ETP and who had a relatively positive attitude

to training compared with average employers. This suggests that additional strategies are needed to encourage more resistant or less aware employers.

The Building Basic Skills in the Workplace initiative ran in England during the 2001 financial year, though some of the projects continued into the 2002 year. It promoted the provision of small-scale, capacity-building projects for workplace or other basic skills providers. As a result of the initiative, new or extended high-quality workplace basic skills delivery activities were developed, which increased capacity in the sector and stimulated demand among employers and individuals. They also offered examples of best practice to other organisations within the field. The initiative supported around 30 projects with grants of up to £35,000 each.

The aims of the grant were to:

- build capacity among workplace skills providers
- improve quality of provision
- expand access to learning opportunities
- increase demand from individual learners and from their employers
- increase participation in workplace basic skills activity
- ensure that participation leads to achievement.

The emphasis of the projects was on the development of workplace and other providers' capacity to promote basic skills delivery. Where bids involved new or improved facilities, tenderers needed to demonstrate that this was linked to activity that supported their effective use. Frank (2003) claims that the approach allowed organisations that already had experience in delivery to pilot new approaches, and attracted involvement by new organisations. In many cases, this funding was the beginning of long-term, successful partnerships between delivery organisations, employers, unions and other agencies.

Another evaluation comes from Nova Scotia where three groups—business, labour and government—partnered to form the Workplace Education Initiative, which aimed to bring essential skills education into the province's workplaces. Government acted as the initiator and coordinator of this initiative by promoting workplace education to employers and labour and by helping these partners to design, implement and evaluate programmes at work sites around the province. Each partner brought valuable perspectives and tools to the programmes. The Department of Education, the primary government partner, provided the adult education expertise through Workplace Education Field Officers. The employers contributed an understanding of the future trends that will effect their organisations, and the unions understood and represented the needs of their members.

The author (Kelly, no date) concluded that the initiative was effective (outcomes are described in more detail in 7.2 in Part II). Kelly notes:

Many of the outcomes that resulted from workplace education were the products of various combinations of changes that led to more changes. For example, the ability of workers to communicate increased when they improved their oral and written skills. The development of these skills worked to increase many of the participants' self-confidence. All of these changes worked together to enhance their capacity to communicate on-the-job which improved communications in many of the workplaces.

The objectives of the Workplace Education Initiative were met because of a similar sequence of effects. By providing access to essential skills education

to workers, the Initiative created opportunities for many adults to increase their skill and education levels...All of these changes impacted many participants' ability to communicate, to learn and to take further training, which has worked to improve their job performances and the productivity of their organisations. Many partners have also noted improvements in health and safety and in an ability to promote from within. These benefits strengthen the capacity of Nova Scotia's workplaces to manage the multitude of changes that will affect them in the future. This is a significant contribution to the continued development of the province's economy...

Another contributing factor to the impacts on the participants and their workplaces can be attributed to the delivery model used by the Initiative. Nova Scotia's model of implementation is characterised by the project team which is a collaborative partnership between management, labour, supervisors, workers, the instructor and the field officer. The development of these relationships within the workplace has contributed to positive relations between workers, the employers and the unions. It has also had a huge impact on morale which was influenced by the availability of workplace education and the success of the participants. [Kelly, no date]

The Basic Skills Agency is the national agency for basic skills development in England and Wales, and it is supported and funded by the government. It supports projects across the country, including the National Support Project for the Workplace (NSP), which promotes the Employer Pledge in Wales. In taking the Basic Skills Employer Pledge, an employer pledges to help employees with poor basic skills to improve them. NSP supports employers through:

- telephone, written, face-to-face and online advice on providing support to employees with basic skills needs
- consultancy visits to individual employer premises to highlight specific basic skills needs
- awareness-raising presentations to managers and supervisors
- information about the Employer Pledge initiative
- help with developing and implementing the Employer Pledge Action Plan
- advice on relevant basic skills materials
- good practice guidelines, supporting information and examples of approved Action Plans
- referral to appropriately qualified and experienced providers of workplace basic skills
- opportunities to network with other employers in order to share good practice
- a website that provides up-to-date information and support materials.

Publicity about the project claims that advantages for employers of signing up to the Employer Pledge include:

- increased production and efficiency
- greater accuracy and fewer errors
- fewer accidents
- better customer relations
- enhanced team performance
- improved workforce morale and motivation
- reduced staff turnover
- equal opportunities for staff.

Once a Pledge application is received, the Basic Skills Agency sends the company a Pledge Certificate, recognising that the employer has pledged to help employees

improve their basic skills. A copy of the Pledge application is also sent immediately to NSP and, if the employer has requested advice and guidance, a member of the NSP team will contact the employer in order to establish what support is needed. The project has not been evaluated (NSP 2005).

In Britain, the Union Learning Fund (ULF) provides funding to help trade unions to encourage greater take-up of learning at work, and boost their capacity as learning organisations. The fund was established in 1998 to aid the government's objective of creating a learning society. Its overall aim is to support unions in partnership projects to develop work-based learning opportunities for employees. Unions play a pivotal role in promoting and organising learning opportunities for their members and engaging 'non-traditional' learners. Specifically, the ULF aims to:

- recruit, train and support the continued development of union learning representatives (ULRs) and integrate their role within union structures
- develop infrastructure within trade unions to increase their capacity to promote learning and to become learning organisations
- encourage employers to adopt:
 - high-quality accredited and nationally approved Skills for Life qualifications. These include national certificates in Adult Literacy, Numeracy and ESOL Skills for Life, which are based on national standards and follow a core curriculum; Key Skills in Communication and Application of Numbers at levels 1 and 2, and GCSEs in Maths and English.
 - training such as Apprenticeships and National Vocational Qualifications (NVQs).
- ensure access to effective information, advice, guidance and support for learners
- form active partnerships with learning providers to ensure that learning opportunities are customised, relevant and delivered appropriately
- develop union capacity to engage in effective partnership working with organisations such as local LSCs, Sector Skills Councils (SSCs), Regional Skills Partnerships (RSPs)/Regional Development Agencies (RDAs) and employers to take forward key elements of the Skills Strategy
- increase learning opportunities for the whole workforce, and especially for groups of employees that may be disadvantaged in accessing learning opportunities (Union Learning Fund 2005).

In 2002/03, the ULF was in its fifth year and had funded over 300 projects, working with 70 different unions in 3,000 workplaces, with courses ranging from basic skills to continuing professional development. Of the original funding, £3 million was allocated to projects aimed specifically at improving employees' basic skills. A key factor in the development of such projects is the role of the union learning representatives (ULRs). In 2002, there were over 4,500 trained ULRs. With the introduction of statutory rights in 2004, the government has estimated that they will grow to at least 23,000 by 2010, helping up to half a million union members access courses. The main duties of ULRs include:

- improving understanding of and access to information about learning opportunities
- encouraging full use of available learning facilities
- providing information and advice within their workplace
- communicating workplace learning needs to managers
- identifying barriers to learning and possible support mechanisms
- encouraging staff to consider their own continuing professional development
- discussing with the employer any training recommended when employees are facing redundancy to prepare them for new employment opportunities.

ULRs are entitled to reasonable paid time off for training and for carrying out their duties, and to protection against detriment. Union members are entitled to unpaid time off to consult their learning representative, as long as they belong to a bargaining unit for which the union is recognised. The Act does not require the employer to negotiate or consult with the union on training matters. However, as raising basic skills is one element of a wider strategy of improving workplace productivity, the employers' organisation suggests that it makes good business sense for employers to put in place mechanisms to integrate ULRs' activities with their own training assessment initiatives. Normally, trade unions will be keen to cooperate with employers in this.

A recent TUC report described the benefits to companies of URL activity in the workplace, saying it:

- promotes a positive attitude to learning and skills among employees
- improves the skills and employability of the workforce, helping them to become more adaptable to change
- unlocks potential within individuals and groups and assists them to take up promotion and progression opportunities
- increases participation in workplace learning
- provides accessible independent advice and support for employees about learning at shop floor level, where it is needed
- introduces and helps develop a 'learning culture' where training and education are highly valued by all (EEF 2004).

Other initiatives that have worked in individual enterprises in Canada are summarised by Campbell (2003, 2005):

- Employer is creative and dedicated to pursuing limited, short-term funding for continuous workplace education.
- Managers are trained to act as group leaders and mentors to workers.
- Managers challenge worker-students to apply what they learn on the job.
- Managers and the union encourage employees to take part in initiatives to increase their skills.
- Companies use peer tutoring.
- Companies use culturally appropriate tutors.
- Employer offers literacy and basic skills upgrading to all employees.
- Employer offers skills upgrading and general education opportunities to all employees.
- Company assesses employees' skills in a non-threatening way.
- Qualified adult educators assess individuals' learning needs and customise learning programmes for them.
- Company creates a realistic training implementation plan, with help from training experts.
- Effective time management and supervisor buy-in for the training programme helps ease scheduling difficulties.
- The company partners with training experts to develop industry-relevant courses.
- Company designs a flexible training model that uses frequent, short training sessions accessible to all employees
- Team leaders help pilot the programme and develop and assess the training modules.
- Company carefully documents the success of the training programme and keeps management informed of the programme's benefits.

PART II

Part II of this review looks more specifically at LLN initiatives. It considers links between LLN and productivity and explores the benefits and risks for employers, employees and other stakeholders of investing in LLN. It reviews evaluations of LLN initiatives and looks at issues relating to particular industries and sectors.

4. Links between lifting LLN skills of the workforce and productivity

This chapter reflects on the relationship between increasing LLN skills and productivity, or the indirect relationship between raising LLN skills and recognised productivity drivers.

LLN skills have been variously defined. Broader definitions are most appropriate when considering 'basic skills' or 'foundation skills' relevant to the workplace. Johnston (2004:3) cites a definition from the Scottish Executive: 'the ability to read, write and use numeracy (sic), to handle information, to express ideas and opinions, to make decisions and solve problems, as family members, workers, citizens and lifelong learners'. He notes that literacy is no longer considered to be something a person either does or does not have, but is a continuum upon which every person lies.

The drivers of productivity identified in the New Zealand Workplace Productivity Agenda (see www.workplaceproductivity.govt.nz) are:

- building leadership and management capability
- creating productive workplace cultures
- encouraging innovation and the use of technology
- investing in people and skills
- organising work
- networking and collaboration
- measuring what matters.

4.1 Measuring what matters in LLN initiatives

An extensive body of literature has explored the relationship between productivity and skill development in general, but relatively little has explored the relationship between LLN and productivity. All of it is cautionary about making such links, recognising the complexity of the relationship and problems of measurement. Grugulis and Stoyana (2006) make this point:

There are three main reasons for the difficulties in establishing a link [between skills and productivity]. Firstly, organisations are complex social systems and it is unlikely that there is a single generic cause of productivity and profitability. Secondly, there are a number of ways in which firms can succeed, including deskilling and work intensification. Thirdly, skill is not simply an input to organisations' productivity.

Skill is complex. It may be possessed by individuals, through qualifications, experience, expertise or attributes. It is built into jobs, the successful completion of which may demand autonomy, decision making, technical know-how or responsibility. And it produces, and is itself the product of, status. Essentially skill is part of a social system; and skilled and expert work is a product of the way different parts of the system relate to one

another... Highly skilled workers may be found in organisations where strategies concentrate on cost-cutting, just as low-skilled and tightly-regulated employees are hired to work in technologically sophisticated workplaces. [Grugulis and Stoyana 2006:2]

Hartley and Horne (2006) highlight the importance of a multi-disciplinary and multi-method approach to determine and measure benefits and costs of LLN. They also stress the need to integrate human and social capital approaches into the process, and encourage the use of a wide range of measures. They note that:

Research examining the impact of literacy and numeracy typically focuses on cost savings and/or productivity gains to the company, although some studies have looked more widely, and include employee-focused outcomes, such as levels of promotion and rates of absenteeism. [Hartley and Horne 2006:7]

Few studies focus on the costs and benefits of LLN or measure factors such as employees' job satisfaction and access to and take-up of further training and education. The authors acknowledge that it is difficult to find an effective and acceptable balance between ideal methodologies based on large datasets and achievable methodologies based on availability of data and costs of new data. They also conclude that relatively little is known about the costs and benefits associated with literacy for small businesses. Many small business owners may not be aware of the relevance of such issues and may need further information.

Other writers (Ananiadou et al 2003, Torgerson et al 2004) confirm that few studies have gathered performance (test) evidence on the impact of providing workplace basic skills training. With one exception, the studies reviewed by Ananiadou et al (2003) relied on qualitative or subjective estimates, which are generally global judgments, not based on collection and analysis of hard data. That said, they are consistently positive.

In a review of the literature on return on training investment (ROTI), Barker (2001) observes that, strictly speaking, ROTI is an accounting-based method of comparing the costs and benefits of training by converting all costs and benefits to financial measures. She recognises that it can be used in a less stringent manner to include intangible costs and benefits, but this is a less common use of the term. Typical training benefits fall into four categories. They were:

- time savings (less time needed to reach proficiency, less supervision needed)
- better quantity (faster work-rate, less downtime, not having to wait for help)
- better quality (fewer rejects and lost sales, reduced accidents, lower legal costs)
- personnel data (less absenteeism, fewer medical claims, reduced grievances)

She identifies a number of complexities surrounding training which make measurement more difficult:

- Training delivery takes many forms:
 - Self-study or instructor-led.
 - On-the-job or in a classroom/training site.
 - Traditional on-site or distance-delivered.
 - Computer-assisted and/or computer-managed.
 - Individualised or group instruction.
 - Actual, hands-on or using virtual reality.
- Training attendance/participation may be voluntary or mandatory.
- Training duration may be short-term or long-term, one-off or continuous.

- Training focus may be hard (that is, technical) or soft skills, such as communication, personal relationships and problem-solving.
- Training impetus may be in response to training needs assessment at organisational, occupational and/or individual level.
- The business context for training can be negative (such as high turnover or poor performance, absenteeism or conflict, compliance issues like sexual harassment) or positive (such as rapid growth, merger/acquisitions, new product development, new business opportunities).

Although Barker identifies a long list of measurable benefits (see Chapter 7), like others, she found little evidence of research on ROTI specific to workplace literacy programmes. She concluded that Canadian research was virtually non-existent, most ROTI articles were descriptive and anecdotal, and with few exceptions, ROI articles presented glowing reports but many studies would not meet academic research standards for quantitative or qualitative research. In her view:

Empirical studies on the impact of workplace literacy programs are not common, indeed the whole area of evaluation of training is underdeveloped.
[Barker 2001:28]

Information on outcomes from workplace ESL instruction is also lacking. Much of what is written on workplace outcomes and ESL instruction is also anecdotal and based on interviews with employers, educators and labour representatives (Burt 2004). The research studies that do exist are generally case studies or qualitative research. Burt attributes some of the problems to uncertainty about measurement, that is, whether the instructional goals are improved productivity or workers speaking English on the job.

Others stress the contextual nature of literacy in the workplace. Barton and Tusting (2006) note that people's identities, the way workplaces are organised, and the incentives or disincentives people perceive for displaying skills all influence the literacies they engage in. They believe that the specific features of reading in one site do not necessarily transfer into another, the use of literacy in any given context depends on workers' knowledge and understandings of the social setting.

Mikulecky and Lloyd (1993) made a similar point in developing their model for evaluating workplace literacy programmes. They contend that literacy learning may have a variety of outcomes. For learners, there may be changes in beliefs about literacy and self, changes in literacy practices, literacy improvement with general and workplace materials, and changes in goals. For employers, the objectives may be improved safety, attendance and productivity, and meeting corporate goals. Their assessment of the impact of workplace literacy programmes found that, while there were gains in all assessed areas, these were limited to areas directly addressed by instruction, that is, programmes and classes accomplished gains only in areas where there was direct instructional activity. No clear carryover or transfer to other areas was apparent in evaluation results. They concluded that programmes need to have clearly stated goals, and instruction must address those goals if the desired results are to be achieved.

In the introduction to a Workbase (2002) report, McDonald stressed the importance of companies being clear about why they are undertaking training. This will influence whether they want to:

- measure the effect of skill development to show that 'training pays'
- show how (that is, in what ways) skill development pays

- market the organisation's training function
- improve the quality of skill development
- help to decide priorities.

Companies also need to understand whether the skill development has an operational focus, is designed to address an organisational threat such as a safety issue, or is being made to strategically position the organisation for the longer term.

While managers like to see quantifiable outcomes, in order to achieve these results, they need to be able to analyse where their problems are occurring and identify the spoken and written communication aspects of the situation (Boothroyd and Highet 2001).

Some writers argue that such analysis misses a much broader point. Barton and Tusting (2006), for example, contend that:

In recent years, dominant policy and business discourses have claimed that we are moving into a high-skills knowledge-based economy, and that many workers do not have the necessary skills to remain competitive and productive in this context. There have been increases in funding and pressure for workplace education and training, from Government and from large employers' organisations—often implying that workers who refuse to or are unable to 'upskill' themselves are directly responsible for damaging productivity or competitiveness. The move to competence-based vocational education and training and credentialling, driven by the call for upskilling, has led to a great deal more formal training and recording of practices in the workplace. An increased culture of accountability against targets and audits has vastly increased the literacy demands and the stakes of these in many workplaces. At the same time, the rhetoric of 'fast capitalist' management theories has led to the introduction of new practices, such as flat hierarchies, increased teamworking and Total Quality Management, which have placed a new set of demands on frontline workers, with the claim being that this will lead to increasing commitment from and empowerment of the workforce.
[Barton and Tusting 2006:2]

They go on to argue that:

The changing demands associated with new management practices have been shown to be disempowering for many workers, for instance where already overworked front-line workers were expected to engage with ever-increasing numbers of new texts, or where formal training with little relation to people's job was imposed. These sorts of changing literacy practices can reinforce, rather than challenge existing hierarchies. What is seen by management as a lack of literacy skills may, from the workers' perspectives, be seen as resistance to unreasonable requirements or disciplinary controls.

