

Evolution not revolution: views on training products reform

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About the research

Evolution not revolution: views on training products reform

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At the request of the Council of Australian Governments (COAG) Industry Skills Council (ISC) and the Skills Senior Officials Network (SSON), a National Training Product Reform Group, comprising representatives from all of the jurisdictions, considered the longer-term reform of training products. This exercise, conducted during 2016, aimed to ensure that training products remain relevant and support skills development, in the face of technology, jobs and industry change. The role of the National Centre for Vocational Education Research (NCVER) was to convene a group of thought leaders to consider the challenges and opportunities for the reform of training products.

NCVER commissioned three essays to inform discussion at a symposium, held on 9 August 2016. The 60 or so symposium participants considered training product reform from the perspective of industry, educators, students and regulators. Their views are captured in this summary, which was prepared to assist the reform group. The areas of agreement are presented in the key messages that follow. The points of difference, about how to balance the various interests represented in the system, were also raised. This task will require deft negotiation to avoid the introduction of further complexity into training products, given that all participants agreed that training product simplification must be an essential goal of reform.

Key messages

- An industry-led training products framework remains a cornerstone of the national training system.
- Training products should:
 - establish occupational standards
 - enhance the capacity of learners to enquire and analyse
 - support dialogue between industry and educators
 - enable effective regulation to support training quality
 - encourage lifelong learner involvement and empowerment in the development of skills and knowledge.
- Reform efforts should aim to preserve the effective aspects of the current training products while also looking to the future. These efforts should concentrate on the fundamentals:
 - high-level national industry standards, along with educational standards
 - educator and industry involvement in design and delivery.
- Training products should reinforce principles for partnerships between industry and educators, as well
 as across education sectors, supporting more agile review and the efficient update of training
 products.
- For people with educational disadvantages, VET training products shouldn't be differentiated, but the learners should receive tailored support. They may be better assisted outside the current framework of training products.
- Testing initiatives before implementing wholesale reform was generally viewed as the best approach, with pilots and trials seen as good ways to further inform the design of the training product system.

Dr Craig Fowler Managing Director, NCVER

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With the end of the resources boom and reversal of Australia's terms of trade, new dynamics are refashioning the policy challenge. The changing nature of workforce skills, the future of non-mining trade-exposed sectors and the implications of our proximity to Asia are all increasingly relevant. In turn, these factors are themselves being reshaped by an underlying mix of technical, social and global forces.¹

To contend with the forces shaping Australia's economic future, policy-makers need to define and contain the challenges before them. In the area of workforce skills, one task is to ensure that training products (training packages and accredited courses) assist in addressing structural shifts in work.

As part of a program of work undertaken by the Council of Australian Governments (COAG) Industry and Skills Council (ISC) and the Skills Senior Officials Network (SSON) on training product reform, the National Centre for Vocational Education Research (NCVER) assembled a group of experts (see appendix A) to 'think big' about the future of training products.

The program of training product reform aspires to provide a system in which:

- Skills described in training products are aligned to the needs of the modern and changing labour market.
- The applied learning model, which is a distinguishing feature of the vocational education and training (VET) system, remains central to course design.
- The skills and knowledge acquired lead to employment but are also transferable.
- Capabilities such as work-readiness, literacy and numeracy, and employability skills are a core part of training, especially for disadvantaged workers.
- VET courses strive for excellence and build career opportunities.
- Improvements target quality and integrity.

Setting the scene for the discussion, Craig Robertson² quoted the 2016 CSIRO (Commonwealth Scientific and Industrial Research Organisation) report, *Tomorrow's digitally enabled workforce* (CSIRO 2016), which argues that the digital revolution in the workplace will effect greater, faster and different transitions than previously experienced. He argued that routine manual and non-manual tasks have been on the decline over the past 40 years, while higher-order analytic or interpersonal tasks have continued to rise since the 1980s. These trends will be magnified by increasing automation. An effective training system must therefore build people's capabilities to find work and to move between jobs, and have a particular focus on ensuring that students and graduates, and specifically those who are disadvantaged in the changing labour market, continue to have opportunities to learn new skills.

¹ Green, Marsh & Pitelis (2015, p.216).

² Deputy Secretary, Higher Education and Skills Group, Victorian Department of Education and Training and NCVER Director.

