

Health workforce competency principles

A Victorian discussion paper

March 2009

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Executive summary

The concept of clinical ‘competency’ is inconsistent across the Victorian health system. To address this, the Department of Human Services (‘the department’) will explore the idea of developing an industry-wide common language concerning competency standards and how it might contribute to a more effective health system. Although various approaches exist, the department believes there are more similarities than differences in the way in which skills are currently formed, recognised and assessed and this discussion paper provides a starting point to inter-professional discussion and shared recognition of education and training.

The result of these discussions may be a Victoria-wide framework (or common set) of healthcare competency principles. But in order to formulate such a framework, the department first needs to develop a deeper understanding of health workforce issues as they relate to competency standards. To do this, the department will engage with representatives of all stakeholder groups including health service providers, health professional associations, educational institutions (both in higher education and vocational training), regulatory authorities and health unions.

At the heart of the issue is that the concept of ‘competency’ is not a universal one; it carries with it certain connotations that not all sectors view equally. In this proposal, the term ‘competency’ is being used not as an attempt to reduce the value of professional qualifications to the lowest common denominator, but as a way of standardising how knowledge, skills and abilities combine to describe what aspects of performance are most important in a particular field.

Currently, the health workforce sector has to cope with several different ‘languages’ (or profession-based ‘rules’), each of which, to some extent, describes knowledge and skill sets for learning attainment and work practice. The higher education sector primarily communicates through ‘learning outcomes’ and curricula; however, learning outcomes must be demonstrated to be consistent with relevant profession-based competency standards. By contrast, the vocational education and training (VET) sector communicates through ‘training packages’ (specific competency units packaged under certificate and diploma qualifications) that are consistent with relevant workforce sector requirements. Regulatory bodies communicate through profession-specific competency standards while health course accreditation must translate learning outcomes into ‘competency equivalence’. Although different for their own reasons, each sector does interface with competency standards.

As a basis for discussion, this paper proposes one possible model of shared health workforce competency principles. The model is characterised by four broad areas for which core competency principles may be developed: client/patient service, professionalism, workplace and health systems, and communication, further broken down into thirteen specific areas. These are: philosophy of care, service delivery, specialty knowledge/practice, client/patient safety, ethics, law, equity, performance approval, management, teamwork, occupational health and safety, client/patient communication, and professional communication.

The department welcomes feedback from stakeholders in response to the issues raised in this paper. It acknowledges that the current National Health Workforce Taskforce (NHWT), established to develop and achieve strategies to meet the health workforce reform requirements of the Council of Australian Governments and the National Health Workforce Strategic Framework, also intends to engage stakeholders on core competencies for the national health workforce.

The department also acknowledges the recommendation of the National Health and Hospitals Reform Commission in its interim report, *A Healthier Future for All Australians*, of December 2008:

‘Particularly important is the introduction of a competency-based framework. Competencies are what a person needs to do and to know to carry out a particular job role or function. A competency framework would allow for a variety of entry points into health care careers, recognise prior learning, and foster more flexible, multidisciplinary training across undergraduate programs.’¹

Given the high level of interest in a competency framework at a national level, Victoria is keen to participate in the national debate. This paper, and the feedback received as a result of its circulation, is to be used to present the views of Victorian stakeholders as part of that process.

¹ National Health and Hospitals Reform Commission 2008, *A Healthier Future For All Australians*, 25, viewed 24 February 2009, <<http://www.nhhrc.org.au/internet/nhhrc/publishing.nsf/Content/interim-report-december-2008>>

1. Introduction

The Victorian healthcare landscape is changing. The ageing population and the increasing prevalence of chronic disease present new challenges for the healthcare industry and require responses built on modern, evidence-based practice and innovation in workforce design. It is well recognised that a flexible and responsive workforce will be necessary to meet changing client needs into the future and to ensure that the highest quality healthcare continues to be delivered to all Victorians.

Changing demographics are shifting the burden and pattern of disease in Victoria (and many other jurisdictions around the world), forcing an increased focus on the prevention, treatment, coordination and management of chronic disease. Realigning service delivery to address this shift requires a collaborative, team-based and multidisciplinary effort. A possible new – or, at least, revised – raft of roles, practical skills and abilities will be needed to ensure continued success in achieving patient safety and quality of care. Rising consumer expectations are also reinforcing this trend for evolving and more complex service delivery.

At the same time, demographic changes to the health workforce are having a growing effect on accessing suitably qualified and well-trained health workers. To address this issue, stakeholders will need to identify commonalities and increase collaboration. Health services and education and training providers will increasingly be expected to work together to ensure that pre-practice education and training, entrance to the health workforce and continuing re-training/up-skilling are as efficient, relevant and seamless as possible. Poor collaboration or inefficient processes in this area result in less-than-optimal service delivery and sub-standard patient care.

The department's health workforce strategy has three elements: increasing supply, improving workforce distribution throughout the state, and improving utilisation of current and future roles. The public expects to have access to quality healthcare provision by having the right numbers of health workers in the right place at the right time.

The lack of a shared language to describe workers' skills, knowledge and attributes across professions and between the health and education sectors is a major barrier to delivery on this strategy. Although discrete professional groups have their own 'language', these 'competencies' are increasingly interdisciplinary and cross-professional.

The department has identified shared healthcare competencies as one of the mechanisms through which the healthcare system could be improved. Shared competencies are broad sets of skills that are common across health professions, for example philosophy of care, client/patient communication, occupational health and safety, ethics and legal obligations.

A shared competency framework is a tool which, in the context of workforce shortage and increasingly team-based, interprofessionally-focused service delivery, may be used to train and structure Victoria's health workforce more effectively, and encourage health practitioners to work to the limits of their scopes of practice. Shared competencies recognise and capitalise upon similarities between health professions and may assist in encouraging a greater focus on interdisciplinary learning and workforce models.

It is envisaged that a shared principles-based competency framework may have the following specific benefits:

- Revitalisation and restructure of workforce models – recognition of shared competencies will aid broader implementation of interdisciplinary work teams that can provide flexible and comprehensive care to clients. A competency framework will also assist in identifying the necessary skills to meet changing client needs. Work roles can then be adapted to reflect client demand.
- Job enhancement – redistribution of work tasks to allow all workers to operate to the full extent of their scopes of practice and spend more time working at the maximum level of competence to which they have been trained.
- Delivery of safe and effective healthcare – recognition that there is a difference between 'competence' and 'competencies'. A shared framework will help to ensure that workers are working within the boundaries of their training and that clients are receiving safe treatments and clear messages from healthcare workers.
- Improved education and training pathways – common competencies may be used to improve the coherence and cohesiveness of health education programs across the VET and higher education sectors. Education and training programs may also be adapted to reflect the changing face of the healthcare industry.

A shared competency framework will require inter-sectoral cooperation and communication to maximise the productivity of the existing workforce. Principle Four of the *National health workforce strategic framework* (2004) states that ‘cohesive action is required among the health, education, vocational training and regulatory sectors to promote an Australian health workforce that is knowledgeable, skilled, competent, engaged in lifelong learning and distributed to optimise equitable health outcomes’.² Although there are many examples of successful inter-sectoral work at a local level, Principle Four attempts to address the broadening gap between the need for continued improvement of healthcare services and the limits of the public workforce to meet these demands.

The healthcare industry is dynamic and is constantly changing to reflect shifts in client needs. Proactive discussion and strategic planning in anticipation of future challenges will ensure that the health workforce is well-equipped to continue delivering safe, high quality care to consumers. The goals of producing competent healthcare workers and delivering the best healthcare for clients/patients are shared by health service providers, education/training institutions and regulatory/accrediting agencies. A shared competency framework will help to align differing terminologies and open communication within and between the sectors to ensure that the common aim of safe, high-quality, client-centred care can be realised.

Points for discussion

- What are the opportunities and risks associated with implementing a shared competency framework?

² Australian Health Ministers’ Conference 2004, *National Health Workforce Strategic Framework*, viewed 26 February 2009, < <http://www.nhwt.gov.au/documents/Publications/2004/National%20Health%20Workforce%20-%20Strategic%20Framework.pdf> >

2. What is competency?

What competency is *not*

Competency is a traditionally divisive concept and one that lacks a standardised definition. This chapter explores ideas of competency to arrive at a functional interpretation from which to explore the potential to develop competency-based systems for Victoria.