Other perspectives

Another body of literature looks at how providing literacy and numeracy training in a particular way relates to productivity and other benefits, rather than on *how much benefit* employers can expect to achieve. An example is the evaluation of Ufi, which manages the **learndirect** and **UK online** centres that support e-learning and e-services in Britain. This initiative, which is discussed in more detail in Chapter 7, aims to improve national productivity by providing access to technology and world-class learning.

A third body of literature looks primarily at how learners learn. This material describes programmes and identifies what works well for learners—see, for example, the work of Benseman, Sutton and Lander (2005) discussed in 3.4 in Part 1. Another example comes from Torgerson et al (2004) who undertook a systematic review to identify factors in teaching adult literacy and numeracy that caused learners to make progress in learning, including in the workplace. The factors thought to be related to progress in workplace basic skills were:

- consultation between and commitment of all stakeholders
- subsidised costs
- time allowance
- suitable training ethos
- company awareness.

The authors also found that the provision of basic skills supports reduced drop-out rates and increased completion rates. The amount of instructional time learners need to receive to make educationally significant progress is estimated in the USA to be at least 100 hours of instruction to make progress equivalent to one grade level. The average learner in the programmes they reviewed stayed for fewer than 70 hours per year. They concluded that, though using ICT is undoubtedly an essential skill, its use in instruction does not necessarily enable learners to make greater progress than conventional methods.

While the information in both these bodies of literature is useful for programme designers, it is not directly relevant to this review and is not covered in any detail.

4.2 Links between investment in people and skills and productivity

A recent high-level report from the UK Treasury (2006) suggests that a general improvement in skills raises labour productivity and ‘factor’ productivity in several ways.

- It enables workers to carry out more complex work, work more effectively and produce higher-value products.
- Investments in innovation and technology are more profitable when combined with skilled labour. Lack of skilled labour can constrain new investment and therefore productivity.
- Skilled workers are also better at adapting to changing environments. Skilled workers can adapt faster and more effectively to change, and better implement new investments and innovation. A highly skilled workforce enables firms to update working practices and products at the rate demanded by rapidly changing global markets, making the economy more flexible and productive.

There are also indirect effects as skills can spill over to wider society as workers learn from each other.

The report suggests that improvements in the overall skills of UK workers have contributed around one-fifth of annual growth in the UK economy over the past 25 years. Another study cited in the report found a similar contribution over the five years to 2000, of around 0.37 percentage points of annual growth. The Treasury report concludes that basic LLN skills have a positive impact on productivity. They cite a recent study showing that increasing the literacy score of a country by 1 percent leads to a 2.5 percent rise in labour productivity and 1.5 percent increase in GDP per head.

Most of the available 'evidence' about the benefits arising from investment in LLN and other basic skills programmes is at the micro level and comes from employer and participant responses to interviews and surveys.

One survey that is widely cited covered 86 individuals in 53 workplaces in Canada (Long 1997). Survey participants reported that work effort, productivity and quality improved, while error rates decreased. Participants in the programme also had an increased ability to work independently and use workplace-based technology. They were also better able to work within a team-based model.

A similar survey by Bloom and Lafleur (1999) of 55 Canadian employers explored the benefits of improving literacy skills in the workplace from the perspective of both employers and employees. Employers reported:

- improved quality of work
- better team performance
- improved capacity to cope with change in the workplace
- improved capacity to use new technology
- increased output of products and services
- reduced time per task
- reduced error rate
- better health and safety record
- reduced waste in production of goods and services.

Other Canadian studies indicate that the perceived benefits of training for the firm, in order of importance, are:

- improved customer services and client relations
- higher quality products
- higher productivity
- improved labour relations
- a more flexible workforce
- more committed workers
- an assured supply of skilled labour
- increased profitability (Barker 2001).

Pearson (1996) reports results of a survey of 30 different Australian workplaces representing 13 industries across five states. The 500 respondents to the survey included representatives of senior management, unions, supervisors and workers. The study found that language and literacy training was considered to have had a positive effect on five aspects of the workplace. They were:

- direct cost savings
- access to and acceptability of further training
- participation in teams and meetings
- promotion and job flexibility
- the value of training (which included issues such as worker morale, confidence to communicate).

In the United States, Bassi (1994) asked management representatives to assess the outcomes of basic skills training for their firm by indicating whether it had had 'no impact', 'moderate impact', or 'significant impact'. About half the respondents reported that training had either moderate or significant impact on quality of output and ability to use new technology, whereas between 30 percent and 40 percent of respondents found that it had moderate or significant impact on error rates, customer satisfaction, time savings and safety.

Other case studies anecdotally report increased productivity. Examples include the number of products being made in a food manufacturer rising from 50 to 90 in three months, a more adaptable and 'happy' workforce, and fewer and less severe workers' compensation claims (McGuirk 2001). A Canadian pulp and power company (The Conference Board of Canada 2005b) attributed a number of specific productivity gains to an essential skills programme, although they do not explain specifically how these measures linked to the programme. The gains were:

- efficiencies on the paper machine exceeded 80 percent every month during 2004, something never before accomplished
- the company lowered its accident rate and the number of days lost—385.5 days were lost in 2003 due to accidents, compared with 62.5 days lost in 2004
- absenteeism reached an all-time low at 6.9 days per employee, compared with the previous average of 10.9 days
- employee retention was increased
- employees went from being very uncomfortable using computers to using email for 80 percent of their communication needs.

Finally, Bloom and Campbell (2002) reviewed joint training programmes (JTPs), which are workplace education programmes jointly developed and managed by employers and unions. They identified a range of benefits for employers, unions and employees. These are summarised in the table below.

Table 1 Current skill gains and benefits of JTPs

Employers' perspective	Union perspective	Workers' perspective
Skill gains	Skill gains	Skill gains
<ul style="list-style-type: none"> • improved literacy skills • improved job-specific skills • improved communication skills • better personal management • increased self-confidence 	<ul style="list-style-type: none"> • improved literacy skills • improved communication skills • increased self-confidence • improved decision-making • greater adaptability 	<ul style="list-style-type: none"> • improved literacy skills • improved job-specific skills • improved communication skills • better personal management • improved decision-making • greater adaptability • increased self-confidence
Benefits	Benefits	Benefits
<ul style="list-style-type: none"> • improved customer service • improved quality of work • increased productivity • fewer errors • better communication with co-workers and managers • better understanding of job tasks • greater appreciation of learning 	<ul style="list-style-type: none"> • improved quality of work • improved attitude to union • better understanding of union activities • increased application of skills in union activities • better communication with other members • greater appreciation of learning 	<ul style="list-style-type: none"> • improved quality of work • increased productivity • fewer errors • better communication with co-workers and managers • better understanding of job tasks • greater appreciation of learning

The authors attribute the success of JTPs to 12 key design elements:

1. Continuous process of balanced, collaborative consultation between labour and management, based on concurrence developed through collective bargaining.
2. Learning needs analysis during programme development process.
3. Career/educational planning services available (career ladders).

4. Access to continuing educational opportunities.
5. Access to financial assistance for education and training.
6. Programme marketing and promotion.
7. Measuring and evaluating programme effectiveness.
8. Dual training focus: meeting worker and workplace needs.
9. Voluntary participation of workers, whenever possible.
10. Worker involvement in designing, implementing and evaluating training.
11. Multiple learning strategies for worker-students.
12. Specific criteria for selecting and evaluating educational and training providers.

4.3 Links between lifting LLN skills and other drivers of productivity

Building leadership and management capacity

As noted in Part I, the literature is clear that workplace practices and organisation need to be reviewed alongside literacy and basic skill needs. Improving one without improving the other will be ineffective. With the adoption of new management practices, managers and supervisors may need new skills to support their front-line staff (Raper et al 1997, Smith et al 2002). In Canada, a furniture company offered training to its supervisors and managers as well as employees with basic skill needs. The company recognises that team leaders are primarily responsible for reaching production targets, and also play an important role in shaping employees' skills and engaging them in helping to make the business successful (The Conference Board of Canada 2002a).

Creating productive workplace cultures

As noted in the next chapter, increasing employees' LLN skills can lead to increased participation by employees in all workplace activities, including team meetings, and a willingness to take on new roles as mentors and peer-learning coaches. Royal Star Foods Ltd in Canada reported that workplace literacy programmes had increased the confidence level of individual employees as well as the company as a whole. Workers were more willing to express their views and offer suggestions for improving the production process, 'ultimately helping the company's bottom line' (The Conference Board of Canada 2002:4).

Organising work

Part I discusses the relationship between new management practices and training (Smith et al 2002). The authors conclude that, while teamworking typically makes greater demands on employees' literacy and numeracy skills, unless management practices change and managers and supervisors are appropriately skilled, employees may not be able to use their enhanced skills to maximum effect.

A number of writers have challenged the view that the 'high-performance' workplace creates a culture of 'empowerment', where workers take ownership of their work by participating in problem-solving and decision-making through teamwork. Instead, they suggest that participating in these literacies is not so much about exercising power, but about complying with the power of others (Jackson 2004).

Networking and collaboration

Networking and collaboration between employers is likely to lead to an enhancement of LLN skills. Bringing employers together to share information about the benefits and challenges of improving employees' literacy skills is a recognised and recommended way to increase commitment to such training (Gagnon, Bloom and Watt 2005).

Hull (1993) argues that dominant approaches to understanding literacy do not make visible how 'literacy is made' in the every-day lives of workers. Instead, literacy is defined as a series of tasks that are limited in scope, underestimate the capacities of workers and serve to maintain managers' control over work processes. According to Hull, we need to rethink these traditional conceptions of literacy and the approaches to workplace training that follow right across the industrialised world.

Measuring what matters

The relationship between measurement and literacy programmes is discussed at the beginning of this chapter.

4.4 Conclusion

Although none of the sources of information discussed in this chapter is rigorous in its methodology, cumulatively, the responses indicate that there may be some relationship between investing in people and skills and increased productivity, although that relationship is hard to define. The sources also suggest a link between participation in basic skills programmes and encouraging innovation and the use of technology. Improved communication and decision-making are likely to contribute to a more productive workplace culture and enhance collaboration in the workplace. However, the literature is hedged with cautions. Numerous authors point out that, in attempting to assess the benefits and impacts of literacy programmes, it is extremely difficult to control for intervening factors such as external market influences, personal characteristics, incentives and disincentives for acquiring or displaying skills, the way work is organised and the degree of autonomy workers have. Evaluation issues are discussed further in Chapter 7.

5. Other benefits to employers and employees

5.1 Benefits to employers

The literature indicates that lifting LLN skills has the potential to bring a range of other benefits to employers and employees and their families.

A more stable workforce

Studies suggest that investment in basic skills programmes leads to lower staff turnover. Many studies (Turk and Unda 1991, Belfiore et al 2004, Holland 2004) also show that it is not literacy per se that leads to a more stable workforce, but workplace culture and investment in training and in more democratic practices such as worker participation.

In Long's survey (1997) of 53 workplaces in Canada, employee retention improved, as did labour relations in the workplace. In a similar survey by Bloom and Lafleur (1999), 55 Canadian employers reported increased customer retention and increased employee retention. Similar benefits were achieved at BHP Billiton Diamonds, with employers commenting that:

When workers feel their needs are being met through their job, the programme and their support systems at the mine site, they tend to stay in their jobs. [The Conference Board of Canada 2005a]

Other Canadian case studies (The Conference Board of Canada 2005 and 2005c) also reported improved levels of employee retention.

5.2 Benefits to employees

Opportunities to progress

Ananiadou et al (2003) cite a study by Bynner and Parsons (1997) that discusses the impact of basic skills on various aspects of an individual's life. It draws on the findings of a 37-year National Child Development Study in the United Kingdom. This showed that between the ages of 23 and 37, almost two-thirds of men and three-quarters of women with very low literacy skills had never been promoted, compared to under one-third of men and two-fifths of women with good literacy skills. The difference between the two extreme groups, with respect to numeracy skills, was smaller for men, but remained similar for women. Approximately 60 percent of women in the low-numeracy group had never been promoted compared to 34 percent of those with good numeracy skills.

On the positive side, a number of case studies have reported gains for employees involved in literacy programmes. Following the establishment of its learning centre, the Diavik Diamond Mine in Canada (The Conference Board of Canada 2005c) reported increased opportunities for workers to progress from entry-level to more senior positions. At BHP Billiton Diamonds (The Conference Board of Canada 2005a), employees had increased motivation to learn, enhance skills and develop a career progression plan. At Cavendish Farms and Palliser Furniture Ltd (The Conference Board of Canada 2005d and 2002a), participation in basic skills programmes led to increased opportunities for employees to advance within the organisation.

Economic benefits

Studies cited in the UK Treasury (2006) report found particularly strong impacts of skills on individual productivity as proxied by wages. Wage returns are also significantly related to formal qualifications, while those with good numeracy skills earn 10–15 percent more than those with poor numeracy skills.

Johnston (2004) also concluded that results from the New Zealand contribution to the OECD International Adult Literacy Survey (IALS) undertaken in 1993 show that New Zealanders with higher literacy skills earn more, on average, than people with lower skills and are more likely to be employed. He adds a rider to that finding:

A whole range of job-relevant skills, however, and not just literacy, affect a person's earnings and employment. It may be that some of these other skills are associated with both literacy and earnings (or employment) and that these associations explain some, most, or all, of the apparent link with literacy. In other words, employers value people with literacy skills because these tend to go hand-in-hand with other valuable skills. Suppose, for example, that people with good literacy skills tend, for whatever reason, to be better at working in teams than people with lower literacy skills. Then at least part of the reason why people with higher literacy skills are paid more may be because they are believed to be better team members. Simply increasing a person's literacy skills through participation in a training course, for example, without also improving their other work habits, might have much less of an effect on their earnings than expected, or indeed have no effect at all. [Johnston 2003: 28]

Two OECD reports (OECD 2000, OECD 2005) found large differences between countries in how much their labour markets reward education and how much they pay for skills and experience. Some countries reward workers for additional years of schooling above the legal minimum separately from their skill level; others give more rewards for skills than for additional education. Educational attainment was the most important determinant of earnings in most countries, even when variations in other factors were held constant.

Writers call for caution in using wages as a proxy for productivity. Keep, Mayhew and Corney (2002:7) point out that using wages as a proxy for individual productivity is based on two assumptions. The first is that people are paid according to their extra productivity. The second is that it is the education that the individual has received that has made him productive. They believe that:

It is effectively impossible, given the limitations of data, to observe or calculate directly extra productivity of individuals. [Keep, Mayhew and Corney 2002:9]

Nordman and Hayward (2006) conclude that both formal and informal learning are needed for the development of expertise that is rewarded by increased wages, but that the relationship between the two types of learning is still largely unexplored. This is partly because while formal training is relatively simple to measure, since it is clearly identifiable and generally provided for 'a determined duration by a recognised trainer in a precise place', this is not the case for informal training such as mentoring or being given advice. The authors developed a number of mathematical models to act as proxies for informal learning and, while none was entirely satisfactory, in each of the models they tested, the returns to formal training remained significant and positive.

Additional modelling revealed complex relationships between returns to formal and informal learning, the types of skills people are using, the type of work they are doing and the way that work is organised. They conclude that workers with the lowest skill levels may receive a wage premium but that the premium will diminish as other factors come into play:

The wage premium for a spell of formal training is significantly higher for workers using very basic literacy skills at work. This wage premium declines with increasing literacy task complexity. However, advanced maths users experience a higher return to a formal training spell compared to their counterparts who make use of less numeric skills. In fact, the return to formal learning is lower for those who perform the most complex literacy and numeracy tasks. Our tentative explanation for this is that workers who undertake routine literacy and numeracy tasks can acquire the skills needed informally quickly since the complexity of their work is not high. They are then likely to benefit more rapidly from financial rewards than their counterparts who are using more complex skills that take more time to be mastered.
[Nordman and Hayward 2006:37]

While it is often unclear whether individual employers actively link wages to learning, studies at the macro level show that literacy has a persistent, positive and statistically significant association with people's earnings per hour or per week. People with greater literacy skills are paid more, on average, than people with weaker literacy skills, even after taking account of other observed factors. Studies which are based on the OECD IALS or similar surveys find that analysis using either prose, document or quantitative literacy, or the average of the three, gives a similar result. In New Zealand, there is some evidence that, as in Britain, improvements at low levels of literacy have higher rewards than improvements at higher levels (Johnston 2004:29).

In the United Kingdom, McIntosh and Vignoles (2000) evaluated the impact of better literacy and numeracy skills on individuals' economic outcomes at a macro level, focusing on the effect of increasing numeracy and literacy skills up to level 1. They found evidence of a large positive effect on earnings and employment rates from achieving at least level 1 numeracy skills, although acquiring just entry level numeracy skills also attracted a premium. Individuals with level 1 numeracy skills earned around 15–19 percent more than those with skills below this level. Even after allowing for an independent effect from the worker's education/qualification level, and after controlling for family background, workers with level 1 numeracy skills earned around 6–7 percent more than their less skilled peers.

Individuals with level 1 numeracy skills were around five percentage points more likely to be employed (not taking into account other factors). Even allowing for education level, level 1 numeracy skills were still associated with having a 2–3 percentage point higher probability of being employed.

There was also evidence of a positive relationship between literacy and economic outcomes, although the results from two datasets differed substantially. With no controls, level 1 literacy was associated with having 15 percent higher earnings (similar to the numeracy effect). Once other variables were added, the effect from level 1 literacy was reduced to 1–3 percent in one dataset but was still a sizeable 11 percent in the other.

With no controls, having level 1 literacy skills was associated with a 5 percentage point higher probability of being employed in one dataset and 13 percentage point higher probability in the other. Once all the controls were added, including education

level, there was no effect from level 1 literacy in one dataset but a 10 percentage point higher probability of employment in the other.

A United States study of industry-specific approaches to workforce development found that, after two years, most low income workers who took part in sectoral programmes had improved their position within the local labour market, with increased earnings and a move for many from part-time to full-time work. Participants also gained the benefit of health insurance, paid sick and vacation leave and pension plans. They also felt better about the quality of their jobs and opportunities for advancement (The Aspen Institute 2002).

