Employability Skills for the Future

March 2002

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Preface and
Acknowledgments

The Australian Chamber of Commerce and Industry and the Business Council of Australia have undertaken this research project *Employability Skills for the Future* to provide the Department of Education, Science and Training with a detailed understanding of the employability skills needs of industry. This report provides a consolidation of research with small, medium and large-sized enterprises during 2001. The outcome of the research has been the development of an Employability Skills Framework that has strong industry support from a representative sample of stakeholders.

This final report has benefited from the contributions of:

- Australian Council of Educational Research, which was commissioned to conduct a literature review to assist the development of a draft framework;

- Field Learning, which undertook the case study research with large enterprises; and

- Diverse Education Services, which completed the focus groups and interviews with small and medium-sized enterprises.

The Employability Skills for the Future Reference Group has provided invaluable insights and comment on the project as it has progressed. Industry representatives on this Group endorsed the final report as reflecting industry views.

Abbreviations

ACCI	Australian Chamber of Commerce and Industry
ACER	Australian Council of Educational Research
AGPS	(former) Australian Government Publishing Service
AHEC	Australian Higher Education Council
AiG	Australian Industry Group
ANTA	Australian National Training Authority
AQF	Australian Qualifications Framework
AV-CC	Australian Vice-Chancellors' Committee
AVETRA	Australian Vocational Education and Training Research Association
BCA	Business Council of Australia
CUT	Curtin University of Technology
DEST	Department of Education, Science and Training
IT	Information Technology
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
MINCO	Australian National Training Authority Ministerial Council
NBEET	National Board of Employment, Education and Training
NCVER	National Centre for Vocational Education Research
NCVQ	National Council of Vocational Qualifications
NFF	National Farmers' Federation
NTQC	National Training Quality Council
OECD	Organization for Economic Cooperation and Development
QUT	Queensland University of Technology
RMIT	RMIT University
RTO	Registered Training Organisation
SCANS	Secretary's Commission on Achieving Necessary Skills
TAFE	Technical and Further Education
TER	Tertiary Entrance Ranking
UNISA	University of South Australia
UTS	University of Technology, Sydney
VET	Vocational Education and Training

Executive Summary
and Recommendations

Introduction

Australia is the 14th largest economy in the world. It has achieved this position through a decade of change and economic growth and a strong focus on productivity improvements (International Monetary Fund, 2001). Australian enterprises, in recognition of the economic challenges and globalisation, have implemented a range of strategies to support growth and increase their international competitiveness. Allen Consulting (2000) advised that such strategies included:

- multiskilling;

- greater automation; and

- workforce restructuring.

Three recent government reports, *Backing Australia's Ability* (2001), *Knowledge and Innovation* (1999) and *Investing for Growth* (1997), highlight the positioning of Australia as an international player in the knowledge economy and the need to continue building Australia's capacity to effectively operate in the 'global knowledge-based economy'. They outline a series of government initiatives targeting research and development, commercialisation, venture capital and technology diffusion.

These reports discuss how Australia will effectively respond to globalisation and the knowledge economy. They note the importance of knowledge work and knowledge workers to Australia's economic success. Significantly, the authors discussed the need to ensure the Australian community understands the broad issues underpinning globalisation and the knowledge economy, but more particularly they considered the need to create a community equipped to understand and participate in ongoing change. Education and training providers will have a key role in equipping the community for this challenge.

Enterprises continue to focus on adaptation, cost reduction, increased productivity and new markets and/or new products and services. Enterprise choices with regard to recruitment and training are largely being driven by these business strategy directions. In this environment, there is an increasing requirement for employees to be able to support increased competitiveness, innovation, flexibility and client focus.

Enterprises are increasingly seeking a more highly skilled workforce where the generic and transferable skills are broadly distributed across the organisation.

There has been broad agreement that all young people need a set of personal attributes and skills that will prepare them for both employment and further learning. It is also recognised that the ongoing employability of individuals is dependent on them having a set of relevant skills, as well as a capacity to learn how to learn new things.

However, what has been less clear is what these atttributes and skills should be in the context of challenges facing Australian industry.

The Business Council of Australia (BCA) and the Australian Chamber of Commerce and Industry (ACCI) judged that it was timely to obtain the views of industry to assist in the development of a comprehensive framework of employability skills. They sought assistance from the Department of Education, Science and Training (DEST) and the Australian National Training Authority (ANTA). It was recognised that such a framework of employability skills would need to be relevant to small, medium and large enterprises and able to support the future needs of Australian industry.

Purpose of the Project

DEST commissioned the project to provide advice on:

- possible new requirements for generic employability competencies that industry requires, or will require, in the foreseeable future, since the Mayer Key Competencies were developed;

- clear definitions of what Australian industry and leading business enterprises mean by 'employability' skills and the consistency or otherwise between the various terms similarly used;

- a proposed suite of employability skills, including an outline of assessment, certification and reporting of performance options that suit both industry and education;

- industry (small, medium and large business) reactions to the proposed suite and reporting options;

- a report on the case studies involving 13 large enterprises; and

- a report on focus group research with small and medium-sized enterprises.

The project was established in recognition of the changing nature of work and skills required by enterprises to ensure long-term economic growth. The project has sought the views of employers with regard to the set of employability skills relevant to Australian industry for the future.

The focus of the research was to identify the set of employability skills that employers sought in their employees. The project did not examine the skills required for self-employment although it can be imagined that there would be strong similarities.

Project Methodology

Research in this area is complex. Factors contributing to this complexity include the lack of clarity in language and definitions, the capacity of enterprises to predict their future and the changing nature of the workplace. Consequently, it was decided to use largely qualitative research tools and attempt to capture the detailed views of a sample of enterprises.

There were four main components of the research. The first step in the project was the commissioning of a comprehensive literature review that informed the two industry research components – focus groups and individual interviews with a sample of 40 small and medium-sized enterprises and 13 detailed case studies in large enterprises.

Enterprises selected for the qualitative research (interviews, focus groups or case studies depending on size and location) were located in both metropolitan and regional Australia across a range of industry sectors. Interviews were undertaken with key senior managers to determine the views of individual enterprises on necessary employability skills, approaches to developing, tracking and assessing employability skills and how educational providers could play a more effective role in developing employability skills. Enterprise size ranged from enterprises with two employees through to those with over 1000 employees.

The fourth step was a validation process following the completion of case study, focus group and interview research. The draft Employability Skills Framework, developed as part of the project, was assessed by another 150 enterprises and employer groups. This provided feedback and acceptance of the framework. This step was used to help offset any skewing from the sampling in the qualitative research.

This report to DEST, *Employability Skills for the Future*, provides details of the outcomes of these three research components and proposes a new framework of employability skills for the future from the perspective of the employer.

Project Management

The project has been jointly managed by BCA and ACCI.

A reference group was established at the commencement of the project to provide guidance.

Members of the Reference Group were:

ACCI – Steve Balzary

Australian Industry Group (AiG) – Brian Curtin

ANTA – Paul Byrne

BCA – Maria Tarrant, Chair

DEST – Murray Judd

National Centre for Vocational Education Research (NCVER) – Chris Robinson

National Farmers' Federation (NFF) – Richard Calver.

The Reference Group provided strategic advice on the areas for research and key issues that required consideration. The Reference Group then considered the draft reports resulting from each stage of the research. Members of the Reference Group provided advice on the issues emerging from the research that should be considered in the final report to DEST.

The members of the Reference Group have endorsed this report, *Employability Skills for the Future.*

Terminology

Many terms are used in different environments to describe general skills that all employees may have. Similarly, education and training providers use a range of terms to represent concepts relating to learning and learning outcomes.

The Australian Council of Educational Research (ACER) review (2001) identified a range of descriptors for the characteristics learners are expected to acquire. These are included in the table below.

Descriptor	Definition
Skills	*Skills* are commonly understood to refer to an ability to perform a specific task.
Competencies	*Competency* is used to refer to an observable behaviour performed to a specified level and therefore provides a basis for the assessment of performance.
Attributes, qualities and characteristics	These refer to those capabilities of an individual in most instances although "*characteristics*" is sometimes used to describe a workplace/ job-specific requirement.

The Reference Group decided to use the term *skill* as it was generally used in enterprises where it has a broader definition than other terms in the literature. However, as there was a need to differentiate between technical skills, job specific skills and the more general skills and personal attributes related to employment, the Reference Group developed the following working terminology and definition for the project:

Employability skills are defined as 'skills required not only to gain employment, but also to progress within an enterprise so as to achieve one's potential and contribute successfully to enterprise strategic directions'.

This approach was reinforced by the literature review completed for this project by ACER, which also noted that there was a greater use of the term employability when describing certain skill sets. They argue:

> Employability is more attractive as a descriptor than employment-related since it conveys a greater sense of an individual's long-term capacity to build a career and to prosper in a dynamic labour market. Employability implies qualities of resourcefulness, adaptability and flexibility, whereas employment-related suggests an orientation to the current state of the labour market. As such, employability has more potential as a term to signal the qualities needed for success not only in paid employment but also in other domains of life. (ACER 2001, p. 6)

The literature review also provided an international overview highlighting the similarities in both the need for employability skills in a range of developed economies and the range of skills governments and enterprises see as a priority. The table below from the ACER review (2001, p. 38) provides a comparison of the skill frameworks in place.

Comparative table of generic employability skills by country

Australian key competencies (Mayer Key Competencies)	United Kingdom (NCVQ) core skills	Canada employability skills profile	United States (SCANS) workplace know-how
Collecting, analysing and organising information	Communication	Thinking skills	Information Foundation skills: basic skills
Communicating ideas and information	Communication Personal skills: improving own performance and learning	Communication skills	Information Foundation skills: basic skills
Planning and organising activities	Personal skills: improving own performance and learning	Responsibility skills Thinking skills	Resources Foundation skills: personal qualities
Working with others and in teams	Personal skills: working with others	Positive attitudes and behaviour Work with others Adaptability	Interpersonal skills
Using mathematical ideas and techniques	Numeracy: application of number	Understand and solve problems using mathematics	Foundation skills: basic skills
Solving problems	Problem solving	Problem-solving and decision-making skills Learning skills	Foundation skills: thinking
Using technology	Information technology	Use technology Communication skills	Technology Systems
Post-Mayer additions: Cultural understandings	Modern foreign language	Manage information Use numbers Work safely Participate in projects and tasks	

Source: Adapted from Werner 1995.

The Employability Skills Framework identified through this research project includes a number of similarities to the overseas frameworks.

The Employability Skills Framework developed through the research includes three key terms that are described in the table below and used in this report.

Term	Explanation
Personal attributes	Term used to describe a set of non skill-based behaviours and attitudes that employers felt were as important as the employability skills and other technical or job specific skills.
Skills	Term used to describe the learned capacity of the individual. *Skills* has been used instead of *competencies* reflecting the language of the enterprises interviewed and to avoid any definitional confusion with the different ways *competencies* is used.
Elements	The elements are the facets of the skill that employers identified as important. The mix and priority of these elements would vary from job to job. The list of elements is not exhaustive but rather reflects the information provided by the specific enterprises interviewed for this study. The list of elements is indicative of the expectations of employers. The level of sophistication in the application of the element will depend on the job level and requirements.

Overview of Project Findings

The project has identified those key generic employability skills that enterprises argue individuals should have along with the job-specific or relevant technical skills. The project also identified the ongoing relevance of the Mayer Key Competencies but confirmed that employers now required a set of personal attributes in all employees and a set of additional skills. These additions are seen as essential by the enterprises participating in the research. Finally the project has identified an Employability Skills Framework that can contribute to the thinking and curriculum development of the Australian education and training system.

Chapter 5 of this report provides details of the personal attributes and employability skills that enterprises identified as critical.

In summary, there are a number of critical aspects underpinning this framework.

- The framework identified by employers through the research with enterprises builds on the Mayer Key Competencies.

- Employer recognition and integration of the Mayer Key Competencies in their discussion of the nature of jobs and skills are strong.

- Employers have identified the importance of what have been termed 'personal attributes that contribute to employability' and indicate that these are required as part of the set of employability skills.

- Small and medium-sized enterprises and large enterprises have identified the same critical mix of skills as being relevant to the employability and ongoing employment of individuals.

- The skills identified as critical to employability are broadly consistent across industry sectors and all are important though the elements would depend on the industry and workplace context.

- The priority of these employability skills (and their respective elements) vary from enterprise to enterprise subject to the context of the job level and requirements.

- The employability skills identified are as relevant as job-specific or technical skills.

- The employability skills identified are relevant to entry-level and established employees. What is also recognised by employers is that the elements and level of complexity of the skill will vary with both the job type and classification.

- There is a strong recognition of the role of lifelong learning in skill development and response to change.

- Employer views with regard to leadership have emerged in this research differently from in other research. Some employers have suggestd that the skills identified in the framework underpin an employee's capacity to lead.

- It is recognised that customer service of itself is not an isolated skill but rather the outcome of the integration of a range of different skills of an individual, e.g. communication and problem solving.

- Throughout the project interviewees also argued that the employability skills identified had a much broader application. The skills were as important to effective participation in the community as they were to effective participation in the workforce.

A critical feature of this research has been the comment by many employers that the elements related to the skills will change both in their nature and priority in line with the business activity of enterprises and that flexibility needs to be maintained in dealing with generic skills. New work and production processes, new threats and opportunities, and new technology will continue to have an impact on the elements in the Employability Skills Framework.

The Employability Skills Framework consolidates the outcomes of the research with enterprises and takes into consideration the Australian context and overseas trends. There are significant areas of commonality with the outcomes of this research and the international research as discussed in Chapter 3 of this report.

The configuration and content of the Employability Skills Framework, however, more closely reflects the language and trends in thinking in Australia. The Mayer Key Competencies have provided both Australian industry and the Australian education and training system with a useful starting point and tool for understanding and applying the concepts of generic employability skills.

Enterprises participating in the research placed a strong emphasis on the need for both entry-level and ongoing employees to exhibit a broad range of personal attributes. Employers suggested that entry-level and ongoing employees needed to reflect attributes that were acceptable to the rest of their working peer group and the customer and in line with the company's approach. The employers participating in the research stressed the need to ensure future employees developed these personal attributes, as they are an integral feature of an employable person and a key component of the Employability Skills Framework.

The identification of personal attributes as critical to employability will require further consideration by education and training providers regarding how they can assess these attributes and provide advice to the individual.