It is important to note at the outset however, that while there are many components to competency, a shared competency framework is not an attempt to limit individual healthcare professions in favour of generic healthcare workers. The demands on the Victorian healthcare system are such that specialised healthcare workers are necessary to meet the specific needs of clients. The reduction of workers to a 'lowest common denominator' level of competency runs counter to strategic workforce aims.

In identifying competencies that are common across many health professions, a shared competency framework will also be useful for highlighting those skills which are unique to individual professions. Employing organisations can then be sharing or redistributing generalist tasks to focus instead on meeting the specialist requirements of their employees' roles. Refocusing workloads in this way will maximise the potential and improve the efficiency of the health workforce.

Distinguishing competence from competency

The concept of competence is not new. It first arose during the 1960s and has had many definitions and re-conceptualisations since then. Historically, the 'competence' debate has been loud and this has been the case in educational institutions, workforce sectors and professional registration authorities.^{3,4,5}

It is important to appreciate the difference between the terms competence and competency. *Competence* is a generic term referring to a person's overall ability while *competency* refers to specific capabilities, such as leadership, and is made up of knowledge, skills and attitudes. So, there can be discussion about both how competent an individual is overall and his/her level of competency in one specific area. Overall competence depends on the level of every specific competency. Both measures are important when assessing someone's work attributes as a whole.⁶

In contemporary debate, the holistic nature of the concept of competence considers what people actually do in various settings. Worth-Butler et al (1994) come close to capturing the complexity underlying the concept saying:

It involves not only observable behaviour which can be measured, but also unobservable attributes including attitudes, values, judgemental ability and personal dispositions: that is – not only performance but capability.⁷

Competence: a globally used concept and language

Internationally, healthcare providers are more and more moving towards adopting competence and competency standards, rather than moving against them. Standards are primarily used as a way of communicating within the workforce. For example, the World Health Organisation (WHO) determined five basic competency principles for delivering effective healthcare for patients with chronic conditions.⁸ These are outlined in Table 1.

³ Bowden, J.A 1997, 'Competency-based Education – Neither a Panacea nor Pariah', TEND 97 conference, Abu Dhabi, viewed 26 February 2009, < <http://crm.hct.ac.ae/events/archive/tend/018bowden.html> >

⁴ Bowden, J.A, Masters, G.N 1993, *Implications for Higher Education of a Competency-based Approach to Education and Training*, National Office of Overseas Skills Recognition, Commonwealth of Australia, Canberra.

⁵ Wheelahan, L, Carter, R 2001, 'National Training Packages: a New Curriculum Framework for Vocational Education and Training in Australia', *Education+Training*, vol. 43, no. 6, pp. 303-316.

⁶ Clinton, M et al 2004, 'Assessing Competency in Nursing: a Comparison of Nurses Prepared Through Degree and Diploma Programmes', *Journal of Clinical Nursing*, vol. 14, no. 1, pp. 82-94.

⁷ Worth-Butler, M et al 1994, 'Towards an Integrated Model of Competence in Midwifery', *Midwifery*, vol. 10, no. 4, 225-231.

⁸ Pruitt, S.D, Epping-Jordan, J.E 2005, 'Preparing the 21st Century Global Healthcare Workforce', *British Medical Journal*, vol. 330, 637-639.

Table 1: WHO competency principles for healthcare of chronic conditions

Principle	Explanation
Patient-centred care	Understanding the experience of illness from the patient's perspective captures the essence of patient-centred care. This type of care is responsive to and respectful of the needs, values, differences and preferences of the patient. It also includes coordinating continuous and timely care; relieving pain and emotional suffering; listening and communicating; providing education and information; sharing decision making and management; preventing disease, disabilities and impairments; and promoting wellness and healthy behaviour.
Partnering	Partnering is the ability to join with patients, other providers and communities for effective care of patients with chronic conditions. The workforce needs skills that allow them to share power and involve patients in all aspects of decision making in their healthcare. They need the ability to work in teams and collaborate with other providers: those who care for the patient across time, in different settings, from different disciplines, and for different diseases that might coexist in the same patient. This competency necessitates strong communication skills, including the ability to negotiate, share decisions, collectively solve problems, establish goals, implement action, identify strengths and weaknesses, clarify roles and responsibilities, and evaluate progress. Partnering with communities will help to redistribute responsibility between the healthcare system and the neighbourhoods and villages in which patients spend most of their time. Referral pathways between the healthcare setting and outside organisations can be developed when everyone works together.
Quality improvement	Quality improvement requires the health workforce to be clear about the outcomes they are working towards, know what changes would lead to improvements, and know how to evaluate their efforts. In addition, a quality improvement approach requires workers to translate into practice evidence from their own efforts at improvement and those of others. Improved safety for patients and increased efficiency of service delivery are embedded in this competency.
Public health perspective	Thinking from a public health perspective moves the workforce from caring for one patient at a time to planning care for populations of patients. Related to this is the concept of systems thinking – the understanding that healthcare is a series of systems that are embedded in other, broader systems. Patients and providers are influenced by healthcare organisations that are in turn influenced by even larger national healthcare policies. Finally, a public health perspective includes care across the disease continuum, from clinical prevention to palliative care.
Information and communication technology	The workforce needs the skills to use available technologies to support care of patients. Information systems (from paper and pencil records to sophisticated electronic databases) are essential for organising and monitoring patients' responses to treatments and outcomes. Communication systems (from fixed line telephones to mobile devices to the internet) allow the exchange of information on patients with other providers, who may be in other settings or distant locations.

The WHO basic competency principles were identified following a process of document review and international validation via professional councils, educational leaders, patient advocacy groups and experts in caring for patients with chronic conditions.

Recent examples of competency models being used nationally may be found in the National Health and Medical Research Council (NHMRC) publications, *Cultural Competency in Health: A guide for Policy, Partnerships and Participation*, and, *Increasing Cultural Competency for Healthier Living Environments*.^{9, 10}

⁹ National Health and Medical Research Council 2005, *Cultural Competency in Health: A Guide for Policy, Partnerships and Participation*, viewed 26 February 2009, <http://www.nhmrc.gov.au/publications/synopses/_files/hp19.pdf>

¹⁰ National Health and Medical Research Council 2005, *Increasing Cultural Competency for Healthier Living and Environments*, viewed 26 February 2009, <http://www.nhmrc.gov.au/publications/synopses/_files/hp25.pdf>

As a concept, competence has evolved to a point where it is now a globally used term, though there are other suggested reform processes (both nationally and internationally) such as individual and workforce capability. However, it can be viewed that such reforms should relate back to individual and workforce competence. For example, documenting and understanding capabilities¹¹ may assist in developing units of competency but the two are not interchangeable.

A contemporary view of competency

The understanding of competency has come a long way since the task-based concepts developed over 45 years ago. Such approaches assumed that the whole was not greater than the sum of its parts and ignored factors such as setting and personal attributes. Now, competency is discussed in terms of a combination of attributes, such as knowledge, skills and attitudes.

In a workplace, competency takes into account the complex interaction of attributes that underpin occupational performance. It links general attributes to the context in which they will be used and therefore avoids the problem of long task lists by selecting key tasks or elements that are central to the practice of a given occupation. Such an integrated approach allows for a range of appropriate situational responses and the potential to develop them to meet changing needs in healthcare providers. This therefore encompasses all aspects of work performance, not only narrow task-related skills.

Workforce competencies and traditional education

The focus on developing workplace competencies has sometimes been viewed as contradictory to the type of learning that might be expected in traditional university education models. In practice though, most health workforce professionals and VET-trained personnel have competency standards on which educational programs are

developed and accredited. Competency standards also form the basis on which university and VET graduates are formally registered in many health workforce roles.

