

Beyond Mayer: Learning from delivering and assessing generic employability competencies

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NCVER NEW RESEARCHER AWARD RECIPIENT



Australian Government
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and Workplace Relations**

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About the research



Beyond Mayer: Learning from delivering and assessing generic employability competencies

Mary Cushnahan, Kangan Batman TAFE

One of the main research objectives of the National Centre for Vocational Education Research (NCVER) is to build the research capacity of the vocational education and training (VET) sector. To assist this objective, NCVER has developed a program whereby new researchers are sponsored to attend its annual 'No Frills' conference. Four new researchers were supported to attend the 2008 conference in Launceston. One of these awards went to Mary Cushnahan. This paper is based on her presentation at the conference.

In Australia in the early 1990s—and throughout the world—generic employability skills were identified as crucial attributes to enable successful participation in the labour market. In 1992 with the publication of the Mayer report, the first wave of these employability skills—called key competencies by Mayer—appeared on the Australian education landscape. These key competencies and their successor, employability skills, have become integral components of training packages within the VET sector.

Over the years, the effectiveness of generic employability skills has been the topic of much heated debate, with many commentators arguing that, they are being neglected in the training system. This paper contributes to that discussion by offering some insights into how trainers understand generic employability competencies and how they approach the delivery and assessment of these skills.

Key messages

- ✧ A great deal of conflicting commentary and advice characterises the content and implementation of generic employability skills.
- ✧ Teachers in technical and further education (TAFE) institutes and workplace trainers experience difficulties understanding and teaching the generic employability skills embedded in industry training packages.
- ✧ Some teachers of the Certificate IV in Training and Assessment—the mandatory qualification for teachers assessing in training packages—also have difficulty understanding the scope and content of generic employability skills.

Cushnahan argues that it is neither reasonable nor appropriate for the interpretation of generic skills to be left to trainers. Furthermore, a national strategy must be developed that is clear, concise, comprehensive and, most importantly, implementable.

Tom Karmel
Managing Director, NCVER

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Research focus

The teaching of generic employability skills has been identified globally as significant to a country's economic security, and its importance as a capacity-building tool for labour markets into the future has been highlighted. In 1992 Australia identified seven key generic skills that should be taught and assessed. These are known as the Mayer¹ key competencies. A new set of competencies grouped with the Employability Skills Framework was approved in 2004–05 for inclusion in all units of competence released after this date. Although these generic skills are appearing in newly released and reviewed training packages and units of competence, there is little information or professional development for trainers associated with the interpretation, teaching and assessment of these new skills.

This paper investigates how well the Mayer key competencies are understood by trainers. The research has been undertaken to identify the means by which trainers are informed about key competencies. The paper also looks at the potential difficulties associated with implementing a system of teaching and assessing the new employability skills.

The research investigates how effectively the significant research and the consequent training recommendations related to the Mayer key competencies are disseminated, and how the relevant and pertinent information is incorporated into all technical and further education (TAFE) and industry trainers' systems of training. It also examines the understanding trainers have of key competencies, what influence the Certificate IV in Training and Assessment (formally the Certificate IV in Assessment and Workplace Training prior to 2005) had on that knowledge and how trainers implement these competencies in their training programs.

For many industry and trades trainers, the Certificate IV in Training and Assessment and its predecessor are the first and possibly the only formal training they have on generic skills or key competencies, which are explicit in all units of competence that make up training packages (prior to 2004–05). The knowledge they gain in undertaking the Certificate IV in Training and Assessment substantially shapes their understanding of the key competencies and generic employability skills and largely determines the extent to which they will train and assess them. It should be noted that the Certificate IV in Training and Assessment is the only compulsory trainer training which all new industry trainer/assessors must undertake.

This research reviews and analyses a small although diverse group of trainer responses to generic employability skills. The competency-based training system, implemented through the use of national training packages, explicitly requires training and assessment in employability skills.

The focus of this research has been kept narrow to allow for greater scrutiny of the systemic detail surrounding the training and assessment of generic skills within competency-based vocational education and training (VET). Through semi-structured interviews with a small group

¹ Eric Mayer chaired the committee which produced the report.

of trainers, this paper presents a sample of trainer responses to the requirement to train and assess generic employability skills. This research also provides insights into the current state of understanding of these skills by the trainers who are charged with delivering (or teaching) and assessing them.

Background to the Mayer key competencies and their significance

International focus on generic employability skills

In the late 1980s and early 1990s many Western countries were working on developing essential sets of skills (Gibb 2004, p.22; Secretary's Commission on Achieving Necessary Skills 1991; Conference Board of Canada 1992; Confederation of British Industry 1998; Levy & Murnane 1999). Similar activities were taking place in Australia. The Finn Committee in its 1991 review of young people's participation and training report formalised the use of the term 'key competencies'. The following year a committee was established to advise on and further develop the generic employability competencies proposed in the Finn report. Its chair, Eric Mayer, suggested that Australia faced economic challenges similar to those confronting other Western nations where generic employability skills were being developed (Mayer 1992, p.10).

These generic skills were identified as a range of skills and characteristics that all participants needed to have in order to enter and continue to participate productively within the workforce. Although there was little international consensus over the specific make-up of these sets, most developed countries recognised the urgent need to research and identify these skills (Gibb 2004, pp.34–5). Interestingly, the range of employability skills which emerged from these various countries contained more similarities than differences. One possible explanation for this was the globalisation of policy-making in VET and the need for cross-skilled and multi-skilled workers who could adapt and respond to domestic and global requirements (Gibb 2004, p.24). Furthermore, there was no way to pre-empt or accurately forecast how markets, including the employment market, would change beyond the very near future. Therefore, it became increasingly important that the workforce be able to respond quickly and effectively to changes, and having adaptable individuals equipped with generally applicable skills was perceived to be the way to achieve this.

