The Australian National Training Authority (ANTA), aware of the need to provide guidance and advice to industry and training providers, has funded research to translate these very real needs into training solutions compatible with training packages.

Ratio Pty Ltd has been involved in this work, and this chapter* provides an overview of the research so far, some of which is examined in order to identify a clearer picture of the employability skills mix. The chapter discusses ways in which employability skills can be incorporated into training packages, how they are currently represented, and finally, some of the options for future development.

The chapter describes how the generic skills are currently incorporated in training packages through dedicated units of competence and by being embedded in units of competence. Generic skills are also located in training packages in performance criteria, evidence guides or in descriptions of underpinning skills and knowledge. The authors conclude that the most critical factor is the learning process. Teachers and trainers need to have the skills to use innovative learning strategies to ensure that the generic skills are learnt in context and that learners thus become competent.

Introduction

One of the most enduring and pressing questions for educators in the vocational education and training sector (VET) is how to balance the need for the range of skills relevant to work within an education and training program.

Figure 1 represents the spectrum of skills which might be required in such a program.

The task of analysing the skills and attributes needed for work, describing them in a way which is meaningful for education and training professionals,

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* A summary of the report Employability skills in training packages (Ratio Pty Ltd & Down 2002).
and providing support and guidance for their delivery and assessment, is the subject of much work currently being undertaken in all educational sectors.

Training packages, which aim to capture work outcomes and provide benchmarks for training, are grappling with this challenge. On one hand, competency standards need to describe work in achievable and recognisable chunks; however, developers are acknowledging the importance of representing the complexity of the human factor in work. This relates to those skills and attributes which can make the difference to work performance, referred to in this chapter as employability skills.

However, these skills and attributes are not easy to identify or describe. Their relationship within work is not straightforward and both their development and their assessment is complex.

**Figure 1: Spectrum of skills**

<table>
<thead>
<tr>
<th>Life skills</th>
<th>Employability skills</th>
<th>Cross-industry generic skills</th>
<th>Cross-industry technical skills</th>
<th>Occupation-specific technical skills</th>
</tr>
</thead>
</table>

**Source:** Unpublished research undertaken by David Rumsey for ANTA

What are employability skills?

A number of reports have identified the skills to which we are currently referring as ‘employability skills’. A summary of one such framework is provided in figure 2.
Employability skills are not usually discrete functions of work, although at times they can be. They operate within and between work functions and underpin work and integrate the different aspects of work. They are often not related to academic performance or technical performance and are closer to emotional intelligence than to traditional notions of intelligence. Employability skills are context-specific and cannot be accurately assessed away from a specific application; for example, working in a team cannot be assessed outside a team engaged in meaningful work; problem-solving at work can’t be assessed outside a work problem.

They are not a package of skills, but operate in many different ways, for example:

❖ *They can be an integral part of a specific technical competency.*
   
   It is one thing to know how to set up lights for a function, but competency means having the capacity to improvise when equipment fails, to keep calm when the deadline is brought forward, to reassure a new team member and so on. These aspects are employability skills.

❖ *Employability operates across tasks as well as within them.*
   
   The skills serve to link a number of work tasks. Skills such as working together, time management, multi-tasking and the capacity to transfer across contexts are core skills used in any kind of work rather than skills relevant to one task only, so expressing them within one competency standard ignores the fact that they are relevant to most. Expressing them in every competency standard devalues them. Expressing them as a separate competency standard removes the context within which they are used.

❖ *Employability skills are needed by individuals to manage their work life.*
   
   While there is debate about whether many of the attributes can be taught, they perhaps suggest that young people in particular need guidance with behaviours appropriate for a work environment which are not sufficiently explicit in training programs at the moment. These also are defined as employability.

   What is more, everyone needs the skills to be able to manage themselves at work and between jobs, to identify what they need to learn and access the learning that they need.

❖ *Employability also includes new skills needed by organisations and individuals to survive the new global commercial landscape.*
   
   Increasingly, employees need to learn new cognitive and interpersonal skills. It is now as important for everyone to learn how to think as it is to learn what to think, to learn the skills for lifelong learning and adaptability and to learn to deal constructively with diverse colleagues, markets and products.
Why are employability skills important now?

Employability skills have always been recognised as an important part of the skill equation and there have been various attempts to develop them in a systematic way. Today however, the call for a greater emphasis on these skills is an international phenomenon, one which is related to the fundamental challenges presented by social and economic change. The world of work is changing more rapidly than ever before and the training and education systems used to service these workplaces have to change in response.