A broader review of outcomes and impacts of adult literacy education in the United States (Beder 1999) came to more tentative conclusions. Beder identified 23 case studies with a credible outcome component and found that, in general:

- participants in adult literacy education receive gains in employment
- participants in adult literacy education believe their jobs improve over time, however, there is insufficient evidence to conclude that participation in adult literacy education causes job improvement
- participation in adult literacy education results in earnings gain
- adult literacy education has a positive influence on participants' continued education
- the evidence suggests that participants in welfare-sponsored adult literacy education do experience a reduction in welfare dependence, but is inconclusive as to whether adult literacy education in general reduces welfare dependence for participants
- learners believe that participating in adult literacy education improves their skills in reading, writing and mathematics
- as measured by tests, the evidence is insufficient to determine whether or not participants in adult literacy education gain in basic skills
- adult literacy education provides gains in GED acquisition for participants entering at the adult secondary level
- participating in adult literacy has a positive impact on learners' self-image.

Commitment to further training

Canadian case studies report increased enrolment in and completion of high school equivalencies, pre-trades programmes and apprenticeship programmes and improvements through other workplace training, such as supervisor or lead hand training, which requires more reading and writing skills (The Conference Board of Canada 2002, 2005, 2005a). Other reviews also conclude that adult literacy education has a positive influence on participants' further education (Beder 1999).

Improved sense of self-worth and engagement

Almost every study reports increased self-confidence, self-esteem and morale, and confidence in the work and decisions made by workers, as benefits from participating in a basic skills programme. The benefits to companies include the ability of employees to work more independently, increased participation in all workplace activities and a willingness to take on new roles as mentors and peer learning coaches. Relationships between employees and management usually improve and employees feel more committed to the company (Long 1997, The Conference Board of Canada 2002, 2005, 2005a, 2005c). It is unclear, however, whether LLN programmes in themselves produce a greater sense of self worth or whether this is a result of the company demonstrating interest in workers.

Another Canadian company provides its ethnically and linguistically diverse workforce of 5,200 with a broad mix of training opportunities. Participating in the LLN and computer courses has helped employees learn strategies for interacting across cultural barriers, a finding supported by Bloom and Lafleur (1999). The programmes have enabled the company to:

- recruit ESL teaching assistants from among its employees
- develop leadership and management potential
- hire people with job skills or aptitudes, but who have English language challenges
- develop the teamwork skills of employees, which leads to fewer interpersonal problems on the production lines, better communication on the shop floor and improved safety awareness
- find employees who are more likely to read company documents
- reduce error rates (The Conference Board of Canada 2002a).

Skills transfer outside work

The wider social benefits of participating in LLN programmes have been recognised in the literature. In 1983, Sticht (2003) promoted the view that improving an adult's basic skills would lead to improvements in the literacy of the adult's children through the intergenerational transfer of literacy from parents to children. This means that, by investing in adult education, governments and businesses get good value or 'double duty dollars' for their investment.

Later work has confirmed this view. The Conference Board of Canada case studies (2002a, 2002b and 2005c) show that workers could use their literacy and numeracy skills within their communities and homes. These employees also became more active in their children's education. Bloom and Lafleur (1999) also found that the impact of workplace education programmes spilled over into family and community life.

Participants say that employees gain skills that enable them to undertake activities that range from helping with their children's homework and participating in school functions to accepting voluntary community roles.
[Bloom and Lafleur 1999:11]

In a workplace education initiative in Nova Scotia (Workplace Education 2000), many participants said that they used their new communication skills and strategies when dealing with others. Approximately 50 percent of those interviewed said that they either read themselves, read to their children or visited the library more times a week as a result of workplace education. Workplace education enabled people to help their children with their homework because they had increased their skills.

A basic skills programme at another Canadian diamond mine (The Conference Board of Canada 2005a) had the unintended but highly positive consequence of providing a voice for workers and a resource for them to have some of their questions and concerns answered. While the adult educators were not counsellors, they referred workers to their Employee Family Assistance Programme when appropriate. In doing this, they provided a safe 'in-between' place where workers could ask questions and receive information without jeopardising team relations. Other non-work benefits included increased awareness of the importance and transferability of education, both on the job and at home, and support towards achieving new goals in workers' lives.

A report by the Canadian government (Human Resources and Skills Development Canada 2005) summed up the range of social benefits employees gain from participating in programmes:

Employees in these programmes believe that they are more capable, take more pride in their work, have improved self-confidence and accept and act on suggestions for personal improvement more readily. Other improvements noted were a greater respect for diversity, improved communication and cooperation, greater willingness to take the initiative, improved problem-solving ability and an eagerness to take on new roles as mentors and peer learning coaches. Within families and communities, employees are able to help their children with their homework, participate more in voluntary activities and enjoy improved health. [HRSDC, 2005]

A number of reports have identified wider social benefits from general gains in literacy in areas of health, financial literacy and reduction in crime (Hartley and Horne 2006, OECD1997). These benefits need to be seen in the context of the debate about transfer of learning between one context and another, discussed elsewhere in this report (Mikulecky and Lloyd 1993, Taylor 2000).

5.3 Conclusion

The literature supports the view that increasing LLN skills can bring a wide variety of social and economic benefits to employers and employees. However, the links between basic skills training and benefits are often unclear and difficult to establish. For example, a company's willingness to invest in training may be enough to increase employees' confidence, self-esteem and sense of loyalty, without necessarily being associated with significant gains in LLN skills. While anecdotal and subjective reports are the main source of evidence and almost without exception positive, the number of studies is minimal, and hard data is either lacking or hedged with cautions.

6. Risks and/or unintended consequences of lifting LLN skills

6.1 Employers

As noted in Part I, employers may be reluctant to invest in LLN programmes because they fear that they will not capture the returns on investment in work-based learning because upskilled employees will be poached or simply move on (Glass et al 2002). Reports suggest that this is not the case. Participation in LLN programmes generally leads to a more stable workforce with improved staff retention (Long 1997, Benseman et al 2005). As noted in 5.1, it is not clear whether increased loyalty to the company is related to the literacy component of the programme or to the feeling of being valued enough by the company to warrant investment.

Employers may also have unrealistic expectations of what can be achieved through a single programme and need to take a long-term view. Smith and Dowling (2001) note that:

The nature of the financial markets in the English-speaking world has produced a culture in which short-term financial results are important to managers at all levels in firms. [Smith and Dowling 2001]

This is in contrast to the experience in one company in New Zealand that stressed the importance of viewing investment in literacy training as a long-term commitment.

You can't expect major progress after one training programme. The programme is a starting point. [Workbase 2002:16]

Benseman et al (2005) point out that it is difficult to estimate how much learning time is enough in the absence of any agreement on what learners should know or be able to do when leaving programmes. As noted in Chapter 4, Torgerson et al (2004) found that learners need at least 100 hours of instruction to make progress equivalent to one grade level in literacy, but most students receive far less than this. Sutton (2004) suggests that learners in New Zealand are also likely to receive less than the benchmark amount.

Transfer of learning is also an issue. Without a plan to help participants in LLN programmes apply what they have learned, their skills may not transfer to the work setting, or from one aspect of their work to another (Mikulecky and Lloyd 1993, Taylor 1997, Barton and Tusting 2006). Taylor (1997) identifies three conditions for transfer:

- training content must be applicable to the job
- the trainee must learn the content
- the trainee must be motivated to change job behaviour to apply what s/he learned.

Brinkerhoff (2006) observes that getting improved performance from the capabilities of employees is essentially a performance-management challenge. Factors such as direction, feedback, incentives, rewards, and job aids and tools, all work together to shape and drive performance. When these factors are effective, complete and aligned, employee capability will improve—when they are not, performance will not match capability. He is particularly critical of short-term or one-off training interventions. Initiatives that extend over weeks or months and include performance

technology tools and methods, such as incentives, job aids, and coaching and measurement feedback from supervisors, are likely to be more effective. With short-term programmes:

The principal barriers to achieving greater application of learning and subsequent business results lie in the performance environment of the trainees, not in flaws (though there may be some) in the training programs and interventions themselves. Participants that are involved in training usually have sufficient innate abilities to master the learning outcomes. Similarly, they also typically have sufficiently positive values that are supportive of the aims of the training. Most care about their work and, given the right opportunities, will want to improve... The typical [short term] training program leads to a 15% success rate. It would be a highly unusual organisation indeed that could blame this low rate of impact on the learners, claiming that 85% of its employees are too stupid to be able to master and apply required new skills. [Brinkerhoff:2006:40]

Managers therefore need to put support systems in place to ensure that transfer happens and establish a workplace culture that supports the goals of the training programme. In particular, supervisors need to understand the aims of the training programme, as they hold the primary responsibility for reinforcing new skills and abilities on the job. To do this well, they may need support to develop coaching skills.

Employers also need to be aware of the potential flow-on effects from upskilling staff. Employees seeking to advance their employment status through improving their skills typically require the support of their direct supervisors. In some instances, the employees' desire to advance may conflict with supervisors' desire to retain good employees. Gaining the 'buy-in' of supervisors, team leaders and managers is essential. As their confidence increases, staff are also likely to speak up more in meetings, question existing procedures and want a greater say in decision-making. Companies contributing to the Voices from Management (Workbase 2002) reported that:

- managers became conscious of the need to improve their communications with staff and were looking at further training to help them in this area
- management needed to prepare the company for the impact of more highly skilled, confident and articulate front-line manufacturing staff
- they needed to provide managers and team leaders with regular reports on the programme to help them take ownership.

Another risk is that employees may be unwilling to acknowledge that they have literacy problems and reluctant to take part in a programme for fear of being personally stigmatised and labelled as a hindrance to company productivity. These fears can be allayed to some extent by using an outside training provider, maintaining participant confidentiality, customising the curriculum to each student's needs and adopting a holistic approach in undertaking a company-wide needs analysis. The Conference Board of Canada (2002–2005) case studies offer examples of these approaches.

6.2 Employed people

As noted earlier, taking part in LLN programmes has many positive effects for employees, but there may be unexpected side effects too. Several projects funded by the Workplace Literacy Fund (Skill NZ 2002) identified leadership potential in workers who had hitherto been overlooked. In one project, a participant had signed up to a Modern Apprenticeship, and several others had been promoted to team leaders.

Other projects had also identified new candidates for team leaders. A number of learners sat their driver's licence test and no longer needed to drive illegally.

6.3 Unemployed people seeking work

When Rahmani et al (2002) evaluated the Commonwealth Government of Australia Literacy and Numeracy Training (LANT) programme for unemployed job seekers with low LLN skills, they found that over 60 percent withdrew before completing their training and only 17 percent achieved a successful educational outcome. Those who were more likely to be successful were females, older adults and those who had been unemployed longer term.

A similar proportion of course starters and non-starters were working in a paid job at the time of the follow-up survey and earned similar amounts of money. Similar proportions of both groups had exited income support at six months and nine months.

Waterhouse and Virgona (2005) looked at ways in which people with literacy difficulties cope in society. They describe some strategies to support those who do not seek help through adult literacy programmes. They concluded the following:

- A focus on the positive, on capabilities (rather than perceived deficits) opens up possibilities for learning, personal development and vocational success. While it is increasingly important, literacy is not the only criterion for personal, vocational or employment success, and critical thinking, education and achievement are not dependent upon literacy (although it may help).
- Literacy takes many legitimate shapes and forms—the teacher's literacy is not the only one. People with minimal formal literacy may have exceptional skills (including entrepreneurialism and creative capacities) that may be hidden behind a veil of uncertainty and apprehension.
- There is value in identifying, developing and celebrating multiple forms of intelligence and capability within learners and recognising that the 'new basics' include developing diverse capacities for 'learning how to learn'. A key dimension of this is developing a positive sense of self as a learner—an identity, self concept and self-confidence which enables robust learning and the capacity to rebound from setbacks.
- Employees not practising conventional or expected literacy skills are likely to conceal their non-compliance unless employment relationships are open and trusting.

6.4 Conclusion

While participating in LLN programmes generally brings benefits for all stakeholders, they do bring with them a number of potential or perceived risks. These include:

- employers' fears about investing without adequate return
- having unrealistic expectations about how long learning might take or what can be achieved
- being unaware of the need to see LLN training in the wider context of the workplace.

They need to be aware of flow-on effects on other staff and make sure that conditions in the workplace facilitate transfer of learning. Withdrawal from or non-completion of programmes is also a risk. Undertaking a risk management analysis is

clearly a useful exercise for individual initiatives. These analyses also provide a valuable resource for evaluations.

7. Evaluations of initiatives to lift LLN skills

This section considers some of the issues related to evaluating LLN initiatives and reports on evaluations of initiatives targeted across industries as well as evaluations of programmes or initiatives operating within a single industry or at a single site.

7.1 Issues in evaluating training initiatives

This review has highlighted both the dearth of reliable evaluations of LLN initiatives and the difficulty of undertaking such evaluations. The difficulties are related to issues of perspective, measurement and attribution.

Much of the literature reviewed focuses on the LLN needs or so-called 'deficits' of individual workers in the context of benefits that might accrue to employers and companies when workers take part in LLN initiatives. Other literature sets LLN issues firmly in the context of workplace culture and organisation, and highlights the need for change in these areas. These views are a reminder of the need for clarity about what is being evaluated, on whose behalf and from whose perspective.

The earlier sections also identify problems with measurement and attribution. A number of writers stress the importance of having a clear understanding of the goals of all stakeholders involved in LLN initiatives so that appropriate measures can be developed to give a multi-faceted picture. Even so, establishing cause and effect is extremely difficult. While there is information at the macro level that establishes associations between variables such as literacy skills and income, there are very few evaluations on an initiative, programme or company level that attempt to link benefits or outcomes directly to a particular intervention.

In a review of the evidence on ROTI, Keep, Mayhew and Corney (2002) identify a number of issues for those evaluating interventions in training. They refer to vocational education and training (VET) in Britain but the points they make have relevance in New Zealand. One issue is the critical impact of time:

Changes to the supply of VET take time to feed through to how skills are then used, and there is liable to be a further time lag before these changes feed through into organisational performance. Short-term boosts to output or profitability may also not prove sustainable. Lasting gains are those most to be desired, but are the most problematic to evaluate because the modern political process is extremely impatient. It wants long-term results, but it wants them to be demonstrated fast. The field of UK VET is littered with training interventions, for example, youth credits, whose success was being trumpeted before even the pilot stage was up and running. [Keep, Mayhew and Corney 2002:44]

They also refer to the difficulty of separating out the impact of any single intervention within an organisation from all the other internal and external forces that are simultaneously acting upon it. As Brinkerhoff (2006) points out, evaluation methods that focus on the training itself run the risk of:

- undermining performance partnerships with line management by misrepresenting the role and process of training in performance improvement
- ignoring the performance system factors that impinge on training impact
- failing to provide accurate and relevant feedback that managers need to guide performance improvement.

He uses the success case method as one way to recognise non-training performance system factors. This begins with a survey to determine the general distribution of those training graduates who are using their learning to get worthwhile results and those who are not having such success. Evaluators then conduct in-depth interviews with successful and unsuccessful trainees to identify all the factors that helped or hindered their achievement of worthwhile performance results from training.

Barker (2001) makes a similar point, arguing that it is important to tease out extraneous factors or to decide when assessment can go ahead with appropriate caveats. It is necessary to show that results are attributed to training/learning and not other intervening variables. Her suggestions for ways to isolate the effect of training on performance include:

- use of control groups
- forecasting
- triangulating data by obtaining participant, supervisor, management and expert views on training effects
- customer input
- subordinate input.

Selecting the most appropriate method will depend on the following criteria:

- feasibility
- accuracy
- credibility
- costs and time—including that of participants, managers and others.

She identifies some of the potential returns from training from the perspective of the employer or business. Those that are valuable, intended and possible to measure are:

- productivity or output per employee
- reduced waste or scrap
- improved customer satisfaction (fewer complaints)
- improved safety record
- increased sales
- compliance with regulations
- reduced employee absenteeism and/or tardiness
- reduced employee visits to the medical centre or first aid cabinet
- reduced employee grievances, discrimination charges and turnover
- number of promotions or pay increases
- number of training programmes attended
- number of requests for transfer
- performance-appraisal ratings
- implementation of new ideas
- successful completion of projects
- number of employee suggestions
- frequency of goal setting
- reduced supervision
- reduced help from co-workers
- reduced calls to help line
- reduced downtime
- worker hours saved
- reduced time to perform operations
- reduced overtime
- fewer mistakes

- fewer employees needed.

From the perspective of the employer or business, some of the returns that are valuable and intended, but which may be difficult to measure or convert to dollar values are:

- improved employee morale
- greater cooperation among employees
- better management-employee relations
- better understanding of the organisation by employees
- greater employee flexibility
- greater employee loyalty
- improved employee work ethic
- less employee stress
- increased employee self-confidence and motivation
- improved employee perceptions of job responsibilities
- improved decisions made
- more problems solved and conflicts avoided.

Measures also need to take into account employees' personal development and other social goals, as well as work-related goals such as job satisfaction and promotion.

Governments, unions and other stakeholders, such as industry organisations and training providers, may have different goals again, seeking wider social benefits from literacy enhancement. Appropriate tools and measurements need to be developed or selected to gather this information.

7.2 Evaluations of government initiatives

New Zealand

In 2002, Skill New Zealand published an interim evaluation of the Workplace Literacy Fund (Skill NZ 2002). The Fund was set up in July 2001 to provide opportunities for employees to gain work-related literacy skills. The fund also aimed to build the capability of workplace literacy providers. Its third objective was to raise the awareness of ITOs of workplace literacy issues and quality solutions. In its first year, the fund supported 11 projects—nine involving workplace learning and two focusing on infrastructure development with ITOs. The evaluation was based on demographic data on participants and interviews with all relevant stakeholders for each project.