Australian perspective—early 1990s

The Finn Committee's use of the term 'key competencies' was significant at the time in that it used a single, soon-to-be nationally recognised term to encompass the list of individual skills which were also significantly identified as 'competencies' and no longer just traits or skills. By definition, by describing them as competencies, it was implied that they could be taught and assessed and a minimum level of achievement identified, at which point a candidate would be considered competent. It meant that these competencies could be applied across sectors of education, from secondary school to any post-secondary education. In Australia at this time, generic employability skills were viewed as the most direct and beneficial employment solution for the future and one that could be administered nationally. Regardless of a school leaver's exit level, and regardless of where additional training would lead them, the attainment of these generic skills would not only improve their chances of participation of employment, they would also be beneficial to society as a whole.

By the end of the 1980s the Australian Government had determined that researching and developing a set of generic employability skills that could be defined, taught and assessed was vital. In September 1992, a committee established to develop the concept of employment-related key competencies, as recommended by the Finn report (1991), was convened. The report published by this committee in 1992, *Key competencies: Report of the committee to advise the Australian Education Council and Ministers of Vocational Education, Employment and Training on employment-related key competencies for post compulsory education and training*², was to become a landmark document.

The competencies that were proposed in the Finn report (1991) and which were further articulated in the Mayer Committee report (1992) focused on seven generic skills that were considered both desirable and essential for young people's success in the rapidly changing world of employment. The key competencies are:

- ✧ collecting, analysing and organising information
- ✧ communicating ideas and information
- ✧ planning and organising activities
- ✧ working with others and in teams
- ✧ using mathematical ideas and techniques
- ✧ solving problems
- ✧ using technology (Mayer 1992, p.3).

According to the Mayer report key competencies must:

- ✧ be essential for preparation for employment
- ✧ be generic to emerging patterns of work and work organisations
- ✧ equip individuals to participate effectively in a wide range of social settings and adult life more generally
- ✧ involve integration and application of knowledge and skills
- ✧ be able to be learned
- ✧ be amenable to credible assessment (Mayer 1992, p.8).

The committee believed that their seven key competencies would meet these six objectives. It envisaged that perhaps the last two of these would create most anxiety and confusion among practitioners. As a result, the report included some information about assessment, as well as guidelines for carrying out assessments and ensuring their rigour, and suggestions on record-keeping and reporting.

To ensure a wide understanding of their proposed key competencies, the Mayer Committee offered further elaboration. The notion of 'performance levels' was introduced into key competencies (Mayer 1992, p.13), with the committee stipulating that not only should learners have to gain competence in the seven key areas but they should also have to demonstrate competence at a minimum set level for each. Table 1 shows the Mayer key competency performance levels taken from a unit of the Furnishing Training Package.

² The condensed version of this report is called *Putting general education to work: The key competencies report*.

Table 1 Key competency performance levels

Key competency levels						
NB These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.						
There are three levels available with:						
♦ Level 1 where work is within set conditions and process						
♦ Level 2 where the management or facilitation of conditions or process is exercised; and						
♦ Level 3 where the design and/or development of conditions or process is required						
<i>Collect, analyse and organise information</i>	<i>Communicate ideas and information</i>	<i>Plan and organise activities</i>	<i>Work with others and in teams</i>	<i>Use mathematical ideas and techniques</i>	<i>Solve problems</i>	<i>Use technology</i>
Level 1	Level 1	Level 2	Level 1	Level 1	Level 1	Level 2

Source: ANTA 2003 (unit of competence LMFFM2011A).

Assessing generic employability competencies

The Mayer report (1992) explains the seven key competencies in great detail and provides a three-level performance scale. Although the report would appear to have achieved everything it set out to do, its implementation appears to have been problematic.

From the outset the report recognised the difficulties in assessing generic skills, and specifically, the seven key competencies (Mayer 1992, p.30–3). In an attempt to achieve national consistency in assessment, the committee established a set of ‘principles for assessment’. These are based on the principles of validity, fairness and reliability (see appendix A), which also underpin assessment of competence in all training package units of competence.

Mayer went on to propose two types of reporting on student achievement of the key competencies. The first of these would be an individual student record, which could ‘travel’ with the student from high school and as they transit from school on to employment or further training. The second is a national statistical reporting system, whose purpose is to track performance of the education system in delivering the key competencies.

In 2001 the Department of Education, Training and Youth Affairs published a kit to support the use of training packages. In the first volume the overall importance of key competencies is highlighted: ‘It is critical that assessors take both the key competencies and the Performance Level into account when developing a picture of competence’ (2001, p.27) and later in the kit their significance is again stressed:

The key competencies are intended to represent the broad underpinning work skills that everyone needs to do a job. There are few situations in which these skills are not required. When assessors are reviewing evidence, they should check that the key competencies have been applied. (Department of Education, Training and Youth Affairs 2001, p.107)

A further statement in the training package support kit in the context of Australian Qualifications Framework (AQF) emphasises the importance of the performance level of the key competencies and their integral role in the achievement of competency:

When the evidence has been checked against the dimensions of competence and the key competencies, the assessor needs to ensure that the level of performance meets the requirements of the relevant AQF qualification.

(Department of Education, Training and Youth Affairs 2001, p.107)

The directives of this high-level document indicate that all trainers and assessors should comply with the training, assessing and reporting and documenting of key competency outcomes. It might also be expected that over the years since their formalisation in 1992, a national reporting and recording system would have been established and rolled out, as recommended. This has not been the case.

Clayton et al. (2003) reviewed the assessment and certification of generic skills in Australia. These researchers note that trainers were hampered in their delivery and assessment of generic skills, mainly by the 'lack of clear definition' (p.8) of what they are. They go on to say: 'The lack of formal reporting is largely due to the fact that there is no national policy to underpin the formal recognition and certification of generic skills' (p.8).