In most circumstances a perceived separation exists between higher education and VET education programs. In practice, VET and higher education course development have considerable similarities. Higher education uses profession-based competency standards for curriculum development and VET courses are based on sets of individual workforce sector-determined competency standards called training packages. The training packages are designed to direct competency-based training and assessment. Training packages are usually developed by specific workforce sector skills councils with the involvement of employers and government and employee organisations.¹² VET training packages include employability skills that reflect higher education graduate attributes such as communication, teamwork, problem solving, and self-management. Employability skills and graduate attributes underlie all programs of study in their respective education sectors. The similarity between graduate attributes and employability skills cannot be overlooked and will be discussed further in Section 4.

The responsibilities of health assistants, technicians, nurses or doctors require contextual judgements about the relevance of their knowledge, skills and attitudes to the activity they are about to perform. Therefore education and training, whether VET or higher education, should be part of the solution to addressing issues in the healthcare workforce, not a continuing contributor to tension.¹³

Points for discussion

- How do you define competency?
- What are the essential elements of a broad definition of competency?
- How, if at all, is the notion of 'competency' used within your organisation/sector? How, if at all, might this understanding be broadened for use across/within other sectors (eg. VET, higher education, health care)?

¹¹ Capability is the ability to perform actions. In human terms, capability is the sum of expertise and capacity. The term capability was introduced by Dennis and Van Horn in 1966 in a paper entitled, *Programming semantics for multiprogrammed computations*.

¹² See for example, the Community Services and Health Industry Skills Council, <http://www.cshisc.com.au/load_page.asp>.

¹³ Bowden, J.A 1997, 'Competency-based Education - Neither a Panacea nor Pariah', TEND 97 conference, Abu Dhabi, viewed 26 February 2009, <<http://crm.hct.ac.ae/events/archive/tend/018bowden.html>>

3. The relevance of competency in healthcare

As described in Section 2, aspects of the concept of competence are intangible and cannot always be observed directly. The idea of competence attempts to capture many personal characteristics and attributes that enable acceptable overall performance in an occupation. Some of the personal attributes that underlie competence may be readily recognisable; for example, a particular knowledge base, or certain skills or attitudes. Others may be ill-defined, poorly understood or even unrecognised.¹⁴

Attributes and performance are not the same as competence but they do provide the means by which competence can be measured. In developing 'competency standards', professions aim to identify the aspects of workplace performance that provide the best means to infer professional competence. An integrated approach to developing competency standards needs to include a comprehensive consideration of the important attributes that bring about competent performance in the workplace, as well as performance itself.¹⁵

An ability to perform a series of routine tasks in isolation does not translate to adequate professional competence, regardless of how well the tasks are performed or how important they are to the work of the profession. Although competent performance in certain routine professional activities will be essential to delivering an appropriate level of performance to the community, the ability to judge whether such tasks should or should not be undertaken is an equally important part of professional competence that should be recognised in competency standards.

Competence as a binary scale

Under this model an individual is deemed either competent or not. A common view of competence, this concept implies that competency standards would relate only to workplace tasks that have no degrees of performance – the notion that you can either do it or you can't. Under this model, graduates would be expected to meet prescribed minimum entry-level competency standards. One argument against this approach is that such professional competency standards are not meant to discourage excellence and graduates are expected to surpass – *not just meet* – such performance standards.

Competence as sequential stages

This concept can be described using two examples as detailed in Table 2: Benner's nursing application of the Dreyfus Model of Skill Acquisition¹⁶; and Figure 1, Miller's Pyramid, which models the crucial components of clinical competence. The base represents basic facts, followed by applied knowledge in the upper layers.^{17, 18}

¹⁴ For examples of competencies and competency standards as they apply to the health workforce, please refer to < https://www.dhs.vic.gov.au/workforce/downloads/core_clinical_skills_mapping.pdf

¹⁵ Masters, G.N, McCurry, D 1990, *Competency-based Assessment in the Professions*, National Office of Overseas Skills Recognition, Commonwealth of Australia, Canberra.

¹⁶ Benner, P 1984, *From Novice to Expert: Excellence and Power in Clinical Nursing Practice*, Addison-Wesley, California.

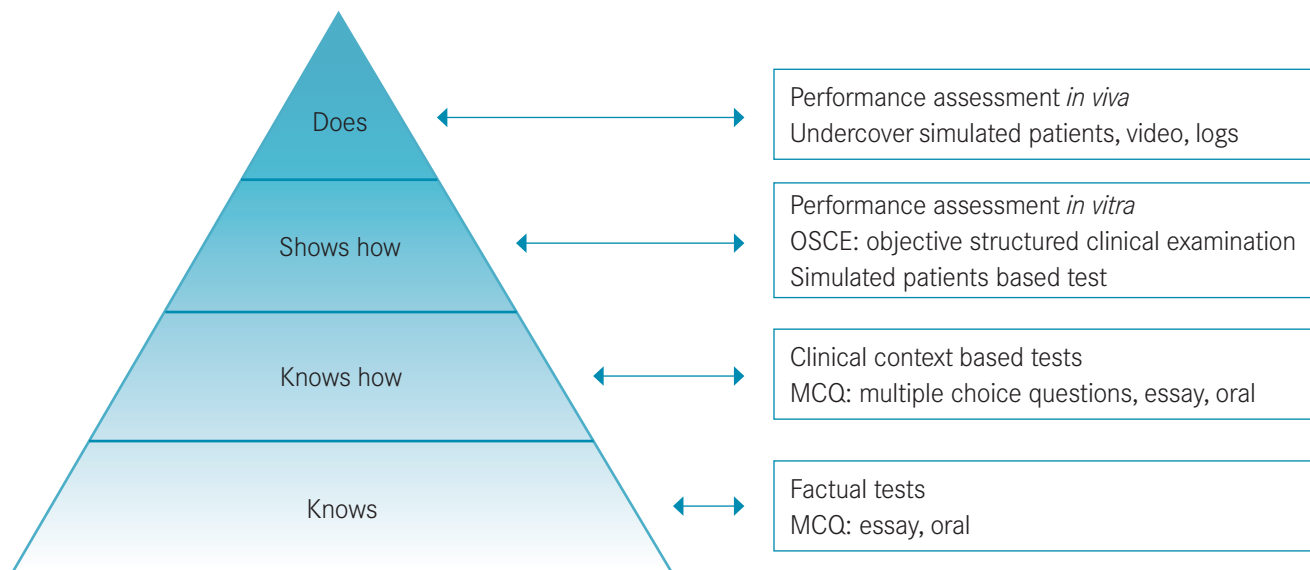
¹⁷ Wass, V et al 2001, 'Assessment of Clinical Competence', *The Lancet*, vol. 357, no. 9260, pp. 945-949.

¹⁸ Note that the Cambridge model for delineating performance and competence effectively inverts Miller's pyramid. See: Rethans, JJ et al 2002, 'The Relationship Between Competence and Performance: Implications for Assessing Practice Performance', *Medical Education*, vol. 36, no. 10, pp. 901-909.

Table 2: Benner's application of the Dreyfus Model of Skill Acquisition to nursing

Stage of skill acquisition	Explanation
1. Novice	A novice has no experience of the situation and learns to recognise objective facts relevant to the skill and acquires rules that can be used to determine action. There are abstract principles (theory) and rule-governed behaviour to guide performance and accumulate experience; actions are inflexible and limited in scope. A student of nursing therefore learns theory of decision making and applies it to structured problems with a great deal of singularly focused concentration.
2. Advanced beginner	Advanced beginners represent stage two of new skill acquisition. This stage indicates that the learner has coped with real situations and recognises relevant aspects to new situations that are viewed more and more as a complete whole. There is a perception of similarity to prior experiences that cannot necessarily be articulated by the learner. Consequently, the advanced beginner nurse learns, by experience, more facts and more sophisticated rules that could be applied to decisions that are to be made.
3. Competent	At this stage learners face an almost overwhelming number of relevant aspects but a sense of what is significant is absent. To cope, people learn (or are taught) to devise a plan to bring some form of structure to the situation and then determine what is relevant to improve their performance. The learner conceives of their actions more in terms of long-range goals or plans of which they are consciously aware. The competent nurse consequently has a greater sense of responsibility for outcomes because they are not simply a result of applying learned rules and procedures. The choice of plan is based on considerable conscious, reflective and analytical contemplation of a situation.
4. Proficient	Proficiency represents stage four of skill development. Characteristically the proficient performer perceives situations holistically and demonstrates an intuitive ability, 'know how', to recognise patterns based on past experiences. Hence a proficient nurse intuitively understands and organises the task at hand while still thinking analytically about what to do.
5. Expert	Stage five of skill development represents 'expertise'. The expert performer learns from experience what events might be expected in a particular situation and how plans need to be modified, based on the most salient factors, to respond to the current circumstances. Hence, the performance of expert nurses is more fluid and they tend to do what normally works. Rather than deliberate, an expert nurse reflects critically on intuitions. They are capable of making judgements based on their prior solid experiences that challenge the best attempts at explanation.