The fund provided workplace learning opportunities for 220 learners, predominantly Māori and Pacific people with low levels of literacy who had little previous success with formal education. The learners identified both workplace and personal objectives as reasons for wanting to participate. They wanted to achieve qualifications, update their employment skills, learn to use computers, improve their maths skills, and learn to read, spell, write and speak English. They were enthusiastic about the opportunity to gain new skills, delighted with their newfound ability to learn and proud of their progress. These findings are in accord with those of Mikulecky (1997) who found that learners who had clear learning goals upon entering programmes made the most change in literacy practice outside of class.

Nearly all the projects had a strong workplace context to the learning. The learning was tailored to meet the specific needs of that workplace and the individual learner. This approach ensured a high level of learner motivation and increased the likelihood of the learning contributing direct returns to the enterprise.

At the time of the evaluation, the projects were just getting started and were not yet able to demonstrate much impact in the workplace. Those projects that did have workplace objectives found it difficult to quantify the impact. Even the firms that had good measures of accidents, output or attendance found it difficult to identify project participants in their data. Furthermore, it was often impossible to isolate the impact of the learning from numerous other ongoing environmental changes. Most projects did not attempt formal workplace measures but instead relied on anecdotal comment and observation to assess whether the learning was achieving its workplace objectives. One manager stressed the need to be patient. Immediate returns to the company would not be the only measure of project success.

As with other evaluations, the most frequently mentioned effect was an improvement in worker confidence as a result of increased competence. Other benefits, which again are similar to those reported elsewhere, were the identification of potential in workers, improved workplace communication and health and safety compliance, and increased worker versatility.

Two other evaluations are not directly related to workplace literacy but throw some interesting light on different aspects related to enhancing LLN skills.

The first is a follow-up study of Training Opportunities and Youth Training adult literacy students in Christchurch two years after they completed the programme (Benseman and Tobias 2003). The Tertiary Education Commission provided funding for two adult literacy programmes at Hagley Community College and the Christchurch Polytechnic Institute of Technology (CPIT). In contrast with many other adult literacy programmes that provide tuition for only a few hours a week, most of the learners on these programmes attended on a full-time basis. This enabled them to have sustained literacy tuition over an extended period of time. Information was gathered through interviews with 83 participants.

While participants chose to take part in the programme for a range of reasons, a surprisingly small proportion said that their prime motivations were job-related. This was particularly surprising given that participation was restricted to people who were unemployed. The overwhelming majority of interviewees saw the literacy programme primarily as a means of intrinsic educational and personal development.

Once again, the most frequently mentioned benefit was improved self-confidence. Almost all interviewees said they had gained significantly in self-confidence as a result of participating in the programmes. Forty-eight percent claimed that they were 'much more confident', while another 36 percent said that they were 'more confident'. In most but not all cases, participation in the programme led to improved literacy skills. While improvements in literacy skills invariably resulted in greater self-confidence, improvements in self-confidence (for example, through learning self-assertion skills) could occur with little or no change in literacy skills.

The authors also refer to work and family-related outcomes:

Interviewees described some of the ways in which their new skills had been of substantial value to them in obtaining jobs and gaining promotions, and how they were using their improved literacy skills at work. On the other hand, a few interviewees pointed to disappointments when they found it difficult to find the employment they wanted—in spite of their newly acquired skills. Interviewees also talked at length about ways in which they were using their literacy skills in their home lives. Of particular note was their increased awareness of their own children's literacy development, their determination to

help them avoid what they themselves had experienced as children and their keen engagement in their children's schoolwork generally. [Benseman and Tobias 2003:166]

In 2005, the Tertiary Education Commission published an evaluation of the Tertiary Education Learning and Assessment Centres (TELAC) Pilot. The TELACs were established to pilot community-based, one-stop shops that provide information, advice and support (including mentoring and computer resources) to adults who would not ordinarily consider tertiary education and training. The objectives of the TELACs were to:

- encourage potential learners to enter tertiary study or training, and advise learners about the options
- support potential learners in their tertiary study so that they were able to achieve.

The evaluation was predominantly qualitative. It drew on data collected from telephone interviews with four groups of key respondents using mostly open-ended questions. A secondary source of data was the milestone reports completed by each of the TELACs throughout the first two years of operation.

The TELACs were not expected to produce employment outcomes and did not have a literacy focus, but they did attract a number of people through adult literacy courses, and a substantial number of people used their services for reasons related more to employment than tertiary education. This was in contrast to the Christchurch literacy programmes, where participants had educational and personal development rather than employment goals. The most effective services provided by the TELACs were: encouragement, interest and confidence (57 percent); access to computers (52 percent); ideas and advice about study and/or employment (52 percent); access to information on courses and employment (48 percent); and assistance with assignments and course work (33 percent).

United Kingdom

Several government initiatives have been evaluated in Britain. These include Fresh Start in the Workplace, Employer Training Pilots (ETP) and the e-learning initiative managed by Ufi.

Fresh Start

The Fresh Start in the Workplace programme (York Consulting Limited, 2002) was developed and managed by the Basic Skills Agency, with funding from the Department for Education and Skills Adult Basic Skills Strategy Unit. It comprised four areas of activity:

- a brokerage scheme, training brokers and providers to stimulate employer demand for adult basic skills provision
- a brokerage scheme in very small firms
- work with national training organisations (NTOs) to map basic skills standards to national occupational standards
- support for human resource managers to implement basic skills training in the workplace.

The evaluation found positive feedback from the majority of participants in the brokerage schemes, and the NTO project achieved its aim of mapping over 100 national occupational standards against the basic skills curriculum. The authors caution that, as NTOs are replaced by sector-skills councils, there is a need to ensure that the considerable momentum generated by the programme is not lost and

the role that they can play in the delivery of the British government's Skills for Life strategy is made clear and promoted.

Employer Training Pilots (ETP)

The ETPs are described in 3.5 Part I. They offered free or subsidised training leading to a basic skills or first level 2 qualification for employees. The employees received paid time off in which to train, for which the employers were compensated. ETPs largely attracted employers who would have offered training anyway and who had a relatively positive attitude to training compared with average employers. (Abramovsky et al 2005). ETPs have been superseded by the National Employer Training Programme (NETP), which is discussed in the next chapter.

E-learning

Ufi is the organisation responsible for the operation of **learndirect** across England, Wales and Northern Ireland, and **UK online** centres in England. **learndirect** and **UK online** centres form a government-backed network of several thousand centres supporting e-learning and e-services. Ufi also runs the free, impartial **learndirect** advice service and operates drop-in courses for learners. Ufi's mission is to improve national productivity by providing widespread access to technology and world-class learning. By working to drive up demand for learning, it aims to help adults improve their employability by acquiring new knowledge and skills, and help businesses become more competitive. The intermediate objectives of the Department for Education and Skills (DfES) for Ufi include increasing the number of companies (particularly SMEs) providing learning opportunities to employees, and improving the quantity and quality of provision. An evaluation of Ufi (Tamkin et al 2003) concluded that **learndirect**:

- has so far had more of an impact on individuals than on organisations
- contributes to lifelong learning by engaging new learners, and by widening participation by reaching out to traditionally disadvantaged groups
- leads to further learning progression
- is helping some learners enhance their employability
- is contributing to the expansion and diversification of the learning market.

While there may be evidence in the literature that investment in training can lead to improved organisational performance, the authors found little other than occasional, anecdotal evidence of such an impact for **learndirect**. They point out that this does not mean that the link does not exist, and there was evidence of employees using **learndirect** courses to gain specific skills that were then applied in the workplace. However, most of the workplace training provided by **learndirect** built a foundation for further skill development, which could lead to organisational outcomes.

They conclude that employers need more employees with intermediate skills. There are also difficulties at basic skill levels, but employers rarely see these as their responsibility. The lack of management skills has also been identified as an important element of the UK productivity gap. These may not be skills gaps that play to **learndirect's** strengths.

Kearns (2002) calls for more research into the impact of e-learning on small business. He notes that there has been a major expansion of e-learning in large firms, in particular in the United States, and this expansion is predicted to continue. Much American development involves sophisticated, blended learning systems that link e-learning with other learning strategies, such as face-to-face instruction and action learning, in synergistic ways. Finding ways to develop e-learning in blended learning strategies in cost-effective ways in small business is a critical issue.

Canada

In Nova Scotia, the Workplace Education Initiative (WEI) aimed to bring essential skills education into the province's workplaces (Workplace Education 2000). It is described in 3.5 in Part I of this review. Government acted as the initiator and coordinator of the initiative by promoting workplace education to employers and labour and by helping the partners to design, implement and evaluate programmes at work sites around the province. The WEI had four objectives, which were to:

- create accessible learning opportunities for workers in Nova Scotia's workplaces
- enhance the essential skills of participants in Nova Scotia's workplaces
- influence the economic and social development of Nova Scotia by providing relevant education that impacts individuals where they work and live
- encourage the establishment of a lifelong learning culture in Nova Scotia and its workplaces.

The outcome evaluation was based on an examination of end-of-programme evaluations from 32 courses at 24 different sites and a number of detailed interviews with various programme partners. Goals described by the project teams were to improve:

- | | |
|---------------------------|-----|
| • writing skills | 46% |
| • reading | 38% |
| • oral communication | 29% |
| • workplace communication | 25% |
| • maths confidence | 21% |
| • further training | 16% |
| • job performance | 13% |
| • morale | 8% |
| • health and safety | 4% |

In contrast, participants described their goals as:

- | | |
|------------------------|-----|
| • education | 43% |
| • job performance | 27% |
| • personal improvement | 17% |
| • writing improvement | 16% |
| • oral communication | 10% |
| • reading | 8% |
| • maths | 5% |

Almost all (96 percent) workplaces indicated that WEI met their goals. Many of the partners linked skills improvements to increases in workplace communication or job performance. Most (87 percent) participants completed workplace education courses at their work sites; 73 percent said they would have not enrolled in essential skills or academic upgrading programmes if they were not offered at their workplace. Three-quarters (75 percent) of those who took part in preparation courses received their General Education certificates.

Data collected about outcomes did not involve getting workplaces to measure the impacts on productivity by comparing the pre-course numbers with the post-course numbers. The authors considered that this would have been difficult, considering that many organisations do not measure impacts quantitatively. As with other studies, the perceived outcomes were assessed subjectively.

Sixty-seven percent of managers noticed increased levels of self-confidence in the workplace-education participants at their workplaces. Ninety-one percent of the

participants experienced increased levels of self-confidence as a direct result of participating in workplace education. Workplace partners noticed that improvements in self-confidence had direct impacts on individuals, their job performance and the overall atmosphere of the workplace. Some partners also believed that workers felt better about themselves and their positions within the organisation because the employer was investing in them.

Ninety-two percent of the managers in the end-of-programme survey observed improvements in communication within the workplace. In particular, they believed that improvements in oral communication skills helped open the lines of communication within the workplace.

Sixty-six percent of the managers observed improvements in productivity that were influenced by WEI. They observed reductions in the time that it took workers to perform job duties and in the errors that some workers made on the job. They also saw changed work habits that improved job performance and a greater willingness on the part of workers to contribute to the development of the workplace and initiate improvements themselves. They also commented on the increased ability of workers to adapt to new technology and equipment.

Participants' responses indicated that:

- 89 percent thought that their general essential skills improved
- 82 percent felt that their workplace-specific essential skills improved
- 83 percent thought that they improved their ability to communicate in the workplace
- 74 percent improved their overall job performance
- 90 percent were better equipped to participate in further training
- 86 percent had been encouraged to seek out further educational and training opportunities
- 63 percent felt more loyalty towards their employers and unions because of the investment in workplace education.

7.3 Evaluations of union initiatives

Scottish Union Learning Fund

This is part of the broader Union Learning Fund project established in Britain in 1998 and described in detail in 3.5 in Part I. The Scottish Union Learning Fund (SULF) was established by the Scottish Executive in 2000 (Findlay et al 2006). Its aim is to 'encourage workplace learning in its widest sense'. SULF enables Scottish-based trade unions, in partnership with employers and others, to develop workplace learning. To the end of 2005, there had been five funding rounds amounting to almost £3.3m, with awards to 54 projects involving 23 unions. The evaluation included both qualitative and quantitative research, with surveys, interviews and focus groups with trade union officials, union representatives, learners, employers, learning providers and significant others from the Scottish business and policy communities. In addition, a number of case studies were investigated for examples of best practice. The evaluation was Scotland-wide and encompassed a range of unions by size, occupation and sector.

Since its launch, SULF has led to the training of at least 846 ULRs to help access learning for employees and to the appointment of 18.5 permanent learning project officers and 38 temporary project officers within unions. These individuals have facilitated at least 1,820 learning awareness/dissemination events, and enabled 9,962 individual learning-needs assessments and 1,543 company learning-needs

assessments. Through these initiatives, at least 22,434 employees were provided with personal information, advice and guidance on learning; 2,456 learners undertook accredited learning; 10,582 learners undertook non-accredited learning; and 1,960 undertook IT training. In addition, at least six learning centres were opened. SULF also stimulated demand for learning and met existing but latent demand. In some cases, ULRs struggled to cope with this demand, as did external public organisations.

All projects involved partners—usually employers, learning providers and, in some cases, other unions. The depth of this partnership increased over the funding rounds, particularly with employers, though many were sceptical of the benefits that might accrue to them. Over the funding rounds, unions became better at articulating and matching employee learning needs with learning providers. The partnerships also helped lever additional funding for workplace learning.

Project management also improved over the funding rounds. Almost all projects had a steering group that included employers and which met regularly. Pressures on union resources did create some project management and execution problems.

The project significantly raised awareness about lifelong learning, and participants reported an interest in acquiring training/learning in IT skills, literacy and numeracy, and languages. However, there was no evidence of progress towards addressing these needs, either from the union, the ULRs or any of the local authority employers. According to the union, the project failed to deliver beyond the end of the project for a number of reasons. Firstly, there was no significant employer involvement in either the project bid or the operation of the project. Secondly, the relatively new role of ULR had not, at that point, been properly incorporated into union structures. The ULRs could not rely on union support to maintain the momentum of the original project. Ironically, the outcome may well have been that expectations among non-traditional learners were raised but not met.

On the positive side, involvement in SULF increased employees' confidence, life skills, ability to cope with change and attitudes towards employers. In the learners' survey, 62 percent of respondents undertook a mixture of job-related and personal interest accredited courses. Just over a third had obtained new qualifications as a result of their participation in the project (34 percent). Wider outcomes included increased self-confidence (61 percent), better job-related skills (56 percent), personal fulfilment (54 percent), social skills (42 percent), IT skills (41 percent) and employability (39 percent). Most had no benefits in terms of pay (51 percent thought no impact), promotion (49 percent) and job security (42 percent). Although most had an increased interest in lifelong learning as a result of the project (67 percent), only 34 percent thought that their ability to do their job had increased. A fifth (21 percent) had more positive attitudes towards their job but only 10 percent for their employer. Interestingly, 18 percent felt more negative about their employer as a result of their experience of learning. Most were also interested in continuing with learning (97 percent) for personal fulfilment (67 percent had a major interest), qualifications (62 percent), IT (60 percent) and job-related skills (51 percent).

Although only 20 percent had a major interest in literacy and numeracy, a further 35 percent had a minor interest in improving these skills. Unfortunately, this was one area where the project had difficulty in finding courses or gaining employer support, and these needs or interests remained largely unmet.

The authors conclude that the funding and the union support have been a catalyst for engendering a learning culture among employees who previously would not have

considered, let alone been involved in, learning. There was also evidence that SULF projects helped improve both management-union relations—even in those industries that had difficult industrial relations—and management-employee relations. Involvement in SULF became an indicator of being a good employer. Unions also used the opportunity to develop workplace learning and promote their union (Findlay et al 2006).

AFL-CIO

AFL-CIO Working for America Institute (2004) completed a review of eight programmes designed to help workers with limited English proficiency to get and keep good jobs. All the programmes were either products of union and employer partnerships or programmes that consciously worked with unions and their signatory employers in order to access better jobs in their communities. They covered the hospitality, manufacturing, construction and healthcare industries. The review found that:

- each programme looked at the specific conditions of the industrial sector in which they were engaged, the needs and requirements of specific employers, the regional labour market and the needs of workers in their target industries
- tailoring the nature of English language instruction and occupational training to the needs of specific jobs permitted faster, yet successful, job placement, retention and advancement
- continuing English instruction was in the long-term interest of low English proficiency workers, employers and communities, but building for continuous improvement was the weakest area in most of the programmes.

7.4 Sector-specific programmes

Industry-specific or sector strategies offer a different approach to workforce development. They are typically based on four principles.

1. Industry-specific workforce initiatives target a specific occupation or set of occupations within an industry, based on the potential that exists for providing decent employment opportunities.
2. Industry-specific workforce initiatives become deeply engaged in and add value to the industry they target.
3. Industry-specific workforce initiatives excel at leveraging employment opportunities for low income people.
4. Industry-specific workforce initiatives create systemic changes that benefit employers and low income job seekers (The Aspen Institute 2002).

A United States study (The Aspen Institute 2002) reports that employers found the quality of their workforce improved as a result of employees' participation in occupation-based training through sector initiatives. Employers also benefited from the ability that sector programmes have to tap into different population pools and secure new sources of talent for hard-to-fill positions. Most of the initiatives provided consulting and management services to employers, which assisted employers in improving operating efficiency and upgrading technology and manufacturing techniques.

The initiatives also built relationships with educational institutions, employer associations, community organisations and labour unions, as well as working on an industry-wide basis to improve labour market practices. They were able to provide employers with information on the labour market and push for changes in regulations to benefit low-skilled workers and the quality of jobs.

The report concludes that factors that contribute to the effectiveness of industry-based training include:

- careful front-end interviewing and enrolment processes
- trial periods at the beginning of training
- developing training content and training culture that reflect industry norms
- fitting the training to the student
- tailored and flexible support during and after training.

This model is very similar to the Job Partnerships with Industry initiative developed by Work and Income New Zealand.