Research undertaken by the Allen Consulting Group (2006) confirms the difficulties trainers experience in complying with the requirements of training packages when formally assessing and reporting competence in these skills. They claim that: 'At present (2006) there is not [sic] national policy that requires training providers to formally record, report or certify employability skills' (p.5).

When commenting on the three critical factors of assessment—that it is valid, flexible and fair—Clayton et al. raised the following concerns about generic skills:

[However] because generic skills are less explicitly described in Training Packages and Key Competency levels are difficult to determine, there is considerable potential for invalid judgements to be made about the quality of learner performance. (Clayton et al. 2003, p.8)

The literature repeatedly emphasises that all trainers should be delivering and assessing all of the desired generic skills. However, the literature is also unanimous that this is difficult, as there is little consensus on what these skills are, and how they should be incorporated into training and assessed and reported. The Mayer key competencies laid out what appeared to be a clear and prescriptive path for identifying specific skills and the minimum level of performance that must be demonstrated. However, some authors (such as Clayton et al. 2003) also claim that, even though they are listed and defined, the key competencies and the performance levels are still difficult to deliver and assess. This potential for subjective interpretation casts doubt on the validity and credibility of their assessment.

Evolution of generic employability skills—from 2001

In 2001–02 a range of research was published which focused on expanding the prescriptive set of seven key competencies as articulated by the Mayer Committee. Perhaps the most significant outcome of this was the development of the notion of 'generic skills'. Gibb (2004) defines these skills as:

Generic skills, also known as employability skills ... and once known by the term 'key competencies' ... are those skills essential for employment and for personal development, fulfilment, community life and active citizenship. (Gibb 2004, p.7)

The implementation guide published by the Victorian Office for Training and Tertiary Education (2004) identifies 'generic skills' as 'the seven Mayer key competencies plus three other generic skills'. Some of the information on generic skills in this Victorian report comes from the 2002 key publication released by Australian Chamber of Commerce and Industry and the Business Council of Australia entitled *Employability skills for the future*.

Misko (2006, p.16) states that in Australia: 'Currently there is also a focus on skills such as initiative and enterprise, self-management, and the ability to learn.' These three skills are included

in the Employability Skills Framework compiled by the Australian Chamber of Commerce and Industry and the Business Council of Australia for their 2002 report.

As demonstrated by the above, the complexity surrounding the terminology and content of these skills adds to the confusion associated with their implementation and assessment. Regardless of these debates, trainers can only assess (and therefore train) according to the content of the units of competence in which learners are enrolled.

In contrast to the Mayer key competencies, the Employability Skills Framework does not prescribe performance levels. In all pre-2005 units of competence, each of the seven Mayer key competencies is allocated a minimum acceptable level of performance. Where employability skills appear in newly released or reviewed units of competence, there are no such levels. There is a brief statement identifying that the unit of competence contains employability skills, and then an explanation of their application in the section headed 'required skills and knowledge'. The employability skills are being treated like other competencies—you either have them at a satisfactory level or you do not.

The reason for pointing out these differences is to highlight the fact that trainers will now be working with a very different system of generic skills, one in which they will need training and clarification. There is also a need for a system which allows for greater consistency in the delivery and assessment of these skills.

Teaching generic employability competencies

The importance to the nation's emerging workforce of teaching a bank of essential employability skills has continued as a central theme through the last quarter of the twentieth century into the twenty-first. There can be little doubt, based on the frequency and volume of literature published in this area, that this area remains topical and relevant. The new millennium has brought further scrutiny and development of this generic skills bank. There has also been a renewed push to have these skills explicitly taught and assessed, particularly within the context of training packages.

Gibb (2004) presents a more extensive generic skills list than the seven key competencies, although the 2002 Employability Skills Framework contains 13 personal attributes, eight skills, and almost 70 elements aligned to the skills. The Employability Skills Framework was approved for incorporation into the training packages that are currently under development and review, replacing the seven Mayer key competencies.

At the coal face

Trades trainers' understanding and application of key competencies

Pathways for trade teaching into TAFE

The following section explores the pathways many trades trainers take into industry training and assessment. Trades trainers refers to TAFE-based traditional trades teachers, although this category can also include some workplace trainers and assessors. How they have been trained to deliver the units of competence and generic employability skills contained in training packages will often determine their understanding of these.

There is a range of pathways into trade teaching in schools and TAFE institutes. The first of these involves completing a full apprenticeship in a particular trade, working in the industry for a set number of years (often between six and eight), and then undertaking three specific units from the Certificate IV in Training and Assessment (ANTA 2005, standard 7.3). The practitioner is then permitted to train and assess, unassisted. A teacher may, however, deliver training even if they have not begun the Certificate IV in Training and Assessment. In this instance, they must teach under the supervision of someone who does hold the certified qualification (ANTA 2005, standards 7.3b, 7.4).

The second method for eligibility to train and assess an industry qualification is through a process of recognition of prior learning (RPL) and recognition of current competency (RCC). The applicant compiles a portfolio of evidence for the units of competence that make up the qualification being applied for. They then lodge the portfolio and application with the appropriate certification body in their state. This system does not require the applicant to have completed a formal apprenticeship, but they can be issued with a similar certificate. The candidate must also have completed a specified number of years working in the industry to attain the full qualification. They must undertake the specified units from the Certificate IV in Training and Assessment to be eligible to train and assess in that industry. Again, if they have not undertaken the specified assessment units from the Certificate IV in Training and Assessment, they may also deliver training under direct supervision.

With the introduction of training packages in the 1990s, some TAFE institutes established a recognition of prior learning process for trainers who had been teaching full-time in their industry areas for many years. This meant that in some cases these trainers were 'exempt' from having to undertake any part of the Certificate IV in Assessment and Workplace Learning. Some of these trainers have now retired. However, due to the extreme shortage of trainers in many industry areas, substantial numbers of retirees are returning to sessional and part-time training. These trainers have never been formally trained in the use of training packages, nor are familiar with the Mayer key competencies.