A number of enterprises and organisations in the research also suggested that there would be benefit in reviewing and redeveloping aspects of the current documentation and practice used by education institutions to record student attainment so that the documents better reflected the personal attributes and skills attained by the student.

The Employability Skills Framework incorporates the following personal attributes that contribute to overall employability:

- loyalty
- commitment
- honesty and integrity
- enthusiasm
- reliability
- personal presentation
- commonsense
- positive self-esteem
- sense of humour
- balanced attitude to work and home life
- ability to deal with pressure
- motivation
- adaptability.

There is no doubt that enterprises saw the inclusion of these attributes as a new and essential component of employability skills.

The key skills identified in conjunction with the personal attributes to make up the Employability Skills Framework are:

- **communication** skills that contribute to productive and harmonious relations between employees and customers;
- **team work** skills that contribute to productive working relationships and outcomes;
- **problem-solving** skills that contribute to productive outcomes;
- **initiative and enterprise** skills that contribute to innovative outcomes;
- **planning and organising** skills that contribute to long-term and short-term strategic planning;
- **self-management** skills that contribute to employee satisfaction and growth;
- **learning** skills that contribute to ongoing improvement and expansion in employee and company operations and outcomes; and
- **technology** skills that contribute to effective execution of tasks.

The following table provides a consolidation of the personal attributes, skills and elements that make up the Employability Skills Framework.

Employability Skills Framework

Personal attributes that contribute to overall employability	- Loyalty - Commitment - Honesty and integrity - Enthusiasm - Reliability - Personal presentation - Commonsense	- Positive self-esteem - Sense of humour - Balanced attitude to work and home life - Ability to deal with pressure - Motivation - Adaptability

Skill	Element– (facets of the skill that employers identified as important, noting that the mix and priority of these facets would vary from job to job)
Communication that contributes to productive and harmonious relations between employees and customers	- Listening and understanding - Speaking clearly and directly - Writing to the needs of the audience - Negotiating responsively - Reading independently - Empathising - Using numeracy effectively - Understanding the needs of internal and external customers - Persuading effectively - Establishing and using networks - Being assertive - Sharing information - Speaking and writing in languages other than English
Teamwork that contributes to productive working relationships and outcomes	- Working with people of different ages, gender, race, religion or political persuasion - Working as an individual and as a member of a team - Knowing how to define a role as part of a team - Applying teamwork skills to a range of situations, e.g. futures planning, crisis problem solving - Identifying the strengths of team members - Coaching, mentoring and giving feedback
Problem solving that contributes to productive outcomes	- Developing creative, innovative solutions - Developing practical solutions - Showing independence and initiative in identifying problems and solving them - Solving problems in teams - Applying a range of strategies to problem solving - Using mathematics including budgeting and financial management to solve problems - Applying problem-solving strategies across a range of areas - Testing assumptions taking the context of data and circumstances into account - Resolving customer concerns in relation to complex project issues

Initiative and enterprise that contribute to innovative outcomes	•	Adapting to new situations
	•	Developing a strategic, creative, long-term vision
	•	Being creative
	•	Identifying opportunities not obvious to others
	•	Translating ideas into action
	•	Generating a range of options
	•	Initiating innovative solutions
Planning and organising that contribute to long-term and short-term strategic planning	•	Managing time and priorities – setting timelines, coordinating tasks for self and with others
	•	Being resourceful
	•	Taking initiative and making decisions
	•	Adapting resource allocations to cope with contingencies
	•	Establishing clear project goals and deliverables
	•	Allocating people and other resources to tasks
	•	Planning the use of resources including time management
	•	Participating in continuous improvement and planning processes
	•	Developing a vision and a proactive plan to accompany it
	•	Predicting – weighing up risk, evaluating alternatives and applying evaluation criteria
	•	Collecting, analysing and organising information
	•	Understanding basic business systems and their relationships
Self-management that contributes to employee satisfaction and growth	•	Having a personal vision and goals
	•	Evaluating and monitoring own performance
	•	Having knowledge and confidence in own ideas and vision
	•	Articulating own ideas and vision
	•	Taking responsibility
Learning that contributes to ongoing improvement and expansion in employee and company operations and outcomes	•	Managing own learning
	•	Contributing to the learning community at the workplace
	•	Using a range of mediums to learn – mentoring, peer support, networking, information technology (IT), courses
	•	Applying learning to 'technical' issues (e.g. learning about products) and 'people' issues (e.g. interpersonal and cultural aspects of work)
	•	Having enthusiasm for ongoing learning
	•	Being willing to learn in any setting – on and off the job
	•	Being open to new ideas and techniques
	•	Being prepared to invest time and effort in learning new skills
	•	Acknowledging the need to learn in order to accommodate change
Technology that contributes to effective execution of tasks	•	Having a range of basic IT skills
	•	Applying IT as a management tool
	•	Using IT to organise data
	•	Being willing to learn new IT skills
	•	Having the occupational health and safety knowledge to apply technology
	•	Having the appropriate physical capacity

The framework is discussed in detail in Chapter 5 of this report.

Recommendations

This report provides a comprehensive picture of the views of a significant sample of enterprises with regard to the employability skills needs of industry.

Recommendation One

That DEST refer the report, *Employability Skills for the Future*, to relevant agencies including:

- Transition from School Task Force of the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA);

- Australian Vice-Chancellors' Committee (AV-CC); and

- National Training Quality Council (NTQC).

That these agencies be requested to respond to DEST regarding:

- implications for policy development and programs in schools, vocational education and training and higher education; and

- strategies and timelines for implementation of the framework in schools, vocational education and training, and higher education.

Recommendation Two

That at their meetings during 2002, MCEETYA and the ANTA Ministerial Council note the report, *Employability Skills for the Future,* as the employer view of the employability skills necessary for the future success of Australian business, industry and employees. That they also note advice from the relevant agencies about possible strategies and timelines for the implementation of this framework in an integrated manner across the three sectors of education and training.

Introduction 1

1.1   Background

Australia's economic growth is dependent on the expansion and sustainability of Australian industry. Such growth will require a relevantly skilled community of people able to contribute to economic prosperity and productivity.

There has been broad agreement that all young people need a set of skills that will prepare them for both employment and further learning; however, what has been less clear is what these skills should be in the context of challenges facing Australian industry.

BCA and ACCI judged that it was timely to obtain the views of industry to assist in the development of a comprehensive framework of employability skills and sought assistance from DEST. It was recognised that such a framework of employability skills would need to be relevant to small, medium and large enterprises and able to support the future needs of Australian industry.

DEST, in consultation with ANTA, considered this request and commissioned a research project to be managed through BCA and ACCI.

The project has sought to identify those key generic employability skills that enterprises argue individuals should have along with the job-specific or relevant technical skills. The project has sought the views of employers concerning the skills required of both new entrants to the workforce and established employees.

Employers acknowledge that the required technical and job-specifi c skills, being subject to ongoing change, are not readily predictable. What is important, therefore, is the capacity to continually adapt and upgrade with the application of core or generic employability skills that can be transferred across different settings.

1.2   Purpose of the Project

DEST commissioned the project to provide advice on:

* possible new requirements for generic employability competencies that industry requires, or will require, in the foreseeable future, since the Mayer Key Competencies were developed;

* clear definitions of what Australian industry and leading business enterprises mean by 'employability' skills and the consistency or otherwise between the various terms similarly used;

* a proposed suite of employability skills, including an outline of assessment, certification and reporting of performance options that suit both industry and education;

* industry (small, medium and large business) reactions to the proposed suite and reporting options;

* a report on the case studies involving 13 large enterprises; and

* a report on focus group research with small and medium-sized enterprises.

DEST sought this advice to inform government agency research and policy development in areas related to education and training, and skilling the workforce.

1.3   Project Methodology

The project was established in recognition of the changing nature of work and skills required by enterprises to ensure long-term economic growth. The project has sought the views of employers with regard to the set of employability skills relevant to Australian industry for the future.

Research in this area is complex. Factors contributing to this complexity include the lack of clarity in language and definitions, the capacity of enterprises to predict their future and the changing nature of the workplace. Consequently, it was decided to use largely qualitative research tools and attempt to capture the detailed views of a sample of enterprises.

The first step in the project was the commissioning of a comprehensive literature review to provide:

- an overview of developments in Australia including the history of the key competencies concept developed by the Mayer Committee in 1992;

- a summary of international developments with regard to employability skills;

- a review of Australian and overseas literature on generic employability skills; and

- a discussion of a range of options arising from issues around the definition, implementation, assessment, and recognition of generic employability skills.

This literature review was then used to inform the approach taken to the second and third pieces of commissioned background research:

- focus groups and individual interviews were conducted with a sample of 28 small and medium-sized enterprises with less than 200 employees, nine enterprises with just over 200 employees and three enterprises with over 1000 employees. Enterprises came from across all industry sectors and were located in metropolitan, regional and rural environments. A standardised open-ended questionnaire was used to elicit information which was then analysed to determine the views of the employers with regard to:

  - the changes they envisaged in the nature of work;

  - implications with regard to the skills required in the workplace;

  - approaches to developing, tracking and assessing employability skills; and

  - views about how educational providers could play a more effective role in developing employability skills.

- 13 detailed case studies were undertaken in large enterprises located in both metropolitan and regional Australia across a range of industry sectors. Interviews were undertaken with key senior managers to determine the individual enterprise's views on necessary employ-ability skills, approaches to developing, tracking and assessing employability skills and views about how educational providers could play a more effective role in developing employability skills.

A validation process was used following the completion of case study, focus group and interview research. Through ACCI, the Employability Skills Framework that resulted from the initial research was tested with another 150 enterprises and employer groups to ascertain whether they endorsed the framework.

The project was established in recognition of the changing nature of work and skills required by enterprises to ensure long-term economic growth. The project has sought the views of employers with regard to the set of employability skills relevant to Australian industry for the future.

This report to DEST, *Employability Skills for the Future*, provides details of the outcomes of these three research components and proposes a new framework of employability skills for the future from the perspective of the employer.

1.4 Project Management

The project has been jointly managed by BCA and ACCI.

A reference group was established at the commencement of the project to provide guidance. Members of the Reference Group were:

- ACCI – Steve Balzary

- AiG – Brian Curtin

- ANTA – Paul Byrne

- BCA – Maria Tarrant, Chair

- DEST – Murray Judd

- NCVER – Chris Robinson

- NFF– Richard Calver.

The Reference Group provided strategic advice on the areas for research and key issues that required consideration. The Reference Group then considered the draft reports resulting from each stage of the research. Members of the Reference Group provided advice on the issues that should be considered in the final report to DEST.

The members of the Reference Group have endorsed this report, *Employability Skills for the Future.*

1.5 Terminology

Many terms are used in different environments to describe general skills that all employees may have. Similarly, education and training providers use a range of terms to represent concepts relating to learning and learning outcomes.

The ACER review (2001) identified a range of descriptors used to describe the characteristics learners are expected to acquire. These are included in the table below.

Descriptor	Definition
Skills	*Skills* are commonly understood to refer to an ability to perform a specific task.
Competencies	*Competency* is used to refer to an observable behaviour performed to a specified level and therefore provides a basis for the assessment of performance.
Attributes, qualities and characteristics	These refer to those capabilities of an individual in most instances although *"characteristics"* is sometimes used to describe workplace/ job- specific requirements.

The Reference Group decided to use the term *skills* as it was generally used in enterprises where it has a broader definition than other terms in the literature. However, as there was a need to differentiate between technical skills, job-specific skills and the more general skills related to employment, the Reference Group developed a working terminology and definition for the project:

> *Employability skills* are defined as 'skills required not only to gain employment, but also to progress within an enterprise to achieve one's potential and contribute successfully to enterprise strategic directions'.

This approach was reinforced by the literature review completed for this project by the ACER review (2001). This review also noted that there was a greater use of the term *employability* when describing certain skill sets. They argue:

> *Employability* is more attractive as a descriptor than *employment-related* since it conveys a greater sense of an individual's long-term capacity to build a career and to prosper in a dynamic labour market. Employability implies qualities of resourcefulness, adaptability and flexibility, whereas employment-related suggests an orientation to the current state of the labour market. As such, employability has more potential as a term to signal the qualities needed for success not only in paid employment but also in other domains of life. (ACER, 2001, p. 6)

1.6   Related Work

This project focuses on the views of employers with regard to employability skills. However, the framework should not be considered in isolation from other major initiatives related to the desired outcomes of education and training policy in Australia.

Schools

At the national level, there have been two significant agreements between Commonwealth, State and Territory Ministers that have been critical to the expansion of vocational education and training (VET) in schools. These agreements are the new National Goals for Schooling in the Twenty-First Century and the framework for vocational education in schools.

In April 1999, the State, Territory and Commonwealth Ministers for Education, who make up MCEETYA, met and endorsed new National Goals for Schooling in the Twenty-First Century. The new goals replace the Common and Agreed National Goals for Schooling in Australia, which were endorsed in 1989.

These goals outline the areas towards which school systems, students, teachers, and parents are being asked to direct their efforts. They also seek to broaden traditional approaches to education to include the wider community and, in the case of VET, require productive partnerships to be developed with industry.

The goals most specifically related to the development of employability skills include:

1. Schooling should develop fully the talents and capacities of all students. In particular, when students leave school they should:

1.1   have the capacity for, and skills in, analysis and problem solving and the ability to communicate ideas and information, to plan and organise activities and to collaborate with others;

1.2   have qualities of self-confidence, optimism, high self-esteem, and a commitment to personal excellence as a basis for their potential life roles as family, community and workforce members;

1.5   have employment-related skills and an understanding of the work environment, career options and pathways to vocational education and training, further education, employment and lifelong learning;

1.6   be confident, creative and productive users of new technologies, particularly information and communication technologies, and understand the impact of those technologies on society.

2. In terms of curriculum, students should have participated in:

    2.3   programs of vocational learning during the compulsory years and have had access to vocational education and training programs as part of their senior secondary studies;

    2.4   programs and activities which foster and develop enterprise skills, including those skills that will allow them maximum flexibility and adaptability in the future.

VET

The National Training Quality Council implemented a policy that the Mayer Key Competencies be embodied in the National Training Framework. Training Package guidelines ensure that, when competency standards are developed, Key Competencies are identified at their related performance level. The Training Package continuous improvement process enables a greater emphasis to be placed on delivery and assessment of Key Competencies.