One sector-wide initiative has been evaluated in New Zealand. The plastics industry employs around 6,500 people, many of whom come from a non-English speaking background or have LLN needs. The Plastics Industry Training Organisation (PITO) instituted initiatives in partnership with Workbase, the National Centre for Workplace Literacy and Language. A case study of programmes in three companies (Workbase 2001) found that integration of LLN skills with industry-based technical training was key to the success of the initiatives. Regular liaison between Workbase and PITO throughout, and three-way meetings with the companies taking part, meant that all interested parties could share information. PITO provided a subsidy to help each company meet training costs. Following a needs assessment, programmes were tailored to the needs of each workplace and delivered at the workplace, usually in work time. Assessment was by self-report, with companies reporting:

- receiving quality information from the factory floor that enabled them to cost products more accurately and eliminate unprofitable profits or change their pricing
- an increased ability for employees to move onto the skill-based pay system
- improved accuracy in day-to-day documentation
- increased support from management
- increased understanding of job requirements
- increased productivity and a reduction in error rates
- increased confidence and improved communication.

7.5 Evaluation of initiatives in individual businesses

The one properly structured quantitative study of the impact of workplace basic skills tuition which Ananiadou et al (2003) were able to identify in their literature review was undertaken in the United States by Krueger and Rouse (1994, 1998). They studied the impact of workplace literacy programmes on a variety of employment outcomes and collected comparative data for trainees and non-trainees. Extracts from ANnaiadou et al's summary of the study are reproduced below:

A basic skills tuition programme was delivered to 480 low-skilled, hourly-paid workers at two mid-sized New Jersey (US) companies (one service, one manufacturing). It ran for approximately 16 months and classes were taught on-site in five 8–12 week blocks. The programme was subsidised by the federal government... The training included subjects like basic reading, writing and maths and English as a Second Language and was in part tailored to specific company needs.

The authors found small effects of the programme on all outcomes investigated (although note that the follow-up period was quite short). In the service company, there was no significant effect on wage growth of programme participants compared to non-participants, whereas there was a

larger growth in earnings for trainees at the manufacturing company compared to non-trainees.

Workers who had participated in the programme had a lower absenteeism rate during the weeks in which they had classes and this effect continued for the next two months, although it was quite small. There was no evidence that participation in training made workers either more or less likely to leave the company after training.

In the service company, self-reported productivity was higher among trainees: this may reflect performance or may reflect higher self-esteem. For almost all of the other variables measured, differences between training programme participants and non-participants did not reach conventional levels of significance. One exception was that participants at both companies were significantly more likely to report that they planned to take additional classes in the future compared to non-participants. [Ananiadou et al 2003:16-17]

In the United Kingdom, Cranmer et al (2004) reported on a development project exploring different models of delivering LLN and other key skills within apprenticeships. The project followed concern about unsatisfactory achievement in these areas. Knowledge of existing practice among providers indicated that many regarded literacy, numeracy and other key skills as 'a chore' and left them until late in the programme. Between May and December 2003, the Learning and Skills Development Agency (LSDA) led a development project which tried out ways of making LLN skills a higher and more integral priority from the beginning of programmes.

The project trialled a range of models in eight centres, chosen to cover a range of vocational areas and geographical locations. LLN and other key skills were delivered pre-course, or early in the apprenticeship programme. All had activities such as:

- preparation of the trainers for key skills support
- development of initial and diagnostic assessment and individual training plans
- development of 'front-end' provision
- preparation of learners for test-based assessment and for their portfolios.

The evaluation of the project was carried out through semi-structured interviews, observation of classroom practice and interviews/focus groups with learners. The researchers also collected factual data on each project and quantitative data about each cohort of learners. Some of the key findings were that:

- learners improve their literacy, numeracy and other key skills when the whole organisation believes key skills underpin learning vocational skills and technical knowledge
- the whole staff of the programme—vocational teachers and assessors as well as specialist basic and key skills staff—need to work as a team on literacy and numeracy
- even learners who had qualifications on entering the programme benefited from the literacy and numeracy support in completing their apprenticeships
- where employers were actively involved and supported learners' attendance, this had a crucial impact on learners' motivation and engagement and on vocational teachers' commitment to literacy, numeracy and other key skills.

Also in the United Kingdom, Ananiadou et al (2004) describe some methodological issues in evaluating a pilot project which aims to:

- identify when and how workplace basic skills programmes are effective in improving adults' measured language, literacy and numeracy skills
- assess the effectiveness of workplace programmes on productivity (for example, sickness and absence rates, job satisfaction) and other life course variables (such as employment stability, earnings, promotion, enrolment in further educational programmes, quality of life).

During the scoping study, the team developed a detailed methodology for the project, making sampling decisions and selecting instruments. The final design included use of quantitative and qualitative data and focused on an initial sample of around 40 providers and 400 learners in four sectors—health and care, food processing, cleaning, and transport maintenance services. There will be four main data collection points for all participating learners, providing for a full 24-month follow-up period. A sub-sample of learners will also be interviewed in greater depth. Provider data will include that from tutors, managers and supervisors, as well as information about measures of organisational capital, and teaching and learning approaches. Learner data will cover attainment, attitude and life-course variables. In most cases, it has been necessary to develop and pilot new or modified instruments, which include the following:

- **Structured questionnaires for employees/learners:** These aim to collect basic demographic information about the participants as well as quantitative information about their attitudes to their jobs and workplace training.
- **Semi-structured interview schedules for employees, tutors and managers:** The employee questions aim to explore in more detail some of the issues addressed in the structured questionnaire. They also cover additional topics on participants' attitudes and feelings to their job, workplace and training, how their workplace learning may affect their personal lives and their feelings about themselves. Questions for tutors aim to obtain information about their role in setting up a programme, their input to any needs analysis and planning of the sessions, their views on how participants are progressing or benefiting from the sessions and the reasons behind these benefits. The questions for employers aim to obtain factual information about how the programmes were organised and set up, and to seek views on the benefits of training to their employees and to their organisation as a whole.
- **The Effective Lifelong Learning Instrument (ELLI):** ELLI measures learning attitudes. It is an instrument designed to assess 'learning power', which is defined as "the complex mix of dispositions, lived experiences, social relations, values, attitudes and beliefs that coalesce to shape the nature of an individual's engagement with any particular learning opportunity". In its current form, the instrument consists of 55 items describing values, beliefs or attitudes towards learning; the participant has to indicate how much he/she agrees with each statement on a four-point Likert-type scale. As the instrument has so far been used only with children up to 16 years of age, the team is currently testing it on a sample of adult basic skills learners in order to ascertain whether it is suitable for use with such a population and to identify areas where it needs to be changed.
- **A writing exercise:** If they wish, a sub-sample of employee participants will be asked to provide a short written piece about their feelings towards learning in the past, present and future. The participants will be asked to complete this in their own time outside the interview.
- **A reading and writing assessment tool:** After an extensive review of existing assessment tools for adult literacy, it was decided that a new instrument would be necessary for the study, as none of the existing ones were sensitive enough to measure the small amounts of progress that participants may make as a result of workplace training.

- **An inventory of teacher attitudes and practices;** This measures teaching styles and philosophy. An inventory is being piloted as a means of obtaining a measure of the teacher/tutors' teaching orientation in the various workplace literacy programmes. The Inventory has been developed and validated in Canadian Literacy settings, and is being assessed for its usefulness for this study.

The design of the sample was affected by:

- the lack of a suitable database
- the fact that workplace projects are funded through a variety of different programmes and methods
- the fact that the nature of provision changes and expands rapidly.

The team settled instead for an 'opportunity sample'. The scoping study focused on language (ESOL) and literacy provision, although it is possible that numeracy programmes will be included in the main project, which will run to 2008.

A 1999 report (ABC Canada 1999) gives a number of examples of basic skills programmes in small businesses in Canada. It concludes that the most successful programmes forge strong, up-front partnerships among employees, business owners, educational institutions, government departments and labour groups. Typically, they receive funding assistance, at least for the start-up phase. Effective programmes link training objectives to overall business objectives. They teach basic workplace skills in the context of actual workplace activities and encourage the transfer of skills learned in the classroom back to the work site. They may involve several small businesses that have similar training needs participating in a joint programme. This makes the costs manageable for each business. Successful programmes also provide flexibility in the timing and location of training and preserve the confidentiality and self-esteem of participants. Two examples of such programmes, and one from Australia, are in Appendix 3.

An OARS Training survey (OARS 2006) of seven aboriginal workforce/essential skills development programmes in Canada identified a number of aspects of successful programmes. They:

- were learner-centred and provided support for personal barriers such as daycare
- had voluntary participation and often paid support to attend
- used adult educators who were familiar with workplace education
- integrated culturally appropriate materials
- had ongoing communication between instructors, the workplace and the participant and any other steering committee/advisory group members.
- involved strategic partnerships that ensured that sufficient time, supports and funding were provided for all aspects of the programme
- had supportive employers who saw a value in the learning acquired, regardless if the levels attained, with programme champions at senior level in the workplace
- provided a safe learning environment.
-

In 1991, the Adult Reading and Learning Assistance Federation (ARLA) undertook a workplace literacy project with Bluebird Foods Ltd in New Zealand. It involved a needs assessment for the company and potential participants, curriculum development and delivery for three hours once a week over 15 weeks in work time. Twelve participants took part. The evaluation drew on interviews with participants, tutors, supervisors, management staff, union officials and ARLA staff. The most noticeable effect was on participants' greater self-confidence, which encouraged and

enabled them to make better use of their literacy skills. In terms of their specific job skills, the course had an impact on:

- accuracy
- increased independence and autonomy
- initiative-taking
- cooperation and
- communications.

The course also improved workplace morale.

A 1996 evaluation (Jakob-Hoff and Sutton 1996) focused on a workplace literacy programme delivered through Te Whare Ako (The House of Learning) at the Tasman Pulp and Paper Mill in Kawerau. The evaluation was based on interviews with learners, staff at the centre and other key informants; observations and informal discussions; and a review of documentation related specifically to the mill and Te Whare Ako. The programme began as a three-day programme but soon grew to a five-day-a-week service open to all mill employees. Feedback from key informants and learners was that the programme had helped learners participate more fully and effectively in the workplace, particularly with regard to working in teams. Learners understood safety notices and procedures better and improved specific LLN and computing skills. They became more assertive and their general negotiating and meeting skills improved.

7.6 Conclusion

The lack of reliable evaluations and the difficulty of linking outcomes specifically to workplace LLN initiatives are recurring themes in this literature. However, within the constraints of their methodological limitations, the findings of evaluations that have taken place are consistently positive.

The relationship between training and outcomes is complex, and it is difficult to control adequately for extraneous factors, or to identify which component of the intervention or whether the fact that there was an intervention at all had most influence on the outcome. Issues of perspective, measurement and attribution all need to be considered and addressed in designing an evaluation. As with literacy programmes themselves, clarity about the goals of any evaluation is essential, along with reality about what outcomes can be expected in the short term.

Points to consider in designing evaluations include:

- being clear about what is being evaluated, on whose behalf and from whose perspective
- being clear about each stakeholder's aims/goals—stakeholders might include government, ITOs, training providers, employers, learners and unions
- clearly identifying the problem or issue that the programme seeks to address
- allowing enough time for impacts and effects
- teasing out extraneous factors and identifying expectations and assumptions through the development of a programme logic and/or mapping exercise
- undertaking a risk management analysis as part of planning
- taking into account the feasibility, accuracy, credibility, cost and time commitments required for the evaluation
- using a multi-method approach to maximise the reliability of results—options include analysis of workplace and training documentation, reviews of system change, observation, surveys, interviews and focus groups, use of the success case method and assessments of learning

- ensuring that it is possible to identify participants in workplace data
- reporting aspects of the programme that do not work well or could be done differently
- involving the evaluation team at the planning stage rather than undertaking an ex post evaluation.

8. The role of government, unions and other stakeholders in enhancing LLN skills of the workforce

8.1 The role of government in enhancing LLN skills

The role of government in engaging employers in skill development is explored in Part I of this literature review. That includes a discussion of seven key areas where the government has a role in engaging employers in skill development. These are:

- establishing a strategy for skills development
- adopting a business-like and therefore a business-friendly approach
- undertaking specific activities in partnership with industry, employers and other stakeholders
- developing and implementing an information campaign
- funding a range of initiatives
- supporting appropriate programmes and activities
- ensuring that providers and programmes are of high quality.

Policy options

Hayward and Sturdy (2005) discuss some of the tools or policy instruments that government can use to implement policy. They are:

- mandates—rules governing the actions of individuals and agencies, intended to produce compliance
- inducements—the transfer of money in return for certain actions
- capacity-building—the transfer of money for the purposes of longer-term investment in material, intellectual or human resources
- system-changing—the transfer of official authority among individuals and agencies to alter the system by which public goods and services are delivered.

Policy makers can also use campaigns to promote their policies and goals.

Developing and implementing an information campaign

Information campaigns are discussed at length in 2.2 in Chapter 2. Other examples of strategies to promote adult literacy include the use of radio and television, and awards to recognise achievement. The examples below refer to the promotion of general literacy programmes but could be adapted to promote workplace literacy.

Hamilton and Merrifield (1999) note that, in Britain, the BBC played an important role in the literacy campaign of the 1970s and has been involved in other innovative forms of programming since. Television broadcasting has also been used as a means of raising awareness of social issues, including literacy. In 1998 and 1999, storylines relating to adult literacy were written into popular soap operas, and a national help-line was set up and advertised to provide callers with information about adult basic education programmes in their area.

Radio was also used effectively in Ireland to promote adult literacy schemes and as a means of distance education (McSkeane 1999). The programme, *Literacy through the Airwaves*, involved the design, production and delivery of a series of radio programmes supported by a printed study-pack to help adults improve their reading and writing skills. Interviewees enjoyed listening to the programmes and all reported some progress in their reading and writing. The programme did not replace existing services but was a resource to support them.

The National Adult Literacy Agency in Ireland (NALA 2006) gives awards for good practice in the creation of high-quality learning opportunities for adults. The awards include a section for businesses and organisations, with categories for:

- breaking down barriers to learning
- expanding community participation
- learning and development for work
- encouraging learning at home.

Funding a range of initiatives

Initiatives to increase investment in training often use inducements in the form of subsidies. Hayward and Sturdy (2005) argue that the use of an inducement assumes that, providing the right incentives are offered, target employers, employees and training providers have the capacity to alter their behaviour in accordance with the expectations of policy-makers. They refer to evaluations of the Employer Training Pilot (ETP), the forerunner of the National Employer Training Programme (NETP) in Britain, described in s7.2 above. These suggest that the policy had an impact on the propensity of some employers to train their lower-skilled staff. They add, however:

There are a number of potential sources of slippage between policy expectations and outcomes imminent within the NETP design...A key assumption is that employers, given a subsidy, will be willing to offer their low-skilled employees time to train up to a level 2 qualification and that employees will be willing to take up this opportunity. This requires that those employing low skilled staff see the need for them to have level 2 skills. Research suggests that there are important and large employment sectors, such as hospitality, where such a need is not being expressed. While it may be socially desirable for people working in these sectors to have level 2 qualifications it is not, from the employers' perspective, economically necessary. Consequently an inducement in the form of subsidised training linked to obtaining level 2 qualifications is unlikely to tempt such 'hard-to-reach' employers into participation. [Hayward and Sturdy 2005:4]

The NETP was announced as part of the Chancellor's 2005 Pre-Budget Report. It is characterised as a service to employers. At its core will be a brokerage service, intended to identify business needs and find appropriate training providers. NETP also offers a range of flexible elements at regional and local level, such as grants for leadership and management training, and training for ULRs. Employers continue to have access to a range of financial incentives and support to release staff to take Skills for Life (including literacy and numeracy) and NVQ level 2 training, delivered flexibly at a time and a place to suit their needs. When the NETP service is in place, eligible employees will have the opportunity to access their entitlement to free training either through their employer or independently. Overall, the NETP is intended to:

- improve business performance
- raise the skills levels of the workforce
- develop the capacity of learning providers to meet employer need
- effect a change in the way training is delivered
- raise the standards and quality of training provision
- provide a national skills brokerage network (Hayward and Sturdy 2005).

In a review of the provision of training and learning services in Australia, Kearns (2002) noted that the Small Business Professional Development Program (SBPD), which operated between 1996 and 1999, trialled 'collaborative self-help models' that supported the development of learning and skill in small business. These strategies

were seen as well-suited to the small-business environment and culture, and were usually effective with special-project funding. They included building networks and clusters, mentoring, workplace coaching, action learning and benchmarking.

He argues that there is now a compelling case, in the context of the globalised knowledge economy, for a new paradigm to drive learning, skill and enterprise in small business. In his view, such a paradigm would link short-term practical objectives and longer-term development objectives in a more holistic and integrated approach. It will require collaboration and partnership among stakeholders and progress towards a whole-of-government approach and shared vision. He identifies 10 key directions for policy. They are:

- develop a holistic approach that integrates business-specific training with lifelong learning and personal development, and the fostering of a learning, skill and enterprise culture
- foster joined-up multiple perspectives in a comprehensive national framework for learning, skill and enterprises directed at firms, individuals and communities
- link imperatives from the business life-cycle and special business needs with a learning continuum throughout life so as to deepen and extend learning in small business and to underpin enterprise and innovation
- use business imperatives as the gateway
- segment further the small business learning and skill market
- promote e-learning in blended learning strategies
- progress towards a whole-of-government approach
- improve access to information and foster dialogue and partnership
- integrate learning, skill, knowledge and enterprise strategies
- balance and integrate short-term and long-term priorities in a comprehensive framework for development (Kearns 2002:7).

The main approach to promoting the benefits of investing in training/learning is to link the benefits to well-understood business imperatives at key stages in the business life-cycle, or as required by special circumstances. This usually leads to a focus on short courses and advisory services and results in an orientation towards short-term benefits. There is less promotion of the longer-term benefits of investing in training/learning or fostering lifelong learning as a foundation for sustained business success in a world of shifting markets and opportunities, global competition and exponential change.