Trades trainers and training packages

The range of pathways into trade training means that the common dominator is generally the Certificate IV in Training and Assessment/Assessment and Workplace Learning—or components of it. It is therefore vital that all important training information is conveyed in the first instance through this conduit. This could possibly also become the most appropriate way to deliver periodic updates on generic training information, if there were a requirement for currency in this qualification. However, as indicated earlier, there are likely to be individuals who have never or never will undertake units for the Certificate IV in Training and Assessment. The introduction of targeted professional development programs and resources (see John Mitchell and Associates 2008 for example) would address these omissions.

The vast majority of these trades trainers were introduced to training packages, units of competence, and the Mayer key competencies through the Certificate IV in Assessment and Workplace Training and, since 2004–05, the Certificate IV in Training and Assessment. This qualification is all but compulsory for tradespeople who wish to move into formal trade teaching and assessing, with some exceptions as described earlier.

As we have seen, qualified tradespeople are only required to have begun the certificate to be eligible to teach. They are not required to complete the full certificate IV or undertake any further training, although it is usually highly recommended by their employer. The cost of around \$2000 to undertaking the Certificate IV in Training and Assessment may also be a deterrent.

In addition to the cost of the certificate IV, the prospect of undertaking formal training can act as an additional hurdle for tradespeople. Formal training which is not specifically linked to their industry or trade can often be seen negatively and it is often difficult to get trades trainers to voluntarily participate in these types of professional development activities.

It is possible that a trainer/assessor's contact with and understanding of a training package may be limited to their initial exposure when undertaking the certificate IV, a qualification they may have undertaken perhaps four or five years before or possibly even earlier. If a trainer is going into a very well organised or established department within a registered training organisation, the training resources and assessment tools may already exist. They may only be required to deliver set training and assess using existing assessment tools.

Many traditional trades trainers are often, understandably, reluctant to focus explicitly on the 'soft skills', such as those in the key competencies and the Employability Skills Framework and despite the emphasis placed on them in training packages, many also feel that they are not qualified or trained to 'teach' or 'assess' these skills, and they therefore may be sidelined in preference to the trade skills about which they have extensive knowledge. In some instances these skills were only cursorily covered in their certificate IV, and their knowledge is incomplete, adding to their concern about them.

The lack of a national assessment and reporting system has possibly implicitly reinforced the sidelining of these skills. The Mayer key competencies, which predated the introduction of national training packages, required a national reporting system. However, with the introduction of the Employability Skills Framework, at which time employability skills were incorporated into training packages as elements of competency, a reporting system was no longer required.

Talking to the trainers

Background to the interviews

In addition to reviewing published research in the area of key competencies and their application, this research collected first-hand data from trainers of two different but related areas who were working with training packages: trades trainers; and trainers who deliver the Certificate IV in Training and Assessment. According to research findings and consequent recommendations, these trainers and assessors should be consciously considering the seven Mayer key competencies and the three performance levels in their training and assessment. An NCVET report identified that 'VET providers play a key role in fostering generic skills' ((2003 p.2).

Through semi-structured interviews with two very small sample groups of teachers, data were collected to ascertain to some extent the key role that competencies actually play. These two trainer groups were targeted because, according to the literature reviewed, one is responsible for teaching the key competencies to young learners and the other to the trainers themselves.

It was also the intention of this research to identify when trainers gained their understanding of the key competencies, and how effective the Certificate IV in Training and Assessment and its predecessor had been in forming this understanding. Since all the interviewees had undertaken this specific and very structured training, they were asked when they had completed this certificate and how effective it had been in informing them about the role and nature of the key competencies. The purpose of the Certificate IV Training and Assessment is to formally train already-qualified and experienced professionals to understand and use training packages and assess competence according to structured outcomes.

Interviewees were selected for their diversity and availability. Potential participants were given a written overview of the research topic and the purpose of the interviews. Interviewees gave their verbal consent, usually after asking a number of questions. Times and locations were then decided and their written consent obtained. Participants were informed that the interviews would be audio-taped and subsequently transcribed.

Research participants

Of the two groups of research participants, the first consisted of four traditional trades trainers currently teaching at TAFE institutes. The trades trainers selected came from the areas of cabinet-making and carpentry, ranged in ages from 35 to 60, and had been teaching within the TAFE system for between seven months and 18 years. The length of time that had passed since completing their various certificate IVs ranged from less than a year to six years, in a range of other TAFE institutes and private providers.

The second group (consisting of two interviewees) train and assess the Certificate IV in Training and Assessment also at TAFE. Each had different teaching histories and one had taught more

extensively under the earlier certificate. Both of these trainers taught the Certificate IV in Training and Assessment to internal TAFE teachers, as well as to external industry trainers.

Each interviewee was asked a series of similar questions (see appendices B & C). The questions put to the trades trainers varied slightly from those put to the trainers who taught the certificate IV. There were, however, quite a few cross-over questions, and the consistent focus of the questions for both groups was on the participants' understanding and application of the key competencies.

Summary of interviewee responses by theme

Locating the key competencies

It became evident very early on in many of the interviews that there was confusion amongst the trainers over the multiple numbering systems which appear in each unit of competence. Many units of competence contain at least four identical numbering systems, referring to the number of the particular unit, the elements within it, the coding for the training package and year of endorsement, and the Mayer key competency performance levels. This confusion was accompanied by the trainers' lack of confidence in then articulating their understanding of the key competencies and their performance levels. There was also an overall reluctance to train and assess elements that they don't understand clearly (that is, the key competencies) or which have no reporting system. Consequently, these key competencies are under-delivered and under-assessed.

All four trade interviewees had reservations about their understanding of the key competencies. In two instances I showed participants printed units of competence to clarify what they were, and where they appeared.

Understanding the key competencies

There also appeared to be a level of misunderstanding and confusion over what the key competencies are and their purpose or place within a unit of competence. Generally, respondents appeared to confuse the key competencies with units of competence, or with the different sections that make up units of competence.