Policy frameworks are being informed by funded research projects. For example, a number of current and recently completed projects, managed by NCVER and funded through the ANTA National Research and Evaluation Committee process, investigate key aspects of generic skills for the VET sector.

Universities

Universities are autonomous institutions. Key research by Candy et al, 'Developing Lifelong Learners through Undergraduate Education' (NBEET, 1994), commissioned by the AV-CC and the Australian Higher Education Council (AHEC), has provided strategic direction. In this research, attributes and qualities for a lifelong learner were identified: interpersonal skills; an inquiring mind; helicopter vision; information literacy; a sense of personal agency; and a repertoire of learning skills.

Universities in every State and Territory have funded individual projects on generic skills development and produced statements of the attributes or qualities which they aim to develop in their graduates. For instance, at Griffith University generic attributes are taught, practised and assessed, and teaching programs cover independent lifelong learning, oral and written communication, teamwork, problem solving, analysis and critical evaluation, IT, employability, leadership and decision making, ethical standards and a sense of responsibility. The five universities in the Australian Technology Network (RMIT University, QUT, UTS, UNISA, CUT) drawing on Bowden (1999, pp 16-17), have given the following as an example of valued graduate attributes:

Graduates will have:

- a commitment to learning from every new situation they encounter and the ability to fulfil that commitment;

- the capability to make context-sensitive judgments in the areas of communication, team-work, creativity, critical analysis, professional and personal responsibility, leadership, information literacy, IT literacy, international orientation and environmental awareness, among others. This capability involves the judgement to choose appropriate behaviour in varying professional and social contexts; and

- a knowledge capability that enables them to deal effectively with each new situation in their professional or social lives.

Although there is not a national policy framework in place for universities, the Commonwealth has funded the development of a number of tools to measure graduate outcomes and satisfaction with their university experiences. These include the Graduate Skills Assessment instrument, which is described in the ACER review (2001), the Course Experience and Postgraduate Research Experience Questionnaires and the Graduate Destination Survey.

1.7 Structure of this Report

This report includes the following areas of discussion:

- Overview of the Australian economy and the role skill development takes in support of economic growth;

- Overview of the literature review undertaken for this project;

- Overview of the research undertaken with industry for this project;

- Key Findings – Employability Skills Framework;

- **Project Findings – Developing and Assessing** Employability Skills; and

- Conclusions and Recommendations.

Overview 2

2.1   The Australian Economy and Skill Requirements

Australia is the 14th largest economy in the world. Australia has achieved this position through a decade of change and economic growth and a strong focus on productivity improvements (International Monetary Fund 2001). Australian enterprises, in recognition of the economic challenges and globalisation, have implemented a range of strategies to support growth and increase their international competitiveness. Allen Consulting (2000) advised that strategies included:

- multiskilling;

- greater automation; and

- workforce restructuring.

Three recent government reports, *Backing Australia's Ability* (2001), *Knowledge and Innovation* (1999) and *Investing for Growth* (1997), highlight the positioning of Australia as an international player in the knowledge economy and the need to continue building Australia's capacity to effectively operate in the 'global knowledge-based economy'. They outline a series of government initiatives targeting research and development, commercialisation, venture capital and technology diffusion.

These reports discuss how Australia will effectively respond to globalisation and the knowledge economy. They note the importance of knowledge work and knowledge workers to Australia's economic success. Significantly, the authors discussed the need to ensure the Australian community both understands the broad issues underpinning globalisation and the knowledge economy, but more particularly they considered the need to create a community equipped to understand and participate in the ongoing change. Education and training providers will have a key role in equipping the community for this challenge.

The Australian Government and industry are placing an increasing emphasis on the development of 'human capital' – the knowledge, skills and motivations embodied in people in response to the growing reliance on knowledge and information-intensive industry outputs.

Enterprises continue to focus on adaptation, cost reduction, increased productivity and new markets and/or new products and services. Enterprise choices with regard to recruitment and training are largely being driven by these business strategy directions. In this environment, there is an increasing requirement for employees to be able to support competitiveness, innovation, flexibility and customer focus.

Enterprises are seeking a more highly skilled workforce where the generic or general skills are broadly distributed across the organisation. Considerable research both here and overseas has discussed the way in which people will work in the future. The Organization for Economic Cooperation and Development (OECD, 2001, p. 99) argues that employees will be required to show teamwork, the ability to cooperate in an unclear environment, problem solving, the capacity to deal with non-routine processes, the ability to handle decisions and responsibilities, communication skills, and the capacity to see workplace developments in a broader context.

Internationally, there is strong interest in identifying the skills required in the community to sustain economic growth and community wellbeing. This can be seen by the considerable level of work on generic skills in the OECD, International Labour Organisation and European Union. Australia has had a history of policy interest in skills identification, development and assessment. A key contribution has been the Mayer Key Competencies (Australian Education Council, 1992). They have underpinned the last decade's work at Government policy level with regard to generic skills in Australia, particularly in the VET sector.

Australia has seen the establishment of a range of new qualifications using competency frameworks, reflecting the growing demand for a skilled workforce. These include the new Training Packages in work areas where there had previously been no qualifications. Examples are: the Manufactured Mineral Products Training Package that includes competencies for those working with cement, ceramics concrete and other mineral products in industry; and the Training Packages related to agriculture and horticulture that include a range of competencies required across many types of farming and horticulture activities.

It can be expected that the education and training system will continue to play a key role in employability and generic skills development.

Kirby (2000, p. 37) in his review of post-compulsory education and training notes:

> Education and training are the main instruments available to governments and the community to prepare individuals for a rapidly changing, increasingly demanding world of work, and to improve their employability.

Kirby also identifies the need to place an emphasis on both general academic education and the 'development of portable skills on the one hand and occupationally oriented training on the other'.

2.2   The Views of Australian Employers on Skills

Australian employers, often through employer associations such as ACCI, AiG and BCA have sought to provide advice to government and education and training institutions on the skills necessary for a productive and effective economy and supportive of enterprise performance.

Recent work by The Allen Consulting Group (2000, p. 31) for the AiG included a survey of 350 enterprises. The survey:

- identified a set of employability skills that employers felt were essential to enterprise performance; and

- noted that enterprises argued employees would need these skills and the technical skills relevant to specific jobs, enterprises and industries.

The table below provides details of the skills identified in the AiG survey, reflecting the growing need in industry for an extension of the skills originally determined by the Mayer Committee.

Generic Skills Required for Competitive Enterprises

Generic core or basic skills	Interpersonal or relationship skills	Personal attributes
Literacy	Communication	Capacity to learn
Numeracy	Team working	Willingness to embrace change
Information technology capability	Customer focus	Independent problem solving and reasoning capability
Understanding of systems relationships	Project and personal management	Practicality and a business orientation

Source: Allen Report (2000)

This need for a broader set of skills in employees is also reflected in the literature and broader industry activity. Kearns (2001) confirms the high value placed by employers on both job-specific technical skills and generic employability skills in new and ongoing employees. Recruitment agencies have also noted the increasing use of generic employability skills as selection criteria. Companies are placing a growing emphasis on skills related to information and communication technology, which was indicated by the recent review of the skills needs of the information and communication technology industry in Australia.

The ACER review (2001, p. 41) notes the issues for employers surrounding generic employability skills, namely:

- the central importance of generic employability skills in contributing to internationally competitive, high-performance workplaces;

- the extent to which these skills are sought and developed through recruitment and training;

- the definition of these skills;

- the effectiveness of the education and training that leads to the development of these skills;

- their perceptions of the extent to which recruits demonstrate these skills; and

- responsibility for the ongoing development of these skills.

The requirements of industry appear to have expanded on what was initially included in the Mayer Key Competencies.

It is clear then that the environment is right to establish what are the employability skill requirements of industry for the future in a way that supports further policy development and future education and training initiatives.

This project through its surveys of enterprises has identified that employers are seeking a broader set of skills in new and ongoing employees. This expanded employability skills framework is discussed in chapter 5 of this report.

The ACER review (2001) comprised research about the literature related to employability skills. This review informed the industry research stages of the project. Key findings of the review are provided in this chapter.

3.1   The Australian Environment

Australia has sought to strengthen the linkages between education and training and the labour market through both State and Federal government policies and institutions such as ANTA, which includes industry representation at Board level.

The desire to ensure Australia is able to compete in a global market has led to significant changes in the way industries and enterprises operate and correspondingly the skills, knowledge and capabilities required of the people who are employed in these enterprises.

Since the early 1980s there has been significant debate in the community with regard to the role of the education and training system in preparing people for participation in the community and work. There is a strong recognition that each sector of the education and training system (schools, VET and higher education) has a role to play in supporting the development of individuals able to participate in the social, economic and cultural aspects of Australian society. There is also a strong recognition that each sector has the capacity to contribute to the provision of employable graduates.

3.1.1   Development of Employability Skills in Australia

The challenge of the last 20 years has been to identify what makes employable graduates (be they from school, VET or the higher education sector). Efforts have focused on identifying the capabilities, capacities, competencies, skills, attitudes and attributes required. As identified in section 1.5 of this report the terms used in this policy area have been varied, overlapping and at times confusing.

The three most significant efforts to try and determine the skills required by all those seeking to enter the world of work have been the:

- Karmel Report in 1985, which among other policy issues stressed the requirement of the secondary school sector to support the attainment by graduates of standards suitable for employment;

- Finn Report in 1991, which includes curriculum principles that supported the development of key competencies; and

- Mayer Report in 1992 which proposed a set of key competencies.

The Mayer Committee (Australian Education Council 1992, p. 7) identified the key competencies as:

> ... competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. Key Competencies are generic in that they apply to work generally rather than being specific to work in particular occupations or industries. This characteristic means that the Key Competencies are not only essential for participation in work, but are also essential for effective participation in further education and in adult life more generally.

At the time the Committee excluded the consideration and inclusion of attributes and attitudes within the key competency framework. More recent work overseas has sought to include such factors in models of generic or key competencies or skills.

The table below provides the details of the Mayer Key Competencies.

The Mayer Key Competencies

Key Competencies	Descriptors
Collecting, analysing and organising information	The capacity to locate information, sift and sort the information in order to select what is required and present it in a useful way, and evaluate both the information itself and the sources and methods used to obtain it.
Communicating ideas and information	The capacity to communicate effectively with others using a whole range of spoken, written, graphic and other non-verbal means of expression.
Planning and organising activities	The capacity to plan and organise one's own work activities, including making good use of time and resources, sorting out priorities and monitoring performance.
Working with others and in teams	The capacity to interact effectively with other people both on a one-to-one basis and in groups, including understanding and responding to the needs of others and working effectively as a member of a team to achieve a shared goal.
Using mathematical ideas and techniques	The capacity to use mathematical ideas, such as number and space, and techniques, such as estimation and approximation, for practical purposes.
Solving problems	The capacity to apply problem-solving strategies in purposeful ways, both in situations where the problem and the desired solution are clearly evident and in situations requiring critical thinking and a creative approach to achieve an outcome.
Using technology	The capacity to apply technology, combining the physical and sensory skills needed to operate equipment with the understanding of scientific and technological principles needed to explore and adapt systems.

Source: Australian Education Council, Mayer Committee 1992, pp. 8–9

The Mayer Committee established three levels of performance for each of the competencies, which differentiated the levels of competency necessary to undertake the activity, manage the activity, or evaluate and revise the way an activity was undertaken.

More recent studies have reinforced the need for generic employability skills. Hase (2000), cited in the ACER review (2001, p. 21), described the importance of teamwork, creativity, learning to learn, and self-efficacy in the development of individual and organisational capability. This concept of capability described by Hase reinforces the importance of key competencies as developed by the Mayer Committee but also suggests that they need to be extended if high-performance workplaces are to develop more broadly.

This project has sought to expand the understanding of what skills enterprises see as essential employability skills in individuals.

Chapter 5 of this report provides details of the employability skills framework that has emerged through research with small, medium and large enterprises.

3.1.2　Overview of Changes in Australian Education and Training

Significant efforts have also been made to integrate generic skills into curricula and student assessment in programs offered through school, VET and higher education. Some of the key changes follow.

Implementation in the School Sector

State and Territory and non-government education authorities have introduced the Mayer Key Competencies across curriculum areas and particularly in the post-compulsory years of schooling, but there are variations across jurisdictions in the delivery, reporting and assessment of these competencies.

Schools introducing enterprise education across the curriculum have found that, through such activities as project-based work around 'whole work' tasks, students are developing generic skills. Recording methods vary markedly and assessment of specific competencies have been problematic as they are so contextually bound and overlap. However, some systems, such as schools in Tasmania, have trialled a criterion-based assessment system for all subjects, based on descriptors of the key competencies.

VET has become an integral part of post-compulsory schooling in Australia. Over 90 per cent of schools offering a senior secondary curriculum now provide VET in school programs with all State and Territory sectors making significant progress with the implementation of Training Packages as the basis of VET in school programs.

The National Goals for Schooling in the Twenty-First Century (National Goals) responded to Australia's changing economy and placed greater emphasis on educational outcomes including the employability of graduates of Australia's school systems and the capacity of graduates to participate in the social, cultural and economic aspects of Australian society.

In response to the National Goals, a policy and implementation plan for vocational education in schools, commonly described as the framework for vocational education and training in schools, was developed by the former MCEETYA VET in Schools Taskforce. All MCEETYA Ministers broadly endorsed the framework and the implementation strategy in January 2001. This framework embraces the need for improved transition pathways for all young people from school to work and further education and training, and signals a broadening of the agenda for vocational education. Employability skills have been included as a component of the framework.

The ongoing implementation of the National Goals has been endorsed more recently by the Prime Minister's Youth Pathways Action Plan Taskforce (2001, p. 4). The Taskforce has also recommended that:

> Commonwealth, State and Territory Governments in consultation with key industry organisations and ANTA develop a nationally agreed set of key employability competencies to reflect changes in the workplace, emerging new industries over the last ten years and projected changes to the year 2010.

Implementation in the VET Sector

Australia's VET sector has traditionally been a State responsibility. Changes occurred throughout the 1990s including the establishment of ANTA in 1992. There had been a strong recognition by government and industry that there was a particular need to establish and strengthen national consistency and fund specific initiatives to build and enhance capability and delivery.

This change has led to a trend towards a nationally consistent approach to learning outcomes and the development and delivery of competency-based training.

