Interpreting competencies in Australian vocational education and training: practices and issues

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About the research

Interpreting competencies in Australian vocational education and training: practices and issues

Steven Hodge, University of Ballarat

How vocational education and training (VET) practitioners understand and use competency standards is of fundamental importance to the quality and integrity of the Australian VET system, given that these standards are its very basis. This small study seeks to address this question by gaining insights from 30 VET practitioners about their use of competencies, by comparison with the way they are *expected* to use them, as expressed in the mandated entry-level qualification for practitioners — the Certificate IV in Training and Assessment.

This research was funded with a grant that provides an opportunity for early-career researchers, from disciplines such as economics and the social sciences, to undertake a modest research project in a topic relevant to NCVER's remit.

Key messages

- The interpretation of units of competency appears to be a highly sophisticated skill, yet the practitioners in this study did not appear to learn this critical skill adequately in their initial training. Many indicated that it took up to a year after completing their studies before they became confident in interpreting competencies when developing curriculum.

- Most experience with interpreting competencies was gained through practice, professional development and informal learning such as participation in assessment validation, rather than through initial training in the Certificate IV in Training and Assessment.

- The difficulty with interpreting competencies is largely due to the unclear language and 'jargon' associated with them. Recent initiatives to simplify the language of competencies and 'streamline' their structure may make the work of interpretation more straightforward for VET practitioners; however, this is not the entire solution.

- To ensure that VET practitioners are well equipped to undertake competency interpretation work sooner, the author suggests a number of initiatives to help build expertise, such as more intensive training initially, combined with participation in follow-up activities such as assessment validation.

Rod Camm
Managing Director, NCVER

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Executive summary

This research addresses the question of how Australian vocational education and training (VET) practitioners interpret units of competency ('competencies'). In Australian vocational education and training, the skills and knowledge deemed essential to perform in occupations covered by the VET system are identified by industry representatives and this content is recorded in competency standards. It is the job of VET practitioners (designers, trainers, teachers and assessors) to interpret these competencies and design and/or facilitate learning and assessment on the basis of this interpretation.

It is clear that the integrity of Australia's competency-based VET system depends in part on how practitioners perform the work of interpretation. However, to date there has been no research that specifically addresses the question of how practitioners do this. This qualitative project, based on interviews with 30 VET practitioners, was designed to contribute to our knowledge of this topic.

The core competencies of the Certificate IV in Training and Assessment — the entry-level qualification for VET practitioners — contain indications of how practitioners are supposed to engage with competencies. For example, they are expected to 'Read, analyse and interpret all parts of a unit [of competency] and/or accredited module to develop effective applications for the client' (Department of Education, Employment and Workplace Relations 2012, p.283). The certificate IV competencies contain little additional guidance on what is involved in reading, analysing and interpreting competencies, implying that the architects of the qualification believe that the process is straightforward. However, the theory of interpretation or 'hermeneutics' (for example, Schmidt 2006) suggests that the process of reading, analysing and interpreting texts is highly complex. Furthermore, according to this theory, the complexity of the process is such that the connection between what an author intends and what a reader interprets will always be weak. What this theory suggests is that the stage of competency interpretation in the system of Australian vocational education and training is a vulnerable one, and that every care should be taken to ensure that practitioners are well equipped to undertake the hermeneutic part of their work.

The research presented here indicates that VET practitioners indeed experience difficulties interpreting competencies. Most participants reported that they found the language of competencies difficult to decipher. They cited the prevalence of 'jargon' and unclear language, and complained that the competency texts are not well written. Most participants also described limited strategies of interpretation. While some reported that they built a picture of the whole competency through comprehension of all parts of the text, many described strategies based on understanding one or only a few components. The use of restricted interpretative strategies may be due to limited understanding of the purpose of individual components of competencies and how they relate to each other. Many participants were not clear about the role of different components, and some were unable to offer any explanation of particular components. This is of course only evidence of 'declarative knowledge' (abstract, formal knowledge), but it does suggest that practitioners may not possess thorough knowledge of the structure of competencies, which may lead to uncertainty about how particular kinds of information included in the texts contribute to the whole picture of the task or role addressed by the competency.

The research indicates that the difficulties VET practitioners have in interpreting competencies may be due to limitations in initial training and education, as well as few opportunities to engage in continuing training education focused on interpretation. Describing their certificate IV experiences, most participants recalled relatively brief periods devoted to developing the skills of interpretation and some

described confusion when they were introduced to the process of interpreting competency standards. Most participants reported that they took longer periods — around a year — to feel confident in interpreting competencies. Only one said that this confidence was developed during the certificate IV program. The development of practitioners in other professions assumes that the acquisition of complex skills requires longer periods and appropriate models such as supervised practice to support learning. VET practitioners may need to be developed in similar ways, at least with regard to the skill of interpretation. The participants who did participate in professional development targeting interpretation said it was a valuable experience. In terms of informal learning, participants found that assessment validation sessions were a powerful way to learn about competencies.

These findings raise some issues for policy-makers and other stakeholders. An important issue is that practitioners may be graduating from the Certificate IV in Training and Assessment with conceptions of competencies and approaches to interpretation that promote inconsistent understanding and use of the texts. If this is the case, then greater emphasis may need to be placed on the development of knowledge and skills for interpreting competencies in the certificate IV.

Another issue concerns professional development in interpreting competencies. Practitioners may be unable to access continuing education that targets interpretation, whether because of resourcing constraints or because relevant professional development is simply not available. Given that participants in the research reported needing longer periods of time before they became confident in interpreting competencies, it may ultimately be unrealistic to expect that recent graduates from the certificate IV would be able to work effectively with the texts, regardless of what the competencies of that qualification state about how competently graduates will do that work.

A third issue concerns the language and structure of competencies. Practitioners may be experiencing more difficulty dealing with the language of the competencies than stakeholders realise. In addition, the structure of competencies (the different kinds of information contained in them and how these relate internally) may be counterintuitive to practitioners, potentially obscuring rather than facilitating the translation of the texts into learning and assessment designs. However, new guidelines for the development of training packages may serve to address some of the issues raised by the participants in this research.

Introduction

How VET practitioners (that is, designers, trainers, teachers and assessors) understand and use units of competency or competency standards ('competencies') is crucial to the integrity of a competency-based approach such as that utilised by the Australian vocational education and training system. In this approach occupational roles are broken down into discrete tasks, which are specified in competency texts. The job of reading, analysing and interpreting these texts is entrusted to specially prepared designers, trainers, teachers and assessors ('VET practitioners'). Their initial skills in working with competencies are developed through a mandatory qualification (the Certificate IV in Training and Assessment), whose competencies include explicit reference to reading, analysing and interpreting competencies. Another prerequisite for VET practitioners in this system is that they must be able to demonstrate their own current competency in the industry area and to the level that they are training, a requirement that is designed to ensure that the work of interpreting competencies is always undertaken in the context of a practical knowledge of the occupational roles the competencies encompass.