There are significant ramifications from the trainers' apparent confusion over the key competencies. It is explicitly stated in training packages and in much of the research literature and resulting recommendations that trainers must train and assess the key competencies. If trainers are unsure of their content or their place within units of competence, then there is potential for inconsistency of delivery and invalidity in their assessment. The key competencies are intended to support learning and training. They are also designed to assist the learners to gain and retain employment and to participate as valuable and productive members of their communities. The key competencies are explicitly included in all industry training packages, as 'underpinning adjuncts' to industry competence.

Greg, who started trade teaching at TAFE in early in 2004 and completed his Certificate IV in Assessment and Workplace Training the year before, stated:

I don't recall them being explained to me, but ... I do recall realising that I didn't understand them when I first came into contact with them on printed units of competency.

Mark, the youngest and newest of the group to teach a traditional trade at TAFE, completed his Certificate IV in Training and Assessment in late 2005, answered:

... they were explained, but very briefly. I don't think they were really gone into in depth.
... I honestly couldn't tell you how far they were gone into, but I know they were touched on, but not deeply.

When asked how he applied the key competencies, Greg responded:

Once again, I don't use them, or identify them specifically, because I consider and assume that's taken care of in the preparation of the unit [of competence], and its requirements.

Performance levels

Regardless of the learners' exposure to the key competencies while at school, all learners should be demonstrating the specified minimum performance levels for each of the seven key competencies to be deemed competent in every unit of competence they are assessed for.

The performance level numbers increase as the complexity or sophistication of the application of individual key competencies increases. Therefore, a performance level 1 against any key competency indicates that the candidate being assessed only needs to demonstrate that they can work with an expected set of conditions. Level 2 indicates that the candidate needs to demonstrate an ability to modify the conditions or processes they are working within. Performance level 3 would require the candidate to demonstrate an ability to design the processes and or conditions of certain aspects of that particular key competency within the unit of competence, requiring higher levels of reasoning and problem solving.

There seems to be a great deal of confusion amongst the respondents about not only the physical position of the seven key competencies within a unit of competence but also the interpretation, application and numbering of the three performance levels and the scale attached to them. (This is not a negative comment about the individual interviewees, but rather on the breakdown in the system within which they work.)

I asked the two certificate IV trainer participants how they explained the performance levels to their learners and how they should interpret and use them. Nicola asked for clarification that I was in fact referring to the 'one to threes', which I confirmed. She then said that she took an actual unit of competence that learners were working with, and explained the levels in that context.

Jane was a little less sure on the application of the performance levels, and replied:

I skim over it. [Because] I don't really understand it myself, and because they've just finished talking the week before ... about the AQF levels, and ... it just seems too confusing to be talking about AQF levels and ... become expert on that, and make sure that they have the difference with those levels, and [then explain] that we have different [performance] levels ...

I then asked: 'Because the two aren't based on each other?'

Jane responded:

No, they're not. And it's using the same numeric system. It's just a little bit too complicated for them.

Findings

An analysis of the interviews undertaken revealed seven main themes.

- ✧ There appears to be general confusion amongst the trades trainers and teachers of the Certificate IV Training and Assessment about the key competencies—what they are, their place in units of competence, and their role in determining competence.
- ✧ The trainers' confusion is exacerbated by the multiple use of the same numbering system, each referring to different facets of the unit of competence.
- ✧ Interviewees appear uncertain of their responsibilities regarding the training, assessing and reporting of the key competencies.
- ✧ The key competency performance levels appear not to be considered by either group of trainers when they are reading and preparing to deliver units of competence.
- ✧ The confusion and lack of clarity surrounding the role of key competencies in units of competence frequently results in their being sidelined. Instead, the industry elements, which are familiar and clearly stated, are emphasised.
- ✧ Based on the analysis of the interviews (and supported by the literature reviewed), there appears to be no specific documented system for the delivery and/or assessment of the key competencies, which is, possibly, by default legitimising their neglect.
- ✧ The final theme emerging from the interviews is that the confusion surrounding the key competencies and their performance levels appears to span two concepts. This includes the delivery by trade trainers of their industry training packages, and the delivery and content of the Certificate IV in Training and Assessment, which informs and underpins trainers' understanding of their training packages. This is the first and possibly the only formal professional development many trades trainers undertake. This qualification specifically includes the key competencies. It appears that more clarification and clear guidelines are needed to ensure their comprehensive inclusion in this qualification to enable their subsequent teaching in an industry-specific package. Similar barriers and uncertainties could affect the inclusion of employability skills in both the industry-specific training and the training in the Certificate IV in Training and Assessment, unless they are explicitly and comprehensively taught to trainers and appropriate recording systems are in place.

The conflicting information and advice in the literature and the respondents' consistent confusion and misunderstanding of what appeared in 1992 in the report delivered by the Mayer Committee—as a concise and easily implementable system for teaching, assessing and recording attainment of essential generic employability skills—should make us pause and consider the implications for the implementation of the completely new system of employability skills. Although the two systems are different, there is much we can learn from the previous delivery and assessment of key competencies to assist in the smooth and comprehensive delivery of these skills.

Implementing employability skills training and assessment

The Mayer Committee report (1992, p.6), which formalised the key competencies, included a paragraph that legitimately allowed for further scrutiny of them.