Others have also argued that, while governments are increasingly adopting a whole-of-government approach to literacy, they have focused on government departments related to a business, not a social, imperative. This means that other factors impacting on learning in the workplace such as low pay, poor conditions, low family support to allow engagement in learning, poor housing, and poverty can be ignored. Low literacy tends to be presented as the cause for these conditions rather than as the outcome (D'Amico 2003). Barton (2000) sees the government playing an active role in shaping public perspectives on adult literacy:

There has been a shift from a grassroots pressure group initiating the social concern over adult literacy to a government inspired moral panic. With this there has been a shift from liberal grassroots purposes, philosophies, methods of teaching and assessment to a pedagogy which is centrally controlled and evaluated. The field of adult literacy along with the rest of education has been enlisted into a broader project of governments and international organisations (such as OECD) concerned with global competitiveness and a belief in a technical solution to social exclusion.

Enactive research publicised in an atmosphere of moral panic is used by government agencies to get public support for the shift from liberal education to 'economic rationalist' education. [Barton 2000:11]

Initiatives that have been successful in shifting workplace practices to better support LLN skill development are discussed in 3.5 in Part I.

8.2 The role of unions in enhancing LLN skills

Writers have identified a number of roles for unions in enhancing LLN skills, including supporting members to cope with change, creating a learning culture in a workplace and establishing a foundation for ongoing learning. As Levine (2002) points out, unions may have different motives to employers in supporting workplace education initiatives:

Employers tend to get involved in literacy to boost the bottom line. Unions, on the other hand, get involved to enhance workers' lives, to strengthen the union and to improve the workplace, believing that successful workplace literacy programmes have to be centred around the needs and aspirations of workers. [Levine 2002]

Engagement in workplace learning can also:

- empower union members to understand their rights—be it collective agreements, employee benefits, health and safety information, labour law, or workers' compensation guidelines
- promote safer and healthier workplaces
- increase the skill sets needed to use and operate new machinery and use new technologies
- increase the value of employees to the firm and therefore safeguard members' jobs and improve their employment opportunities
- enhance employability and assist those who are seeking re-employment and retraining (Literacy BC no date).

Workplace literacy programmes also offer unions the opportunity to expand services to members and increase member involvement and activity. Members with improved skills often take a more active part in union committees and programme development (Nesbit 2003, Levine 2002). Hensley (1993) describes some of the benefits of union involvement in education programmes:

A union sponsored education or training programme that includes basic literacy skills can help a union attain six fundamental objectives:

- *protecting union members' employment security by providing skills to help them pass licensing or certification tests*
- *increasing members' job advancement opportunities with their current employer by negotiating new career opportunities that allow their members to use their newly acquired skills to take advantage of the job restructuring that is occurring at many companies*
- *increasing members' basic wage levels and security, like those union members studied by Rand Corporation who found that on-the-job training participants earned 16.9 percent more than their counterparts and were less vulnerable to layoffs*
- *helping members qualify for new jobs while protecting their occupational health by diversifying their skills through advocating high quality education public education to guarantee all citizens achieve a*

literacy level that ensures they will have equal opportunity for gainful employment

- *and recruiting new members and retaining current members by establishing educational benefits and training programs that meet union members' diverse career and personal development needs.*

[Hensley 1993:4]

Hensley also points out that, in 1992 in the United States, employers spent only 10 percent of their total payroll in formal worker training course. This represented only \$278 per employee and was spread unevenly among employee classifications. Production and assembly workers benefited from only 14 percent of formal employer-sponsored training courses.

Levine (2002) also believes that literacy programmes can be an opportunity for unions to strengthen their role as advocate. She argues that unions are part of the workplace and union representatives regularly sit across the table from management on a range of issues. In this capacity, unions are positioned and have the potential clout to bring workplace literacy to the bargaining table. They are bargaining for quality workplace education programmes, at least an equal role in the decision-making about how programmes are planned and implemented, resources and paid time for learning. They are also working to ensure that training is offered equitably at every level of the workforce.

Unions rarely have the resources to develop workplace literacy programmes entirely by themselves and so are required to enter into partnership arrangements with various business groups, labour groups, educational institutions, government bodies and community groups (Nesbit 2003, Rosenblum 1996). Union consortia, joint union/employer-supported programmes, and individual union/company-funded programmes are examples of programme delivery models. Nesbit describes the activities of inter-union partnerships in Canada:

Through their regional education programmes, the Canadian Labour Congress and several provincial labour federations have been instrumental in popularizing workplace literacy ideas and approaches throughout Canada. They also produce a series of guides for developing workplace literacy, a regular newsletter, and coordinate a national working group of interested union representatives. The CLC also provides more practical support, for example, by helping groups of unions design joint programs, training union peer tutors, or assisting individual unions in setting up workplace literacy for themselves. This is particularly helpful when a specific workplace is organized by two or more unions (a not uncommon situation). Inter-union rivalries can often spill over into acrimonious workplace relations to the obvious detriment of developing local educational programmes. [Nesbit 2003:3]

He also discusses partnerships between unions and government, particularly with those agencies that can contribute significant funding. For example, Canada's principal body for fostering workplace literacy—the National Literacy Secretariat (NLS)—is an administrative part of the federal government's human resources development unit. He comments that:

In part, the NLS was established to stimulate business and labour awareness of the literacy needs of workers, and to encourage the development of programmes that address those needs. In that role, it has sponsored many workplace literacy initiatives and provided direct funding for programs, research and evaluation activities, and support for discussion workshops and

coordinating committees. Yet, rather than provide ongoing and sustaining funding for workplace literacy projects, the NLS prefers to generate fiscal and structural support for such projects within unions themselves. This approach underscores a significant problem for unions: a challenge to their view that working people should not be expected to solely finance their own education. For unions, workplace education is a social right and its costs should be borne by employers and the state. [Nesbit 2003:7]

Hayward and Sturdy (2005:1) pick up the cost-sharing issue, noting that the challenge for policy-makers in designing policy is to estimate the costs that employers and target groups are willing to bear as closely as possible in order to maximise the efficient use of public resources. In Britain, the Government Skills Strategy specifically sets out the government's intention to 'rebalance the public and private contributions to the cost of learning, so that they better reflect the benefits and financial returns to learners and employers'. It is a debate that is likely to continue.

Rosenblum (1996) gives more detail on three union-based arrangements in the United States:

- **Union consortia:** Several unions may unite to form a consortium to offer 'worker education' programmes to their members. These consortia provide ESL classes as part of ongoing adult education programmes linked to community development and union organisation. Sometimes the state or local AFL-CIO spearheads the instructional programmes.
- **Joint union/company partnership funds:** Many unions have negotiated basic skills and ESL training through collective bargaining agreements with employers. Union dues and matching funds from employers provide health, education and welfare benefits for workers. To extend the educational benefits of union membership, companies and unions are increasingly sponsoring programmes where spouses and other family members are eligible to participate. These joint union/company funds were originally targeted for tuition reimbursement for workers enrolled in classes at local community colleges and other educational institutions. Increasingly, the monies support basic skills and ESL classes offered at the workplace, especially in industries where entry level workers lack the skills and language necessary to access the tuition reimbursement programme.
- **Individual unions forming partnerships with employers and educators:** Some individual unions provide workplace instruction in partnership with businesses and educational institutions. Many of these programmes have been funded, at least in part, through federal initiatives such as the National Workplace Literacy Program of the US Department of Education.

In Britain, the advocacy role for workplace literacy programmes has been supported through the Union Learning Fund (ULF) described in detail in s3.5 in Part I.

8.3 The role of employers

The role of employers is discussed in some detail in Chapter 3 of this report. A recent OECD report (OECD 2005) notes that, although there is a broad and growing acceptance of the principles of lifelong learning in most countries, a large proportion of adults with poor foundation skills are still not being reached by organised forms of adult education and training. The report argues that:

Employer financing plays a central role in supporting opportunities to engage in lifelong learning in all countries but countries differ markedly in the share of the total adult learning effort which is employer supported. [OECD 2005:82]

The final report of the IALS survey found that men benefit more often than women from employer support for adult education and training. The gender difference is, in part, a result of the lower labour-market participation of women and the fact that they work part-time more often than men. The New Zealand data, contributed to the survey in 1996, showed that women were most likely to finance their own training; while men were most likely to be financed by employers (OECD 2000).

8.4 The role of other stakeholders

Other stakeholders have an important role in promoting LLN initiatives. Section 2.2 in Part I of this review refers to the need for partnership and the importance of government working with industry organisations and training providers as part of the partnership process.

8.5 Conclusion

The literature supports a multi-faceted approach to promoting literacy, with government, unions, training providers and employees working together to promote workplace learning and ensure that it is as appropriate and effective as possible. It suggests that governments should take a long-term approach and take into account social as well as economic benefits of LLN programmes. Working in partnership with unions, employers and providers is one way to ensure that a broader perspective is incorporated into literacy initiatives.

9. Industries that have major issues with employees not having LLN skills

9.1 Introduction

Unemployment rates in New Zealand reached a 20-year low at the end of 2005. At the same time, Department of Labour statistics show that a third of New Zealand businesses had difficulty in finding skilled staff, and around 20 percent had difficulty in finding unskilled staff. Twenty percent also reported that a shortage of labour was the main constraint on growth. This makes investment in the LLN and other skills of existing employees an attractive, if not essential, option to address these shortages (Skilling 2006, Tourism Industry Association 2006).

The final report of the IALS (OECD 2000) concludes that higher levels of literacy skills in the workforce are associated with larger proportions of knowledge jobs in the economy. Literacy skills positively influence the probability of being in a white-collar high-skilled position and negatively influence the probability of being unemployed or in a blue collar position. To compete internationally, adapt to new technologies and attain higher levels of efficiency and productivity, firms require highly skilled employees.

A later OECD report (OECD 2005) refers to the relationship between job tasks and skills. The survey found that all countries show apparent skills deficits. These are measured by assessing the number of workers with low LLN skills who are employed in jobs requiring comparatively high engagement in literacy- and numeracy-related job tasks. The proportion ranged from 10 to 30 percent in the countries surveyed, which did not include New Zealand. (The survey also found some evidence of skill surpluses where people were working in jobs that did not make full use of their LLN skills).

9.2 Overviews

New Zealand

Over the last 10 years, a number of New Zealand studies have considered the impact of LLN issues on the workforce.

In 1997, Moore and Sutton (1997) reviewed the way in which enterprises supported employees with limited LLN skills. They looked at three issues related to the capacity of the current workforce to access and participate in training:

- the extent to which employees with limited LLN and English language skills were also limited in their ability to access the National Qualifications Framework (NQF).
- the extent and kind of support enterprises provide them in their attempts to access the NQF.
- identifying workplace literacy best practice.

Their findings were based on a literature review, a telephone survey of training and human resource managers in 27 enterprises that had run literacy training programmes for employees, and case studies of five enterprises that had run LLN programmes in the workplace.

Key findings:

- Participating enterprises were surprised at the extent of literacy difficulties revealed in their organisations. Meeting those needs was expensive and took longer than many enterprises anticipated.
- Literacy training was not linked to the NQF, and enterprises often focused NQF-related training on more skilled employees.
- Little is known about the extent of low literacy in specific industry sectors.
- Respondents knew little about effective literacy training and assessment, and private literacy providers did not raise issues related to effectiveness.
- Poor assessment processes created an additional barrier to employees with limited literacy skill, such as being asked to describe something in writing, when writing is not actually a requirement of on-job performance.
- Integration of literacy skills into other workplace training and into industry qualifications is not happening, despite this being strongly advocated in best practice literature.

Workbase (1998) undertook an analysis of literacy skills in the New Zealand workforce using New Zealand data provided for the IALS. Their analysis showed that three broad industry grouping had the poorest (prose) literacy skills. These were manufacturing, construction and agriculture—the same industries that showed up in the same position in the Australian survey. In those industries, between 47 percent and 50 percent were below the minimum level of literacy competence (level 3 on a five-point scale). Plant and machine operators, and labourers and related workers had the lowest prose literacy levels. Approximately two-thirds would have difficulty using and interpreting information. Over 50 percent of craft and trade workers were below the minimum level of literacy competence, and around 47 percent of agricultural and fishing workers were at the bottom two levels of the scale. An interesting finding was that 20 percent of managers were also below the minimum level of literacy. The report suggests these figures may reflect the practice of recruiting managers from the factory floor.

Sutton (1999) carried out a telephone survey to assess the impact of low levels of LLN on the work of industry training organisations in New Zealand. The survey found that just over 50 percent of the 49 ITOs recognised LLN skill shortages as an issue to either a major, moderate or minor extent, with three identifying it as a major issue. Only 35 percent believed LLN was part of the core business of the ITOs. The others believed that responsibility for literacy difficulties lay with employers, training providers and, ultimately, schools. They cited employers' resistance to providing time and money for non-technical training and funding issues. ITOs that identified LLN as an issue tended to be in manufacturing, agriculture and construction, which matches the findings of the IALS survey described above.

General reading and writing skills were most frequently lacking, closely followed by numeracy. Spoken English language among people from non-English-speaking backgrounds was a particularly significant issue in the Auckland region. Sixteen percent of ITOs had purchased LLN programmes for groups of employees or organised support for individuals on an as-needed basis.

United States

In 2002, the State of New Jersey launched an initiative to inform policy-makers, career counsellors, educators, and employers about the skills that New Jersey employers expect to be in demand in the future. The report (New Jersey SETC 2004) analysed skill demand in nine industries: construction; finance; manufacturing; utilities/infrastructure; transportation and logistics; information technology; healthcare;

tourism; and emerging industries. Employers identified four cross-industry skill areas that are needed now and in the future:

- **Maths and technology skills:** All industries are adopting new technologies and incorporating computers into more and more work processes, and many jobs require individuals to perform basic mathematical tasks.
- **Communication and teamwork skills:** Industries now require workers to interact with a variety of people from different disciplines, backgrounds and jobs, and industries place a premium on writing and verbal expression.
- **Problem-solving and critical thinking skills:** Industries already and will continue to require workers to make independent decisions, employ critical thinking to solve problems, and to do this independently.
- **Entrepreneurship and business skills:** Industries report that workers need to respond creatively to customer needs, apply basic business skills and, in many technology and emerging industries, possess strong project and business management skills.

Employers in all industries reported that many entry-level workers did not possess these skills. Employers in some industries, such as construction and healthcare, were experiencing a severe labour shortage in some occupations. In the construction, manufacturing, transportation and utilities industries, employers reported that they had difficulty in attracting applicants. Employers also reported that the skills of some of their employees had not kept pace with skill needs and some workers lacked the skills needed for advancement. While employers recognised that training current workers was their responsibility, many were unable to provide the necessary training, particularly small employers without human resource departments and large training budgets.

The report includes a number of recommendations to address the skill needs, including:

- building stronger partnerships between employers and educators
- developing industry-specific marketing campaigns
- providing funding for skill training
- developing stronger strategies to recruit workers from untapped labour pools
- encouraging and supporting lifelong learning, including providing technical assistance to employers to support lifelong learning.

9.2 Public utility companies

Cappelli and Rogovsky (1995) examined skill needs across a range of jobs in eight public utility companies. They covered craft, clerical, supervisory and managerial work. The authors found that both supervisors and employees believed that foundation skills (those associated with more traditional, school-based education) were significantly more important than workplace competencies, which represent more vocational or work-based skills. Deficits in foundation skills had a strong relationship with job performance. However, to improve job performance, workplace competencies came out as significantly more important. Plant managers reported that foundation skills and workplace competencies were in greater deficit for 'veteran' workers than for newly-hired workers. They suggest that skill deficits may become more noticeable once workers have been in their jobs for a while and additional demands are made of them. Where both supervisors and employees recognise that the employees need to improve their skills, employees' attitudes and behaviour improves. So do outcomes, when appropriate training is provided.

9.3 Apprenticeships

O'Neill and Gish (2001) also looked at language and literacy skills and their relationship to performance among apprentices in Australia. They found that employers were significantly less positive about their employees' language and literacy skills than the employees themselves, but both groups identified the same skills as in need of improvement.

Employers placed great emphasis on apprentices and trainees having adequate LLN skills in conjunction with other organisational skills, knowledge of business operations, and attitudinal-related qualities that they perceived as influencing workplace performance. The inadequacy of functional literacy skills was a major issue for employers. They believed that producing high-quality documents was essential to successful business operations. Poorly written documents impacted on business in two ways. Firstly, poor handwriting, inaccurate spelling and inadequate sentence construction detracted from the business image that the employer wished to project to the public. Secondly, the resulting lack of clarity of meaning had the potential to expose businesses to unnecessary risks in terms of complaints about the work involved, including the risk of litigation. Where work was related to reading information to carry out the work, such as accurately fulfilling requests for goods, errors in reading comprehension had the potential to cost the business extra money because goods had to be returned and replaced. From the employer perspective, employees needed to pay attention to, and demonstrate, adequate LLN skills, along with a range of other skills and knowledge to carry out the work, progress in the job and follow a career path.

9.4 Hospitality industry

MacAuslan (2004) reports on language issues in small hospitality businesses in the United Kingdom. He points out that small establishments, each with fewer than 10 employees, represent some 76.4 percent of total hospitality businesses in the UK. Restaurants, caterers and food retailers account for almost 94 percent of food premises. Owners, managers and employees may not necessarily speak English as a first language. There may also be problems with basic reading and writing skills among these groups, including some who do have English as a first language.

Within the hospitality sector (which includes restaurants, hotels, cafés and wine bars) there is a high turnover of employees. These may be visitors to the UK who want to learn some English, students, or immigrants seeking a first job. A recent Hospitality Training Foundation (HTF) survey suggests that 21 percent of hospitality employees hold no qualifications. Furthermore, 24.7 percent of restaurant employees, compared to 17 percent of pub employees, hold no qualifications.

Nationally, there are no accurate figures regarding the extent of literacy skills and English as a second language (ESOL) among proprietors, managers and food handlers who own or work in hospitality businesses in the UK. A percentage of these may have literacy difficulties when reading their own languages. To expect them to read notices, leaflets or attend courses in English can only make the situation worse. Individuals may feel inhibited by their culture, lack of basic skills, or fear of enforcement authorities, and therefore may not admit there is a problem.