The key competencies were introduced into the VET sector in the early 1990s, but there have been some implementation difficulties largely in the appreciation and differentiation of generic competencies along with occupation-specific competencies. This confusion is reducing with time.

As part of the continuous improvement process for the National Training Framework, ANTA has developed improved advice for Training Package developers. The new Training Package Development Handbook contains a chapter titled 'Generic Competencies', which includes a section on the key competencies. The 'embedded' approach is described, showing how the key competencies can be explicitly described as elements, in the performance criteria and in the evidence guide. This approach ensures appropriate assessment. Additionally, Training Package developers may choose to write competency units for several generic skills as 'stand-alone' descriptions. For instance, the recently endorsed Business Services Training Package contains units titled 'Exercise initiative in a business environment', 'Support innovation and change', 'Contribute to effective workplace relationships', 'Develop work priorities' and 'Lead work teams'. The more complex and higher-order competency units are found in the higher Australian Qualifications Framework qualifications within this Training Package.

More Training Package support materials are now becoming available to assist the implementation of generic skills. For example, the recently published series, 'A Guide to Developing Training Package Assessment Materials' (Department of Education, Training and Youth Affairs, 2001), covers the topic of generic skills assessment in the guide titled 'Assessing Competencies in Higher Qualifications'. A section in this guide (pp 59-68) deals with assessing attributes ('often ignored in competency-based assessment'), and another section (p 109) deals with assessing whole job roles. One example deals with a management task where a debriefing stage is included (p 94) to confirm a candidate's knowledge of key issues and processes and to seek explanation for their decision-making and management style. Assessors are alerted that 'this stage requires careful planning in order to analyse the thought processes of each candidate'. This critical stage would include questioning the candidate; for instance, about problem solving, communication, management, and personal attributes and attitudes. This key support material provides valuable advice to assessors in the area of assessing generic skills.

Policy frameworks are being tested, to a degree, through the trialling by some States of graded assessment in the context of competency-based assessment. Some approaches being trialled include criterion based systems based on descriptors of generic skills.

New Apprenticeships and the associated workplace learning have become increasingly important to the development of a skilled workforce, with over 330,000 New Apprenticeships in place by December 2001 (NCVER, 2002).

Trainers and workplace supervisors have the lead role in ensuring those participating in apprenticeships and traineeships gain both generic and technical skills as part of their training.

Implementation in the Higher Education Sector

The direction of government policy over the last decade has been away from centralised, supply-side planning approaches and towards greater responsiveness of institutions to student demand with greater reliance on market mechanisms.

Universities use a range of terms to describe their graduate outcomes. Embedded within these terms is a recognition that graduates will have attained the capacity to exhibit higher levels of performance of the key competencies as well as demonstrate additional competencies.

The action within some universities to specify generic skills as an overt outcome, allowing students time to practise these and assess them, will assist graduates in understanding their employability potential and provide employers with an easier reference point.

Given the unique approaches taken by individual or groups of universities, DEST commissioned the ACER to develop a generic skills test (Graduate Skills Assessment Project) that could be used by universities to measure the development of skills in four areas:

- Written Communication

- Critical Thinking

- Problem Solving

- Interpersonal Understandings.

It is not possible yet to determine the effectiveness and community and market acceptance of this test, given that it is still being introduced. However, it has the potential to assist employers in understanding a graduate's employability skills.

At the institutional level, it has become common practice for professional associations to contribute to the development of desired attributes of graduates. Many associations have developed frameworks of desired graduate attributes, which universities have taken into consideration when developing curriculum and assessment processes. The University of South Australia is one example of an institution that has focused on graduate skills in the context of a revision of its teaching and learning framework to more directly meet the needs of students, society and industry. This sharper focus on student outcomes not only better enables students to transfer to the world of work – it fosters closer links between the University and external stakeholders to the benefit of all parties. The University has identified the following qualities as important in its graduates and has developed generic indicators to measure students' achievement of these qualities:

- operates effectively with and upon a body of knowledge of sufficient depth to begin professional practice;

- is prepared for lifelong learning in pursuit of personal development and excellence in professional practice;

- is an effective problem solver;

- can work autonomously and collaboratively as a professional;

- is committed to ethical action and social responsibility as a professional and a citizen;

- communicates effectively; and

- demonstrates international perspectives.

More than ever before universities are being relied upon as a vehicle for the advancement of both the national economy and wider society. They do this through the creation of new knowledge and by preparing graduates with appropriate skills and attributes. It makes sense, then, for them to maintain a focus on keeping graduate capabilities in line with the needs of the economy and society.

3.2   Developments Overseas

The United States, the United Kingdom, Canada, and the European Union also place a heavy emphasis on the development and assessment of generic employability skills. There are significant similarities in aspects of the work being undertaken in these places and Australia.

3.2.1   Developments in the United States of America

The United States has a decentralised school system orientated to general education. The structure for curriculum development and assessment aims to provide students with broad skills needed for the workplace. Given the nature of the State legislatures, there is a strong emphasis on the dissemination of relevant models, frameworks and tools as the capacity to implement rests with the individual States.

In 1991 the *Secretary's Commission on Achieving Necessary Skills Report* (the SCANS Report) was released. The report identified the skills required for employment, levels of proficiency in them, and ways to assess them. The workplace competencies identified were an ability to productively use:

- resources;

- interpersonal skills;

- information;

- systems; and

- technology.

The foundation skills and qualities identified comprised three elements:

- basic skills;

- thinking skills; and

- personal qualities.

This model has underpinned all later work in the United States.

Other activities and programs to identify employability skills have continued to reinforce a mix of core academic skills, higher-order thinking skills, ability to adapt to change, problem solving, creativity, decision making, learning how to learn, and interpersonal and team skills.

It should be noted, however, that in recent years there has been a stronger push for initiatives aimed at job-specific skill development largely in response to industry concerns with regard to specific labour shortages. It is unclear whether this is a short-term or long-term trend but does put the United States in contrast to other countries and regions.

3.2.2 Developments in the United Kingdom

England, Wales, Northern Ireland and Scotland have all sought to develop models of employability skills and link them to education and training policies and activities. Scotland uses the term *core skills* to describe employability skills. Key skills and basic skills are used elsewhere.

The initial model of skills was developed for inclusion into the curriculum for students in the 16–19 age group and included:

- communication;

- problem solving;

- personal skills;

- numeracy;

- IT; and

- competencies in a modern (foreign) language (Scotland did not include this).

In 1999 there was a change in this approach whereby both school-age and adult learners were considered. The skills group was similar, but competency in a foreign language was removed and England also added improving own learning and performance. The literacy and numeracy components of the key skills were also recognised as basic skills at entry level and at levels 1 and 2 of the National Qualifications Framework.

Throughout the UK core, key and basic skills are well documented and performance for each level well understood. Similarly, there are awards and certificates available that document the graduate's attainment of the skills – for example, the Scottish Qualifications Certificate.

3.2.3 Developments in Canada

Canada has had a tradition of largely decentralised policy setting with regard to education and training matters, and the links between education and training institutions and industry are less developed. During the 1990s there has been some change in this arena. One outcome of this has been the creation of the Employability Skills Profile.

The Employability Skills Profile identifies the generic academic, personal management and teamwork skills that are required to varying degrees in every job. It also specifically recognises the importance of certain attributes and attitudes to a person's success in the workplace.

The profile has been used extensively in curriculum development in schools.

3.2.4 Developments in Europe

Countries in the European Union and elsewhere in Europe are, like Australia, placing great emphasis on improving international competitiveness. There is a longer tradition of quality assurance, benchmarking and curriculum development incorporating employability skills. Countries such as Austria, Germany, France and Sweden all have well developed skills models (known as key skills, transferable skills, generic skills). Each country has different approaches to assessment and documenting. Details can be found in the ACER review (2001).

Throughout Europe both government and industry leaders support the concept of generic employability skills. There is ongoing debate as to what should be included, particularly with respect to information and communication technology skills, assessment and the link to lifelong learning.

3.2.5 The OECD DeSeCo project

The OECD DeSeCo project (The Definition and Selection of Competencies) aims to establish sound and broadly based theoretical conceptions of competencies. It has sought to define competencies from multidisciplinary perspectives and has yet to develop assessment and measurement tools which are to be a key output of the project. This project can potentially contribute to the definition of generic employability skills in the Australian context. The outcomes of the project should be known later in 2002.

3.3 Comparing National Frameworks

The international overview above highlights the similarities in both the need for employability skills in a range of developed economies and the range of skills governments and enterprises see as a priority. The table below from the ACER review (2001, p. 38) provides a comparison of the skills frameworks in place.

Comparative table of generic employability skills by country

Australian Mayer Key Competencies	United Kingdom (NCVQ) core skills	Canada Employability Skills Profile	United States (SCANS) workplace know-how
Collecting, analysing and organising information	Communication	Thinking skills	Information Foundation skills: basic skills
Communicating ideas and information	Communication Personal skills: improving own performance and learning	Communication skills	Information Foundation skills: basic skills
Planning and organising activities	Personal skills: improving own performance and learning	Responsibility skills Thinking skills	Resources Foundation skills: personal qualities
Working with others and in teams	Personal skills: working with others	Positive attitudes and behaviour Work with others Adaptability	Interpersonal skills
Using mathematical ideas and techniques	Numeracy: application of number	Understand and solve problems using mathematics	Foundation skills: basic skills
Solving problems	Problem solving	Problem-solving and decision-making skills Learning skills	Foundation skills: thinking
Using technology	Information technology	Use technology Communication skills	Technology Systems
Post-Mayer additions: Cultural understandings	Modern foreign language	Manage information Use numbers Work safely Participate in projects and tasks	

Source: Adapted from Werner 1995

The key differences in the comparison are largely explained by the Mayer Committee approach, which ensured a competency profile that was easily assessable at that time, and by the decision of the Mayer Committee to exclude values and attitudes from the framework.

Another point of difference between the Mayer Key Competencies and the UK skills program is definition of basic skills. The UK approach suggests that generic skills rest on a previously assumed foundation of basic competence that is not an attribute of all workers.

3.4   Draft Employability Skills Framework

The literature review undertaken by the ACER provided the project with a possible set of generic employability skills to form the basis for the case studies and surveys undertaken for this project and the final report. The table below provides the details of the set proposed by the ACER review (2001, p. 51).
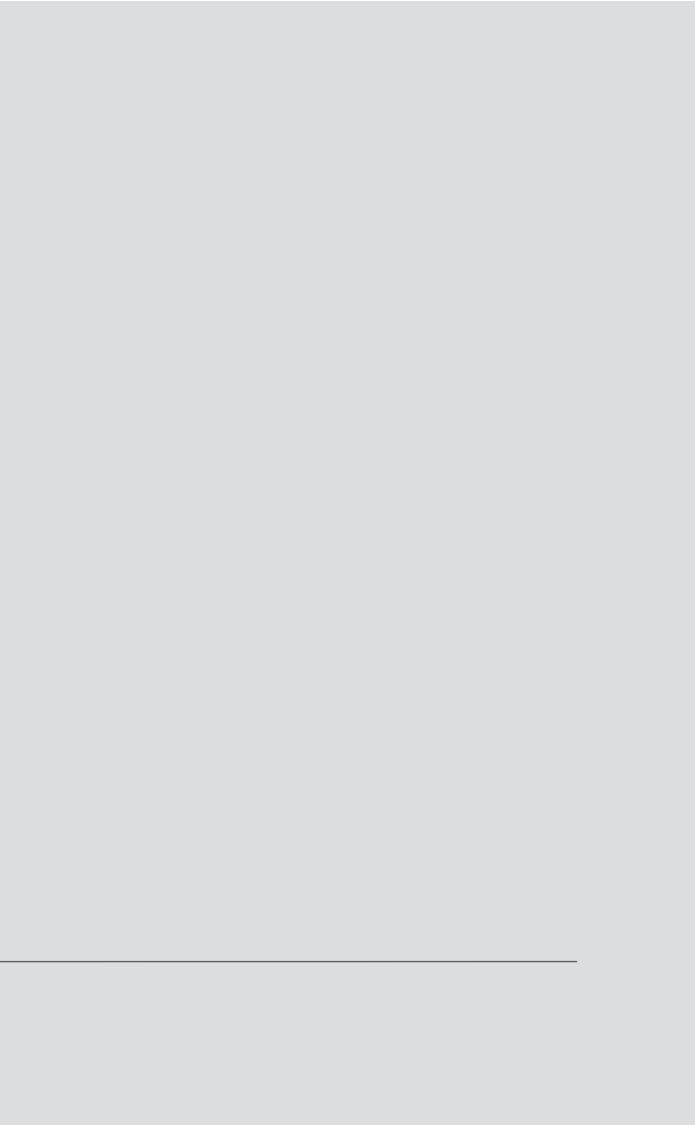
The set of skills included in the table extends beyond the original Mayer Key Competencies reflecting recent research, an appreciation of overseas approaches and enterprise feedback through other studies.

The table was used as a tool in the project.

A possible list of employability skills

Basic skills	Intellectual abilities	Personal attributes
Foundation skills Listens and understands and speaks clearly and directly Understands written documents and writes clearly Understands tables of figures, able to interpret graphs, able to calculate	Thinking skills Able to make decisions Capable problem solver Innovative – adapts to new situations Creative	Continuous learning Acknowledges the need to learn in order to accommodate change Open to new ideas and techniques Is prepared to invest time and effort in learning new skills
Information and communication technology skills Is aware of and willing to use a range of technologies Uses technology to seek, process, and present information	Contextual understanding Knows own role in the work situation Understands interrelationships among workplace processes and systems Can diagnose system (process) deficiencies Can design, implement, and monitor corrective actions	Personal attributes Has positive self-esteem Understands that own actions influence others Is self-manager, resourceful, shows initiative and effort Displays sense of ethics including integrity and honesty Accepts responsibility for own actions Seeks and accepts feedback
	Organisational skills Is able to manage own time and to seek needed resources to complete set tasks Sets goals and engages others in achieving those goals Establishes clear project goals and deliverables Allocates people and other resources (e.g. budgets, materials, space) to tasks Sets timelines and coordinates sub-tasks Is able to adapt resource allocations to cope with contingencies	Interpersonal skills Shows cultural sensitivity Committed to client service Able to negotiate Works well with others, individually and in teams Shows leadership Can develop a strategic vision, set goals, and monitor performance Communicates goals and targets, engages and enthuses subordinates towards a shared vision

*This attribute is expected of experienced workers, but not of new entrants to the workforce.
Source: ACER review (2001, p. 51).