Clayton et al. makes the point that:

The language associated with the concept of generic skills is quite complex and there is no real agreement as to what constitutes these skills, let alone how to validly and reliably recognise them in practice. It is evident that practitioners do not speak, or think, about generic skills in the same terms. (Clayton et al. 2003, p.8)

They go on to comment:

... there is a clear imperative for practitioners to ensure that generic skills are included in the training that they provide. The informants (who contributed experiences and material to the production of the review report) also suggested that the lack of clear definition hampers the promotion of these skills (generic skills) to industry, employers and employees. And despite the general consensus that generic skills are valuable, practitioners are unclear as to how they should be assessed. (Clayton et al. 2003, p.8)

It needs to be remembered that this lack of clarity and consistency in working with and understanding the key competencies was occurring in the context of what appeared to be a clearly defined and assessable list of seven skills. The fundamental difficulties involved in clearly *defining* the generic skills that should be taught and assessed surely make it next to impossible to achieve consensus in *teaching* and *consistency in assessment*. If the content of this skills set is unclear or subjective, then the consistency and validity of assessment is undermined.

Introducing employability skills

The Allen Consulting Group (2006) make several recommendations in their report in relation to the most appropriate method of introducing the Employability Skills Framework (which replaced key competencies in training packages in 2005) to trainers and how the trainers should assess these skills. The report states:

If employability skills are clearly embedded in the qualification or in the units of competence, the main assessment of whether a learner is competent involves testing both the technical skills and the employability skills that are required for that unit. There would be a single, integrated assessment of the same form as present, and subject to the same degree of quality assurance. Registered training organisations (RTOs) would not have to adopt a new assessment procedure with which they are unfamiliar.

(Allen Consulting Group 2006, p.6)

This would seem to be a logical follow-on, if there were such a system in place. However, before the above recommendation was given, the Allen Consulting Group states that: 'At present, there

is no national policy that requires training providers to formally record, report or certify employability skills' (p.5). It therefore makes it problematic for trainers to work within a system which theoretically doesn't exist.

The Allen Consulting Group goes on to suggest:

Trainers would be responsible for ensuring that skills written into the qualification are properly taught and assessed and give employability skills the same status as technical skills. Training and assessment practices could be expected to improve over time, and some trainers may require professional development to make the transition.

(Allen Consulting Group 2006, p.6)

But the report also comments:

The development of employability and other generic skills by an individual is a life-long journey, not an outcome. A simple but flexible system that is based on developing the needs of the individual, and is controlled by the individual, is needed to record and report employability skills. Ideally, reporting needs to be able to incorporate both formal and informal information about employability and other generic skills from a variety of sources.

(Allen Consulting Group 2006, p.12)

This appears to go far beyond the previously recommended 'training package' concept of assessing competence against specified outcomes. The concept of assessment is further muddled by the following statement: 'Employability skills are sets of skills, which will vary depending on the context in which they are developed and applied. Precise descriptions of these skills therefore need to be tailored according to the context' (p.13).

There appears to be greater and greater scope for subjective assessment of what could be a context-specific interpretation of these skills. Surely this level of confusion and inconsistency will make it even more difficult for trainers to consistently and legitimately apply the three principles of assessment: fairness, reliability and validity.

The Allen Consulting Group also recommends a system of reporting competence of employability skills. In Chapter 7 of their report, they suggest a two-fold approach to assessment and reporting of employability skills, which they explain as:

- ◆ integrated assessment—which involves assessing employability skills as part of units of competency. Learners assessed as competent for particular units of competency would be deemed competent at the employability skills attached or embedded in those units of competency, and
- ◆ descriptive reporting supplemented by student portfolios of evidence—student achievement would be reported through brief summaries describing the nature and context of employability skills developed within the qualification or a group of units of competency. Students would also be encouraged to maintain portfolios of evidence to enable them to communicate and demonstrate their attainment of employability skills in the descriptive report.

(Allen Consulting Group 2006, p. 50)

They go on to reiterate that: 'The impact of the recommended approach on training providers is likely to be minimal' (p.51). However, what we have now is a different system of assessing and recording generic employability skills. Although they are now integrated into reviewed training package units of competence, not all trainers will be comfortable with their incorporation. Many current trainers/assessors completed the old Certificate IV in Assessment and Workplace Training, which only covered the Mayer key competencies.

Finally, the implications for trainers and assessors appear to also have been greatly downplayed:

Assessors would not need to assess employability skills separately. However, trainers may require some professional development to make the transition to placing greater emphasis on employability skills. (Allen Consulting Group 2006, p. 51).

The exploration of many of these issues, through further research and conversations with all parties (for example, industry/trade trainers, trainers in the Certificate IV in Training and Assessment, researchers, peak industry and government-funded bodies) could greatly clarify how the assessment of employability skills can be effectively implemented. Clear and unambiguous guidelines need to be formalised for the valid assessing and recording of generic employability skills. Additional research also needs to be undertaken so that the associated professional development, which must precede the implementation of these systems, equips the practitioners with accurate information and guidelines about working within the system.

There can be little doubt of the need for Australia's workforce to be responsive and capable of meeting the rapidly changing employment landscape and, further, that this future workforce must be trained to enable them to survive and thrive in this context. The form this training takes will be as varied as the individual participants. However, the need for all emerging future employees to have basic employability skills will become even more important. It is these generic employability skills which will not only support their specialist training, but also underpin and enhance their daily lives.

For these skills to be appropriately delivered and assessed by industry-specific trainers, robust, comprehensive and implementable strategies must be at the forefront of all professional development concerned with the Employability Skills Framework.

Conclusion

The literature reviewed and the research undertaken for this paper have identified several key issues and highlighted the confusion surrounding generic employability skills. The literature demonstrates their fluid nature and highlights the difficulties in creating a definitive list of key competencies and employability skills. There is also currently little understanding about how to interpret, teach, assess, and record them.

When the Mayer key competencies were developed and released in 1992, it appeared that they were both comprehensive and implementable. It has become apparent over the ensuing decade that there is still a great deal of room for subjective interpretation, misinterpretation and non-use. These uncertainties and lack of understanding may be mitigated by regular, formal and consistent professional development for trade teachers and trainers of trade teachers.