MacAuslan found a lack of appropriate training:

The largest proportion of the hospitality workforce does not possess a qualification higher than one or more GCSEs at grades A to C. This typically equates to a Foundation Certificate in Food Hygiene. There is still limited

provision of trainers who are registered to run food hygiene courses for candidates with special educational needs. It is accepted that examination bodies do have Foundation Certificate in Food Hygiene papers in other languages, but these are of limited value while a shortage of registered trainers who can run courses in other languages apart from English still exists.

The author identifies the need to improve food safety and notes that, in order to achieve this, many local authorities have developed their own partnerships with educators, training skills agencies and hospitality businesses. However, he believes that a proper national strategy is still required:

It will require the Food Standards Agency to work closely with the Department for Education and Skills, Local Authorities Co-ordinators of Regulatory Services, local authorities, colleges, basic and training-skills agencies, and industry bodies.

He also urges the production of food-safety information in a range of languages and formats, including symbols and diagrams, and through CDs, audio tapes and photographs.

A 1997 article from the United States (Apfel 1997) describes several initiatives by catering and restaurant services and the steps companies had to take to make them successful:

- recognising the problem
- obtaining management support
- having a champion
- raising funds and promoting the programme.

The article also refers to the need for specific lessons tailored to the needs of both the learner and the employer, and to the importance of encouraging employees to take part. The author acknowledges that benefits may be hard to quantify, but those reported include higher morale, better teamwork and improved overall performance.

A 2005 Australian report (Service Skills Australia 2005) outlines the profiles of communication and LLN skills for employees in industries covered by Service Skills Australia (retail, wholesale, personal services, tourism, hospitality, caravans, sport, recreation and fitness). The data was gathered through a desktop research of reports, statistics and other sources such as the Workplace English Language and Literacy (WELL) data, an industry and registered training organisation survey, interviews with industry stakeholders and a focus group meeting.

The research found that, overall, there were issues related to poor language, literacy and numeracy, but they were patchy and, in many cases, were hidden or not recognised. Most employers recognised where entry-level basic literacy or numeracy skills were lacking. The authors add:

However, literacy is more than basic reading, writing and arithmetic. For example, the project found that information technology was impacting on many, but not all occupations. Where there was an impact, it was often not realised that the required skills were in fact, based on literacy skills. Literacy skills are also needed at various levels. The research established that middle and senior managers in many occupations were required to produce and comprehend more reports than they had done in the past. This requires

higher order literacy skills, again, which often are not recognised or admitted as needed. [Service Skills Australia 2005:4]

The industries included in the research had used just under 15 percent of the Workplace English Language and Literacy (WELL) funds available to all industries in the last few years, despite the fact that they employed 30 percent of the Australian workforce. The retail industry and the personal services industries had the highest levels of training, using 7 percent and 5 percent respectively of available WELL funding. They were followed by the recreational, and tourism and hospitality industries, using 2 percent and 1.6 percent of the total WELL funding. The wholesale sector had the least training of all, using 0.3 percent of total WELL funding. (WELL training primarily focused on the development of LLN skills in workplace contexts, in conjunction with training package qualifications.)

The research established that many stakeholders in the industry were not aware of the extent to which LLN skills underpinned a range of broader employability skills and/or tasks or trends in the industries, such as multi-skilling, problem-solving, using technology, resolving conflicts, assisting customers and complying (in a documentary sense) with occupational, health and safety requirements.

9.6 Retail sector

Huddleston and Hirst (2004) have reviewed skills gaps and training needs in the retail sector in the United Kingdom. They note that employment in the retail and wholesale distribution sector was estimated as 4.7 million in 2002, representing 17 percent of UK employment. The sector is seen as a major source of new employment opportunities over the next decade. At the same time, the sector is reporting serious skills shortages, particularly customer handling and communication skills. They argue that these general concerns fail to reveal the diversity and complexity of the sector, which comprises both major high-street retailers and small corner shops.

They point out that there have been major economic and structural changes for the retail sector, with the key drivers including technology, globalisation, international competition, productivity growth, dramatic shifts in patterns of expenditure, and changing life styles. Market competition has forced retailers to focus on reducing costs rather than raising prices. Patterns of employment have increasingly shifted to part-time work, including significant use of student labour.

Students are capturing a substantial proportion of employment, which unqualified young people traditionally entered, particularly in retailing, catering and tourism. This suggests that employers are using qualifications and/or the prospect of qualifications as a screening mechanism for recruitment into low-skilled jobs. While this points to over-qualification in the labour market, it must be questioned the extent to which students are using these jobs as stepping-stones into higher-skilled jobs. [Huddleston and Hirst 2004:16]

This may have had an adverse effect on the employment opportunities available to unqualified people and on the training employers are prepared to offer. Retail is not seen as an industry that will provide young unqualified people with training opportunities.

Research into the perceptions of the retail industry held by young people found that young people's knowledge of retailing goes as far as the store, there is little understanding of the supply chain function and the variety of careers beyond the shop floor. Retailing is not perceived as a technology-led

sector, or a sector that will enable them to develop their skills in IT, although it has been at the forefront of developments in technology. Little informed advice is available from careers advisers and teachers about the sector for example, little awareness exists of opportunities in areas such as HR, marketing, systems management or logistics.[Huddleston and Hirst 2004:19]

The authors call for a new approach to developing training and qualifications for those who might wish to make a career in retail and who are not just 'passing through' on the way to another qualification.

9.7 Tourism sector

Much of the literature relating to the tourism sector focuses on the skill and training needs of the industry as a whole, with relatively little reporting on basic LLN needs. For example, a recent report from the Tourism Industry Association (2006) identifies the need to upskill people at all levels, but does not specifically refer to LLN skills. It does highlight the need to promote an understanding of the link between recruitment, training and workplace productivity, while at the same time encouraging adoption of best practice policies and procedures by sector employees.

A 2004 report by Tourism South East in England sets out a strategy for skills and workforce development in tourism, leisure and hospitality in Berkshire, Buckinghamshire and Oxfordshire. Skills were defined as falling into two categories: occupational-specific skills, which must be taught, and personal skills, which relate to individual attitude and aptitude.

The report argues that, with some notable exceptions, the tourism industry in the South East has a poor record for training. Only one-tenth of the tourism workforce is classed as highly skilled. This compares poorly with those employed in the South East as a whole. Research indicates that some 80 percent of employers undertake some form of training. The type and level of training varies widely, from basic induction in 'house rules' to more formal programmes. Research identifies ongoing and widening skills gaps at every level. These include broad sectoral skills such as IT and customer service skills, to sector-specific skills such as kitchen management skills or food hygiene. Principal reasons for skills deficiencies include:

- limited demand for formal qualifications in industry sectors—employers value personal attributes above qualifications for many posts
- training benefits are not fully recognised by many employers
- too many employers offer little or no training opportunities
- employers are reluctant to train seasonal staff
- information on training opportunities is fragmented and confusing
- training may be inappropriate to employers' needs and resources.

Staff retention is also an issue. Significant numbers leave the tourism workforce annually—estimated to be some 23 percent of the sector workforce in the South East region. In some sub-sections, this can exceed 120 percent each year. Most of those consulted reported the turnover of lower grade staff to be higher than that of management.

To improve individual skills, the strategy proposes a number of objectives and measures:

- *Objective: Streamline access to information.*
Measures:
 - Develop a one-stop-shop signposting service to direct businesses to appropriate training solutions.

- Personal help-line for businesses, to support online service.
- *Objective: Persuade more businesses of training and learning benefits.*
Measures:
 - Training-needs diagnostic sessions.
 - Promotional video on training benefits and opportunities.
 - Sharing best practice from committed and successful companies.
- *Objective: Improve the skills of employees from overseas.*
Measures:
 - Produce general induction and basic training video for new recruits with poor English, narrated in a choice of languages.
 - Provide signposting to language training and basic skills courses.
- *Objective: Enhance the professionalism of those responsible for training and HR.*
Measures:
 - Arrange information and dissemination workshops to signpost training opportunities and supporting services.

9.8 Other industries

Trenerry (2002) compared training practices across five industries—funeral services, fast food, the wine industry, office management and the seafood industry—to identify effective practices. She concluded that:

- the primary location of training in the workplace is well placed, however specific units of training may need to be delivered in an off-site setting
- work-based professional support for people who mentor trainees (industry trainers, workplace employers and fellow workers) is a necessary condition for quality training
- networking within industry training groups and with vocational training organisations will promote ongoing good practice for assessment and teaching and learning practices.

9.9 Conclusion

Sector-specific information is difficult to come by, but generally agrees that there is a high need for communication, problem-solving and LLN training for both new entrants and existing employees, particularly in manufacturing, construction and agriculture. LLN skills may also be an issue in hospitality and retail, where staff turnover is high, businesses are small and career development options are limited. The literature also identifies the need for ongoing training and support to match the rate of change occurring in many industries, which is often associated with the introduction of new technologies. Industries with a high proportion of transient workers working in small businesses face particular challenges and need sector-wide support.

10. Conclusion

This review has considered literature relating to the role of government in encouraging employers to engage in skill development and the barriers to employers investing in training to lift LLN skills.

It has identified a complex situation that suggests the need for action on several fronts. While there is clearly a role for government, particularly in establishing a strategy for skills development and supporting a range of practical initiatives, the literature suggests that change will only occur where all parties become involved. For example, it supports government developing and promoting initiatives in partnership with industry, employers, unions, employees and training providers, but it also notes the need for enterprises to review their own practices and organisational culture. Employers need to understand the benefits that LLN skill development might bring, and be prepared to consider workplace models and practices that would support skill development. Small and medium-sized businesses face different challenges to large businesses. Ways to support employees who work in non-standard work situations also need to be considered.

Employer understanding of the benefits and challenges of LLN skill development can be gained in a number of ways, for example, through an information campaign, a brokerage system or contact with sector organisations and through businesses learning from other businesses. A multi-faceted approach is likely to be most effective.

Sector organisations, in particular, can play a useful role in identifying skill needs on an industry basis and working alongside government and other agencies to support individual workplaces to engage in training.

While the literature is generally cautious about making links between LLN and productivity, because of the complexity of the relationship and problems of measurement, almost all employers who have engaged in LLN programmes report positive effects. They report that work effort, productivity and quality improve, while error rates and absenteeism decrease. Participants find it easier to work independently as well as in teams and are more confident using technology. They also adapt to change more readily and are more willing to take on leadership roles.

LLN skill development can bring benefits that extend beyond a particular workplace or industry. Employees who enhance their LLN skills use their new knowledge at home and in the community, and gain confidence, which can lead to an interest in further training. The wider social benefits of LLN skills are of interest to the government, but also to unions, who can play a part both in encouraging employers to engage in workplace training and in supporting employees to undertake training.

Identifying the need for skills and encouraging employers to engage is one task, developing high-quality providers and resources is another. Relatively little is known about the best way to deliver LLN training in the workplace, and relatively few providers have specialist skills in this area. Investment in professional development is needed to match the increase in demand that will follow from successful initiatives to engage employers.

Some clear themes have emerged from the literature but, inevitably, there are gaps in the research. Workplace literacy is a developing area here and overseas, and the development of evidence-based policy and practice is ongoing. Based on the

literature review and analysis of information gaps, areas where further research or work would be useful include:

- the costs and benefits of LLN interventions for small and medium-sized businesses
- ways to develop e-learning and blended-learning strategies for small businesses
- the elements of effective partnerships between government and other stakeholders and among various stakeholders
- the influence of non-training factors on learning outcomes in workplaces
- the nature and impact of informal learning in workplaces
- strategies that work well in different contexts (such as mentoring and peer support).

Research needs to integrate theory and practice to ensure that policy and practice are based on what employers and learners actually need. Research that draws on both quantitative and qualitative data will provide a sound basis for development in this area.

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Appendix 1: Case studies

CASE STUDY 1

The Skills Alliance and the Skills for Business Network: England

The Skills Alliance was formed in 2003. Under the joint leadership of the Secretary of State for Education and Skills and the Secretary of State for Trade and Industry, the Skills Alliance brings together four key government departments (Department for Education and Skills; Department of Trade and Industry; HM Treasury; Department for Work and Pensions) with employer and union representatives as a social and economic partnership and links the key delivery agencies, led by the LSC, in a concerted drive to raise skills. The Skills Alliance acts as a high-profile champion for the Skills Strategy and ensures that the radical proposals to transform both the demand for and supply of skills are carried through and achieve their impact.

The full Skills Alliance meets twice a year to review progress and agree priorities for actions. The Alliance also meets in two sub groups:

- Social and Economic Partnership: meets twice a year to stimulate wider engagement, agree broad direction, and take stock of progress from a strategic perspective.
- Delivery Group: led by the Learning Skills Council (LSC), meets more frequently and focuses on the effective implementation of the Skills Strategy.

The Skills for Business Network

The Skills for Business Network (SfBN) consists of the Sector Skills Councils (SSCs) and the Sector Skills Development Agency (SSDA). There are 25 Sector Skills Councils, representing a powerful voice for employers; giving them greater influence in how publicly-funded training should be delivered and articulating key issues and challenges facing the sector, as well as the demand, supply and use of skills. They work with employers, trade unions, professional bodies, trade associations and government to identify skills and productivity trends within their sector; and establish priorities for investing in the skills of the sector workforce. Sector Skills Agreements provide a means for employers and government to join forces in meeting the priority skill requirements of industry sectors and challenge employers to work collaboratively across sectors.

CASE STUDY 2: REGIONAL LITERACY NETWORKS

Ontario Workplace Literacy Initiative: Canada

Ontario Ministry of Training, Colleges and Universities (MTCU) launched MTCU's new workplace literacy strategy in 2002. The strategy was designed to encourage the development and delivery of literacy training in the workplace by promoting literacy and the Literacy and Basic Skills (LBS) programme to employers and employees and encouraging their investment.

Regional literacy networks play a lead role in the implementation of the strategy, with their links to delivery agencies and the broader community and their experience in community planning and public education. The expectation is that a fee-for-service delivery system will be developed in each region and promoted to employers.

Five pilot networks spent the early months of 2002 developing work plans, marketing

strategies and evaluation tools. It was crucial that there be flexibility in the delivery models and in the ability to customise the content of the training programmes, but the emphasis was to be on the delivery of essential skills training for employees, offered on site and for a fee. To meet these goals, the first sites needed development work, especially in the areas of protocols, policies and best practice principles. The Ontario Literacy Coalition was funded to provide coordination, training and support to the first-site organisations as they delved into this new area. One of the major outcomes of the first-site implementation phase was a marketing package for employers that outlined the benefits and value of offering essential skills training to employees.

Customised workplace programmes based on a fee-for-service structure is still a new facet to programming that offers many opportunities, but also challenges. The development of a coordination model, the building of internal and external partnerships and the roll-out of marketing strategies played out differently in each first-site network region, but there were consistencies that cannot be ignored.

It is clear that, for a workplace literacy initiative to succeed, it has to include:

- collaborative partnerships and trust among delivery agencies
- strong links to employment-based stakeholders in the community offering similar training
- marketing materials that respect the diverse employment sectors, their employers and employees
- buy-in from employers and employees
- a training programme that speaks to the employment environment and the bottom line.

Davidson 2003

CASE STUDY 3

Train to Gain: England

Train to Gain is a new service to help businesses get the training they need for their staff to be as productive as possible. The service will offer advice on business needs, match training needs with training providers and ensure that training is delivered to meet employers' needs.

Employers who give their employees paid time to train will receive, in return, free high-quality training in basic skills such as literacy and numeracy and/or a first full level 2 qualification. Financial support (equivalent to that for a level 2 qualification) will also be available for individuals without a level 2 qualification who are capable of progressing straight to level 3.

CASE STUDY 4

The BEST programme gives start-up funds and support grants: USA

In April 2001, Massachusetts established a task force to reform adult education and worker training. One of the specific recommendations of the task force involved the creation of a new programme—the Building Essential Skills Through Training (BEST) Initiative. BEST was conceived to help meet the demand for more highly-skilled workers through a model of integrated workforce development services.

It was set up as a grant programme that would award two-year start-up and support funds to regional workforce partnerships. Required partners included employers, education/training providers, local workforce boards, and employees or organised labour.

The programme was designed to meet three overarching goals:

1. Help address the front-line workforce development needs of Massachusetts employers, industries and sectors, particularly those experiencing or anticipating skill shortages.
2. Improve basic foundational or occupational skills of Massachusetts workers to support employment and career mobility.
3. Provide opportunities and resources to Regional Industry Teams to develop and implement innovative workforce development models that drive system change.

Competitive advantage was given to proposals that:

- were industry driven
- developed integrated workforce partnerships
- emphasised basic and foundational skills in the context of work
- promoted long-term employment and career mobility
- included internships, job placement and post-employment support
- expanded access to education and training
- strengthened the skills of workplace educators
- were data-driven based on current labour market information
- focused on outcomes
- provided evidence of a strategy for developing sustained improvement
- promoted co-investment by the partners.

The BEST Initiative grantees are part of a growing movement towards sector projects as a response to the challenges of workforce development in Massachusetts. BEST has enabled workforce development stakeholders to continue creating career ladders in sectors where collaborations were in early stages of development. In its ten months of operation, over 900 incumbent workers received education and training services, tailored to the needs identified by 43 active and engaged industry partners. Thus far, all the BEST projects are successfully addressing the problem of supervisor reluctance to employee training and skill development.

It is broadly recognised that, without supervisor support, employees may face barriers when trying to apply their newly acquired skills and competencies. Since its inception, the funding partners have supported the BEST Initiative by providing technical assistance to the projects and through a flexible, enlightened support of the programmatic challenges that have arisen through this innovative initiative.

With the inclusion of community-based organisations and one-stop career centres in the workforce partnerships, these groups have performed a key function by managing the screening and recruitment of qualified candidates for BEST training. Employers at several sites have noted that this is a cost-effective, efficient and valuable service of which they were previously unaware.