Figure 1: Miller's 'pyramid' of competence



Competence as a continuum

This is where only a 'level' of competence is assigned; that is, no individual is assumed to be competent per se, only competent at a particular level. This concept has the ability to provide the understanding needed to distinguish between small differences in competence.¹⁹ It may be thought of as a continuum of lifelong learning through continuing professional education (CPE).

The non-binary models of competence allow the charting of a learner's progress through various stages of acquiring knowledge, skills and attitudes. There is recognised progression from initial 'mechanical' and procedural stages to higher levels of proficiency in which theory and practice combine, in much the same way that people experience learning to ride a bicycle or drive a car.

The next section considers attempts at improving communication and consistency across workforce groups through various language constructs and education/training frameworks.

Points for discussion

- How might 'competence' be measured? In what ways is knowledge demonstrated?
- How can the assessment of 'competence' move beyond a 'time-served' model, yet still retain efficiency and universality across institutions/organisations?
- For clinical supervisors, VET and higher education providers: what performance measures are used within your health education programs to assess learners' level of skill/knowledge acquisition? How, if at all, is their progress measured over time?

¹⁹ Clinton, M et al 2004, 'Assessing Competency in Nursing: a Comparison of Nurses Prepared Through Degree and Diploma Programmes', *Journal of Clinical Nursing*, vol. 14, no. 1, pp. 82-94.

4. Interdisciplinary and cross-sectoral communication and consistency

There are many examples of attempts to improve cross-sectoral and interdisciplinary communication in order to provide more consistency to language regarding competency. Several of these are briefly summarised in this section to help provide background and context for this discussion paper. More detailed summaries are provided as an appendix.

Australian Qualifications Framework

The Australian Qualifications Framework (AQF) is a system of national qualifications that is intended to form a seamless education and training system that includes certificates, diplomas and degrees. State and territory accreditation authorities use the AQF to define courses inconsistently. It is a sector-based framework that means that VET qualifications are separately accredited from higher education qualifications.

In the VET sector, qualifications are based on nationally endorsed competency standards specified within training packages, or, where training packages do not exist, accredited courses. In the higher education sector, courses are based on knowledge and learning outcomes.

Learning outcomes

Learning outcomes are generally aligned with the higher education sector. They do not describe the content of a subject but how measurement of its learning can be achieved. They are set by individual universities and so are influenced by peer review. Learning outcomes are usually structured around the requirements of professional bodies and employer groups.

Credit matrix

With a primary aim of assisting the understanding and implementation of a seamless education and training system, the Victorian Registration Qualifications Authority (VRQA) applies a credit matrix to measure competency. A credit matrix describes individual components of qualifications, codifies their complexity and amount of learning, and assigns them points and predetermined levels of learning categories.

A credit matrix may assist in determining a level of equivalence between course units and levels of learning. The primary measure is 'guided learning time' converted to 'points', but not the outcomes of learning per se. A credit matrix does not specifically guide or provide a definitive map for the development of courses in any structural sense, nor does it assist in directly comparing course unit content in the way that is possible when comparing competencies or learning outcomes.

Training packages

Training packages are aligned with the national VET sector. They are sets of workforce sector-determined competencies usually developed by industry skills councils with the involvement of employers, government and employee organisations. The packages do not specify how a competency is to be learned, but rather specify the required outcome of learning.

Training packages facilitate course development, consistent practice, work role evaluation and, to a limited extent, mechanisms for two-way articulation between VET and higher education courses.

National Quality Council

As a committee of the Ministerial Council for Vocational and Technical Education, the National Quality Council (NQC) has a key role in bringing together the major players in the vocational and technical education sector. The NQC oversees quality assurance and ensures national consistency in the application of the Australian Quality Training Framework standards for auditing and registering training providers. It has specific decision-making powers in relation to endorsing training packages and other aspects of quality assurance under the National Skills Framework.

Profession-based competency standards

Profession-based competency standards are usually specific to occupations and associated with professional-level education and training. Professional associations accredit courses offered by universities implying that competency standards are integrated into health profession education programs.

Many professional associations require a specified time period of direct field experience to take place before membership is granted. Formal education courses may also be required to include a level of prescribed fieldwork to be accredited as a professional entry-level qualification. Workforce entry-level competencies should not be assumed to be the level of ability of a new graduate entering the workplace. Entry-level sometimes refers to the standard of performance required in the workplace for competent practice that is equated to graduates with up to two years' experience after completion of a base qualification.

Competency standards informing learning outcomes in higher education

Competency standards may be used to facilitate course development, consistent practice, work role evaluation and (to a limited extent) mechanisms for two-way articulation between VET and higher education courses. The competency standards of a particular health workforce profession can be used to develop curriculum and learning outcomes.

Drawing the current communication methods together

As this paper has demonstrated, there are a number of similarities between the competencies and employability skills that are endorsed and developed by regulatory authorities and the VET and higher education sectors. Both VET and higher education courses are derived from regulatory authority competency standards and reflect an understanding of competencies. Similarly, regulatory authorities engage with the language of competencies that is employed by higher education sector via learning outcomes. This section demonstrates the potential to maximise these similarities to promote interdisciplinary understanding and cross-sector communication.

The disparate approaches to education and practice (outlined above) do not readily lend themselves to easy communication between the health workforce, education and regulatory sectors. An alternative approach, that recognises the similarities rather than emphasising the differences between sectors, would seem to be a starting point for a shared way forward.

Perhaps the greatest barrier to interdisciplinary and cross-sector communication is that there is no overarching agreed model for documenting the health workforce as a whole. The next section sets out a proposed way forward.

Points for discussion

- How might the language of competencies be adapted to simplify transitions between:
 - The VET and higher education sectors?
 - Tertiary education and the health workforce?
 - Different professions within the healthcare industry?
 - Different roles within the same healthcare discipline (for example, Division 2 nursing, Division 1 nursing, nurse practitioner)?

5. Progressing shared healthcare principles

As a useful starting point for progressing towards a shared vision of cross-disciplinary and inter-professional understanding, the CanMEDS model of health workforce competency principles is presented as an example of a successful and well-established methodology.

CanMEDS competency principles

CanMEDS is a medically oriented model of overarching competency principles. All of the Australian medical and medical specialty colleges have come to adopt the CanMEDS 2005 Physician Competency Framework that was developed by The Royal College of Physicians and Surgeons of Canada.²⁰ CanMEDS provides a model for grouping medical and medical specialty competencies under overarching principles, as summarised in Table 3.

Table 3: CanMEDS competency principles

CanMEDS competency principle	Summary
Medical expert/clinical decision maker	As medical experts, physicians integrate all of the CanMEDS roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care – medical expert is the central physician role in the CanMEDS framework.
Communicator	As communicators, physicians effectively facilitate the doctor–patient relationship and the exchanges that occur before, during and after the medical consultation.
Collaborator	As collaborators, physicians effectively work within a healthcare team to achieve optimal patient care.
Manager	As managers, physicians are integral participants in healthcare organisations, organising sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.
Health advocate	As health advocates, physicians responsibly use their expertise and influence to advance the health and wellbeing of individual patients, communities and populations.
Scholar	As scholars, physicians demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.
Professional	As professionals, physicians are committed to the health and wellbeing of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

²⁰The Royal College of Physicians and Surgeons of Canada 2005, *CanMEDS 2005 Framework*, viewed 26 February 2009, <http://rcpsc.medical.org/canmeds/bestpractices/framework_e.pdf>

The CanMEDS principles can be adapted to suit specific circumstances and medical specialty groups. As an example of the adaptability of the CanMEDS principles, the Royal Australasian College of Surgeons (RACS) has customised the CanMEDS principles to suit its purposes.²¹ In brief, the RACS competency principles are:

- medical expertise
- technical expertise
- judgement – clinical decision making
- communication
- collaboration
- management and leadership
- health advocacy
- scholarship and teaching
- professionalism.