This vastly diverse system cannot be changed at whim — Symposium participant.

8

Prefacing his call for bold ideas for the future, Robertson set out the strengths of the current system of training products, which is characterised by the role of:

- industry, in specifying the competencies needed in the workforce and, through consultation, developing training products
- registered training organisations (RTOs) in delivering and issuing qualifications and skill sets, as prescribed in training packages and accredited courses
 - with those RTOs contextualising delivery to the needs of participants, including employers, as well as detailing practical work placements.

The challenge was to ensure that training products meet the current *and* future needs of individuals and industry, and are clear about training outcomes and their value. The increasing demand for higher skills necessitates products that enable transition to further training/higher education and establish strong foundation skills. This would entail strengthening information and guidance on teaching and learning strategies, particularly practicum and experiential learning.

This introduction revealed the complexity of the expectations with which the VET system has always had to contend: having to cater not only to students and employers, but also to fulfil a wider social remit to the community, in particular to the disadvantaged. As the discussions on the day again highlighted, this complexity can only be addressed through joint efforts from all those with a stake in the system. Importantly, we need to be realistic about the expectations placed on the current VET system and recognise the challenge of restoring and enhancing its reputation for excellence.

The group was asked to consider how the design of training products could support the VET system to:

- build individuals' capabilities and skills to meet current and future needs, contribute to their employability and build industry productivity
- enable student transition to further training/higher education
- provide clarity for students, RTOs and employers about the expected training outcomes and their value, and the range of VET products
- facilitate access to training for all students by having strong foundation skills development and appropriate entry/pathway qualifications
- facilitate high-quality delivery by expanding and strengthening information and guidance about teaching and learning strategies, particularly practicum and experiential learning.

What total VET activity (TVA) data tell us

Craig Fowler³ presented the group with a selection of NCVER statistics on training products. These reveal a very diverse system, one in which training is spread across many different types of providers, programs and courses.

³ Managing Director, National Centre for Vocational Education Research.

The diversity of providers

According to NCVER's National VET Provider Collection, there were around 4.5 million students undertaking VET in 2015, spread across 4277 providers. Most VET providers could be considered as small and medium-sized. As seen in figure 1, over 80% of providers had fewer than 1000 students in 2015. In particular, over a third of providers had fewer than 100 students. Large institutions, with 1000 students or more, comprised less than a fifth of all providers.

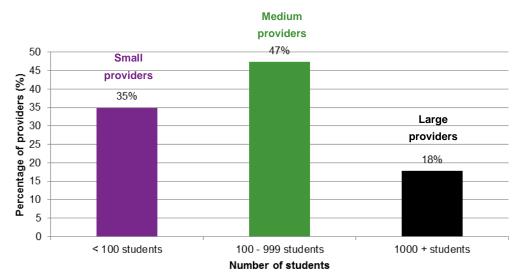
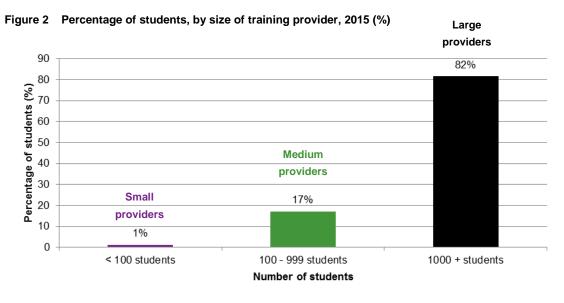


Figure 1 Percentage of training providers, by size according to number of students, 2015 (%)

Source: National VET Provider Collection, 2015.

The distribution of students, shown in figure 2, contrasts with the distribution of providers shown above. Despite large providers comprising less than 20% of all providers, they accounted for around 80% of the students in 2015. Small providers have around 1% of all students.



Source: National VET Provider Collection, 2015.

Providers are often grouped together according to their type, including TAFE (technical and further education) institutes, community education providers and private providers. There is much diversity between these groups, as shown in table 1.

18% of qualifications with enrolments of 1000 or more students accounted for over 90% of all enrolments in 2015.