Overview
4
of the Research Undertaken With Australian Industry
for this Project

4.1 Overview of the Research Undertaken with Industry

4.1.1 Large Enterprise Case Studies

The purpose of the case studies was to ascertain the views of large enterprises on employability skills required within the enterprise. The case studies research used as its basis the project definition of employability skills – that is, not only the skills necessary to gain employment, but also to progress within the enterprise.

Thirteen enterprises participated in the case studies, covering a range of large, leading companies with a strong presence in Australia. The case study research considered both people moving into management positions (for example, employability as a team leader following promotion) as well as those embarking on entry-level positions (for example, employability as a newly graduated electronics engineer). The case studies sought to identify at the large enterprise level in the Australian economy:

- strategic issues that impact on employability skills;

- the details of employability skills required;

- enterprise approaches to developing, tracking and assessing employability skills; and

- views about the role of educational providers in developing employability skills.

Throughout the case studies there were two recurring themes. The managers in the large enterprises stressed that contextual issues such as rate of change in the enterprise, nature of technology used and level of international activity all contributed to the level of employability skills required and the mix of the elements of these skills. The second theme was the essential importance of personal attributes in employees. The managers interviewed stressed how they sought these attributes in both entry-level and existing employees. They also indicated that the personal attributes were as important as the rest of the employability skills they identified.

The enterprises participating in the case studies were:	
Alcatel	J P Morgan
Asea Brown Boveri	McDonalds Australia
British American Tobacco	National Australia Bank
Commonwealth Bank	Qantas
Henry Walker Eltin	St George
Hewlett-Packard Australia	Telstra
Toyota	

Across the enterprises, jobs in customer service, frontline and middle-level management, and technical/professional areas were used as the basis for the case studies. The tables below provide details of the jobs that formed the basis of the case studies and the recruitment practice (or promotional practice) of the particular enterprises for those jobs.

Job type	Level	Was job available to new entrants to the workforce?	Educational level required
Customer service	In a branch office	Yes	School and VET or other tertiary institution
	Within a service area	Yes	
Technical Specialist/ Professional	Business/investment banking	Yes	University
	Trade marketing	Yes	
	Electrical engineering	Yes	
	Information technology	Yes	
	Electrical engineering	Yes	
	Information technology	Yes	
	Investment banking	Yes	
	Marketing	Yes	
	Civil engineering	Yes	
Team leadership/ middle management/ frontline management	Frontline manager	No, available following promotion	School and possibly VET
	Supervisor	No, available following promotion	
	Trainee manager	Yes	
	Manager (Technology)	No, available following promotion	

In-depth interviews occurred with senior and middle-level managers, senior human resource personnel and on occasions employees functioning in the jobs selected. An open-ended research approach was used allowing individual enterprises to describe their situation rather than respond to a prescribed model of employability skills. Each case summary was then sent back to the company for validation before the report on the case studies was prepared.

A final report on the findings of the case study research (Fields, 2001) was provided to the Reference Group and used in the development of the Employability Skills Framework and this final report.

4.1.2 Small and Medium-Sized Enterprises Focus Groups and Interviews

The aim of the focus groups and interviews with small and medium-sized enterprises was to ascertain the views of these enterprises on employability skills required within the enterprise.

Twenty-eight enterprises ranged in size from two to 200 employees, and nine enterprises had just over 200 employees. There were also three enterprises with over 1000 employees added to ensure industry coverage. Enterprises were identified through ACCI and other members of the Reference Group. They covered a wide range of industry sectors and were located in metropolitan, regional and rural environments nationally. The enterprises that participated in this research are included in Appendix 1 of this report.

The focus group discussions and individual interviews were based on an open-ended questionnaire designed to elicit enterprise views on:

- strategic issues that impact on employability skills;

- the details of employability skills required;

- enterprise approaches to developing, tracking and assessing employability skills; and

- views about the role of educational providers in developing employability skills.

The data from this process was collated and analysed to determine emerging themes.

4.1.3 Validation Survey of ACCI Members

As part of the project a validation step was included.

The research with enterprises led to the development of the Employability Skills Framework (see Chapter 5 of this report for details). Given that this framework reflects a new broader thinking with regard to employability skills, the Reference Group agreed that a validation process be included in the project. ACCI was asked to evaluate the relevance of the framework and ascertain the level of support for it from a broader set of enterprises and employer associations.

Approximately 150 enterprises and employer representatives participated in the validation exercise. Significantly, this included all major Australian Chambers of Commerce and Industry or their equivalents and seven key industry associations. Enterprises ranged from small and medium-sized enterprises through to large enterprises. The sample covered all industry sectors.

Overall, there was unreserved support for the general concept of the Employability Skills Framework, with some concern that it may appear complex to employers unless there are very clear definitions and explanations to support it. Further discussion of the outcomes of the validation stage is included in the next chapter of this report.

This project has provided a broad examination of the context in which Australian enterprises are operating and envisage they will be operating over the next five years and has identified a framework of employability skills for the future.

5.1 Context of Work in Australian Enterprises over the Next Five Years

Enterprises participating in the case studies, focus groups and interviews articulated a vision of the economy and their own enterprise that would continue to be characterised by change.

Enterprises, irrespective of size, emphasized that the future would require a focus on:

- the bottom line with an increasing expectation that all employees understand aspects of the enterprise's financial situation;

- customer relationships and customer service with the expectation that employees would understand the nature and importance of long-term customer relationships and greater emphasis on solutions for customers;

- community requirements and expectations with regard to enterprise performance – e.g. shareholder value, equal employment opportunity, occupational health and safety, environmental requirements;

- globalisation – i.e. factors such as increased international competition or a move into, or expansion of, global market activity;

- increasingly complex operating environments as a result of regulatory, legislative and financial changes;

- innovation and process improvement either to drive cost effectiveness or create new products and services;

- flexible enterprise structures – e.g. flatter, more autonomous structures, workforce able to regroup as required; and

- time constraints – customer demands and market competition will require product and service provision in shorter timeframes.

Several of the large enterprises in the case studies also indicated three other factors that would take priority. These were:

- devolution of decision making – flatter structures and closer relationships with customers will require more devolution of decision making and localised accountability;

- growing focus on learning and growing expectation of self-management of learning and development; and

- data management including the evaluation of quality and relevance, use in making informed decisions and the transfer of information through the enterprise, given the flatter structures.

Within this context enterprises identified the importance of communication, teamwork, problem solving, planning and organising, technology, learning, self-management, and initiative and enterprise skills. The next section draws together the skills framework identified by employers.

5.2   Overview of the Employability Skills Framework

The Employability Skills Framework developed through this project reflects the views of employers and has been developed through research with small and medium-sized as well as large enterprises. Size ranged from enterprises of two employees to those with over 1000 employees in Australia.

A range of terms have emerged through the project and are now included in the framework. To assist in understanding both the enterprise statements and the framework, the following explanation of terms used is provided.

Term	Explanation
Personal attributes	Term used to describe a set of non skill-based behaviours and attitudes that employers felt were as important as the employability skills and other technical or job-specific skills.
Skills	Term used to describe the learned capacity of the individual. *Skills* has been used instead of *competencies*, reflecting the language of the enterprises interviewed and to avoid any definitional confusion with the different ways *competencies* is used.
Elements	The *elements* are the facets of the skills that employers identified as important. The mix and priority of these elements would vary from job to job. The list of elements is not exhaustive but rather reflects the information provided by the interviewees in this study. The list of elements is indicative of the expectations of employers. The level of sophistication in the application of the element will depend on the job level and requirements.

5.2.1   Features of the Employability Skills Framework

The project has identified those key, generic employability skills that enterprises argue individuals should have along with the job-specific or relevant technical skills. The project also identified the ongoing relevance of the Mayer Key Competencies but confirmed that employers now required a set of personal attributes in all employees and a set of additional skills. These additions are seen as essential by the enterprises participating in the research. Finally, the project has identified an Employability Skills Framework that can contribute to the thinking and curriculum development of the Australian education and training system.

In summary, there are a number of critical aspects underpinning this framework:

- The framework, identified by employers through the research with enterprises, builds on the Mayer Key Competencies.

- Employer recognition and integration of the Mayer Key Competencies in their discussion of the nature of jobs and skills are strong.

- Employers have identified the importance of what have been termed 'personal attributes that contribute to employability' and indicate that these are required as part of the set of employability skills.

- Small, medium and large enterprises have identified the same critical mix of skills as being relevant to the employability and ongoing employment of individuals.

- The skills identified as critical to employability are broadly consistent across industry sectors and are all important though the elements would depend on the industry and workplace context.

- The priority of these employability skills (and their respective elements) vary from enterprise to enterprise, subject to the context of the job level and requirements.

- The employability skills identified are as relevant as job-specific or technical skills.

- The employability skills identified are relevant to entry-level and established employees. What is also recognised by employers is that the elements and level of complexity of the skill will vary with both the job type and classification.

- There is a strong recognition of the role of lifelong learning in skill development and response to change.

- Employer views with regard to leadership have emerged differently from those found in other research. Some employers have tended to suggest that the skills identified in the framework underpin an employee's capacity to lead.

- It is recognised that customer service of itself is not an isolated skill but rather the outcome of the integration of a range of diffrent skills of an individual e.g. communication and problem solving.

- Throughout the project interviewees also argued that the employability skills identified had a much broader application. The skills were as important to effective participation in the community as they were to effective participation in the workforce.

A critical feature in this research has been the reporting by enterprises that the employability skill mix required is becoming more sophisticated and the demand for this mix more critical.

Equally as important has been the comment by many employers through the research that the elements related to the skills will change both in their nature and priority in line with the enterprise's business activity and that flexibility needs to be maintained in this area. New work and production processes, new threats and responses, and new technology will continue to impact on the elements aspect of the Employability Skills Framework.

The Employability Skills Framework consolidates the outcomes of the research with enterprises and takes into consideration the Australian context and overseas trends. There are significant areas of commonality with the outcomes of this research and the international research as discussed in Chapter 3 of this report.

The configuration and content of the Employability Skills Framework, however, more closely reflect the language and trends in thinking in Australia. The Mayer Key Competencies have provided both Australian industry and the Australian education and training system with a useful starting point and tool for understanding and applying the concepts of generic or employability skills.

The Framework may be used in a range of ways by enterprises:

- the skills and elements can provide the basis of job descriptions and interview approaches in the recruitment and selection process;

- the flexibility of the elements section means employers can identify the relevance of these or other elements to particular jobs over time; and

- on the job training can be focused on a mix of relevant skills and elements.

Perhaps one of the most important uses of the framework will be by those developing curricula, courses and training programs, learning aims and objectives, and learning tools for schools, VET and higher education. The framework provides clarity with regard to what skills are required and what capacities (elements in the framework) graduates should be able to exhibit.

5.2.2   Personal Attributes

Employers participating in the research placed a strong emphasis on the need for both entry-level and ongoing employees to exhibit a broad range of attributes. Many employers indicated that during selection and promotion processes they tried to identify the personal attributes of the applicants. Similarly, a number of employers noted the importance of the employer advising applicants of the attributes required by the enterprise at the time of application and through performance appraisal processes.

Employers suggested that entry-level and ongoing employees needed to reflect attributes that were acceptable to the rest of their working peer group and the customer, and were in line with the company's approach. Other employers saw personal attributes at a more general level and not just relevant to the workplace but to life as a whole.

Some employers stressed the importance of these attributes to a harmonious workplace and effective customer relations.

Small, medium and large enterprises for the most part reflected the same views with regard to the set of personal attributes; it was the large enterprises, however, that specifically identified as priorities the attributes:

- balanced attitude to work and home life;

- ability to deal with pressure;

- motivation; and

- adaptability.

During the validation process that followed the initial research, enterprises of all sizes agreed with the complete set of personal attributes identified in the framework.

The box below provides examples of the comments about personal attributes from some of the enterprises interviewed.

> Loyalty and commitment are work readiness skills essential to all.
>
> Honesty is important above everything else.
>
> Employees with good attributes enhance the culture of the business.
>
> Loyalty to the company and each other as employees is essential.
>
> Your attitude to life and your outlook on life come first, and then the basic skills.
>
> Enthusiasm and motivation are basic; all else is teachable – these aren't.
>
> Employees need an outgoing personality with a sparkle in the eyes.

The identification of personal attributes as critical to employability by employers raises a set of issues about how to assess such attributes. Employers are using a range of tools including observation, work placements and references. However, it is essential that the education system now take up the challenge of developing assessment methodologies that can provide advice to the individual.

5.2.3   Communication and Teamwork

Enterprises indicated that the availability of these two skills and related elements in their employees were critical to enterprise performance. Enterprises tended to identify these as separate but related skills with overlaps at the element level.

The focus on these two skills has been apparent since the establishment of the Mayer Key Competencies; however, the interviews with enterprises indicated that employers had greater demands in this area than when the Key Competencies were initially identified. Enterprises tended to see communication in a more sophisticated manner, with a demand for employees who could empathise, negotiate and in some instances communicate in multiple languages.

Enterprises participating in this project stressed that these attributes and skills were relevant to both entry-level positions and existing employees. However, those interviewed also noted that they took into consideration both the applicant/employee's background and experience as well as the job requirements when considering the level of skill required.

Communication

Employers see communication skills as critical to customer service and workplace harmony, effective operations and productivity.

In a number of large enterprise case studies reference was made to the importance and more sophisticated use of communication skills in workplaces enabled by Information and Communications Technology (ICT).

The elements provide a broad definition of communication with an emphasis on the two-way nature of communication that was underpinned by the need to respond to people from all walks of life. These broad expectations are typical across all industry areas and enterprises whether small, medium or large.

The need for a second language was confined in this study to some higher-level jobs in the large enterprises, many of which are part of global corporations, or are focused on the international marketplace.

Enterprises did not differentiate their need for communication skills between entry-level and ongoing employees, but some noted that there were particular jobs at particular sites that may require more or higher application of certain elements.

Many enterprises did, however, reflect that they no longer wanted technical 'boffins' or operators who could not communicate with their work peers and clients.

Enterprises with large customer service functions – for example, enterprises with call centres – stressed that effective application of the communication skill would require a strong listening element. Other enterprises stressed the importance of this element in terms of receiving feedback and understanding the requirements of peers, supervisors and customers.