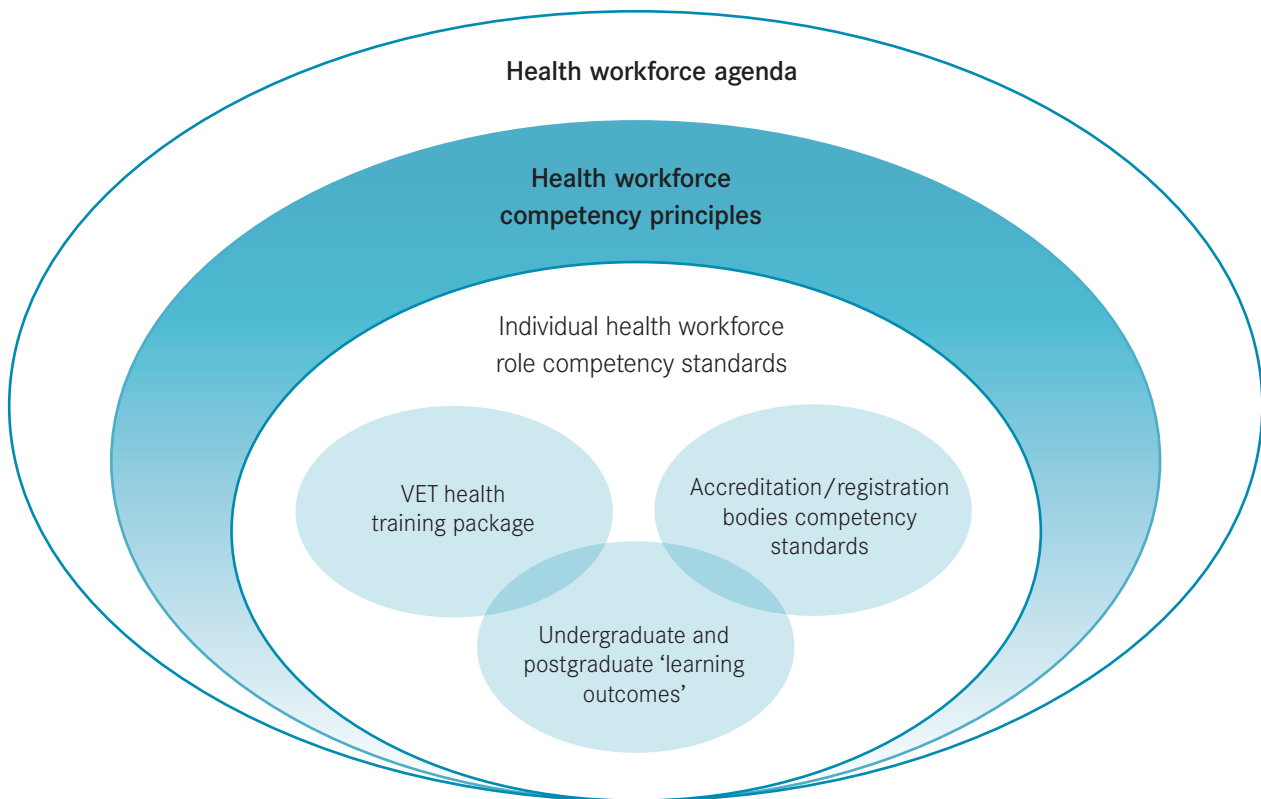
The CanMEDS model of competency has had worldwide success. While it may not apply broadly across all groups within the health workforce and education sectors in Australia, the CanMEDS model may be a useful reference point.

The following sections consider the relevance of shared health workforce competency principles and how they may be utilised.

The relevance of shared health workforce competency principles

VET training packages, higher education learning outcomes and profession-based competency standards all influence individual health workforce roles. The ability to document competencies within a model that is agreed across the health workforce and education sectors would be a significant benefit to collaboration and provide a useful foundation to interdisciplinary and cross-sector communication. This process may contribute to the national healthcare reform agenda.

Figure 2: Health workforce competency principles in the national context



²¹ Royal Australasian College of Surgeons 2009, *Competencies*, viewed 26 February 2009, < <http://www.surgeons.org/AM/Template.cfm?Section=Competencies> >

Proposed health workforce competency principles

In 2005, the department commissioned a review and report of selected health profession competency standards.²² The report advised that there are a range of formats for health competency standards that are in use within the health workforce. The number of formats being utilised have prevented comprehensive mapping and analysis of gaps and commonalities between health workforce competency standards. The report proposed a set of principles under which competencies from different health workforce groups could be aggregated. The suggested core and specific competency principles under which the VET units of competency, regulatory body competency standards, and possibly higher education learning outcomes, could be aggregated are detailed in Table 4.

It is proposed that these principles be considered as a model for use across healthcare and education sectors. These principles are reflective of state and federal government policies – such as *Victoria: A better state of health; Better skills, best care*; and the Productivity Commission’s investigation into Australia’s health workforce – and are intended to be representative of the healthcare team approach that is reflected in inter-professional, interdisciplinary and inter-sectoral collaboration. Shared health workforce competency principles should also align with the CanMEDS competency principles. Table 5 provides a preliminary analysis that aligns pre-existing frameworks with proposed models that are derived from CanMEDS.

Table 4: Suggested core and specific competency principles

Core principle	Specific principles
Client/patient service <ul style="list-style-type: none"> Collecting, obtaining analysing and interpreting data such as the diagnostic or clinical decision-making activities Patient centred care 	1. Philosophy of care 2. Service delivery 3. Specialty 4. Client/patient safety
Professionalism <ul style="list-style-type: none"> Working effectively with diverse populations and communities Being a health advocate Engagement in professional development and evidence based practice 	5. Ethics 6. Law 7. Equity 8. Performance improvement
Workplace and health systems <ul style="list-style-type: none"> Working in partnership and providing coaching/mentoring Policy and planning, and occupational health and safety 	9. Management 10. Team player 11. OH&S
Communication <ul style="list-style-type: none"> Effective interpersonal communication with clients and colleagues Intra- and interdisciplinary communication Data presentation and information technology 	12. Client/patient 13. Professional

²² Community Services and Health Industry Training Board 2005, *Competency Standards for Health and Allied Health Professionals in Australia*, viewed 26 February 2009, < https://www.dhs.vic.gov.au/workforce/downloads/core_clinical_skills_mapping.pdf

Table 5: Comparison of proposed health workforce competency principles and CanMEDS principles

Proposed competency principles		CanMEDS
Core principle	Specific principles	
Client/patient service	1. Philosophy of care	Health advocate
	2. Service delivery	Clinical decision maker/collaborator
	3. Specialty	Medical expert Clinical decision maker
	4. Client/patient safety	Clinical decision maker Collaboration
Professionalism	5. Ethics	Professional
	6. Law	Professional
	7. Equity	Professional
	8. Performance improvement	Scholar
Workplace and health systems	9. Management	Manager
	10. Team player	Collaborator
	11. OH&S	Manager/collaborator
Communication	12. Client/patient	Communicator
	13. Professional	Professional/collaborator

Applying health workforce competency principles

The example in Table 5 demonstrates how competencies that apply in the education and training of occupations/levels can be compared when grouped within the proposed health workforce competency principles. Where more detail is required, reference can be made to the elements of competency and performance criteria contained in the relevant competency standards.

Comparison of professional competencies (and/or learning outcomes) can be made with these proposed principles. In some instances there may be ‘gaps’ against the competency principles for some occupations or levels of occupations because all principles may not apply. Table 6 provides a hypothetical comparative example.