The book of readings published by NCVET into the rise, definition and implementation of training and assessment of generic skills (Gibb 2004) suggests a list of desirable future actions. This list indicates five major steps required to implement the recommendations of the NCVET report. The publication states:

To ensure that people who learn in VET programs and workplaces gain the generic skills they need for ongoing employment, study and community life, the research suggests that a number of actions need to taken:

- ◆ Improve the documentation of generic skills in training packages ...
- ◆ Ensure that all parties—teachers, trainers, employers, supervisors, individual employees and students—gain a better understanding of generic skills and acknowledge the role they play in fostering the development of these skills.
- ◆ Share good practice in the teaching and learning of generic skills.
- ◆ Develop better formal processes to certify and record generic skills to help ensure they are valued.
- ◆ Provide professional development for teachers and trainers to raise their levels of confidence and ability in promoting, fostering, and assessing generic skills in the programs they teach. (Gibb 2004, p.17)

It also advises that:

The current research, together with other reports, highlights the need for the effective professional development of VET staff, including sessional staff.

Teachers need to have the training and skills to be able to deliver in class effectively, and to be able to use training packages and related assessment to their maximum advantage.

Teachers also need staff professional development to provide consistent assessment of generic skills. (Gibb 2004, p.65)

The lack of a clear, easily applied and understood system for delivering and assessing the key competencies has added to the confusion surrounding them. If a new system is being considered to disseminate the Employability Skills Framework, there are perhaps several valuable lessons to

be learned from the apparent failure of the implementation systems used for the Mayer key competencies.

Another NCVER publication suggests the following to ensure the effective delivery and recognition of these skills:

- 1 Generic skills need to be properly documented in training packages.
- 2 All parties need to gain a better understanding of generic skills and acknowledge the role they play in fostering the development of these skills.
- 3 Practice in the teaching and learning of generic employability skills needs to be shared.
- 4 Certifying and recording generic skills to help ensure that they are valued.
- 5 Better acknowledgement of the importance of teachers and trainers and more, and appropriate, professional development for them. (NCVER, 2003, p.7).

Recommendations

I would suggest that a list of improvements for the dissemination, uptake and clarification of generic skills sets should go even further and be more proscriptive than the five points recommended by NCVER (2003). I would argue that any system to inform trainers about the Employability Skills Framework and to train them in its use should:

- ✧ be implemented through one nationally recognised authoritative body, to ensure consistency and accuracy of information, and be the sole endorsed point of contact for further elaboration and clarification.
- ✧ clearly, succinctly and in plain English, define the employability skills
- ✧ be presented to trainers as relevant and vital, and complementing the training that learners are already getting
- ✧ clearly explain the intentions behind the employability skills framework and why it has been introduced
- ✧ come with extremely well-developed and extensively trialled delivery, assessment and recording systems, which should be tailored to the particular area of specialisation or environment
- ✧ support their validity and importance of inclusion in training by being immediately implementable
- ✧ not be laborious or time-intensive for learners or trainers
- ✧ be pre-emptive by informing existing trainers/assessors of the transition from key competencies to employability skills, where training packages being used have not been revised to include employability skills
- ✧ be introduced to existing trainers through customised professional development training sessions, decoded and tailored to particular specialist areas
- ✧ most importantly, be supported by regular follow-up targeted professional development sessions, which could act as conduits for feedback and clarification, in both directions between trainers and researchers/policy-makers.

A successful format could involve compulsory professional development sessions (see John Mitchell and Associates 2008 for example) organised through registered training organisations, curriculum maintenance managers or other industry bodies. These would offer the opportunity to de-code and customise changes, and even present relevant 'best practice' contextualised examples. Information or training sessions based on individual industry training packages have

the potential to make the information relevant to participants. This system would also guarantee national standards and content, which is vital when using nationally recognised training packages.

The conduit for the (two-way) transmission of recommendations and changes would then be established and maintained, ensuring that important and relevant training information is not lost. It is neither reasonable nor appropriate for the interpretation of the generic skills to be left to trainers. A national strategy must be developed that is clear, concise, comprehensive and, most importantly, implementable.

Getting it right is vital.

References

- Allen Consulting Group, 2006, *Assessment and reporting of employability skills in training packages*, report to the Department of Education, Science and Training, Melbourne.
- ANTA (Australian National Training Authority) 2003, *Furnishing Training Package, LMF02*, ANTA, Brisbane.
- 2005, *Australian Quality Training Framework*, ANTA, Brisbane.
- Australian Chamber of Commerce and Industry & Business Council of Australia 2002, *Employability Skills Framework*, ACCI & BCA, Canberra.
- Clayton, B, Blom, K, Meyers, D & Bateman, A 2003, *Assessing and certifying generic skills: What is happening in vocational education and training?*, NCVER, Adelaide.
- Confederation of British Industry 1998, *CBI response to 'The Learning Age'*, Confederation of British Industry, viewed 27 January 2008, <<http://cbi.org.uk/home.shtm>>.
- Conference Board of Canada 1992, *Employability skills profile: What are employers looking for?*, Conference Board of Canada, Ottawa.
- Department of Education, Training and Youth Affairs 2001, *Training package: Assessment material kit, vol.1*, Australian Training Products, Melbourne.
- Finn, B 1991, *Young people's participation in post-compulsory education and training*, AGPS, Canberra.
- Gibb, J (ed.) 2004, *Generic skills in vocational education and training: Research readings*, NCVER, Adelaide.
- John Mitchell and Associates 2008, 'Level 1 workshop for implementing the model for assessing and reporting employability skills', professional development resource developed for the National Quality Council, Melbourne.
- Levy, F & Murnane, R 1999, *Are there key competencies critical to economic success? An economics perspective*, OECD (DeSeCo), Paris.
- Mayer, E 1992, *Key competencies: Report of the committee to advise the Australian Education Council and Ministers of Vocational Education, Employment and Training on employment-related key competencies for post compulsory education and training*, Australian Education Council and Ministers of Vocational Education, Employment and Training, Canberra.
- Misko, J 2006, *Vocational education and training in Australia, the United Kingdom and Germany*, NCVER, Adelaide.
- National Centre for Vocational Education Research 2003, *Fostering generic skills in VET programs and workplaces: At a glance*, NCVER, Adelaide.
- Office for Training and Tertiary Education 2004, *Real skills, real success: A guide to Victorian RTO's in addressing generic skills in VET programs*, OTTE, Melbourne.
- Secretary's Commission on Achieving Necessary Skills (SCANS) 1991, *What work requires of schools: A SCANS report for America 2000*, US Department of Labor, Washington, DC.