Employees seeking to advance their employment status through BEST training typically require the support of their direct supervisors. In some instances, employees' desire to advance may conflict with supervisors' desire to retain good employees. This tension is inherent in the design of BEST and all demand-driven programmes and beckons further reflection by the larger community of workforce practitioners.

Further, if a programme is to be genuinely demand-driven, it needs to be responsive to changing employer needs and economic cycles. This requires flexibility on the part of sponsoring state agencies both at the programmatic level and in the way funds flow (e.g., what they can be used for; their shelf life).

Employer participation in education and training programmes is easier to secure in tight labour markets; the economic downturn has resulted in some employers redefining the timeline of their original commitment to BEST.

Lea, Lesser and Uvin 2003

CASE STUDY 5: WORKPLACE CHANGE AND INNOVATION

Oticon Denmark—Openness to new organisational models

Until the late 1980s, Oticon, a Danish hearing aid production company, was a traditional, departmentalised company. It depended upon an outdated analogue technology, in a rapidly contracting market sector dominated by large companies, such as Siemens, Phillips, Sony, 3M and Panasonic.

In 1991, Oticon refocused its strategic direction. Despite difficult competitive conditions, it prioritised investment in human capabilities and the approach to work. This included a new 'paperless' office building and a fresh approach to employee involvement. Oticon changed its business practices to allow anyone to start a project provided they had the permission of one of five senior managers. Management also initiated projects. All projects were now customer-focused. Staff could join a project, provided they had the agreement of the project leader. The basic idea was that the company would treat everyone as an adult, and that, as such, it would be the individual's responsibility to fill their day usefully.

The results were significant. New product lead-times were halved; and sales growth of 20 percent per annum was achieved at a time when the market was shrinking by five percent each year. New product development improved dramatically in terms of the number of new products introduced and, more importantly, in the nature of innovations. In 1995, Oticon introduced the world's first digital hearing aid. This technological breakthrough repositioned the company as one of the world's top three hearing aid producers.

Abbot (Ireland)—Investment in skills and training in the workplace

Employing 1,200 people, the Hospital Products plant at Abbott, Ireland, operates in a very difficult and highly competitive sector. It is seeking to move to new, higher-value-added products.

Key to this goal is the Lifelong Learning Programme (LLP). This is part of an active succession plan to ensure that all employees are offered an opportunity to develop and manage their careers. Lifelong learning is designed to ensure that work continues to remain meaningful. In concrete terms, the programme aims to move people up to the next level of work. For example, in conjunction with the Dublin Institute of Technology, a course in maintenance technology was developed for general operatives who had aspirations to become electronic technicians. Similar courses have been customised for managers, for example, an MSc in Innovation Management has been developed with the University of Ulster. Interaction with third level colleges is critical to Abbott's Lifelong Learning Programme. Courses are custom developed, and there are ongoing feedback and evaluation sessions with

participants and managers. The LLP is embedded in a range of initiatives designed to promote education in the context of the workplace. For example, there is a mentoring system in which someone other than a direct supervisor meets regularly with each employee.

The commitment to education and training extends beyond the existing workforce. Abbott interacts with third and second level education in an effort to promote science education.

Education in the context of the workplace provides clear mutual gains. The LLP is cost effective. It has reduced staff turnover by 25 percent, and it provides skilled internal candidates to fill future vacancies, thus reducing recruitment costs. It enhances capability and underpins an openness to change as employees are provided with the tools to manage change. More employees are promoted internally. Other initiatives include a commitment to flexible working and to employee financial participation in the form of a share purchase scheme.

European Commission 2004

CASE STUDY 6: A LEARNING ORGANISATION

New Zealand company **Formway Furniture Ltd** specialises in commercial furniture and competes internationally. The company has 240 staff in Australasia, 160 of whom are in New Zealand. It is committed to being a learning organisation and sees innovation as the key to the company's competitive advantage. To achieve this, the company needed people with a certain level of communication and problem-solving skills as well as technical skills.

The company invited all its first-line manufacturing staff to participate in a confidential needs assessment, run by Workbase. Based on the results, the company set up a pilot programme with 15 staff (12 Samoan, 14 men, 13 ESOL) in three teams from two key areas.

The learning programme was structured so that staff were achieving furniture industry unit standards while improving their literacy skills. Over the 12 months of the pilot, 278 credits were achieved towards the National Certificate in Furniture Making—18 credits per learner on average. Each participant had one hour face-to-face with the tutor per week, and the tutor provided additional help with participants with their work teams.

Outcomes include improved use of documentation, a big increase in self-confidence, greater participation in meetings and improved levels of communication with workmates and other staff. Problems associated with the assembly and dispatch of new products have decreased, and workers are now familiar with the new computer system.

Staff have responded to a systematic approach to skills development, with literacy and numeracy skills embedded in the learning process. The programme has support from all levels of management, and the company has created an environment where people feel supported in their learning.

Voices from Management: Workbase 2002

CASE STUDY 7: A LONG-TERM VIEW OF LEARNING

Royal Star Foods Ltd, a subsidiary of Tignish Fisheries Cooperative, Canada, is a fish processing plant with a workforce of 350–400. The plant is highly mechanised, and the introduction of new processing equipment and more sophisticated quality control procedures motivated managers to focus on employees' literacy requirements.

The company has always offered 'just in time' training on new equipment, health and safety issues. Offering a workplace literacy programme to create a basic foundation for learning as a natural part of daily activity was a new approach.

Over 17 programmes have been offered, including computer training, general programmes and customised communications programmes. The company has also provided financial assistance to individual employees who pursued learning initiatives off-site. Key elements include:

- The company has a room dedicated to skills training.
- A volunteer workplace literacy project team, made up of employees, managers and a Workplace Education representative, surveys employees each year to determine what learning they want and how to go about implementing it.
- Employees set their own personal academic and workplace literacy goals.
- Most training is customised to suit the company's learning needs.
- In partnership with Workplace Education, the company seeks out and applies for programme funding from national and provincial bodies.
- To meet the demand, the company and Workplace Education partnered with a local junior high school to use its computer lab after hours.
- Because the majority of workers are employed for eight to twelve months of the year, the company introduced its workplace literacy programmes during the off season.
- The company ensures that all of its learning programmes are offered at no cost to employees.
- Successes are celebrated.

The company now considers itself a learning organisation. Interest and participation in the literacy programmes have continued to climb steadily. Communication and teamwork have improved. The company has experienced lower error rates, increased safety, increased efficiencies and productivity, and general self-confidence has increased.

The Conference Board of Canada 2002

CASE STUDY 8: TEAMWORKING

Palliser Furniture employs more than 5,200 people and is Canada's leading home furniture manufacturer. The company regards solid grounding in basic skills among its employees as fundamental to its success. Through the aid of Workplace Education and Manitoba Adult Literacy, Palliser began offering upgrading classes in language and literacy in 1994. It has since expanded its offerings to include more than a dozen literacy classes. The company provides a broad mix of training for its managers as well as its employees.

Training is in three stages:

1. A pre-employment assessment, which now involves five two-hour sessions, including a company simulation. The exercise illustrates the importance of teamwork and the value individual team members can add, by removing a team member part way through the simulation.
2. Skills development in the employment pool where learners work in a small team. Their skills and needs are assessed and their suitability for positions within the plant is determined
3. Training on the production line. At Palliser, team leaders are primarily responsible for meeting production targets but they also play an important role in shaping employees' skills and engaging them in helping to make the business successful.

Palliser provides literacy and numeracy support at each level and pays for most courses in full. Encouraging line managers to make suitable placements on production teams has been one of the keys to success.

The Conference Board of Canada 2002a

CASE STUDY 9: TEAMWORKING

Diversified Metal Engineering Ltd is a small business in Canada making equipment for the food and beverage industry. Because its products are subject to constant change, the company requires a flexible, specialised, knowledgeable workforce. In collaboration with a provincial workplace education programme, a project team guides the company's learning initiatives, including needs assessments and several programmes.

Initially, management had two main objectives: cutting costs and time in production, and building the confidence and general knowledge of building operations on the part of employees. The company offered shop-floor workers the first round of training. Other employees asked for training as well.

In the first year of the programme, training for shop-floor workers concentrated on upgrading their maths and communication skills. The workers also requested specific instruction about meeting facilitation and conduct. The company supported the training through release time, in-kind services and financial commitment.

The company made use of the local Industrial Park Workplace Centre, which is provided by Workplace Education PEI, opens in the evenings and provides computers for introductory computer literacy instruction. Workplace Education PEI funds programmes for up to three years on a sliding scale. The employer gradually assumes financial responsibility for new programmes.

Operational benefits included decreased time and waste, increased production, more logical thinking, improved ability of employees to express themselves clearly and lower staff turnover.

Teamwork benefits included improved communication on the shop floor and confidence to try new things. Workers began helping other training participants on the shop floor. Work teams became more integrated and willing to help each other when needed. Training broke down barriers between management and workers.

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CASE STUDY 10: COMPANY DRIVER

New Zealand company **Jenkin Timber Ltd** specialises in the manufacture of finger-jointed and solid wood radiata pine products. The company competes internationally on the quality of their products and service. Equipment and systems are becoming computerised, and it is important that staff are ready and able to learn.

An assessment showed that 16 out of 50 staff had literacy problems. Eight took up the offer of training. All are Pasifika. The company provides three hours of training per week in work time, structured round unit standards, for which employees gain credits.

The HR manager drove strong commitment by managers and team leaders. The classes are scheduled in advance, and it is the responsibility of team leaders to organise themselves. No excuses are allowed from managers or team leaders. The HR manager briefed all the staff about the programme and reinforced its value to the company. He is responsible for the programme and drives it—sells it, deals with difficulties and is proactive in ensuring it runs well.

Outcomes are similar to other programmes: growth in participants' confidence; a better understanding of what needs to be done; increased acceptance of responsibility; efficiency gains; reduction in error rates; and more participation in meetings. Relationships between staff and company morale have both improved.

Voices from Management: Workbase 2002

CASE STUDY 11: PERFORMANCE REWARD SYSTEM

New Zealand firm **Rotaform Plastics Ltd** is a family-owned company with 20 employees. In an industry where the machinery is not highly automated, the quality of the products produced is largely due to the skill of workers.

The firm started literacy training in 1998 as part of a pilot programme. Two drivers underlie the programme: a more demanding external environment, and procedures that have required workers to have greater literacy skills.

The programme is voluntary but all the factory workers signed up. Their literacy skills were assessed, and staff were grouped according to their literacy levels. They receive tuition for one hour a week, with homework. All are studying towards a National Certificate in Plastics. The literacy course is based on the firm's work procedures. Generic communication areas, such as the writing of reports, health and safety issues, and general communication within the workplace are covered as part of the qualification.

The literacy programme has resulted in greatly improved skills, confidence and motivation in the workforce. Greater efficiencies and dramatic growth across the company have also resulted from the programme. The reduction in day-to-day problems has freed up management to focus on being innovative and growing the business.

The company has put key performance indicators in place that are linked to a company-wide rewards system. Everyone understands that they will benefit individually from the company doing well.

Voices from Management: Workbase 2001

CASE STUDY 12: PERFORMANCE REWARD SYSTEM

AstraZeneca Australia is part of a large multinational ethical pharmaceutical manufacturing company. The Australian company employs 800 people. Approximately half work within the manufacturing division and are employed as operators, laboratory staff, warehouse staff, engineers, validation staff, fitters and electricians.

Since 1995, the company has been in the process of developing and implementing a team-based structure along with a skill-based pay system. This system established a four-level skills framework for production staff. Remuneration is linked to each skill level.

The manufacturing division is supported by a training and development (Learning Systems) team of five staff members who work within the human resources department. Learning systems staff have been involved in clearly defining skills required for the four levels of manufacturing practice. Manufacturing staff members are able to have their performance and skill level assessed against these defined skill standards.

While much of the learning of required skills occurs somewhat informally (for example, on the production floor or through team meetings with more experienced colleagues, or through employees completing self-paced learning modules), a formal and systematic assessment process by which employees' skill acquisition is measured, has been implemented. Skills standards are closely if not formally aligned to general manufacturing standards.

Johnston and Hawke 2001

CASE STUDY 13: HAVING THE RIGHT TRAINER

New Zealand fishing and processing company **Sanford Ltd** complies with ISO 14000 standards for environmental performance. It has sought to improve performance standards in all operations and through active participation in industry environmental initiatives and forums.

The company has a multicultural workforce—English is a second language for 94 percent of the workforce. Staff turnover is low, which lessens the company's ability to increase skill levels through recruitment. The company was disappointed with outcomes of training courses and thought that involving interpreters might help, but it did not. The interpreters did not really understand the subject matter and were not trainers. A simple translation of what was being taught had limited benefits.

The company asked Workbase to do a needs analysis, which identified significant literacy and numeracy problems at all levels. Together with Workbase and the Seafood Industry Training Organisation, the company designed a literacy

programme. Participation was voluntary but 90 percent of staff took part. Each learner had one hour a week tuition off site using a computer, plus homework. Two tutors were also on site four days a week. Staff have become more flexible and more willing to take on new tasks. Error rates in documentation have decreased and levels of participation in team meetings have improved. Managers have become aware of the need to adapt their approach. Relationships between staff have improved, as has morale.

Voices from Management: Workbase 2002

Appendix 2: Examples of basic skills programmes

EXAMPLE 1: Roofing Industry Training Association of Alberta, Edmonton

Participants in the pilot project were self-selected employees of businesses who belonged to the roofing association. The group was composed of 14 male roofers having an average age of 32 years and roofing experience ranging from 3 months to 30 years. The programme aimed to provide employees in the roofing industry with the necessary literacy skills development to better perform their jobs and to keep up with technological changes within the roofing industry.

Programme development process—A partnership was set up between the Roofing Industry Training Association of Alberta and Alberta Vocational College-Edmonton (AVC-E) in November 1993. An Advisory Committee, comprised of members from stakeholder groups, provided input and guidance for the project. Key stakeholders included roofing contractors (employers of the roofers), roofing employees, funders, programme advocates and three educational institutions. An extensive needs assessment to collect baseline data was conducted during the first phase of the project. This involved interviews with management, roofing industry administrators, a roofing inspector, educational instructors and prospective participants. AVC-E used information gained in these interviews to develop the programme model and curriculum. Participants were recruited by two grassroots level champions— a roofing inspector and a roofing employee.

Programme description—Because roofers work long hours and frequently out of town, a drop-in learning centre was established to deliver training. This drop-in concept also accommodated the different focus, needs and interests of the participants. The programme provided opportunities to develop computer literacy skills; to upgrade numeracy, reading, and writing skills in the context of workplace content; to enhance communication and interpersonal skills; and to build self-esteem. One hundred hours of literacy upgrading were provided.

Successful outcomes

- Over 20 percent gains in pre/post assessment scores.
- High levels of student satisfaction with programme components, particularly speakers' presentations, mathematics, computer literacy and writing.
- Overall attendance average of 76 percent.
- Significant change in attitudes with respect to learning in general as well as continuous lifelong learning.
- An enhanced feeling of confidence about success in future learning endeavours.

Source: ABC CANADA 1999

EXAMPLE 2: Twin Oaks/Birches Continuing Care Centre, Musquodoboit Harbour, Nova Scotia

Learners were ten female healthcare workers (nurses, nursing assistants and personal care workers) whose ages ranged from 24 to 64 years, and whose education levels ranged from grade 9 to grade 12 plus a 2-year diploma. Workplace education was initiated to give employees the skills needed to manage changes in their environment resulting from the implementation of a healthcare worker accreditation process and a new Twin Oaks/Birches Continuing Care Centre focus on clients with Alzheimer and dementia conditions.

Programme development process—Partners in the programme included provincial and federal government agencies, and Twin Oaks management, labour and employee participants. Through an interview process that involved all of these interested groups, basic writing skills to be used in reading and writing comments on client charts were agreed to need the most improvement.

Programme description—A course in charting was developed and taught by an in-house nursing instructor. The objective was for all employees to be able to write clear, concise and consistent comments on the clients' inter-disciplinary charts. In the initial phase, 12 employees received 40 hours of instruction over a five-month period. Each classroom session was two hours in length; time was shared equally between employer and employee. Funding was provided by agencies of both federal and provincial governments. The charting curriculum is now being used as the basis of other workplace education charting courses in special care homes throughout Nova Scotia. As well, participants in the pilot charting programme recommended a subsequent programme be developed for verbal skills/supervisory communication. This programme has also been successful. It is now part of new employee orientation and is being used as a model for another long-term care facility in the area. Government agencies continue to provide funding.

Successful outcomes

- Quality care for Twin Oaks/Birches Continuing Care Centre residents.
- Increased employee skill levels, as evidenced by improved quality and consistency of charts.
- Greater personal satisfaction and confidence for employees.

Source: ABC CANADA 1999

EXAMPLE 3: Darley Refractories Pty Ltd, Victoria, Australia

Darley Refractories Pty Ltd manufactures high temperature firebricks and related products. Ten people work at the company with six in the manufacturing plant. The six plant workers participated in the Workplace English Language and Literacy (WELL) programme. The aim of the programme was: to improve efficiency in workplace operations through improved communication skills and understanding of workplace documentation; develop computer literacy skills; increase productivity as a result of improved efficiency; and attain certification for completed units of competency. Financial support from the WELL programme made the training viable.

Programme development process—The greatest challenge was maintaining production while upskilling the workforce. The general manager and the trainer negotiated a cost-effective solution to this challenge by having staff access the training in groups of three.

Programme description—Training was delivered in weekly three-hour blocks over a three-month period. It was broken into two core components. The first stage was having the six operatives write up the standard operating procedures (SOPs) using each worker's specialised knowledge. The second stage was training in computer literacy. Communication skills training was integrated with the development of the SOPs and computer literacy training.

Successful outcomes

- Communication in the workplace improved, particularly in terms of discussion of workplace issues and asking questions. Workers are more confident in relaying messages and involve each other in the different areas of the plant.
- Greater workplace flexibility and increased individual responsibility.
- Product non-conformity has reduced.
- The company has an SOP and troubleshooting manual over which workers have a real sense of ownership.

Source: *WELL Fact Sheet, Australia*