These two bases of practice — the Certificate IV in Training and Assessment and relevant industry experience — constitute the basic prerequisites for a role that is pivotal to maintaining a system that is predicated on alignment between three major components:

- specification of industry skills and knowledge in the form of competencies
- interpretation, implementation and assessment of the competencies by VET practitioners
- development in learners of industry skills and knowledge, as specified in the competencies.

It is clear from a consideration of this system of alignment that the interpretation work of VET practitioners forms a critical link. But there is reason to doubt that VET practitioners are in fact being carefully prepared to undertake the sophisticated work of interpreting competencies.

A number of reports (for example, National Quality Council 2008; Smith et al. 2009; Wheelahan & Moodie 2011) point to endemic issues in the conception and/or delivery of the Certificate IV in Training and Assessment, undermining confidence that the skills of interpretation are being adequately developed in that context. This research, which is discussed in the review of research and theory chapter, suggests that initial training in the certificate IV may not provide an adequate basis for the work of interpretation and that continuing education and training may not be making up for the lack.

While little data are currently available on the way VET practitioners undertake this work of interpretation, despite its obvious importance to the integrity of a competency-based system, there is some research which indicates that practitioners feel the need for more training and more practice in competency interpretation. Research by Mitchell et al. (2006) and Clayton et al. (2010), which touches specifically on practitioner engagement with competencies, suggests that practitioners are not always confident in interpretation work and that they require extended periods of development and practice to build their skills in this area.

Other research focused on the certificate IV itself and on the VET system more broadly indicates that a range of essential knowledge and skills (which by definition includes those concerned with the interpretation of competencies) may not be adequately developed in VET practitioners under the current regime of training and professional development (Simons, Harris & Smith 2006; Robertson

2008; Simons & Smith 2008; Mitchell & Ward 2010; Guthrie 2010a, 2010b; Guthrie, McNaughton & Gamlin 2011). This body of work points to the possibility of widespread problems with the way the initial preparation and development of VET practitioners is conceptualised and conducted.

But we do not have specific data on how VET practitioners undertake the work of interpreting competencies. The research summarised in this report was designed to address this gap. To generate data on how VET practitioners interpret competencies, 30 practitioners were recruited to participate in semi-structured interviews using a 'purposive' sampling strategy (Patton 2002). Participants were recruited through informal VET practitioner networks. That is, a set of categories was determined to guide the process of participant recruitment, with a view to ensuring that obvious biases were absent from the sample. The following variables were taken into account when recruiting:

- years working with competencies
- industry areas
- level of qualifications delivered and assessed
- metropolitan versus regional location
- public versus private provider types.

One variable that could not be addressed as readily as these was the state of operation of the practitioner. Given the resource constraints of the project, most of the interviews were conducted in Victoria (the base of the researcher).

Qualitative data were sought, since it is considered the most appropriate way to gain insight into a complex topic in which little research has been conducted (Patton 2002). The interview method was used because it offers a simple, cost-effective and ethical means to collect data about how participants conceptualise a process in which they are intimately involved (Creswell 2008). A semi-structured interview schedule format was used. This format ensures that basic categories of data are consistently collected (facilitating comparative analysis) while providing scope to follow up unanticipated lines of enquiry (Merriam 1998). The schedule thus consisted of key questions and a set of probe questions attached to each that differentiated subsidiary questions. The research questions included:

- What kinds of VET work have participants been involved in and are currently involved in?
- How did practitioners learn to understand and use competencies?
- What continuing education and training in understanding and using competencies have participants undertaken?
- How do practitioners go about interpreting competencies?
- How do practitioners explain competencies and their components?

Each interview lasted about 50 minutes. About two-thirds of the interviews were conducted face to face, with the remainder by telephone. Interviews were recorded digitally with the consent of participants and the recordings were transcribed professionally. NVivo 10 qualitative data management software was used to facilitate the analysis of transcripts. Quotes with shared themes were extracted and grouped, with the number of participants building on each theme noted. Some quotes referred to more than one theme, and others stood alone. The findings chapter, which follows the review of research and theory, presents these themes, structured according to the key questions of the interview schedule. A discussion chapter follows, which analyses the findings in relation to a framework drawn from the literature.

A briefing paper based on the initial findings of this research was distributed to key stakeholders for comment. The input of representatives from the Australian Workforce and Productivity Agency (AWPA), the VET Development Centre (VDC), SkillsSA, Innovation & Business Skills Australia (IBSA), the Australian Council of Private Education & Training (ACPET), and the Australian Council of Deans of Education Vocational Education Group (ACDEVEG), as well as from critical friends Hugh Guthrie and John Mitchell, is summarised in a responses and implications paper, included as the support document accompanying this report.

Review of research and theory

Indications about how Australian VET practitioners are expected to engage with competencies can be found in the competencies of the Certificate IV in Training and Assessment. The current version of the qualification, from the TAE10 Version 3 training package (Department of Education, Employment and Industrial Relations 2012), comprises ten competencies — seven core and three elective. Five of the core competencies set out explicit expectations about working with competencies. These competencies are:

- TAEASS401B Plan assessment activities and processes

- TAEASS402B Assess competence

- TAEASS403B Participate in assessment validation

- TAEDES401A Design and develop learning programs

- TAEDES402A Use training packages and accredited courses to meet client needs.

As table 1 shows, a graduate of the Certificate IV in Training and Assessment is expected to engage with competencies in particular ways. The practitioner should be able to access and select competencies to meet the needs of employers and learners. They should also be able to understand the format and structure of competencies. They should be able to read, analyse and interpret 'all parts' of them for the purpose of designing and developing learning programs and for the purpose of determining what evidence will be necessary to demonstrate competency. In addition, they should be able to document the results of their reading, analysis and interpretation of competencies.

Apart from learning the 'methodology relating to analysing and using competencies for a range of applications and purposes to meet the needs of a diverse range of VET clients' (p.285) when they undertake their certificate IV, it is assumed that VET practitioners will be able to draw on a fund of relevant, up-to-date industry experience to assist in their work with competencies, since practitioners are required to possess current competency in the unit(s) they are training and assessing. Because competencies constitute a representation of current industry practices, appropriately experienced practitioners should always have the benefit of familiarity with the underlying realities of the work covered by competencies when they interpret the texts.