It is considered ineffective to have more than 10 to 15 units of competency for any one occupation. In instances where numerous competencies exist, a comprehensive mapping of competencies and/or learning outcomes might be feasible, particularly where there is consistency in documentation and a shared understanding of formulating and using competencies.

Table 6: Hypothetical example of interdisciplinary mapping of competencies against proposed health workforce competency principles

Core principle	Specific principle	Level 1	Level 2
Client service	Philosophy	Enact client-centred mechanisms of care	Establish client-centred mechanisms of care
	Delivery	Be respectful of cultural diversity Follow all guideline steps on how to do work	Ensure respect of cultural diversity is practiced Use evidence-based practice to treat patients
	Specialty	Perform a complete and appropriate patient assessment	Establish and maintain clinical knowledge, skills and attitudes
	Client safety	Know how to ensure correct patient identification	Design and implement safe practices
Professionalism	Ethics	Maintain professional standards at work	Establish mechanisms to ensure staff are fit to work
	Legal	Adhere to legal codes of practice	Contribute to developing legal codes of practice
	Equity	Promote equity and diversity	Actively develop/implement policies and programs to enhance equity in the workplace
	Performance improvement	Improve skills and learn more about performance	Participate in professional learning programs, engage in teaching and research activities.
Workplace	Management and leadership	Participation in mentorship programs	Provide leadership
	Team	Work as part of a team	Use teamwork to deliver effective healthcare
	OH&S	Advise appropriate person of potential hazards	Identify, report and learn from potential hazards
Communication	Client/patient	Provide information to patients when they need it	Provide information to patient and carers when needed
	Professional	Establish personal networks	Develop networks with colleagues
		Use IT tools for reporting	Use IT tools to improve patient care
		Develop an awareness of key stakeholders	Network with stakeholders

Points for discussion:

- How might a shared competency framework account for speciality competencies in a meaningful way?
- How can the integrity of the individual health professions be maintained while still retaining a commitment to improved workforce efficiency and workforce redesign?

6. Conclusion

All stakeholders share responsibility for, and stand to benefit from, finding the best way to address healthcare education and workforce challenges. Communication and cooperation are key to this achievement.

Different paradigms and approaches on a range of issues must be overcome to achieve cross-disciplinary and inter-sectoral communication between the higher education, VET and healthcare sectors. On the particular issue of workforce competency (and its manifestation in education and training requirements), the consequence of differing conceptions can ultimately impact on the effective delivery of healthcare and health education.

In that context, this discussion paper is intended to emphasise the similarities between the health workforce, education sectors and regulatory bodies. The result is a proposed set of principles that provides the basis for discussion and future development of a potential shared competency framework.

The department considers the objective worthy on the grounds that shared competency principles may:

- facilitate interdisciplinary and inter-sectoral dialogue and comparative analysis
- contribute to consistent standards for the registration of practitioners and accreditation of healthcare courses

- guide curriculum development in an inter-professional/interdisciplinary environment
- inform development of formal education pathways for students, employers and education providers
- help to ensure that the educational achievements of health professionals are recognised by registration and accreditation bodies – this includes articulation, recognition of prior learning (RPL) and recognition of current competency (RCC) between VET providers and higher education providers
- assist in job development and evaluation
- identify common practices between healthcare professionals
- provide equitable assessment of international healthcare workers
- link to progression, performance and development management processes
- improve morale within the healthcare and education sectors
- facilitate determination of core and common competencies through a mapping process.

Points for discussion

- In practical terms, how might a shared competency framework be implemented within your organisation? For example, what impact would a shared competency framework have on job and team design, course curriculum and assessment, professional development and/or registration and accreditation guidelines?

7. Glossary of selected terminology

Articulation	The key feature of articulation is the existence of pathways that allow graduates of one course of study to progress, or 'articulate', to another. It is usually thought of in a context of providing pathways 'upwards', (especially from VET to university), but 'reverse articulation' also applies to traffic between higher education and VET. It can also refer to moving between related courses at the same level. Articulation is important because it is related to opportunity and status; 'dead end' courses that do not have pathways to further study opportunities have less status than programs that do provide further options. ²³
Capability	The sum of expertise and capacity.
Capacity	The actual or potential ability to perform.
Competence	A generic term referring to a person's overall capacity to perform a given role, including not only performance but capability. It involves both observable and unobservable attributes such as attitudes, values, and judgemental ability.
Competency	Competency is a component part of competence. It refers to specific capabilities, such as leadership.
Competency field	The competency field reflects the way units of competency are categorised in training packages or denotes the workforce sector, specialisation or function. It is an optional component of the unit of competency.
Core competencies	Core competencies are considered to be essential competencies. They may exist within a workforce role or span across different workforce roles.
Competency frameworks	The word 'framework' is used widely. Sometimes competency standards are called competency frameworks. For example, when units of competency are grouped under 'domains' (main headings for grouping related competencies) it may be called a framework. In broader application, competency frameworks can describe and may also map related sets of competency standards that cover the operational level of different roles within a workforce group such as level 1, level 2, level 3 and level 4 in a particular work role; and nurse practitioner, midwife, division 1, division 2.
Competency standards	Competency standards are groups of competencies specified by the workplace and professional associations that are required to operate effectively in a particular workplace role. They specify what the public can expect from a practitioner. Sometimes related competencies within competency standards are clustered under 'domains' that refer to groups of related units of competency. Competency standards are sometimes referred to as competency frameworks.
Cues	Illustrative examples that assist in the interpretation and assessment of units of competency within competency standards. They are usually not comprehensive or exhaustive.
Domain	A realm or range of attributes such as personal knowledge or responsibility.
Elements of competency	Elements describe outcomes that contribute to a unit of competency.

²³ Haas, A 1999, *Trends in articulation arrangements for technical and vocational education in the South East Asian region*, RMIT University, Melbourne.

Employability skills	Employability skills have replaced key competencies in VET. They may be embedded into units of competency and are: <ul style="list-style-type: none"> • communication • teamwork • problem solving • initiative and enterprise • planning and organising • self-management • learning • technology.
Evidence guide	An evidence guide describes the underpinning knowledge and skills that must be demonstrated to prove competency. It provides essential advice for assessment of the unit of competency and must be read in conjunction with the performance criteria and the range statement of the unit of competency and the training package assessment guidelines.
Evidence	In this context, evidence refers to indications of successful teaching and learning, summative assessment.
Expertise	Skillfulness by virtue of possessing special knowledge.
Key competencies	See employability skills.
Learning objectives	Learning objectives, distinct from learning outcomes, refer to a line of thought that defines educational outcomes in terms that clarify the type of behaviour a program of study should develop among students. Attainment is characterised by the behaviour specified.
Learning outcomes	Learning outcomes as they are applied in higher education, refer to a statement of what a learner is expected to be able to do, know and/or value at the completion of a unit of study, and how well they should be able to achieve those outcomes. It states both the substance of learning and how its attainment is to be demonstrated through performance.
Performance criteria	These are evaluative statements that specify what is to be assessed and the required level of performance. Performance criteria specify the activities, skills, knowledge and understanding that provide the evidence of competent performance.
Pre-requisite units (optional)	Mandatory units of study, often kept to a minimum to maximise flexibility.
Professional standards	Professional standards relate to systems, procedures and information used by individuals to achieve a level of conformity and uniformity for a particular service provision, for instance running a healthcare service facility.
Proficiency level	Degree of mastery of a skill or area of knowledge, performance, attributes (characteristics of person).
Range indicators/range statement	These relate to a unit of competency as a whole providing the range of contexts and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

Recognition of current competencies (RCC)	<p>Recognition of current competency (RCC) applies if a student has previously successfully completed the requirements for a unit of competency or module and is now required to be reassessed to ensure that the competence is being maintained. In this case no extra skill or competencies are nationally recognised. An unsuccessful RCC assessment does not invalidate the previous competent assessment outcome.</p> <p>The outcome of an application is that RCC will be either granted or not granted and is reported against the relevant Australian Vocational Education and Training Management Information Statistical Standard (AVETMISS) codes.</p>
Recognition of prior learning (RPL)	<p>RPL involves the assessment of previously unrecognised skills and knowledge an individual has achieved outside the formal education and training system. RPL is an assessment process that assesses the individual's non-formal and informal learning to determine the extent to which that individual has achieved the required learning outcomes or competency standards.</p> <p>The outcome of an application is that RPL will be either granted or not granted, and is reported against the relevant Australian Vocational Education and Training Management Information Statistical Standard (AVETMISS) codes.</p>
Subject matter content	Knowledge, skills, attitudes.
Tool	In this context, formative assessment and learning methodologies.
Training packages	Training packages are aligned with the VET sector. They are sets of workforce sectors determined competencies designed to support competency based training and assessment. Training packages are usually developed by workforce sector skills councils with the involvement of employers, government and employee organisations.
Unit of competency	A unit of competency is a discrete component within competency standards. A unit of competency is the lowest level at which competence can be certified.
Unit of competency descriptor	A unit of competency descriptor assists with clarifying the unit title and notes any relationship with other workforce sectors units.
Unit of competency title	A competency unit title is a succinct statement of the specific unit of competency. Each competency unit title for training packages is unique both within and across training packages.