During the validation exercise conducted with ACCI members there was a confirmation of this list of elements and the strong recognition that the level of sophistication of the skill and elements used would depend on the job and whether the person is entering work for the first time. However, employers advised that ideally they would like all employees to be able to display a capability in all elements.

The elements of communication identified by the small, medium and large enterprises are:

- listening and understanding;
- speaking clearly and directly;
- writing to the needs of the audience;
- negotiating responsively;
- reading independently;

- empathising;

- using numeracy effectively;

- understanding the needs of internal and external customers;

- persuading effectively;

- establishing and using networks;

- being assertive;

- sharing information; and

- speaking and writing in languages other than English (in this research this element was specific to a selection of jobs in the large enterprises).

Teamwork

Structural change, growing complexity and diversity of services and products being provided, use of outsourced service providers, workplace flexibility and multiskilling appeared to be major contributors to the demand for teamwork skills in both entry-level and ongoing employees.

Virtually all employers interviewed indicated that the demand for 'solo' employees was negligible and that there was an expectation that employees work in a range of team environments both formal and informal over time. In the large enterprises there was discussion of the role of networks and communities of practice as informal teams across sites.

The teamwork skill needs of enterprises did not appear to be dependent on enterprise size. In both the initial research and during the validation exercises enterprises identified the relevance of all the elements for their organisation.

The elements of teamwork identified by the small, medium and large enterprises are:

- working with people of diffrent ages, gender, race, religion or political persuasion;

- working as an individual and as a member of a team;

- knowing how to define a role as part of a team;

- applying teamwork to a range of situations – e.g. futures planning, crisis problem solving;

- identifying the strengths of team members; and

- coaching, mentoring and giving feedback.

5.2.4   Problem Solving

Enterprises interviewed talked about the skill of problem solving and the possible elements in many different ways. At its simplest, some small and medium-sized enterprises talked of employees having the capacity to see that something was wrong and fix it. Some of the large enterprises talked of complex workplace processes used to initiate problem identification, risk management and options development. A small number of enterprises identified how their quality assurance system operated and the importance of problem-solving skills in this context.

Many of the small and medium-sized enterprises and large enterprises suggested that they expected their ongoing employees to show a level of initiative in identifying and solving problems before they had a serious impact on production or service delivery.

Some enterprises specifically linked the importance of problem solving to the provision of customer service. Employees should be able to solve the problems their customers have through the enterprise's products and support services.

Many employers identified that the level of problem-solving skills and expected sophistication of approach to problem solving varied significantly across jobs and function areas of the enterprise. However, all indicated that problem solving was a skill they assessed in entry-level applicants.

In the focus group discussions with the small and medium-sized enterprises, there was an emphasis on the importance of this skill at the individual level as it reduced the reliance on others to solve job-specific problems or workplace problems. Many of the employers recognised the need for employees to be able to make decisions about routine work-based problems without supervisor involvement.

Many interviewees across all enterprises stressed the need for employees to have sufficient mathematical ability to be able to understand basic financial information and the link between this information and enterprise performance.

There were some differences in emphasis on the elements of this skill depending on enterprise size. The small and medium-sized enterprises tended to place an emphasis on sound basic mathematical knowledge to assist in problem solving – for example, estimation, reading and interpreting graphs and tables; the large enterprises indicated the need for employees to be able to test data and assumptions and take a broader context in solving problems. The larger enterprises made this comment in light of the nature of the various 'systems' (physical, IT and policy) operating across the enterprise and their interdependencies. The large enterprises identified that the level of skill and element required would depend on the nature of the job and whether it was an entry-level position or not.

A small number of the large enterprises indicated that a priority for them was employees who could apply the problem-solving skills in a systematic way recognising the interrelatedness of many practices and processes in the enterprise.

These differences of emphasis were confirmed through the validation exercise.

The elements of problem solving identified by the small, medium and large enterprises are:

- developing creative, innovative solutions;

- developing practical solutions;

- showing independence and initiative in identifying problems and solving them;

- solving problems in teams;

- applying a range of strategies to problem solving;

- using mathematics including budgeting and financial management to solve problems;

- applying problem-solving strategies across a range of areas;

- testing assumptions taking the context of data and circumstances into account; and

- resolving customer concerns in relation to complex project issues.

5.2.5   Initiative and Enterprise

The skill of initiative and enterprise appears to be assuming increasing importance in many workplaces. Many of the enterprises interviewed, irrespective of size, noted that they required their employees to show initiative in the workplace. Some employers talked about employees determining how to achieve the outputs and outcomes of their job without close and detailed supervision; others talked of employees suggesting and initiating changes in the way work was undertaken.

The importance placed on this skill appeared to vary according to the job and person specifications under consideration as well as the management philosophy of the enterprise. In some enterprises where there were tighter control mechanisms this skill appeared to be of a lower priority.

Most enterprises indicated they tried to identify this skill in applicants for entry-level positions. Small and medium-sized enterprises tended to rely on references; some of the large enterprises interviewed indicated they used simulations and tests. Enterprises felt they were better able to select for this skill once the person had been working on site and had been able to exhibit the skill.

The growing recognition of this skill reflects a more explicit reference to the skill than was apparent when the Mayer Key Competencies were established. The identification of this skill and related elements is in line with more recent offshore developments.

Both the research and validation exercise indicated that size of enterprise did not lead to a difference of view as to the importance of this skill or the elements.

The elements of initiative and enterprise identified by the small, medium and large enterprises are:

- adapting to new situations;

- developing a strategic, creative, long-term vision;

- being creative;

- identifying opportunities not obvious to others;

- translating ideas into action;

- generating a range of options; and

- initiating innovative solutions.

5.2.6   Planning and Organising

The key feature of the comments of employers when discussing the skill of planning and organising was a requirement for employees at all levels in the full range of jobs to have good time management skills. Enterprises of all sizes also noted the growing demand for project management capability in employees. The level of sophistication and complexity of skill requirement was linked in most cases to the type of job.

In most instances enterprises indicated they sought this skill in both entry-level applicants and ongoing employees. Many of the large enterprises noted that there was a component of on the job learning with regard to this skill as the enterprise had particular enterprise-based planning and resource allocation systems that needed to be mastered.

The large enterprises placed a strong emphasis on the goal-setting element and talked of the need for employees seeking promotion to set goals within a business strategy framework.

The role of project management in the workplace was stressed in a range of the enterprises interviewed. The types of project work used as examples ranged from change management projects, systems development and installation, creating new approaches to services, marketing and sales strategy implementation. In this context the enterprises argued that project management skills, including setting goals, timelines, outputs and then communicating, work allocation and progress monitoring, were important for all employees, not just technical staff.

A number of enterprises (small, medium and large) identified that project management skills took on a particular importance during change processes. Enterprises gave as examples the introduction of changes to production, distribution systems and organisational structures.

Both the research and the validation process indicate some differences in the approach to planning and organising. In the large enterprises there was reference to the need for employees to apply this skill in the context of continuous improvement and planning processes and to develop a predictive capacity over time.

During the validation process a number of employers suggested there may be too much detail at the element level and that this skill may be one that is acquired more in the workplace than through formal learning and would develop over time.

The elements of planning and organising identified by the small, medium and large enterprises are:

- managing time and priorities – setting timelines, and coordinating tasks for self and with others;

- being resourceful;

- taking initiative and making decisions;

- adapting resource allocations to cope with contingencies;

- establishing clear project goals and deliverables;

- allocating people and other resources to tasks;

- planning the use of resources including time management;

- participating in continuous improvement and planning processes;

- developing a vision and a proactive plan to accompany it;

- predicting – weighing up risk, evaluating alternatives and applying evaluation criteria;

- collecting, analysing and organising information; and

- understanding basic business systems and their relationships.

5.2.7 Self-management

The identification of self-management as a specific skill is a new category, not found in the Mayer Key Competencies. However, aspects of the elements of this new skill area were either implicit or explicit in the Key Competencies.

Size of enterprise did not lead to any variation in the importance of this skill or the range of elements. The validation stage of the project confirmed the skill requirement, though a small number of employers proposed that this skill may in fact be classified as a personal value.

However, the support within enterprises and the extent to which enterprises have established a comprehensive list of elements suggest an area of capability requiring attention as a skill area in its own right.

The elements of self-management identified by the small, medium and large enterprises are:

- having a personal vision and goals;

- evaluating and monitoring own performance;

- having knowledge and confidence in own ideas and vision;

- articulating own ideas and vision; and

- taking responsibility.

5.2.8 Learning

The specific identification of learning as an employability skill is an addition to the original Mayer Key Competencies. Learning was an implicit component of the Key Competencies – that is, it was the process by which people moved through the three preformance levels identified for the Key Competencies – but employers are now seeing it as a critical skill in the workplace.

There was recognition of the importance of learning and skill development by all enterprises participating in the research. In the focus group discussions the small and medium-sized enterprises indicated that they felt it was important for both new entrants and ongoing employees to exhibit a proactive approach to managing their learning ether formally or on the job. Many enterprises in this group emphasised the importance of informal on the job learning as a way of extending skills and awareness of the business.

In the large enterprise case studies there were some common features with regard to learning. There was an expectation that new employees would be involved in a range of formal and informal on the job learning experiences and that the individual was responsible for maximising the benefits of this. In this context new employees needed to be open to new ideas and new ways of doing things.

Throughout the large enterprise case studies there was reference to the need for employees to maintain a broad awareness of what was occurring not only within but also beyond the enterprise. Some enterprises suggested that there was a requirement for their employees to understand and think about general aspects of the economy and current affairs, and not just about the job at hand so that they could provide effective customer service.

Large enterprises indicated that it was important that employees not only manage their own learning but also contribute to the learning environment of the enterprise; the small and medium-sized enterprises focused on individuals being enthusiastic and flexible about how their learning occurs.

The elements of learning skills identified by the small, medium and large enterprises are:

- managing own learning;

- contributing to the learning community at the workplace;

- using a range of mediums to learn – mentoring, peer support, networking, IT, courses;

- applying learning to technical issues (e.g. learning about products) and people issues (e.g. interpersonal and cultural aspects of work);

- having enthusiasm for ongoing learning;

- being willing to learn in any setting – on and off the job;

- being open to new ideas and techniques;

- being prepared to invest time and effort in learning new skills; and

- acknowledging the need to learn in order to accommodate change.

5.2.9   Technology

A common theme in the interviews with enterprises of all sizes was the growing role all forms of technology were having in the creation and dissemination of products and services, as well as in internal operational matters. Within this context the understanding, use and application of various technologies was an important skill.

The use of various technologies was found in almost all enterprises interviewed. The technologies ranged from information technology through to robotics and computerised production systems. Therefore employers talked of the need for employees to be able to operate within a technological environment.

However, most enterprises explained the importance of this skill and related elements in terms of information and communications technology. Some enterprises related to the farming sector spoke of the need for employees to have a physical capacity to apply the new technologies – that is, physical fitness and manual dexterity.

A significant number of the large enterprises stressed that IT was an area of vital importance. Entry-level employees were expected to have sound IT skills relevant not just to a particular job but to participation in a range of work-related processes. Employees would then be required to become familiar with relevant software and technological procedures that are increasingly becoming the norm in most large enterprises.

The research found that there are four areas where technology skills would need to be applied depending on the context and whether the person was an entry-level or an ongoing employee.

Context	Application
Routine work	Use of programs such as Word, Excel, PowerPoint and Lotus Notes, which are part of the everyday communication processes Use of programs to manage production processes
Specialised technical work	Use of software to plan and subsequently manage project timelines and costs, and design products and services
Design or adaptation	Use of principles and theories of electronics and IT to design or adapt software in order to provide a technical solution to a common problem
Information seeking	Use of the Internet and intranets to identify successful strategies used by overseas affiliates

There was a key difference between the responses of the small and medium-sized enterprises and those of the large enterprises. Physical coordination and dexterity in the application of technology was an important element that some enterprises, particularly those associatedwith the rural sector, felt was overlooked. The validation process did not establish the same importance.

The elements of technology skills identified by the small, medium and large enterprises are:

- having a range of basic IT skills;

- applying IT as a management tool;

- using IT to organise data;

- being willing to learn new IT skills;

- having basic occupational health and safety knowledge to apply technology; and

- having the appropriate physical capacity.

5.2.10   The Employability Skills Framework

The following table provides a consolidation of the personal attributes, skills and elements that make up the Employability Skills Framework.

Employability Skills Framework

Personal attributes that contribute to overall employability	• Loyalty • Commitment • Honesty and integrity • Enthusiasm • Reliability • Personal presentation • Commonsense	• Positive self-esteem • Sense of humour • Balanced attitude to work and home life • Ability to deal with pressure • Motivation • Adaptability

Skill	Element– (facets of the skill that employers identified as important, noting that the mix and priority of these facets would vary from job to job)
Communication that contributes to productive and harmonious relations between employees and customers	• Listening and understanding • Speaking clearly and directly • Writing to the needs of the audience • Negotiating responsively • Reading independently • Empathising • Using numeracy effectively • Understanding the needs of internal and external customers • Persuading effectively • Establishing and using networks • Being assertive • Sharing information • Speaking and writing in languages other than English
Teamwork that contributes to productive working relationships and outcomes	• Working with people of different ages, gender, race, religion or political persuasion • Working as an individual and as a member of a team • Knowing how to define a role as part of a team • Applying teamwork skills to a range of situations, e.g. futures planning, crisis problem solving • Identifying the strengths of team members • Coaching, mentoring and giving feedback
Problem solving that contributes to productive outcomes	• Developing creative, innovative solutions • Developing practical solutions • Showing independence and initiative in identifying problems and solving them • Solving problems in teams • Applying a range of strategies to problem solving • Using mathematics including budgeting and financial management to solve problems • Applying problem-solving strategies across a range of areas • Testing assumptions taking the context of data and circumstances into account • Resolving customer concerns in relation to complex project issues

Initiative and enterprise that contribute to innovative outcomes	• Adapting to new situations
	• Developing a strategic, creative, long-term vision
	• Being creative
	• Identifying opportunities not obvious to others
	• Translating ideas into action
	• Generating a range of options
	• Initiating innovative solutions
Planning and organising that contribute to long-term and short-term strategic planning	• Managing time and priorities – setting timelines, coordinating tasks for self and with others
	• Being resourceful
	• Taking initiative and making decisions
	• Adapting resource allocations to cope with contingencies
	• Establishing clear project goals and deliverables
	• Allocating people and other resources to tasks
	• Planning the use of resources including time management
	• Participating in continuous improvement and planning processes
	• Developing a vision and a proactive plan to accompany it
	• Predicting – weighing up risk, evaluating alternatives and applying evaluation criteria
	• Collecting, analysing and organising information
	• Understanding basic business systems and their relationships
Self-management that contributes to employee satisfaction and growth	• Having a personal vision and goals
	• Evaluating and monitoring own performance
	• Having knowledge and confidence in own ideas and vision
	• Articulating own ideas and vision
	• Taking responsibility
Learning that contributes to ongoing improvement and expansion in employee and company operations and outcomes	• Managing own learning
	• Contributing to the learning community at the workplace
	• Using a range of mediums to learn – mentoring, peer support, networking, information technology (IT), courses
	• Applying learning to 'technical' issues (e.g. learning about products) and 'people' issues (e.g. interpersonal and cultural aspects of work)
	• Having enthusiasm for ongoing learning
	• Being willing to learn in any setting – on and off the job
	• Being open to new ideas and techniques
	• Being prepared to invest time and effort in learning new skills
	• Acknowledging the need to learn in order to accommodate change
Technology that contributes to effective execution of tasks	• Having a range of basic IT skills
	• Applying IT as a management tool
	• Using IT to organise data
	• Being willing to learn new IT skills
	• Having the occupational health and safety knowledge to apply technology
	• Having the appropriate physical capacity

The framework is discussed in detail in Chapter 5 of this report.