A key challenge to the certificate IV conception of practitioner engagement with competencies concerns the process of interpreting competencies. The structure of competencies is influenced by the theory of behavioural objectives (Hodge 2007). The goal of a behavioural objective is to transmit intact the intentions of the objective's designers to teachers and learners. As an influential advocate of behavioural objectives explained:

> Simply put, a usefully stated objective is one that succeeds in communicating an intended instructional result to the reader. It is useful to the extent that it conveys to others a picture of what a successful learner will be able to do that is identical to the picture the objective writer had in mind … What you are searching for is that group of words or symbols that will communicate your intent exactly as YOU understand it.
>
> (Mager 1962, p.19)

Table 1   References to interpreting competencies in the Certificate IV in Training and Assessment

Unit of competency	Part of the unit the reference is from	What VET practitioners need to know or do to be deemed competent to practice
TAEASS401B Plan assessment activities and processes	Required knowledge	▪ how to read and interpret the identified competency standards as the benchmarks for assessment ▪ how to contextualise competency standards within relevant guidelines
TAEASS402B Assess competence	Required knowledge	▪ competency standards as the basis of qualifications ▪ structure and application of competency standards
TAEASS403B Participate in assessment validation	Required knowledge	▪ how to interpret competency standards and other related assessment information to determine the evidence needed to demonstrate competence …
TAEDES401A Design and develop learning programs	Required knowledge	▪ training packages and relevant competency standards to be used as the basis of the learning program
TAEDES402A Use training packages and accredited courses to meet client needs	Elements	▪ Analyse and interpret units of competency and accredited modules
	Performance criteria	▪ 3.1 Select individual unit or accredited module to meet client needs ▪ 3.2 Read, analyse and interpret all parts of the unit or accredited module for application to client needs ▪ 3.3 Analyse links between unit and/or accredited module to develop effective applications for the client ▪ 3.4 Document analysis of unit or accredited module in a clear and accessible manner
	Required skills	▪ cognitive skills to analyse, interpret and apply the various components of selected training packages and accredited courses ▪ research skills to analyse and interpret training package and accredited course content to meet client needs
	Required knowledge	▪ functions and responsibilities of training package developers and course accreditation agencies, and their roles as key vocational education and training (VET) organisations ▪ format and structure of competency standards ▪ methodology relating to analysing and using competency standards for a range of applications and purposes to meet the needs of a diverse range of VET clients ▪ language and terminology used in training packages and accredited courses

Source: Extracted from Department of Education, Employment and Workplace Relations (2012, pp.145—285).

According to the behavioural objectives model, the most effective way of transmitting instructional intentions is to clearly describe behaviours or *performances* ('what a learner is expected to do'), *criteria* ('how well the learner must perform in order to be considered acceptable') and *conditions* ('the important conditions [if any] under which the performance is to occur') (Mager 1962, p.21). These components of a behavioural objective are familiar to us in the guise of the elements, performance criteria and range statements of Australian competencies.

The idea behind representing competent work practice in the components of a competency is evidently that 'the reader' (that is, the VET practitioner) will be able reproduce the intention of the writer in their own mind with little or no distortion or loss. However, this behavioural ideal is challenged by the theory of interpretation or 'hermeneutics'. This body of literature has its origins in the work of scholars engaged in the interpretation of religious texts, but has evolved to encompass the process of decoding and comprehending a wide range of texts and human expressions (Schmidt 2006). A key assumption of hermeneutics is that once an author has committed their thoughts to a text, a lesser or greater degree of disconnection between their intentions and the interpretations derived by readers is inevitable. In other words, texts are 'autonomous', that is, authors have little or no control over how their texts are understood (Palmer 1969). In contrast, if the same intention is expressed in direct speech, the speaker is able to adjust their message and judge through feedback

whether it has been received as intended. The theory of hermeneutics suggests further that a complex process is triggered when a reader engages with a text. The fundamental process of interpretation according to this theory is that readers move back and forth between a focus on parts of a text and a focus on the meaning of the whole, a cyclical process referred to as the 'hermeneutic circle' (Schmidt 2006). The process of building a sense of the whole meaning of a text includes guessing at meanings, concentrating on the meanings of individual words and sentences, and imagining applications to the reader's own context (Ricoeur 1981).

What the theory of interpretation implies is that the behaviourist goal of perfect transmission of intentions through appropriately structured texts underestimates the complexity of the process of engagement with texts. In particular, due to the autonomy of texts, there is always going to be a tenuous link at best between the intentions of authors and the interpretations constructed by readers. The implications of a hermeneutic analysis of the work of VET practitioners are that diverse interpretations of competencies are to be expected and that strict alignment between the intentions of competency writers' and practitioners' interpretations cannot be expected.

Another set of questions can be raised about the adequacy of the Certificate IV in Training and Assessment alone to produce graduates capable of undertaking the work of interpreting competencies as specified in the units of the qualification. To start with, there is the question about the adequacy of the certificate IV competencies to convey the complexities of contemporary VET practice. Some analysis suggests that earlier versions of the qualification promote restricted understandings of VET teaching and training (for example, Robertson 2008; Simons & Smith 2008). In addition, the analysis of the nature and processes of interpretation offered by hermeneutic theory suggests that there is the question of whether enough is explained in the relevant competencies about what is involved when a competency is read, analysed and interpreted. Certainly relevant range statements do not expand on the 'methodology' required.

Another question can be posed about how well the certificate IV is taught and assessed: whether or not it adequately codifies the essential aspects of VET practice in the first place. Reports on the quality of provision of this qualification indicate that there may be reason to doubt that it is being delivered in a way that allows the skills of interpretation to be developed. For example, a National Quality Council (2008) study provided evidence from the hospitality industry of concern that 'the intent and outcomes of training packages "are not being translated well on the ground"' (p.19). The study related that 'Many interviewees advised that they had little faith in the Certificate IV in Training and Assessment (TAA)' and added that, 'Some interviewees claimed that there were [registered training organisations] awarding a Certificate IV in TAA on completion of a two day program' (National Quality Council 2008, p.19). Concerns about the quality of the certificate IV have also been expressed by the Australian Chamber of Commerce and Industry (2008), Service Skills Australia (Smith et al. 2009), the Productivity Commission (2011), and the Australian College of Educators (Wheelahan & Moodie 2011). On the strength of these concerns, it is reasonable to surmise that, although the core units in the certificate IV describe the skills of competency interpretation, endemic problems with the quality of provision mean that we cannot be certain about how practitioners are actually engaging with competencies.

A sense of how VET practitioners actually engage with competencies can be gleaned from studies of the skills and knowledge of practitioners. In their research into critical issues in teaching, learning and assessment in vocational education and training, Mitchell et al. (2006) identify the issue of the skills required to implement training packages. Based on a review of literature, key stakeholder consultations, case studies, focus groups and mini-conferences, Mitchell et al. reported that 'Many

VET practitioners need enhanced skills in implementing training packages, despite their availability in the sector, in some cases, for six to seven years' (2006, p.21). The study also summarised stakeholder beliefs that the 'Skills required to implement training packages may have been underestimated by some policy-makers in the past' (p.23). Some of the challenges of implementing training packages concern the interpretation of resources: 'resources always need interpretation and this interpretation requires skills that are not easily acquired, particularly by practitioners who work in isolation from other trainers; for example, workplace trainers who are full-time employees of an enterprise' (p.23). Observations like this indicate that at least those parts of the core units of the certificate IV which are concerned with the interpretation of competencies are not being sufficiently grasped by learners.