Key changes to the skill development debate

Changing work demands

The business landscape has changed in significant ways over recent years. There is greater competition, more competitors, greater accountability, and more choice. This has added a new dimension to work. It is no longer sufficient to perform in a narrow job role, and it is now the responsibility of the whole workforce to be service-oriented. This new orientation places demands on all levels of the workforce across industries, resulting in the need for a much broader range of skills. Council workers, for example, may have seen themselves as accountable to their supervisors in the past. Today ratepayers are likely to expect responses beyond the mere performance of a job. Teachers used to see themselves as accountable to the government or school committee. Now they are increasingly answerable to students and parents. Food service operators would once have viewed a customer complaint as the responsibility of their supervisor. Now they are now encouraged to resolve a complaint themselves if they can.
Research suggests that employers recognise that they need these broader skills; for example, the Australian Chamber of Commerce and Industry and Business Council of Australia report *Employability skills for the future* (2002) is quite specific about what is required, and the same theme is articulated in the recently released Board of Vocational Education and Training report, *Beyond flexibility skills and work in the future* (2001). As this report notes:

> The exact nature of this development (employer interest in soft skills) generally as the form it took varied by sector. For example, in retail banking there is a growing interest in employees acquiring a ‘sales’ or ‘retail’ mindset. In IT [information technology] a number of interviewees referred to the need for more workers in the area to have business acumen. Contract cleaning employers want workers to take more responsibilities on the job. Construction employers are especially interested in workers who show initiative and are prepared to take on multiple tasks. In Metal and Engineering, there is a growing interest in team work, and workers with skills to perform in an environment with fewer supervisors and take more responsibility for overseeing and solving production problems. (Board of Vocational Education and Training 2001)

### Changing work environments

There has been much discussion about the types and levels of skills required by workers in this new work context. There is evidence to suggest that often it is not the level of technical skills which is increasing; in many instances, the actual level of skill for technical work is decreasing. Take for example, many production processes, which are now computerised rather than manually operated. The increase in skill level is needed not because of the work itself, but because of the work environment, how work is carried out, or the work processes.

*Occupations and skills are undergoing change. Boundaries are blurring between occupations and the concept of ‘skill’ is expanding to reflect employers’ need for a range of ‘soft’ skills … International research findings indicated accelerating growth in the use of cognitive and interactional skills and decline in the use of motor skills.* (Board of Vocational Education and Training 2001, p.20)

Even in lower-level jobs, where previously people would have been employed for their motor or manual skills, there is an increasing demand for creative and critical thinking, as well as other higher-order skills.

### Changing individual needs within new employment contexts

There also seems to be a shift in the way people are employed. Employees move more quickly between jobs, employers and industries. It is far less likely that an individual will stay and grow within one organisation. This makes demands on
the individual’s capacity to find work, adapt to new contexts and transfer skills from one context to another.

As illustrated in figure 1, there is also a set of skills which underpins these and is collectively referred to as ‘life skills’, including language, literacy and numeracy and personal hygiene.

The personal attributes such as loyalty and honesty are also important in this context.

*The SCANs report (in Moy 1999, p.12) found that school leavers and workers required solid three part foundation, or fundamental skills comprising: basic literacy and computational skills; thinking skills (including creative decision making, problem solving, learning to learn and reasoning) and personal qualities including responsibility, self esteem, sociability, self-management and integrity/honesty.* (Board of Vocational Education and Training 2000, p.14)

**Summary**

In this context, the way that we approach training and education needs to change.

Any program aiming to develop vocational skills must acknowledge the following key points:

❖ The work environment has changed. In general it is no longer possible to rely on continuous, let alone permanent employment. The individual’s capacity to manage themselves in relation to finding, keeping and negotiating work is increasingly important.

❖ There is constant change within workplaces. This means that employees at all levels of organisations need the capacity to adapt to new jobs, new routines, new technologies, new procedures and new teams.

❖ There is an assumption that lower-level workers need multi-skilling, when in fact they need the skills to transfer between many low-level tasks (multi-tasking).

❖ Intermediate skills are diminishing, creating a wider gap between the higher-level knowledge worker and lower-level worker. While the technical skill level demands of the high-level ‘knowledge’ worker have increased, the technical skill levels in a large number of entry-level and lower-level jobs have decreased.

❖ Occupational boundaries are becoming blurred, so that the distinctions between jobs and industries have become far less clear and the individual is increasingly being required to move between functions within broad occupations.
Training issues

The implication for training is that technical skills are the straightforward and relatively easy part of the skill equation. Given the contexts described above, the critical part of the equation is the body of skills needed to work—the employability skills.