Appendix: Detailed summary of attempts to align competency language

1. Australian Qualifications Framework

The Australian Qualifications Framework (AQF) is a system of national qualifications that is intended to form a seamless education and training system. These qualifications are:

- Senior Secondary Certificate of Education
- Certificate I
- Certificate II
- Certificate III
- Certificate IV
- diploma, advanced diploma
- associate degree
- bachelor degree
- vocational graduate certificate
- vocational graduate diploma
- graduate certificate
- graduate diploma
- master's degree
- doctoral degree.

State and territory accreditation authorities use the AQF to define courses inconsistently. It is a sector-based framework that means that VET qualifications (Certificate I–IV, diploma, advanced diploma, vocational graduate certificate, vocational graduate diploma) are separately accredited from higher education qualifications (diploma, advanced diploma, bachelor degree, graduate certificate, graduate diploma, master's degree, doctoral degree). Separate VET and higher education accreditation bodies administer course accreditation and, in some states, they may be in the same agency. The diploma and advanced diploma are dual-sector qualifications that are issued in both sectors, but are accredited or authorised differently by each.

In the VET sector, qualifications are based on nationally endorsed competency standards specified within training packages, or, where training packages do not exist, accredited courses. In the higher education sector, courses are based on knowledge and learning outcomes. The quality control aspects of the AQF provide an assurance that wherever an accredited qualification is offered, it has been monitored to meet the nationally specified criteria for the qualification. As noted in the previous section, difficulties arise where there are differences in the way course and qualification outcomes are expressed in VET and higher education that make communication of pathways and articulation arrangements difficult to interpret and design. There is more information on this point in the sections that follow.

2. Learning outcomes

Learning outcomes are generally aligned with the higher education sector. They do not describe the content of a subject but 'are statements of desired outcomes of learning expressed in terms that make it clear how measurement can be achieved'.²⁴ The terminology is often used interchangeably with 'learning objectives', however, learning objectives apply to a specific behaviourist view of education that defines educational outcomes in terms of a behaviour a program of study should develop among students.

Academic requirements, including learning outcomes, are set by individual universities. These are influenced by peer review and are structured around the requirements of professional bodies and employer groups. Unlike VET providers, universities are self-accrediting bodies and private higher education providers have their courses accredited by higher education accreditation authorities. The primary difference originally perceived between learning outcomes and competencies is that learning outcomes do not necessarily seek to attest to occupational or professional competence.²⁵ Given the challenges graduates experience in the workforce, this view should be balanced with the introduction of graduate attributes in the higher education sector. Graduate attributes may include:

- communication skills
- global perspective
- information literacy
- lifelong learning
- problem solving
- social responsibility
- ethics
- inter-disciplinarily
- in-depth knowledge of a field of study
- teamwork.

Many universities now specify generic or core attributes of their graduates. The attributes are intended to recognise that higher education students are being prepared for a future in which changes in knowledge and professional practice occur at a rapid rate. Students need to know how to find and manage information, to continue to learn throughout their lives, and to deal flexibly and responsibly with new situations. The notion of graduate attributes is therefore inextricably linked with learning, professional knowledge, skills and attitude content.

²⁴ Melton, R 1997, *Objectives, Competencies & Learning Outcomes: Developing Instructional Materials in Open and Distance Learning*, Routledge, London and Stirling (USA), 29.

²⁵ *Ibid.*, 30.

3. Credit matrix

With a primary aim of assisting the understanding and implementation of a seamless education and training system, the Victorian Registration Qualifications Authority (VRQA)²⁶ applies a credit matrix to measure competency.²⁷ A credit matrix describes individual components of qualifications, codifies their complexity and amount of learning, and assigns them points and predetermined levels of learning categories. The primary differences between the AQF and the Victorian Credit Matrix are summarised in Table A.

Table A: Comparison of Australian Qualifications Framework and Victorian Credit Matrix

Australian Qualifications Framework
<ul style="list-style-type: none"> • Qualifications are defined by the type and sector of accreditation • There are specific guidelines for each type of qualification • The framework deals with qualifications
Victorian Credit Matrix
<ul style="list-style-type: none"> • Units, modules and subjects (units) are defined by their level (of complexity) and points (amount of learning) • The one set of level descriptors, and the points system, apply to all units • The matrix deals with units

As Table A indicates, a credit matrix may assist in determining a level of equivalence between course units and levels of learning. The primary measure is 'guided learning time' converted to 'points', but not the outcomes of learning per se. A credit matrix does not specifically guide or provide a definitive map for the development of courses in any structural sense, nor does it assist in directly comparing course unit content in the way that is possible when comparing competencies or learning outcomes.

The full implementation of the Victorian Credit Matrix is intended to result in the production of resource materials such as course brochures and websites that indicate the level and points of each course unit within qualifications.^{28,29}

²⁶ Replaced the Victorian Qualifications Authority (VQA) in June 2007.

²⁷ See <<http://www.edfac.unimelb.edu.au/arc/teaching/creditmatrix.html>>

²⁸ Victorian Qualifications Authority 2004, *The Credit Matrix: Making it Work*, Victorian Qualifications Authority, Melbourne, 28.

²⁹ Dunn, F, Joseph, A 2004, *The Credit Matrix: Building Bridges Between Qualifications*, 7th Australian Vocational Education and Training Research Association Conference 2004, Canberra.

4. Training packages

Training packages are aligned with the national VET sector. They are sets of workforce sector determined competencies designed to support competency-based training and assessment. Training packages are usually developed by industry skills councils with the involvement of employers, government and employee organisations. The packages do not specify how a competency is to be learned, but rather specify the required outcome of learning.³⁰

In the workforce, competence tends to focus on what is expected of an employee in a workplace rather than on the learning process. This concept can take into account the requirements of changes in the workplace and service delivery; capturing the ability to apply skills in new situations and changing work organisation. Department of Education, Employment and Workplace Relations (DEEWR) defines competency as:

... the ability to perform particular tasks and duties to the standard of performance expected in the workplace.³¹

The four identified competency components are:

- task skills
- task management skills
- contingency management skills
- job/role environmental skills.

Training packages for particular workforce groups, such as the health workforce, consist of numerous units of competency that are structured as per Table B.

³⁰ Department of Education, Employment and Workplace Relations 2008, *Training Package Development Handbook*, viewed 26 February 2009, <<http://www.tpdh.deewr.gov.au/main.htm>>. Further information about the health training package can also be accessed at <<https://www.cshisc.com.au/index.php>>

³¹ Department of Education, Employment and Workplace Relations 2008, *Training Package Development Handbook*, viewed 26 February 2009, <<http://www.tpdh.deewr.gov.au/main.htm>>

Table B: VET competency model specifications³²

VET competency model specifications
<ul style="list-style-type: none"> • Unit of competency • Unit code • Unit title • Unit descriptor • Employability skills • Competency field (optional) • Pre-requisite units (optional) • Sector (optional) • Elements of competency • Performance criteria • Required skills and knowledge • Range statement • Evidence guide (optional)

Training packages therefore facilitate course development, consistent practice, work role evaluation and, to a limited extent, mechanisms for two-way articulation between VET and higher education courses.³³

In addition, VET competency standards include employability skills that underlie all VET programs of study. They include:

- communication
- teamwork
- problem solving
- self-management
- initiative and enterprise
- planning and organising
- self management
- learning
- technology.