Research into the 'expectations and experiences' of VET practitioners with the certificate IV (TAA40104) (Clayton et al. 2010) revealed that, although practitioners felt that the program equipped them to plan, deliver and evaluate training, 'They considered themselves less well prepared to manage the needs of diverse learners, to undertake assessment, to utilise training packages or manage classroom issues' (p.8). The study indicates that confidence in these areas improves in the six months following graduation, although support from mentors and experienced colleagues, as well as additional formal and informal learning and professional development activities, contributed to the improvement. The study sought participant views on ways by which the certificate IV programs they undertook could be improved, and one of the four 'themes' that emerged from participant responses was the need for 'more opportunities to work with training packages, to unpack, repack, contextualise and develop training programs from the training packages to meet client needs' (p.24).

While the research of Mitchell et al. (2006) and Clayton et al. (2010) did not explicitly set out to investigate how practitioners understand and use competencies, their studies indicate that graduates of the certificate IV (TAA40104) may not possess sufficient understanding of competencies for the purposes of developing competency-based learning programs and determining evidence requirements for competency-based assessment. The partial evidence furnished by these two studies resonates with the concerns identified by the National Quality Council (2008) on problems with the quality of the provision of the certificate IV (TAA40104). That is, if graduates from the qualification have not learned how to read, analyse and interpret competencies, then the results reported by Mitchell et al. (2006) and Clayton et al. (2010) are what we should expect.

A final question to look at in relation to the adequacy of the Certificate IV in Training and Assessment for producing graduates capable of undertaking the work of interpreting competencies as specified in the units of the qualification is whether it would ever be realistic to expect that an initial qualification would possess the capacity to develop abilities such as the interpretation of competencies. As Mitchell et al.'s (2006) research indicates, interpretation may be one of those skills that are 'not easily acquired'. The implications of the theories of hermeneutics (for example, Ricoeur 1981) are consistent with Mitchell et al.'s suggestion. Clayton et al.'s (2010) research also highlights the significance of the period after graduation for learning key skills (which include interpreting competencies). It may be that the burden of developing skills in the interpretation of competencies should be shifted from the Certificate IV in Training and Assessment to continuing education and training and/or higher-level qualifications. Both options would afford more time to foster this capability and would frame interpretation as a higher-level capability than is currently represented.

This chapter began with an overview of the official understanding of VET practitioner engagement with competencies, as articulated in the competencies of the mandatory entry-level VET practitioner qualification. According to this view, practitioners are expected to read, analyse and interpret competencies for various purposes including learning and assessment design. It was argued in the

introduction to this report that the interpretation work of practitioners is a crucial link in the system of alignment between the expression of industry skill needs and the satisfaction of those needs. However, a series of questions can be raised about the soundness of official assumptions about this link. The theory of interpretation or 'hermeneutics' was introduced to show that the processes of interpreting competencies may be more complex than the competencies of the Certificate IV in Training and Assessment imply. Hermeneutics also challenges the very idea that the intentions of competency designers can be transmitted intact to the minds of VET practitioners.

Other questions were raised about the effectiveness of the certificate IV to develop the skills of interpretation in practitioners, starting with the theoretical question of the adequacy of the competencies of the qualification for representing VET practice, particularly the practice of interpreting competencies. Other evidence was presented that casts doubt on the quality of delivery of the qualification by some providers in the system, while studies by Mitchell et al. (2006) and Clayton et al. (2010) suggest that graduates are not well prepared for complex tasks such as interpreting competencies. A final question was raised about the appropriateness of an initial qualification such as the certificate IV in preparing graduates for the complex work of interpretation, prompting the suggestion that continuing education and training and/or higher levels of qualifications may be more appropriate to the development of skills such as interpretation.

This research set out to throw light on how VET practitioners interpret competencies. Practitioners were asked about how they interpret competencies and to explain the nature and structure of competencies. They were also asked about how they learned to interpret competencies and about ongoing development in this area. They were also asked about the limitations of competencies and challenges they experience in working with them. The next chapter summarises the answers provided to these questions.

Findings

In this section interview data are summarised. General information about the participants is presented first, followed by a summary of data about how they undertake the interpretation of competencies. How participants explain competencies and components of the texts is summarised next. The final part of this chapter addresses the question of how participants learned and continue to learn about competencies.

The participants and their work

Twenty-four of the 30 interviewees recruited for this research were Victorian, with six from other Australian states (New South Wales, Queensland and Tasmania). Twenty-two of the participants worked in metropolitan locations and the remainder in regional locations, and 21 of the participants were based in public providers. Table 2 summarises the highest training and/or education qualifications held by the participants. All participants possessed a Certificate IV in Training and Assessment.

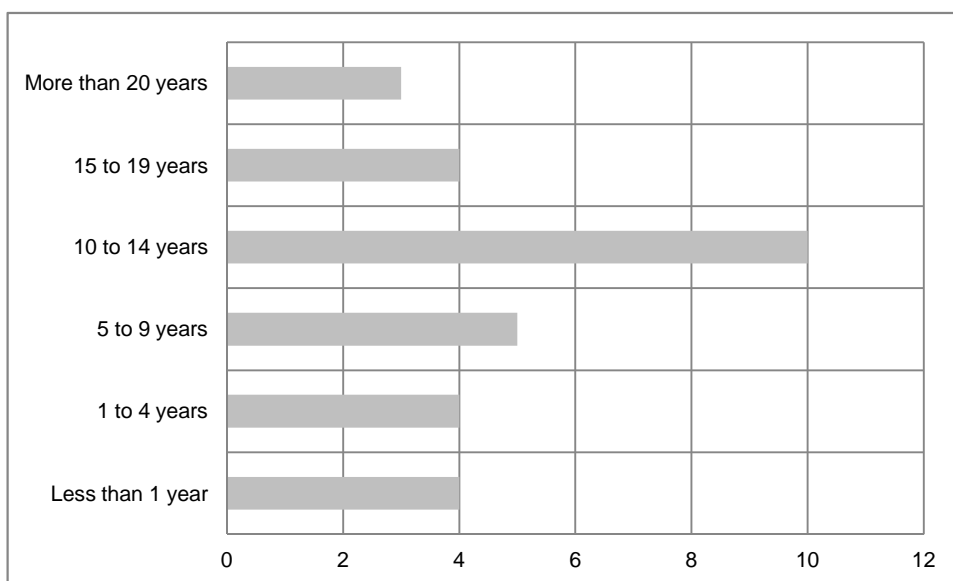**Table 2   Highest training/teaching qualifications held by participants**

AQF level	Qualification title	No. participants holding
10	PhD in VET-related field	1
9	Master of Professional Education and Training	2
8	Graduate Diploma in Education and Training	1
	Graduate Diploma in Education	1
	Graduate Diploma in Special Education	1
7	Bachelor of Education	3
5	Diploma of VET Practice	4
	Diploma of Training and Assessment	1
4	Certificate IV in Training and Assessment	16

Participants were asked to estimate how many years they had been working with competencies. Figure 1 summarises responses to this question.