Table 1 Number of students, by type of provider, 2015

		Students			
Туре	Number of providers	Number	Mean	Median	Max
TAFE	53	932 267	17 590	15 634	90 904
University	15	81 923	5 462	888	21 245
School	442	150 587	341	141	16 036
Community education provider	468	205 674	439	123	24 128
Enterprise provider	207	112 820	545	140	18 032
Private training provider	3 099	3 012 078	972	231	115 527

Source: National VET Provider Collection, 2015.

In 2015 TAFE institutes accounted for 21% of the students (and made up 1% of providers), while private providers had 67% of the students (and made up 72% of providers). Together these two groups comprised 88% of students and 74% of all providers in 2015.

As shown in table 1, TAFE institutes tend to be large providers and had an average of around 18 000 students in 2015. In contrast, private providers tend to be small and medium providers; private providers had an average of around 1000 students in 2015. Table 1 shows the diversity across different provider types, but there is also great diversity within the provider types.

Of the 53 TAFE institutes, most were large providers (according to the number of students), but four were medium-sized and one was a small provider. As noted above, most private providers were medium-sized (1450 of 3099) or small providers (1027), but there were also many large private providers (622). Indeed, the largest provider in 2015 was a private provider with 115 527 students. While these groups are sometimes treated as homogenous categories, there is a great diversity within and between these groups.⁴

The diversity of training

While the majority of enrolments in 2015 were in training package qualifications, program enrolments in other types of training products range from locally recognised skill sets and courses to nationally accredited training, as table 2 shows.

Table 2 Program enrolments, by type of accreditation, 2015

Type of accreditation	Number of unique courses	Total enrolments ('000)	Total enrolments (%)
Skills sets (nationally and locally recognised)	1 894	153.7	4.4
Locally recognised courses	2 338	231.7	6.6
Nationally recognised accredited courses	943	404.5	11.5
Training package qualifications	2 050	2 722.4	77.4
Higher-level qualifications	81	3.3	0.1
Total	7 306	3 515.5	100.0

Source: Total VET students and courses, 2015.

⁴ Data prepared as at November 2016, based on the report Korbel, P & Misko, J 2016, VET provider market structures: history, growth and change, NCVER, Adelaide. Subsequent update and scope revisions may result in data differing to what is presented in this report.

Figure 3 reveals the distribution in reported enrolments in the qualifications the system offers. In 2015, some 91% of all reported enrolments were contained within 18% of the qualifications used; some 29% of qualifications accounted for between 101 and 1000 enrolments, and 53% of qualifications had 100 enrolments or fewer.⁵

60% 53% 50% 40% 38% 31% 29% 30% 22% 20% 15% 8% 10% 3% 1% <1% 0% 1 to 10 enrolments 11 to 100 enrolments 101 to 1 000 enrolments 1 001 to 10 000 10 000 + enrolments Enrolment size of qualifications ■Percentage of qualifications ■Percentage of enrolments

Figure 3 Qualifications, by number of enrolments, 2015 (%)

Source: National VET Provider Collection, 2015.

Figure 4 shows that the most used 25 qualifications come from a range of training packages and cover all of the Australian Qualifications Framework (AQF) levels, from certificate I through to diploma. Many of the largest qualifications are needed for industry accreditation or regulatory purposes. For example, the Certificate IV in Training and Assessment is required to teach in VET, while many qualifications in health care, aged care and education on the top-25 list are formal requirements for related occupations.

⁵ TVA 2015 also showed some 3.2m subject only enrolments in a total of 29.4m subject enrolments.

Diploma of Early Childhood Education and Care Diploma of Management Certificate IV in Training and Assessment Certificate III in Aged Care Certificate III in Early Childhood Education and Care Certificate II in Hospitality Diploma of Business Certificate I in Construction Certificate II in Business Certificate III in Hospitality Certificate II in Kitchen Operations Certificate III in Fitness Certificate III in Driving Operations Certificate III in Civil Construction Plant Operations Certificate III in Electrotechnology Electrician Certificate IV in Frontline Management

Figure 4 Largest training package qualifications, by enrolments, 2015

Source: National VET Provider Collection, 2015.

Another way to organise the data is by grouping training packages around occupational areas (table 3).

Here it emerges that the largest five training package groups comprised around 50% of all enrolments in training package qualifications in 2015.