The similarity between higher education learning outcomes and graduate attributes (see above section on learning outcomes) and VET competency standards and employability skills cannot be overlooked.

5. National Quality Council³⁴

The National Quality Council (NQC) was established in December 2005 as part of the new national training arrangements. The NQC continues much of the work carried out by the former National Training Quality Council (NTQC) and met for the first time in March 2006.

As a committee of the Ministerial Council for Vocational and Technical Education, the NQC oversees quality assurance and ensures national consistency in the application of the Australian Quality Training Framework standards for the audit and registration of training providers. It has specific decision-making powers in relation to the endorsement of training packages and other aspects of quality assurance under the National Skills Framework.

The NQC has a key role in bringing together the major players in the vocational and technical education sector – workforce sectors, unions, governments, equity groups and practitioners – to oversee and support the current and future quality of vocational and technical education across Australia. It is also critical to ensuring the successful operation of the National Skills Framework that requires quality and national consistency of qualifications and the delivery of training.

The functions of the NQC include:

- reporting to the Ministerial Council on the operation of the National Skills Framework, including training packages, Australian Quality Training Framework standards and other quality assurance arrangements
- advising Ministers on the endorsement of training packages
- recommending approaches to improve national consistency within the operation of the National Skills Framework.

6. Profession-based competency standards

Profession-based competency standards are usually specific to occupations and associated with professional-level education and training. Regulatory authorities typically rely on formal education courses to prepare students to enter a profession with the knowledge, skills and attitudes that are consistent with the competency standards of a profession. Professional associations accredit courses offered by universities that are demonstrated to be consistent with competency standards. This implies that competency standards, where they exist, are integrated into health profession education programs.

³² Refer Section 7 for a selected glossary of terminology.

³³ Community Services and Health Industry Training Board 2005, *Articulation Between Vocational Education and Training (VET) and the Higher Education (HE) Sectors*, viewed 26 February 2009, < http://www.health.vic.gov.au/__data/assets/pdf_file/0018/306180/articulation_vet_and_he.pdf>

³⁴ Department of Education, Employment and Workplace Relations 2008, *National Quality Council*, viewed 26 February 2009 < http://www.dest.gov.au/sectors/training_skills/policy_issues_reviews/key_issues/nts/vet/nqc.htm>

Many profession-based competency standards were originally developed with the assistance of the National Office of Overseas Skill Recognition (NOOSR) to assist with evaluating and assessing international qualifications. These are frequently referred to as using the 'NOOSR competency standards template'.^{35,36,37}

Comparing Table C below and Table B above demonstrates the similarity of the NOOSR model to the VET Training Package competency model.

Table C: NOOSR competency components³⁸

NOOSR competency components
• Unit of competency
• Elements of competency
• Performance criteria
• Range indicators
• Cues (optional)

Initially, the NOOSR and VET competency templates were virtually identical, but VET programs have since been further refined with the introduction of competency-based training. The knowledge and skills that underpin the new VET template have been made more explicit in the description of competencies raised in the Review of Training Packages (2004).³⁹

Many professional associations require a specified time period of direct field experience to take place before membership is granted. Formal education courses may also be required to include a level of prescribed fieldwork to be accredited as a professional entry-level qualification. For example, occupational therapists must attain a minimum of 1000 hours of clinical education.⁴⁰

Workforce entry-level competencies should not be assumed to be the level of ability of a new graduate entering the workplace. Entry-level sometimes refers to the standard of performance required in the workplace for competent practice that is equated to graduates with up to two years' experience after completion of a base qualification such as a bachelor degree, such as in the case of orthoptists.⁴¹

It is a legislative requirement in most professions that there is evidence of competence against validated competency standards for initial and ongoing registration. Ongoing registration may require the accumulation of continuous professional development points within a specified time period to retain registration as a practicing professional. Some professional associations and medical specialty colleges have their own competency assessment procedures. For example, the Australian Council of Physiotherapy Regulating Authorities uses a range of assessment procedures, including written tests, practical performance assessments (one-off and continuous), structured oral assessments, workplace observation, and a review of patient records to assess the competency of its members.

7. Competency standards informing learning outcomes in higher education

Competency standards may be used to facilitate course development, consistent practice, work role evaluation and (to a limited extent) mechanisms for two-way articulation between VET and higher education courses. The competency standards of a particular health workforce profession can be used to develop curriculum and learning outcomes, as is demonstrated in the following case study.

³⁵ Gonzci, A et al 1990, *Establishing Competency-based Standards in the Professions*, Department of Employment, Education and Training, Canberra.

³⁶ Masters, G.N, McCurry, D 1990, *Competency-based Assessment in the Professions*, National Office of Overseas Skills Recognition, Commonwealth of Australia, Canberra.

³⁷ Commonwealth of Australia 1993, *Competency-based Standards for Medical Scientists*, viewed 26 February 2009 < <http://www.aims.org.au/c/index.php?page=competency-based-stds> >

³⁸ Ibid.

³⁹ Schofield, K, McDonald, R 2005, *Moving On: Report of the High Level Review of the Training Packages*, Australian National Training Authority, Melbourne.

⁴⁰ Curtin University of Technology 2008, *Occupational Therapy Fieldwork*, viewed 26 February 2009, < http://ot.curtin.edu.au/fieldwork/ot_fieldwork.cfm >

⁴¹ Wozniak, Helen 1997, *National Competency Standards for the Profession of Orthoptics*, Orthoptic Association of Australia, Hampton, 17.

Case study: Competency standards

An example of competency standards interrelated with learning outcomes of medical scientists⁴²

Role statement⁴³

Medical scientists provide information based on investigation of biological material, which assists in the diagnosis, monitoring and prevention of disease.

Units of competency⁴⁴

Unit of competency 1:	Prepare and analyse biological material
Unit of competency 2:	Correlate, validate and interpret results of investigations using clinical information
Unit of competency 3:	Report and issue laboratory results
Unit of competency 4:	Maintain documentation, equipment and stock
Unit of competency 5:	Maintain and promote safe working practices
Unit of competency 6:	Liaise with health workers and others to continuously improve the service
Unit of competency 7:	Participate in education and training of health workers and others
Unit of competency 8:	Participate in research and development activities
Unit of competency 9:	Demonstrate continuing professional development
Unit of competency 10:	Demonstrate professional accountability for medical scientists practice

Using competency standards in education programs

Higher education institutions providing accredited courses for medical scientists must demonstrate that their courses meet the requirements stipulated in the profession's competency standards. To be able to offer a professionally accredited course, the institution must provide evidence to the accrediting authority that the competency standards are being met. The accrediting authority reviews the course provision as a whole – not just the curriculum document – to ensure the learning outcomes within the course curriculum reflect the competency standards. The achievement of all learning outcomes, and consequently entry-level competence to the profession, is demonstrated by the outcomes of a student's actions and what they have learnt by 'doing' not just 'knowing'.

At RMIT University, it is recognised that competency cannot be determined in a totally simulated environment. This issue is attended to by incorporating professional practice placement of students in actual laboratory environments. The students are 'signed-off' as competent in the laboratory work place by experienced practitioners. The laboratories that are used for such placements must be externally accredited.

This practice ensures that evidence of a graduating student's competence is not only accumulated via theory and practical examinations in the university setting, but also through a number of other mechanisms including performance appraisals, evidence documented in the student's professional practice journals and continuing professional development (CPD) log books, observation and 'sign-off' by workplace supervisors, and interviews by staff of the academic institution with students and their supervisors.

⁴² Derived from personal communication, April 2007, Assoc. Prof. Ralph Green, Laboratory Science Discipline and Program Leader, RMIT University, Melbourne.

⁴³ Commonwealth of Australia 1993, *Competency-based Standards for Medical Scientists*, viewed 26 February 2009 < <http://www.aims.org.au/c/index.php?page=competency-based-stds> >

⁴⁴ Ibid.