Table 3 shows the training packages participants were using, the number of participants against each training package, and the industry skills councils responsible for the training packages.

Participants were training and assessing qualifications and competencies from certificate I through to advanced diploma level, with the majority working with certificate III and certificate IV qualifications.

Figure 1   Years working with competencies by number of participants

Years	Number of participants
More than 20 years	3
15 to 19 years	4
10 to 14 years	10
5 to 9 years	5
1 to 4 years	4
Less than 1 year	4

Table 3   Training packages used by participants

Training package	No. participants using*	Industry skills council responsible
Financial Services Training Package (FNS10)	1	Innovation & Business Skills Australia
Business Services Training Package (BSB07)	3	
Training and Education Training Package (TAE10)	5	
Information and Communications Technology Training Package (ICA11)	1	
Agriculture, Horticulture and Conservation and Land Management (AHC10)	2	AgriFood Skills Australia
Manufacturing Training Package (MSA07)	3	Manufacturing Industry Skills Council
Textiles, Clothing and Footwear Training Package (LMT07)	1	
Metal and Engineering Training Package (MEM05)	1	
Furnishing Training Package (LMF02)	1	
Resources and Infrastructure Industry Training Package (RII09)	2	SkillsDMC National Industry Skills Council
Community Services Training Package (CHC08)	3	Community Services and Health Industry Skills Council
Health Training Package (HLT07)	2	
Retail Services Training Package (SIR07)	3	Service Industries Skills Council
Beauty Training Package (SIB10)	1	
Sport, Fitness and Recreation Training Package (SIS10)	1	
Public Safety Training Package (PUA12)	3	Government Skills Australia
Transport and Logistics Training Package (TLI10)	1	Transport and Logistics Industry Skills Council

Note: * Some participants were using qualifications from more than one training package.

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Interpreting competencies

The process that participants used to interpret competencies was explored by asking questions about reading and the strategies participants used to extract meaning from the texts. Not all of the participants were required to be familiar with the competency documents. Six of the participants were working for registered training organisations (RTOs) which provided packaged learning and assessment materials and therefore they may have had little reason to become familiar with the original documents, although they were aware of them and had experience of reading them. The rest of the participants did have reason to read and understand competencies because they were required to design learning and/or assessment materials and participate in validation processes.

All of the participants said they had to read the competencies more than once before they felt confident using them for program and assessment task design:

> So for me to look at that sometimes I go, 'Oh, what does that mean?' and I have to look at it and go okay because you know that you need to be matching those elements. So then I have to look at it and read it again and go, 'Yeah, I understand what they're asking …'

All but four of the participants complained that the language of competencies made them difficult to understand. For some, the difficulty of interpreting the language of the competencies lay in the fact that vocational education and training — like every other area of expertise — has its own jargon. One spoke of 'VET language', and explained that, 'It's like any industry — we've got what we call jargon or industry shorthand that anyone walking into our organisation would go what are you talking about — but we know'. Another used the term 'jargon' to account for the difficulty of reading competencies, but jargon in this case is the jargon of the relevant industry:

> I think that the language probably leaves a lot to be desired. Particularly if they're new to the industry the language would be difficult because it would use jargon and terminology that's relevant to that industry.

For other participants, the difficulties posed by the language of competencies were unnecessary. For example, one explained,

> I'm laughing because in the Advanced Diploma area, when I was working at [a small RTO with two other trainers], who were both trainers doing the same work as what I was, we'd often question this [the language of competencies] and say, 'Well what a load of rubbish, why don't people talk in language that person studying gets it?' It's almost like it's been written for an academic environment rather than the level that it's pitched at.

Other terms used to characterise the language of competencies were, 'fluffy', 'ambiguous', 'fuzzy', 'not well written', 'vague', 'poorly written', 'convoluted', 'jargonised', and 'written just appallingly'. One participant stated that the competencies are 'written for insiders'. When it was suggested that this participant could perhaps be regarded an insider, she responded:

> No, I'm not. I don't feel like it. By the insiders, I don't mean teachers, I mean they're policy people. I think they seem to be political documents, written to satisfy too many masters. They don't seem to me to be written with the student or the teacher in mind. Because I, as a conscientious and intelligent person, should be able to read through one and have it make sense. Perhaps not immediately, but on the second reading, go, 'Yeah, I get where this is going, I see what I need to do, what I need'. They're written for auditing requirements I think.

A few participants thought that the reason competencies can be difficult to interpret is because they were not written by experts in the field in the first place. For example,

> Look, there's got to be some industry people, I reckon there's got to be industry people in there that are writing these but sometimes I can read and think, 'Oh, that hasn't been written by an industry person'.

In terms of the process of extracting meaning from the competency texts, some participants were able to elaborate on their strategies in detail:

> I have a quick look at the application to get a sense of the intent and focus. Really quick squiz at the elements, just to get a sense of alright, so it's this, this, this, this. Then I kind of scuttle straight across to the critical aspects of evidence, to see if there is anything specific in there, like number of times something needs to be done. So that tends to be the big picture that I look at really quickly first. Then I go — and then I keep looking at it, but I go into a bit more detail.
>
> So I like getting a big picture of the intent of the unit first, and then I go into more detail as I start to analyse it and really think about — like if I was designing a program, I'd look at it with that big picture. Then I'd put the unit down for a minute, and I'd ask lots of questions about who the program is for, or who the assessment is for? So that I can start to get a sense of the context, and what I call building the picture of competence. You know, what does this person look like, and what are they using, and what are they doing when they're doing this thing?
>
> Then after I've kind of done that, then I come back to the unit in a bit more detail. I look at it with that perspective of the client in a bit more detail, and start putting together training and assessment based on those two things — the unit plus the context I guess, or plus the client.

Another explained their approach this way:

> Read the elements and performance criteria and required skills and knowledge. That's the first step. Read the elements, performance criteria and required skills and knowledge. Once you finish reading try to visualise a person performing a task or set of tasks in the workplace that are related to what you just read and once you can actually visualise a person doing things, say if what that person is doing is — is it possible to allow in the real world with the unit that you've just read? For me that's the most important thing, so being able to connect elements, performance criteria, required skills and knowledge with real situations.