5.3　Leadership in the Workplace

Throughout the research there was discussion of the capacity of employees to take on leadership roles both formally and informally in the workplace. Employer views with regard to leadership have emerged differently in this project from those found in some other research. Some employers suggested that the skills identified in the framework underpin an employee's capacity to lead.

Enterprises, irrespective of size, spoke of the importance of leadership throughout the enterprise and not just by senior staff.

As enterprises reflected on leadership in the organisation they talked of employees acting in particular ways in the workplace – for example:

- encouraging co-workers and team members to focus on the work goals;

- motivating peers and more junior employees;

- taking responsibility for themselves and others;

- participating in and facilitating change and improvement using 'systems thinking'; and

- building stronger customer relationships through thinking about problems differently.

Leadership then is an outcome of the application of the skills identified. More significantly employers felt it was also a result of the attributes of the individual including self-esteem, assertiveness, motivation and adaptability.

5.4　Customer Service

Enterprises participating in this research stressed the need for all employees to provide customer service and support positive long-term customer relationships. Many of the managers interviewed suggested that for employees to be customer orientated, provide excellent customer service and build strong relationships with customers, they would need to apply a range of the employability skills identified in an integrated way. Communication, problem solving and enterprise skills would all need to be used together to ensure a successful outcome in any interaction with a customer.

5.5　Validation Process with ACCI Members

As indicated above, a validation exercise to evaluate the outcomes of the research with enterprises participating in this project was undertaken. This step has been important in obtaining additional information and extending the reach of the project.

ACCI surveyed approximately 150 enterprises and employer groups to seek their views on the Employability Skills Framework. The questions asked were:

- Is the overview accurate in placing importance on personal attributes, interpersonal skills, innovation, enterprise and technology as the themes that govern the employability skills?

- Are the skill areas of communication, teamwork, problem-solving initiative, enterprise planning, organising self-awareness, learning initiative and technology as outlined appropriate?

- Are the elements of each of the skill areas as outlined in column 3 adequate – are there any missing?

- Are there any other strategies employers use to determine whether employees are skilled in the areas identified?

- Are these competencies relevant to employees entering the workforce for the first time as well as established employees?

Overall, there was unreserved support for the general concept of the framework. The validation exercise confirmed the research findings with some additional points and minor variations.

The primary comments made with regard to the detail of the framework were as follows:

- The Employability Skills Framework could appear complex unless further definitions and explanations are provided and the inherent flexibility of the framework is not made apparent.

- There were differences of opinion across those surveyed as to what level of detail should be included in the elements.

- A number of enterprises suggested that the elements component would need further development to recognise that the elements at entry level may be different from those at management level.

- It may be difficult for those entering the workforce for the first time to display the range of elements in the framework. There is a need to recognise that employers may want different levels of these skills depending on whether the job is an entry-level or a more senior one.

- Individual enterprises may have difficulties in assessing the skills. Assistance in this area may be required.

- Enterprises strongly emphasised the 'personal attributes' as being extremely important. In some instances employers suggested these were the most important.

- Enterprises stressed that employees should have sufficient mathematical ability to understand basic financial information and see the link between this information and enterprise performance.

- The employers surveyed indicated that they used a range of formal and informal techniques to assess whether a person had the employability skills required. Some employers felt the probationary period gave them the time to test out an employee's skills in various areas. Other methods used included contacting other employers who knew the applicant's skills. Employers surveyed indicated they did not widely use measures such as TER scores. Some employers favoured the inclusion of aptitude testing together with basic literacy, numeracy and keyboard skills. Again many employers looked at the applicant's broader activities at school and in the community as a measure of their personal attributes and skills.

- During the interviews a large number of the employers indicated that they would prefer to teach a new employee technical rather than employability skills. Therefore, those who possess employability skills are more likely to obtain and maintain employment than those who have them to a lesser degree.

This validation process again highlighted the consistency in the views of employers as to the need for employees to exhibit not only a set of employability skills but also a set of personal attributes, and confirmed the direction proposed in the Employability Skills Framework.

5.6   Relationship between the Employability Skills Framework and the Mayer Key Competencies

The Mayer Key Competencies continue to have relevance to the workplace. Employers when talking of the employability skills required today incorporated many aspects of the Key Competencies in their responses. However, the research undertaken for this project suggests that employers have expanded the list at two levels. Firstly they have placed a priority on personal attributes and secondly they have expanded the skill set to include areas that were only implicit in the Key Competencies.

The following table compares the Mayer Key Competencies with the outcomes of this project.

Comparison of Mayer Key Competencies and Employability Skills Framework

Component	Mayer Key Competencies	Employability Skills Framework
Attributes	Nil included	Personal Attributes
Skills/Competencies	Collecting, analysing and organising information	Planning and organising
	Communicating ideas and information	Communication
	Planning and organising activities	Planning and organising
	Working with others and in teams	Teamwork
	Using mathematical ideas and techniques	
	Solving problems	Problem solving
	Using technology	Technology
		Learning
		Self-management

The research for this project suggests enterprises today seek more complex elements within each skill. For example, enterprises discussed their communication skill requirement for all employees as having moved beyond the basic reading, writing and verbal communication capacities to:

- listening and understanding;

- speaking clearly and directly;

- writing clearly;

- negotiating responsively;

- reading independently;

- empathising; and

- persuading.

The changes occurring in the workplace have also caused a redefining of aspects of the Mayer Key Competencies. Some areas of competency that were discrete under Mayer can now be subsumed into others. For example, using mathematics is under Problem Solving in this framework. On the other hand, competencies not explicit under the Mayer framework should now be made explicit. For example, self-management and learning are now so important and complex that they must be given the significance attached to being named discretely as important areas of skill.

A further consideration when comparing the Employability Skills Framework with the Mayer Key Competencies is that the former does not seek to specify the three performance levels in the way the Mayer Committee did with the Key Competencies. Enterprises identified that, depending on the job, both the mix of elements and the sophistication of the elements would vary. It would be the description of the job and skill need that would identify this mix.

It would appear that employers no longer rely on the three performance levels (1–3) as identified by the Mayer Committee as a tool for understanding and assessing a person's level of skill. Although this was not fully explored in the research, there appeared to be a use of the Australian Qualifications Framework (AQF) by some employers as a way of understanding aspects of skill levels.

There is significant interest in:

- employer expectations of the education and training system in skill formation and development;

- understanding how employers approached skill formation and ongoing development; and

- preferred methods of assessment of skill levels.

As part of this project, employers were asked to consider these three issues and provide their views for inclusion in the final report .This chapter discusses enteprise responses.

6.1   Developing Employability Skills

6.1.1   Employer Expectations of the Education and Training System in Initial Employability Skills Formation

The research has indicated that there is an expectation on the part of small, medium and large enterprises that schools, VET and universities all have a role in contributing to the development of aspects of the employability skills in their graduates. The level of development was seen to be differentiated depending on the level of education and training being provided by the particular sector.

In the focus group discussions the small and medium-sized enterprises indicated that they were pleased with what the local school curricula included to support the employability readiness of the graduates. There was a strong feeling amongst these employers that the existence of strong local relationships between schools and industry had assisted in the development of the curricula.

Many of the small, medium and large enterprises noted that there had been a significant change in the approach and performance of the VET sector. Several small and medium-sized enterprises in regional and metropolitan locations noted that the local TAFE colleges were becoming more flexible. A small number of employers did, however, suggest that there was still too much reliance on the classroom by TAFE colleges.

A small number of enterprises (both large and small and medium-sized) noted that some university students found the transition to work difficult and that these students had unrealistic expectations. The enterprises suggested that universities could be more proactive in ensuring students understood the world of work.

A significant number of enterprises participating sought to differentiate the nature of skill development in the classroom and in the workplace, and noted the difficulties inherent in developing elements of the employability skills framework in the classroom. They suggested workplace experience and simulations could help address this.

Some employers interviewed suggested that the challenge was to be able to understand what level and range of employability skills recent graduates of schools, VET and university had acquired. It was easier to appreciate the level of knowledge and technical skills. It is essential that schools, VET and higher education providers consider this issue and develop options to assist the graduate and employers.

During this stage of the research a number of comments were provided with regard to the role and directions of the education and training system in skill development. These comments (Appendix 3) may be useful for further research and consideration.

There is strong potential to address the confusion in relation to recognition and documentation experienced by some enterprises. School, VET and higher education institutions are already in some instances seeking to record student achievement in the language of competencies, capabilities and attributes.

6.1.2 Enterprise Approaches to Entry-level Skill Development

The large enterprises participating all indicated that they provided entry-level employees with initial induction training as a way to assist in the transition to work. This induction tended to be enterprise-specific and a mixture of on the job and in the workplace but away from the job training and development. The approach to the development of skills of ongoing employees varied from large enterprise to large enterprise.

Many (seven of the 13 case studies) of the large enterprises participating in the research are Registered Training Organisations (RTOs). As RTOs they provide nationally recognised qualifications in a range of areas relevant to the different types of jobs in the enterprise.

It is also apparent that the large enterprises have established comprehensive approaches to formal training. Enterprises are using a combination of in-house informal training and externally provided formal training. National Training Packages have been used extensively by the vast majority of large enterprises to support entry-level skill development in employees.

In the small and medium-sized companies interviewed, the training strategies are less formal but still viewed seriously. The tendency is to rely on a range of mentoring schemes for entry-level employees involving working alongside other employees in similar roles as well as being assigned to more senior employees. The employers interviewed and participating in the focus group discussions suggested that this approach helped build workplace relations, team approaches and communication skills of both new and ongoing employees. Some enterprises indicated that the use of mentoring is a cost-effective approach to initial induction and training as it does not take the employees out of the workplace for long periods of time.

There appeared to be a general view amongst the small and medium-sized companies that they could improve their training strategies and certainly strong recognition that they are crucial to the ongoing development of the employees and therefore the company as a whole.

6.1.3 Enterprise Approaches to Ongoing Skill Development

Many of the large enterprises indicated that they had introduced some form of performance management and development system to link skill formation with business strategy and with performance outcomes. Such systems were particularly important in ensuring all employees were aware of the skill priorities of the enterprise, in identifying the skill development needs of the individual employees and in agreeing on an approach to skill development for the employee. Those enterprises using these types of systems all had enterprise-specific approaches, and there were some common themes in what occurred:

- enterprise has a model of skills, attributes, commitments it requires of its employees at all or most levels;

- employees and their supervisors agree on key result areas and strategic objectives as well as skills required to attain these;

- where skill gaps are apparent, training and development interventions are agreed upon, implemented and monitored; and

- employees review progress in achieving key result areas and skill development with their managers on a periodic basis.

The large enterprises interviewed used a range of developmental tools to assist in skill development for ongoing employees. These included:

- project work;

- participation in online interest groups;

- opportunities to meet and work with new clients or employees with different backgrounds;

- movement into other jobs, work areas or to work with other industry sectors;

- structured practice supported by learning materials;

- training by a Registered Training Organisation (in-house or external);

- attendance at technical seminars and conferences, encouragement to undertake innovative assignments, and action-learning activities which extend one's general skill level;

- encouragement to learn through phone and Internet contact with overseas colleagues;

- use of self-paced learning approaches that are available in a variety of formats (online, by CD-ROM, audio, video, by self-paced modules, simulation);

- learning from corporate online knowledge banks; and

- coaching and mentoring.

6.2　Assessing Skills

In interviews with enterprises there was discussion as to the assessment needs of enterprises and assessment tools used within enterprises to determine skill levels of new and ongoing employees.

Enterprises, irrespective of size, indicated that they placed a particular emphasis on trying to assess attributes and skills during the selection process when recruiting new employees. Enterprises identified a range of resources for this assessment process and clearly indicated that they did not rely solely on certificates and other qualifications as the basis for assessing attributes and skills. Examples given by enterprises are in the table below.

Strategies used to make judgments about the employee's level of skill in these areas	
Personal attributes	• personal contact including: – informal face-to-face contact – formal interviews, often more than one – initial telephone contact • work experience reports • school and training reports showing competencies and achievements • references from previous employers and others in the community
Communication and teamwork	• evidence of involvement in community activities and other extracurricular activities • samples of school projects/work • references from school advisers and employers • testimonials from community members • interview performance
Problem-solving initiative and enterprise	• previous work history • qualifications and course attended • hobbies, experiences, education • a trial in the company
Planning and organising Self-management, learning and technology	• social activities • references • previous work history • professional development history/plan • goals and dreams for the future • general interests

All the large enterprises and many of the small and medium-sized enterprises participating indicated that they started their assessment processes at the point of application for a job.