Appendix A: Principles of assessment³

Fairness: To the maximum extent possible, assessment methods should ensure that students/trainees are not disadvantaged by gender, race, ethnicity, disability, socio-economic status or other social circumstance.

The requirements of the key competencies, criteria for judging performance and assessment methods should be made explicit to the student/trainee.

Assessment procedures should provide for the recognition of key competencies, no matter how, where or when they have been acquired. Student/trainees who, for whatever reason, do not take part in the formal learning process associated with development of the key competency should have opportunities to demonstrate their performance and obtain an assessment.

Assessment procedures should be designed to provide all students/trainees with opportunities to demonstrate their performance across the full range of performance levels.

Where necessary, assessment procedures should provide students/trainees with more than one opportunity to meet the requirements for assessment at a given performance level.

Reliability: Assessment methods should be accompanied by procedures designed to promote and monitor reliability in interpretation and application of the performance levels.

(The Committee believes that efforts to promote and monitor reliability of assessments of the key competencies should be invested primarily with the training of assessors.)

Validity: Assessment methods should be valid; that is, they should assess what they claim to assess.

(The key competencies are based on a concept of competence which focuses on what people can do, recognises that performance is underpinned not only by skill but also by knowledge and understanding, and includes the idea of transferability. This concept implies the need for two further principles relating to validity.)

³ Adapted from Mayer (1992, pp.30–3).

Appendix B:

Trades trainers interview questions

Interview questions for pre-apprenticeship teachers

- 1 In what year did you undertake the Certificate IV in Assessment and Workplace Training (Certificate IV TAA/AWT)?
- 2 How long after completing your Certificate IV TAA/AWT did you start teaching at a TAFE?
- 3 What is your trade area?
- 4 How long have you been teaching your trade area?
- 5 In 1992 the Mayer Committee published a list of what they considered to be the seven key competencies (KCs) that would best train our workforce of the future. These key competencies were identified as:
 - ✧ Collecting, analysing and organising information
 - ✧ Communicating ideas and information
 - ✧ Planning and organising activities
 - ✧ Working with others and in teams
 - ✧ Using mathematical ideas and techniques
 - ✧ Solving problems
 - ✧ Using technology.

When you undertook the certificate IV training, how were these KCs explained to you?

- 1 How well do you feel they were explained to you?
- 2 How were they explained to you, for example, in isolation, or as being integrated into how you were taught to interpret a unit of competence?
- 3 How comfortable do you feel with interpreting and applying the key competency performance levels? Why is that?
- 4 When you develop training and assessment tools, what role do the performance levels play? How do you build them in?
- 5 How do you feel about the importance of performance levels compared to the delivery and assessment of the trade skills?
- 6 How would you compare the importance of the key competencies to the trade skills component in a unit of competence?
- 7 Do you believe that the two (trade skills and key competencies) should be integrated? Why is that?
- 8 Do you currently intentionally integrate the two (trade skills and key competencies)? If so, how?

- 9 Would you consider deeming a student 'not yet competent' if they have not achieved the performance level of a key competency that has been integrated into a 'practical' unit of competence?
- 10 What roles do you think the performance levels should play in assessing a learner's competence?
- 11 Are you aware of any changes to the key competencies since you undertook your Certificate IV AWT training?
- 12 Are there any other terms that you have heard of do describe other generic skills sets, besides the key competencies? Have you every heard of: generic employability skills, Employability Skills Framework, or any others?
- 13 If there were major changes made to units of competence or the key competencies, what do you think would be the best method of conveying information to trade teachers/trainers? Why? And does this happen?
- 14 If professional development was offered in this area how would you feel about participating. Why/why not?

Appendix C: Certificate IV trainers interview questions

Interview questions for Certificate IV in Assessment and Workplace Training teachers

- 1 How long had you been teaching the Certificate IV in Assessment and Workplace Training, and now Training and Assessment (Certificate IV TAA/AWT)?
- 2 In 1992 the Mayer Committee published a list of what they considered to be the seven key competencies that would best train our workforce of the future. With the key competencies appearing in every training package, how do you explain them to your students?
- 3 Do you encourage those you are teaching to use the key competencies when designing training and assessment? Why/why not?
- 4 How do you explain performance levels within the context of training packages to these learners?
- 5 When you explain the ‘unpacking’ of training packages to learners, how do you present achievement of key competencies against the achievement of the trade skills?
- 6 How was the changeover from the Certificate IV in AWT to TAA presented to you, for example, professional development activities?
- 7 What were the changes around the key competencies that were explained to you between the two certificate IV training packages?
- 8 How were you told/encouraged to present the key competencies and the performance levels to the learners you would be teaching?
- 9 Do you think trade teachers include the key competencies in the training they deliver?
- 10 Besides the key competencies, were there other ‘skills sets’ that were explained to you? What were these, and how were they explained to you?
- 11 Do they, and an explanation of them, appear in the Certificate IV TAA training package, or other training packages that you are aware of?
- 12 How well do you feel the certificate IV and training packages keep up with research recommendations, and current thinking, particularly with regards to skills sets?
- 13 Do you believe that teachers delivering training package training, particularly trades trainers, keep their knowledge of training and research current? How do they do this, and if not, how would you suggest they could do this?
- 14 What are the areas relating to trade training or training packages would you consider should be the subject of more development?
- 15 Is there anything else you would like to add?