Holistic interpretative strategies like these were described by five participants. The remainder described more restricted interpretive strategies, involving a focus on only one or a few of the components of the competencies. Of these strategies, a number were based around the elements. For example, one said the elements were 'the heart of the matter', adding:

> Yes, because you have one, two, three, four elements, and then they're broken down further into points. They're the heart of it, but the other parts actually put those in context. As in the range statement and the critical elements, it's — I read the elements first, look at the elements first, and then I'll particularly look at the critical aspects, the performance criteria, just to make sure I'm thinking on the right lines, I'm interpreting these elements correctly, because they flesh out the elements a bit more and give it context and give it dimension and range.

More coupled the elements and performance criteria and placed them at the centre of their process of interpretation: 'I mean my first port of call or my initial glance over a competency is, as I said, the performance criteria, the elements and the performance criteria'. Five participants said the evidence

guide was the reference point for their interpretation process, and two said theirs revolved around the required skills and knowledge.

Explaining competencies and components

Participants were asked to explain the purpose of competencies and of each major component of the competencies: elements, performance criteria, required skills and knowledge, evidence guide and range statement. Four main emphases emerged from the responses. Regarding the purpose of competencies as such, eight of the participants referred to job roles in some way. For example, one explained that:

> A competency initially would describe or list the roles within the workplace and the levels of those roles, so whether it be at the base level, at the high level and then to which standard that those levels would apply to.

Seven suggested that competencies specify training and assessment activities:

> For an RTO, that's fantastic information because it just gives them such a good guide as to what sort of information they can research to bring into the course.

Six of the participants emphasised the personal dimension of competence when asked to explain the purpose of competencies. For example, one explained that, 'I think it's something that's — some people could have it naturally, other people require some training at it'. The other participants who expressed this conception described the 'understanding' and 'knowledge' of 'the person' enrolled in a VET program, and competency as the 'achievement' of a learner.

A fourth emphasis, also shared by six of the participants, was that competencies are part of a regulatory framework designed to promote consistency of VET outcomes. For example, one participant said, 'I think the purpose is to be able to establish a consistent, common understanding of what industry requires from people who work within it'. Two other participants said that competencies serve multiple purposes and one participant was unable to answer the question about the purpose of competencies.

During their explanation of the purposes of competencies, some participants spontaneously employed the language of 'ideal' or 'minimum' performance, suggesting that competencies are pitched predominantly at one or the other of these levels. For example, as one explained:

> My view of it is that the competency is the ideal, but what happens in the workplace is slightly different. It's trying to get those two as close as possible.

In contrast were accounts that described the competencies in terms of minimum levels of performance:

> I would want my apprentices to think that is the minimum — that they could be better than that. Obviously it's an industry standard that the work has to be done to. So that being said, it is a minimum.

Finally, one participant firmly rejected the idea that competencies can be regarded as describing minimum performance:

> Yeah I think — I hate the use of — working on competencies and other things that I've done over the years is working on accreditation schemes — just different accreditation schemes for industry — and I hate the use of the word 'minimum standards'. The standard is the standard; it's the requirement. There's nothing minimum about it; it just is. What people are saying is that … in

terms of an accreditation scheme, if people can just do this in their business we'll accredit them. Look, they might do far more. They might have higher standards than we're describing. So they use that word minimum. But there's nothing minimum about it.

Participants were also asked to define or explain the purpose of major components of competencies, including elements, performance criteria, required skills and knowledge, evidence guide and range statement, and were invited to explain the way these components relate to each other. They were encouraged to provide definitions and explanations from memory.

In this part of the presentation of findings the responses will be summarised against the official definition of each component taken from the common text of Australian competencies. To begin with, the official definition of elements is that they 'describe in terms of outcomes the significant functions and tasks that make up the competency' (Department of Education, Employment and Workplace Relations 2012, p.67). Four participants explicitly spoke in terms of learning outcomes. Eleven highlighted the idea that elements are a 'breakdown' of the competency. Other participants explained the elements by relating them to 'skills' (3), performance criteria (3) and required skills and knowledge (2). Three participants said the elements identify assessment requirements. The remainder of the participants provided definitions that were more difficult to decipher.

The performance criteria 'specify the required performance in relevant tasks, roles, skills and in the applied knowledge that enables competent performance' (Department of Education, Employment and Workplace Relations 2012, p.67). Three participants defined performance criteria as 'benchmarks' or 'levels of performance' and another two said they were assessment requirements or questions. The greatest proportion of participants (13) explained that performance criteria were a breakdown, 'detailing' or 'drilling down' into the elements. Five others offered more involved definitions, which included reference to skills, work tasks and/or roles. Two further responses were that the performance criteria represented 'the practical side of elements' and the 'how' (in contrast to the 'what' of the elements). The rest of the explanations were more wide ranging, and touched on more than one of the aspects already identified.

In relation to the required skills and knowledge component of competencies, the official account is that 'Knowledge identifies what a person needs to know to perform the work in an informed and effective manner. Skills describe the application of knowledge to situations in which understanding is converted into a workplace outcome' (Department of Education, Employment and Workplace Relations 2012, p.67). Many of the participants were not clear about how this component relates to the elements and performance criteria. For example:

Now I've been working with this for years and I think that we've made these units of competency a little bit difficult to understand for ordinary trainers and assessors. Now required skills and knowledge is — so performance criteria are more detailed description as to what individual should be able to understand or do. Skills or knowledge are practical, measureable things or tasks that individual should be able to do in real settings or in the workplace.

Four participants spoke of the required skills and knowledge as 'underpinning' or 'enabling' the task described in the elements and performance criteria. Five suggested that required skills and knowledge 'duplicate' the information contained in the first two components, while three simply identified the required skills and knowledge with the performance criteria. Four participants referred to the required skills and knowledge as 'prerequisites' or indicated they are used for recognition of prior learning, while three said they specified 'generic', 'soft' and 'employability' skills. For another three of the participants the primary purpose of this component was to guide the development of training

programs. More idiosyncratic responses were that the required skills and knowledge provide the 'big picture' of the competency, show how the elements work, and provide 'clarity of purpose'. Three participants were unable to provide a definition or explanation of this component.

A few participants ventured that required skills and knowledge *must* be addressed in training and assessment (for example, they are 'absolutely essential'), while others said not all of the required skills and knowledge needed to be developed (for example, 'you don't need every scrap of it').

Participants were also asked to define or explain the purpose of the evidence guide component, which 'provides information to the Registered Training Organisation [RTO] and assessor about how the described competency may be demonstrated. The evidence guide does this by providing a range of evidence for the assessor to make determinations, and by providing the assessment context' (Department of Education, Employment and Workplace Relations 2012, p.67).

Seven participants said this component provides guidance or 'benchmarks' for assessors and/or identifies contexts or conditions for assessment. Six stressed the connection between this component and the performance criteria in some way and one said they referred to the elements. Two explained that the purpose of the evidence guide is to ensure consistency across the system.