The challenge for educators is to articulate work standards in a way which appropriately acknowledges the role of employability skills and behaviours, providing benchmarks for assessment, and also helps trainers guide the development of those behaviours and skills.

The trainers who are the best teachers of technical competency may themselves be poor models of employability skills. Those who can best guide others in the behaviours required by the modern workforce may not be identifiable by their qualifications.

As stand-alone modules of learning without a context of application in work, the employability skills are of little value; however, when they are completely embedded they can be ignored. Finding the balance is critical at this stage of the development of the training system.

Current strategies in training packages

While the debate about employability skills has intensified over the past few years, the need for them has been acknowledged for some time. This is reflected in the range of existing strategies developed to ensure that they are included in training packages, as described below. The findings of our research suggest that these are used to various effects in a range of packages.

The Mayer key competencies

The Mayer key competencies have gone along way towards defining the nature of employability skills and are a useful guide in a number of the current training packages. However, research suggests that the key competencies and their assigned levels are not well understood by many and are often ignored.

The situation is compounded by the fact that the key competencies are located at the end of the unit of competency, creating the impression that they are an add-on, rather than a critically central component of competency.

Dedicated units

The dedicated unit which focuses on a employability skill function normally encompasses all industries. The employability skill is usually the name of the unit, for example ‘communicate in the workplace’, or ‘apply occupational health and safety’.

90 Generic skills: Research readings
The advantage of dedicated units is that the process and skill requirements are spelled out clearly. As a stand-alone unit it demands an appropriate allocation of resources just like any other unit of competency. It can also be taught by an employability skills specialist.

The disadvantage of dedicated units is that teaching and assessing the skill can take place in isolation from other technical work functions, outside a specific context. Taught in this way, the employability skill is seen to lack relevance for learners and industry, and over time loses value.

Embedding in units

An embedded unit combines the employability skill with a technical or work function, for example, ‘negotiate a contract’, ‘plan and manage conferences’, ‘create advertisements’. This is a highly effective way to teach and assess the skill and is perceived to be relevant. Training packages in general have most often opted for this approach.

The main advantage of this technique for providing employability skills is that the teaching and assessment of the skill becomes highly relevant and contextualised. It is therefore easy to learn and interesting. The industry can also see the relevance and value of the employability skill.

The disadvantage of this technique is that the employability skill can become subsumed in the technical function; for example, in the unit ‘create advertisements’ there will often be more emphasis on the advertisements, and little if any on the process of design and creativity. Although the employability skill is indicated through the unit title, the unit often does not spell out the process in a meaningful way.

A further disadvantage of this approach is that only one application of the skill will be taught within one particular context. For example, negotiating a contract may be covered, but it may not be clearly understood that the process involved should be transferable to negotiating a pay rise or any other kind of situation where negotiating skills are needed.

In addition, when choosing teachers for these units, technical specialists will normally be preferred over employability specialists, which compounds the problems of losing the employability skill.

References in units

Yet another model for incorporating employability skills into training packages is by embedding a reference to the skill in the performance criteria or in the evidence guide, or in the underpinning skills and knowledge.

The advantage of this approach is that it acknowledges that the skill is required and avoids having to spell it out many times. It can also be effective if the unit is delivered and assessed in conjunction with a unit which
appropriately spells out the skills and processes required. The disadvantage is that it makes the skill very easy to ignore or forget about.

Findings from the research

In the majority of training packages, employability skills are reasonably well described when they are appropriate to the industry. In some cases packages contain dedicated units supported by units in which the skill is embedded. In other cases they contain applied units.

❖ **Communication skills** are represented comprehensively. They have been well described through standards and curriculum over a number of years. Training package developers clearly have a good understanding of the skills and processes required for communicating. Nevertheless, there are still some training packages which the reviewers felt were lacking even in communication skills.

❖ Other established ¹ skill areas such as planning and organising, technology and teamwork, had reasonable coverage and understanding. Some training packages, however, had low coverage of these areas.

❖ The **new dimensions** ² of the established skills were present only through inference or reference. In general they were not described in a way that would be meaningful to an assessor or trainer.

❖ The **new skill areas** ³ were covered to a certain extent in units such as ‘manage self’ and ‘manage own learning’. However, this was not widespread and it seems that a better understanding of the skills sets required in these areas is needed.

❖ Some categories in the skill area of ‘personal values’ are ambiguous and are not commonly understood. These categories were not included in the training package analysis as more research is required to clarify their meaning.

While there have been serious attempts to appropriately incorporate employability skills into training packages, there is a need for improvement. This means that:

❖ There are significant gaps which need to be filled.

❖ There is a need for greater clarification of the skill/behaviour in some areas.