Many of the enterprises indicated that the interview was an important starting point where they used open-ended behavioural interview techniques to ascertain the attributes and skills of applicants. Examples of the techniques used included questions relating to the:

- competency of developing others, such as *Describe your experience in providing feedback for others – Who is responsible for development? – What is your personal experience?*

- competency of teambuilding, such as *How did you go about building a team? – What have been your experiences in dealing with difficult team issues? – How did you resolve these difficulties?*

A small number of large enterprises also noted a growing use of tools to assess aptitude and other characteristics.
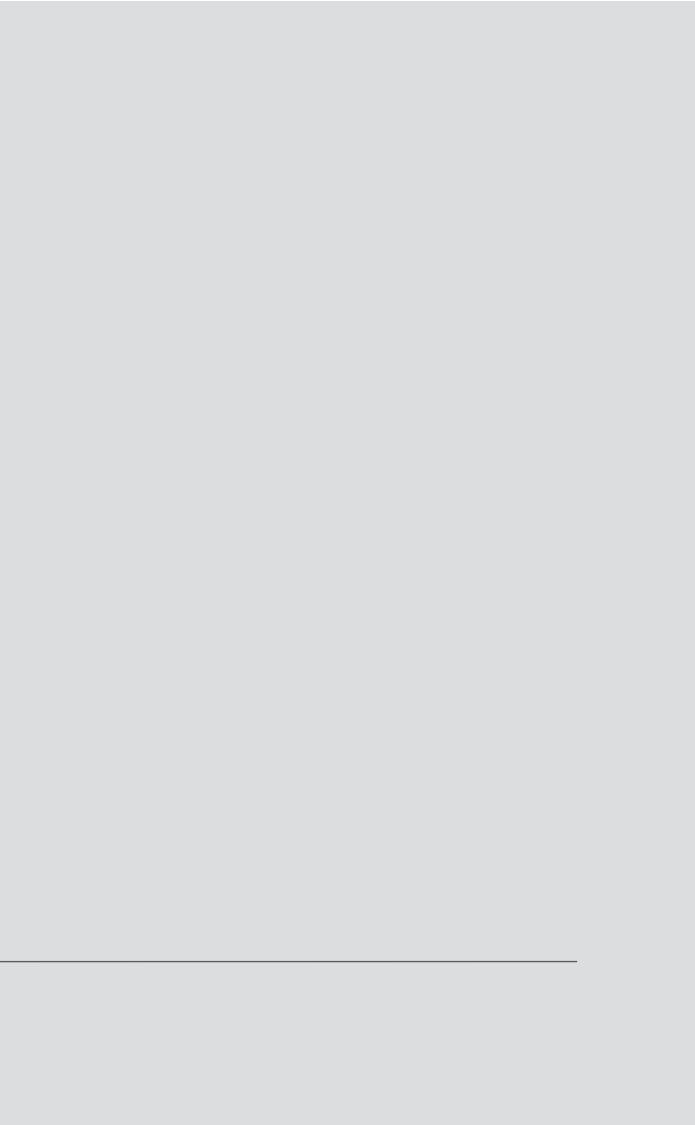
The approach taken by large enterprises to assessing ongoing skill development was to use the enterprise's performance management system. The tools of assessment varied across the large enterprises and included:

- skill and performance review;

- assessment as part of an online program;

- assessment as part of a face-to-face training program;

- feedback associated with observations and logbooks;

- portfolios of evidence; and

- feedback during coaching and mentoring.

In the small and medium-sized enterprises there were diverse approaches that are largely less formal than the large enterprise performance management systems. Tools used include:

- observation of performance in everyday work situations;

- evaluation developed around giving and receiving feedback from workplace superiors, workplace peers, mentors and online tutors;

- self-evaluation;

- performance in off the job training programs ranging from product seminars to long-term graduate study programs in VET and university; and

- completion of logbooks and set exercises developed within the company.

How the assessment and validation of employability skills are reported collectively and maintained over a period for individuals, students and employers needs further investigation. Options for a formal mechanism that recognises employability skills and is accepted by business, the community and education systems needs to be explored.

Conclusions
and Recommendations 7

Australia's economic growth is dependent on the expansion and sustainability of Australian industry. Such growth will require a relevantly skilled community of people able to contribute to economic prosperity and productivity.

There has been broad agreement that all young people need a set of skills that will prepare them for both employment and further learning. Moreover, in more and more situations employers are looking for these skills in people, irrespective of whether they are prospective or existing employees. What these skills should be in the context of challenges facing Australian industry has been less clear.

This project has identified those key, generic employability skills that enterprises argue individuals should have along with the job-specific or relevant technical skills. It has identified an Employability Skills Framework that can inform the thinking and curriculum development of the Australian education and training system.

This framework identified by enterprises builds on the Mayer Key Competencies and reflects the personal attributes and employability skills needs of enterprises seeking to grow and compete in an era of globalisation. The framework is also in line with the work that has been undertaken overseas, most notably in Canada, the United Kingdom, the United States of America and Europe.

The enterprises participating in this project argue that there is a need to extend the range of skills, explicitly acknowledge the role of personal attributes in employability and improve the learning outcomes for some skill areas.

Enterprises noted that there will be a need for ongoing skill development in employees to take account of emerging occupations and changing skill requirements as a result of technology and workplace processes.

Thus employability skills will be relevant not only to new entrants to the workforce but those returning to work and those moving between different labour markets. The Employability Skills Framework incorporates the following personal attributes that contribute to overall employability:

- loyalty;
- commitment;
- honesty and integrity;
- enthusiasm;
- reliability;
- personal presentation;
- commonsense;
- positive self-esteem;
- sense of humour;
- balanced attitude to work and home life;
- ability to deal with pressure;
- motivation; and
- adaptability.

The key skills identified in conjunction with the personal attributes to make up the Employability Skills Framework are:

- **communication** skills that contribute to productive and harmonious relations between employees and customers;

- **teamwork** skills that contribute to productive working relationships and outcomes;

- **problem-solving** skills that contribute to productive outcomes;

- **initiative and enterprise** skills that contribute to innovative outcomes;

- **planning and organising** skills that contribute to long-term and short-term strategic planning;

- **self-management** skills that contribute to employee satisfaction and growth;

- **learning** skills that contribute to ongoing improvement and expansion in employee and company operations and outcomes; and

- **technology** skills that contribute to effective execution of tasks.

Enterprises addressed separately the issues of leadership and customer service. Interviewees suggested that employees would need to combine various elements of the personal attributes and skills and apply them in the workplace to exhibit leadership and customer service.

Enterprises also indicated that there was a need for flexibility in the application of this framework. They noted that the organisational context and nature of the job would determine both the mix required of both the skills and the level of sophistication in the application of the skills. All the employability skills are important, though the elements would depend on the industry and workplace context.

The identification of personal attributes as critical to employability by employers raises a set of issues about how to assess such attributes. Employers are using a range of tools including observation, work placements and references. However, it is essential that the education system now take up the challenge of developing assessment methodologies that can provide advice to the individual.

Recommendations

This report provides a comprehensive picture of the views of a significant sample of enterprises with regard to the employability skills needs of industry.

Recommendation One

That DEST refer the report *Employability Skills for the Future* to relevant agencies including:

- Transition from School Task Force of the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA);

- Australian Vice-Chancellors' Committee (AV-CC); and

- National Training Quality Council (NTQC).

That these agencies be requested to respond to DEST regarding:

- implications for policy development and programs in schools, vocational education and training and higher education; and

- strategies and timelines for implementation of the framework in schools, vocational education and training, and higher education.

Recommendation Two

That at their meetings during 2002, MCEETYA and the ANTA Ministerial Council note the report, *Employability Skills for the Future*, as the employer view of the employability skills necessary for the future success of Australian business, industry and employees. That they also note advice from the relevant agencies about possible strategies and timelines for the implementation of this framework in an integrated manner across the three sectors of education and training.

8 Appendices

Appendix One

List Of Participating Enterprises

Adelaide Convention Centre	Alcatel Australia
Archway of the Hunter Tours	Asea Brown Boveri
Aspect Computing	Autobarn Albury
Ballarat Group Training Company	Ballarat Truck Centre Pty Ltd
Bendix Mintex Pty Ltd	British American Tobacco
Business SA	C.E. Bartlett Pty Ltd
Central Highlands Water	Commonwealth Bank
Devlin Consulting Australia	Dyecraft
Douglas Mawson Institute of TAFE	Eclipse Ford
Eastside SA Inc.	GE & PA Hendy Pty Ltd
Ford Motor Company	Globetrotter Corporate Travel
Glenecho Neighbourhood Centre	Henry Walker Eltin
Greater Murray A.H.S.	Hunter ACC
Hewlett-Packard Australia	Learning for Life Education Service
JW & JA Hinton Pty Ltd	Mission Australia
McDonald's Australia	National Australia Bank
MP Personnel Consulting	Newcastle City Council
Newcastle & Hunter Business Chamber	PBR Australia Pty Ltd
Norske Skog Albury	Redback Electrical
Qantas	Sovereign Park Motor Inn
Riverina Wool Combing	Techcel Computer Services
St George	The Lorn Surgery
Telstra	Tubukone Pastoral Company
Toyota Australia	Wagga Wagga City Council
Wagga Daily Advertiser	

Appendix Two

List Of Enterprises Which Participated In The Validation Process

Accor Asia Pacific	Adairs	Albany International
Angus and Robertson	Angus Clyne	Australian Geographic
Australian Meat Holdings	Automation and Control Electrics, Vic	Baby Co
BankWest	Bass Electrical, NSW	Best and Less
Big W	Blockbuster	Blue Care
Blue Mountains International Hotel Management School	Booran Holden	Boral
Brisbane City Council	Bunnings Building Supplies	Burswood Resort
Cadbury Schweppes	CAG	CCI Internal
City Farmers	Climate Technologies	Clough Engineering
Colbeck & Gunton	Coles	Colorado Group
Common Fate	Country Road	Cue Design
Curtin Parks and Gardens	Dairy Farmers Ltd	Darwin VETiS Workplacement Centre
David Jones	Duffy Bros	Dymocks
E S Wigg and Sons	Esprit	Fantastic Furniture
Fashion Fair	Fast Finishing Service	Flinders
Fosters Group	Freedom	Future Group
Futureware Corporation Pty Ltd	General Pants	Geoff Brady Holden
G James Glass	Global Business and Securities	Golden Circle
Gordyn & Palmer, Victoria	Gowings	Group Training Australia
Group Training NT	Hair Affair	Harcourts Real Estate
Harvey Norman	Haycroft Industrial	Henny Penny
Heritage HRM	Herzfeld	HeyDay Group, NSW
Heyder and Shears	HMV	Housing Industry Association
Hyatt Regency Perth	Hydro	Ikea
Incident Training Services	Jeans West	Jentaw Pty Ltd
JJH	Kays Bags	KC Country
Kev Selwood Electrical, Qld	Kleins	Laura Ashley
Leigh Olson and Associates	Lisp	Lydia Florist
Macquarie Hotel	Mansour Online	Marlows
McDonalds	Millers Retail	MIMP Computer Cable Pty Ltd, SA
Mini Movers	NAM Cooperative	Newslink
Ngapartji	Nightingale Press	Nilsen Industrial Electronics, WA
Noni B	Novaris Technologies	Openbook Publishers
OPSM	P & A Automotive	Paperpak
Patruck	Philmac	Pialligo Plant Farm
Pilkington Glass	PMP Print	PN Electric Australia Pty Ltd, Victoria

Pneuvay Engineering Pty Ltd	Prouds Jewellers	QANTM
Real Solutions (NSW) Pty Ltd	Rebel Sports Australia	Reg Hunt Holden
Reject Shop	Rivers	Robey Pty Ltd
Russell Smith, Tasmania	Schefenacker	Sheridan
Shoes and Sox	Silver Chain Nursing	Skilled Engineering
Slick Promotions	SNAP Franchising	South Sydney Council
Speakmans	Sports Girl	Starworn Enterprises
Stowe Australia, NSW	Suncorp Metway	Sunglass Hut
Suzanne Grae	Swarvoski	Table Eight
TAF	Tandy Electronics	Territory Insurance Office
The Axis Group	The Marketing Oasis	The Real Estate Shop
The Tile Factory	Town of Cambridge	True Vehicle
Victorian Automobile Chamber of Commerce	Visy Industries Ltd	Watering Concepts
West Belconnen Leagues Club	Woolworths	WWW- Australia
Wyeth Australia Pty Ltd		

Appendix Three

Enterprise Views about the Role of the Education and Training System in Developing Employability Skills

During the interviews with enterprises, there was some discussion about the ability of the education and training system to better contribute to the development of general employability skills.

Responses to this question were quite varied, reflecting in many instances the level of engagement the individuals interviewed had with aspects of the education and training system. It was noticeable that many of the small and medium-sized enterprises had strong links to the geographically local schools and TAFEs.

Many enterprises interviewed tried to differentiate their responsibilities in skill development from those of the education and training system.

The research has identified some issues that will require further research and clarification before policy and program implications can be drawn:

- **Link skills to their application in a commercial context**

   Interviewees indicated strong support for educational providers to do more to link theory to business applications.

- **Provide more work-based learning options**

   Interviewees reported favourably on students spending time working in industry, suggesting further work may be required to assist trainers and workplace supervisors in their approaches to teaching and learning.

- **Be more responsive and proactive**

   A small number of interviewees felt there was still scope for improvement in aspects of the school, VET and higher education institution relationships with enterprises. Further expertise may be required in enterprises and education and training institutions in working in a facilitative and partnering role.

- **Develop higher levels of literacy and numeracy**

   Some interviewees argued too many new recruits were under-skilled in the areas of literacy and numeracy.

- **It is important to ensure that technical employees learn about non-technical areas**

   Some interviewees emphasised the value of technically focused employees learning about other areas – for example, philosophy, sociology and culture to aid their communication and problem solving.

- **Continue to support the development of national consistency in VET programs**

- **Make the 'learning to learn' skills more explicit**

   In making the transition from educational institution to employment, beginning employees need to learn a great deal, and learning skills are very valuable. Education providers should do what they can to foster learning capacity and to encourage students to recognise and value their own learning.

- **Provide more information on the breadth of jobs that are available**

   Several interviewees would have liked job candidates to have heard more about the breadth of jobs that existed in industry.

- **Help high-achieving university graduates keep a realistic perspective on their abilities and worth**

  Some concern was expressed about the inflated self-image that new employees (particularly graduates in high-status programs) can have. This can result in considerable pressure as the new employee adjusts to the reality of being relatively low in the organisation and still having a great deal to learn. Some employers suggested the need to help students learn to assess when to be proactive and how to function effectively in teams.

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