Other explanations were that the evidence guide refers to 'quantity' (in contrast with the 'qualities' of the elements and performance criteria), that it provides a 'rough guide' to what is required by the competency, and that it presents the 'core material' of the competency. The rest of the explanations were unclear, while one participant was unable to say what the evidence guide referred to.

The final component discussed with the participants was the range statement, which:

> … provides a context for the unit of competency, describing essential operating conditions that may be present with training and assessment, depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts. As applicable, the meanings of key terms used in the performance criteria will also be explained in the range statement. (Department of Education, Employment and Workplace Relations 2012, p.67)

Ten participants explained this component in terms of 'context', 'environment' or 'conditions' of the competency. Four explained that this component forms a reference point for training. One said the range statement refers to the required skills and knowledge and another that it refers to the elements. Another two participants said the component generally repeats what is contained in other components, one said it provides a 'guide' and another that it contains 'different kinds of information and stuff you can use'. Three participants provided explanations that were unclear.

One participant said that the range statement component was 'vague' and another that it was 'confusing'. Five participants were not able to provide a response.

Learning about competencies

Participants were asked how they learned about competencies and to estimate how long it took them to feel confident in interpreting competencies. Nine of the participants reported using competencies in various capacities before they received any formal training in their use. Most of these were employed as trainers and some as program designers, and had picked up the skills of using competencies as they went along:

Well, no one sat down and said, let me teach you about competencies. We were just kind of expected to know. So I picked it up as I went along and read a lot and read reports and discussed a lot and went to conferences.

Formal initial training for 14 of the participants (including some of those who picked up the skills of interpretation 'as they went along') meant completing the Certificate IV in Assessment and Workplace Training (BSZ40198). These participants had upgraded since via credit transfer and recognition of prior learning processes and most held the current certificate IV qualification (TAE40110). For 11 participants the Certificate IV in Training and Assessment (TAA40104) was their starting qualification, while five started with the most recent version of the qualification (TAE40110).

The majority of the participants reported some form of difficulty in grasping the idea of competencies in the context of their formal training. One said:

I remember my first ever course. I was completely confused, and luckily my sane sister-in-law … she came along with me, because she was curious … I just thought, 'thank God', because I remember the trainer, I just felt like she was speaking in hieroglyphics. I kept looking over to my sister-in-law saying, 'what is she talking about?' [My sister-in-law] would pass me little Post-it notes under the table, saying there are three sections of this and she's talking about the first section. 'Okay, thank you.' So it [understanding competencies] certainly didn't happen in my first course.

All but two participants estimated that it took them months or years before they were confident in using competencies for learning and assessment design. Fourteen of the participants thought it took them 'about a year' to get comfortable with the process of 'unpacking' competencies, although a few of them estimated longer periods of up to three years. The rest indicated periods of two months and up to build their confidence. One participant said it took only days to be able to interpret and use competencies and another estimated it took a few weeks. Both of these participants were engineers before coming to the VET sector. One of them said by way of explanation, 'Oh, you know, Steve, engineers love standards. We work with them all the time'.

The participants were also asked what professional development they had undertaken since completing their initial VET teaching qualification, which addressed the interpretation of competencies. Only three recalled participating in such professional development events or programs. The bulk of the professional development cited by participants concerned improving delivery, new training packages or maintaining industry currency. The participants who did attend professional development activities focused on unpacking training packages described part-day interactive workshops that they found valuable. Participants who had upgraded their certificate IV were asked whether any training they received during the process addressed the interpretation of competencies, but none had specific recollections of training with this focus.

When asked about informal processes, two of the participants said they had consulted subject matter specialists. These were participants responsible for developing or supervising the development of learning resources to support accredited programs. Seven others explained that they spoke to other practitioners about how to interpret competencies. According to one:

You must talk to other people — you can't do it on your own. You actually can't read a unit of competency, get the standard and just do it all by yourself, unless you're very experienced, I don't think you can do that. I'm pretty experienced but I would still talk to other people.

Most, however, did not speak to other people about their interpretation before implementing it, although they were often able to identify people they *could* refer questions about interpretation to if required:

> We do have a manager, and obviously she sits at a higher level than we do. If I did have an issue with something along those lines [failing to comprehend some part of a competency], I'd certainly make contact with her and ask her for some clarification. If [the manager] certainly couldn't answer the question, well we then have someone probably at a level at headquarters in Melbourne [who] would be able to help us out. But very rarely would that happen.

For most participants, the process of assessment validation was the only time they re-read the competencies they work with.

> What we'll do is we'll download [the relevant competency] and when we validate our material, we'll check it against that competency.

Validation sessions were also cited as occasions for debating the meaning of competencies:

> That's what we were doing, arguing the intent of things so that we could put together proper assessment documentation and that was really helpful.

Discussion

In the review of research and theory an official account of how VET practitioners are expected to engage with competencies was drawn from the competencies of the Certificate IV in Training and Assessment. Practitioners are supposed to be able to read, analyse and interpret competencies, understand the structure of competencies, and deploy a 'methodology relating to analysing and using competencies for a range of applications and purposes to meet the needs of a diverse range of VET clients' (Department of Education, Employment and Workplace Relations 2012, p.285). The review chapter raised a number of questions about the assumptions reflected in the official view. A key assumption, crucial to the ideal of alignment built into the VET system, is that the form of competencies facilitates transmission of the intentions of competency writers to the minds of practitioners in a way that minimises loss or distortion. This assumption was challenged in a number of ways. It was suggested that once a text (such as a competency) is circulated, the link between authorial intentions and readers' interpretations is weakened or severed. The theory of interpretation (hermeneutics), from which this account of the autonomy of texts is taken, also suggests that interpretation is a complex process, perhaps more so than VET stakeholders realise.

The findings indicate that VET practitioners may encounter difficulties in interpreting competencies, beginning at the stage of reading the texts. Most participants in this study reported that they needed to read competencies several times before comprehending them and suggested that the language of the texts contributed to the difficulty of comprehension. Twenty-six of the 30 participants reported some kind of difficulty with the language of the competencies. Some participants thought that too much jargon was used in the texts or that they were not written as well as they could be. The sheer number of participants reporting difficulty with the language of the competencies indicates that, in practice, the process of interpretation may encounter a hurdle at the very first stage — that of reading the competency texts.

In terms of the process of interpretation itself, a small number of participants described a holistic strategy for deriving meaning from competencies. That is, a process was reported that involved systematically engaging with each of the components of the texts and thinking through the relationships between the different kinds of information until a sense emerged of the whole task or role covered by the competency. This process illustrates the process of moving between parts and the whole, described in hermeneutic theory (Schmidt 2006). However, the bulk of the participants relied on interpretation of just one or a few components of a competency. While this process can also involve moving between parts and wholes (that is, between the information and a sense of the whole task or role), if all components of the competencies are regarded as essential for specifying a task or role, then the process reported may generate a partial or distorted picture of the whole.