❖ The issue of delivery and assessment in a context needs to be addressed.

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¹ Established employability skills, for example, those defined through the Mayer key competencies, such as communications, problem-solving.

² New dimensions to established skills, for example, creative problem-solving and communicating with empathy.

³ New skill areas altogether, for example, learning and self-management.
More work should be done to ensure that trainers and assessors have the skills and tools to appropriately address employability skills in whatever format they appear.

New ideas for addressing employability skills

That employability skills and behaviours are not a cohesive package of skills which can be picked up and inserted in any training program is one important emerging issue. They are central to competency and they operate in a range of ways within work.

The table below shows the relationship between employability skills and typical entry-level office work.

Table 1: Ways of incorporating employability skills

<table>
<thead>
<tr>
<th>Embedded in various ways</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employability competencies which are useful within technical competencies</td>
</tr>
<tr>
<td>Applying the dimensions of competency to individual tasks such as:</td>
</tr>
<tr>
<td>❖ Filing</td>
</tr>
<tr>
<td>❖ Photocopying</td>
</tr>
<tr>
<td>❖ Answering the phone</td>
</tr>
<tr>
<td>Applying employability to specific task:</td>
</tr>
<tr>
<td>❖ Problem-solving in using the photocopier</td>
</tr>
<tr>
<td>❖ Handling a complaint</td>
</tr>
<tr>
<td>❖ Preparing to file</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>New class of competency descriptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competencies and behaviours which operate between/across technical competencies</td>
</tr>
<tr>
<td>Multi-tasking:</td>
</tr>
<tr>
<td>❖ Organising tasks so they can start the photocopying, answer a call, prepare to file</td>
</tr>
<tr>
<td>❖ Working with others</td>
</tr>
<tr>
<td>❖ Behaving appropriately</td>
</tr>
<tr>
<td>❖ Ethical</td>
</tr>
<tr>
<td>❖ Appropriate</td>
</tr>
<tr>
<td>❖ Displaying empathy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>New units of competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addressing new roles and job tasks which are primarily focused on employability skills</td>
</tr>
<tr>
<td>Contributing to ideas development</td>
</tr>
<tr>
<td>Using information communication technologies to:</td>
</tr>
<tr>
<td>❖ Write a letter</td>
</tr>
<tr>
<td>❖ Use the internet for banking, research, sending email</td>
</tr>
<tr>
<td>Participating in knowledge management</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>New units of competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competencies and behaviours which operate between jobs and workplaces</td>
</tr>
<tr>
<td>Negotiating employment</td>
</tr>
<tr>
<td>Managing career development</td>
</tr>
<tr>
<td>Learning to learn</td>
</tr>
</tbody>
</table>

This table demonstrates how employability skills are:
❖ relevant to how a particular task is carried out; for example, problem-solving when using the photocopier
❖ relevant to how a group of tasks is carried out, multi-tasking, displaying appropriate work behaviour, learning to learn
❖ core work roles in themselves; for example, developing creative ideas, contributing to knowledge management, communicating with customers
relevant to how a person manages their own career and work.

When we take a broader view, it becomes clear that not only is the need for the skills not consistent across industries, but that different work roles demand different skills in different ways.

It is abundantly clear that a one-size-fits-all solution will be inadequate, and that multiple strategies for incorporating employability skills and behaviours will be required at all stages of the development process. Some key points to be considered here are that:

- Training package developers will need tools and skills to help them focus on a holistic approach to work analysis and to select strategies appropriate to the context, the industry, the level and the individual.
- A professional development program will be needed to ensure that individual trainers and assessors recognise and value the employability skills and have the training skills to ensure that they are developed.
- Advice and guidance for registered training organisations will be needed to illustrate how to address the demand for employability skills strategically through program design, collaborative teaching, mentoring, recruitment and so on.
- Tools will need to be developed which demonstrate and explain the various approaches and ways to achieve them.

However, the most critical factor in the development of employability skills will always be the actual learning process. It is vital that innovative delivery strategies are adopted which effectively integrate all of the components of competency demanded by work.

Collaborative teaching, collaborative learning, meaningful work projects, action learning and blended delivery provide the flexible learning environments which have the potential to meet the needs of the current workplace, a workplace which has outgrown our current approaches to training and education.

The future should provide new combinations of strategies, skills, tools and resources to meet the challenge of providing the right balance of skills, knowledge, attitudes and behaviours in the complex world of work.

References
Board of Vocational Education and Training 2001, Beyond flexibility skills and work in the future, Sydney.
Ratio Pty Ltd & Down, C 2002, Employability skills in training packages, ANTA, Brisbane.