The explanations of different components of the competencies provided by participants help to account for the use of restricted interpretative strategies. While a core group of participants consistently defined components such as elements, performance criteria and required skills and knowledge in ways that agreed with the official explanations, most were unclear about the specific contribution of one or more of the components to the competency as a whole. It may be that restricted interpretative strategies are favoured if a practitioner is unsure about the significance of particular kinds of information in the competency text. If, for example, practitioners feel that some categories of information in the competencies merely repeat information from other components, it would make sense to use an interpretative strategy based on reading and understanding primary components.

Other challenges to the official view of the way practitioners are expected to engage with competencies, which were raised in the review chapter, concerned the initial and continuing training and education of practitioners. In terms of learning to use competencies during initial VET practitioner training, participants generally did not recall systematic preparation and practice in reading, analysing and interpreting. Participants who could recall training in interpretation indicated that it involved a single session and an activity to practise unpacking training packages. Others recalled confusion surrounding the process of interpreting the competencies during training. The participants also reported little ongoing formal professional development in reading, analysing and interpreting competencies. The small number who had participated in such professional development described one-off events. It would appear that informal learning in the context of assessment-validation processes involving re-reading and debating the meaning of competencies was of greater impact than formal events.

The findings of this research suggest that interpreting competencies is a sophisticated ability and that its development may require different initial and continuing education and training from that currently provided. Given that most participants estimated that it took them up to a year of practice in application before they felt confident of their ability to interpret competencies, it may be unrealistic to expect that initial or continuing education based on single training events will develop competency in interpretation to the level specified in the relevant certificate IV competencies. Rather, it may be that, with regard to developing proficiency in interpreting competencies, more intensive training focused exclusively on interpretation or 'unpacking' may be necessary initially, with systematic follow-up to guide the refinement of practitioner skills. Ultimately, it may simply be unrealistic to expect new graduates from the certificate IV to be able to work with competencies in the way and to the level described in the competencies of that qualification. Perhaps the nuanced work of reading, analysing and interpreting competency texts is more appropriately developed at a higher Australian Qualifications Framework (AQF) level than at present, or it may be that these abilities should only be assessed upon completion of a practicum centred on practising interpretation and application. The effectiveness of informal learning spanning longer periods, as reported by participants, including participation in activities such as assessment validation, suggests that continuing education and training may be necessary to build on initial training in interpreting competencies.

Recent initiatives to simplify the language of competencies and 'streamline' their structure may make the work of interpretation more straightforward for VET practitioners, although this work will remain highly textual and demand high levels of proficiency in language and literacy. Simplification and streamlining will also not remove the need to create holistic understandings of competencies on the basis of distinct categories of information, suggesting that practitioners will still require solid grounding in the 'theory' of competencies (that is, understanding the significance of different types of information in competencies and the way these types are supposed to interrelate) and possibly extended periods of practice in application before they consistently interpret in a way that aligns with the content of competencies.

This research indicates that close alignment between the content of competencies and the interpretation of this content may not be the reality of VET practice in Australia. However, the research points to reasons for non-alignment and ways to address the situation. More intensive initial training, followed up with continuing education and systematic participation in activities such as assessment validation may be required to do justice to the sophistication of interpretation work.

References

Australian Chamber of Commerce and Industry 2008, *Employer confidence in vocational training assessment*, ACCI, Barton, ACT.

Clayton, B, Meyers, D, Bateman, A & Bluer, R 2010, *Practitioner expectations and experiences with the Certificate IV in Training & Assessment (TAA40104)*, NCVER, Adelaide.

Creswell, JW 2008, *Research design: qualitative, quantitative, and mixed methods approaches*, 3rd edn, SAGE Publications, Thousand Oaks, Calif.

Department of Education, Employment and Workplace Relations 2012, *TAE training and education, release 3.0*, DEEWR, Canberra.

Guthrie, H 2010a, *Professional development in the vocational education and training workforce*, NCVER, Adelaide.

——2010b, *A short history of initial VET teacher training*, NCVER, Adelaide.

Guthrie, H, McNaughton, A & Gamlin, T 2011, *Initial training for VET teachers: a portrait in a larger canvas*, NCVER, Adelaide.

Hodge, S 2007, 'The origins of competency-based training', *Australian Journal of Adult Learning*, vol.47, no.2, pp.179—209.

Mager, RF 1962, *Preparing instructional objectives*, Fearon, San Francisco, Calif.

Merriam, SB 1998, *Qualitative research and case study applications in education*, Jossey-Bass Publishers, San Francisco, Calif.

Mitchell, J & Ward, J 2010, *The JMA Analytics Model of VET Capability Development: a report on the National Survey of Vocational Education and Training (VET) Practitioner Skills*, John Mitchell & Associates, Pyrmont, NSW.

Mitchell, J, Chappell, C, Bateman, A & Roy, S 2006, *Quality is the key: critical issues in teaching, learning and assessment in vocational education and training*, NCVER, Adelaide.

National Quality Council 2008, *Investigation into industry expectations of vocational education and training assessment: final report*, NQC, Melbourne.

Palmer, RE 1969, *Hermeneutics*, Northwestern University Press, Evanston, Ill.

Patton, MQ 2002, *Qualitative research and evaluation methods*, SAGE Publications, Thousand Oaks, Calif.

Productivity Commission 2011, *Vocational education and training workforce: research report*, Productivity Commission, Melbourne.

Ricoeur, P 1981, *Hermeneutics and the human sciences*, ed. JB Thompson, Cambridge University Press, Cambridge.

Robertson, I 2008, 'VET teachers' knowledge and expertise', *International Journal of Training Research*, vol.6, no.1, pp.1—22.

Schmidt, LK 2006, *Understanding hermeneutics*, Acumen, Stocksfield.

Simons, M, Harris, R & Smith, E 2006, *The Certificate IV in Assessment and Workplace Training: understanding learning and learners*, NCVER, Adelaide.

Simons, M & Smith, E 2008, 'The understandings about learners and learning that are imparted in Certificate IV level courses for VET teachers and trainers', *International Journal of Training Research*, vol.6, no.1, pp.23—43.

Smith, E, Grace, L, Brennan Kemmis, R & Payne, W 2009, *The new deal: workforce development for services industries: VET practitioners*, Service Skills Australia, Sydney.

Wheelahan, L & Moodie, G 2011, *The quality of teaching in VET*, Australian College of Educators, Canberra.

Support document details

Additional information relating to this research is available in *Interpreting competencies in Australian VET: stakeholder responses* — support document. It can be accessed from NCVER's website <http://www.ncver.edu.au/publications/2696.html> and includes information on interpreting competencies in Australian VET, stakeholder responses, and issues.

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