Table 3 Largest training package groups, by enrolments, 2015

Certificate III in Carpentry

Certificate III in Business

Diploma of Nursing (Enrolled-Division 2 nursing)

Certificate IV in Building and Construction (Building)

Certificate IV in Property Services (Real Estate)

Certificate III in Commercial Cookery

Certificate II in Retail Services

Certificate II in Construction Pathways

Certificate II in Security Operations

Training package groups	Total enrolments	Total enrolments
	('000)	(%)
Business Services (BSA, BSB)	457.8	16.8
Community Services (CHC)	362.6	13.3
Tourism, Travel and Hospitality (SIT, THH, THT)	230.8	8.5
Construction, Plumbing and Services Integrated Framework (BCF, BCG, BCP, CPC)	205.9	7.6
Sport, Fitness and Recreation (SIS, SRC, SRF, SRO, SRS)	128.0	4.7

Source: Total VET students and courses, 2015.

10,000 20,000 30,000 40,000 50,000 60,000 70,000 80,000

Information was also provided on the general alignment between vocational qualification and job occupation six months after completion of training, based on information drawn from student outcomes surveys. Access to this information is possible via the 'VET students by industry' data-visualisation tool available on NCVER's Portal https://www.ncver.edu.au/data/data/total-vet-activity. This interactive tool presents graduate outcomes information by training package, specific program, occupation and industry, as well as by field of education at a detailed level. Data may also be filtered or presented by a number of demographic variables, such as sex, age and equity group status.

The training packages with the highest rate of graduates going on to employment in the same occupation for which they were training are shown in table 4. Apprenticeships are common in many of the occupations covered by these packages, and, as would be expected, employment in the same occupation is therefore highly likely.

Table 4 Graduates with a greater than 50% rate of employment in the same occupation as training, by training package, 2016 (%)

Training package	Employed in the same occupation as training (%)	Total employed after training (%)
Aeroskills (MEA)	81.9	90.5
Public Safety (PUA)	59.1	94.6
Electrotechnology (UEE, UTE, UTL)	52.0	87.7
Hairdressing (SIH, WRH)	52.0	72.5
Aviation (AVI, TDA, ZQF)	51.1	87.0

Note: Matching between the intended occupation of the training activity and the occupation after training occurs at the ANZSCO sub-major group level.

Source: VET students by industry – Total VET graduate outcomes information (2016).

However, these are not necessarily the packages with the highest rates of graduate employment after training; these are shown in table 5.

The high rate of employment after training in these packages could indicate many things, including a high demand for these skills or, alternatively, existing employees undertaking further training. On the other hand, the relatively low rates of employment in the same occupation as training could indicate the transferability or portability of these skills, potential mismatches in the training offered or employment in a related but different occupation.

Table 5 Graduates with a greater than 90% rate of employment after training, by training package, 2016 (%)

Training package	Total employed after training (%)	Employed in the same occupation as training (%)	
Transmission, Distribution and Rail (UET, UTT)	99.7	28.2	
Sustainability (MSS)	95.2	4.3	
Public Safety (PUA)	94.6	59.1	
Local Government (LGA)	93.8	15.8	
Public Services (PSP)	92.5	19.1	
Correctional Services (CSC)	92.2	48.3	
Training and Education (BSZ, TAA, TAE)	92.2	24.3	
Construction, Plumbing & Services Integrated Framework (BCF, BCG, BCP, CPC)	91.8	47.6	
Printing and Graphic Arts (ICP)	90.9	26.5	
Aeroskills (MEA)	90.5	81.9	

Note: Matching between the intended occupation of the training activity and the occupation after training occurs at the ANZSCO sub-major group level.

Source: VET students by industry - Total VET graduate outcomes information (2016).

Qualifications are assigned an intended occupation; the intended occupations with the highest rate of graduates going on to employment in the same occupation for which they were training are shown in table 6. Many of these occupations are in the trades area, where apprenticeships are common and employment in the same occupation is likely.

Table 6 Graduates with a greater than 50% rate of employment in the same occupation as training, by intended occupation of training activity, 2016 (%)

Intended occupation of training activity (ANZSCO sub-major group level)	Employed in the same occupation as training (%)	Total employed after training (%)
34 - Electrotechnology and telecommunications trades workers	71.1	90.7
33 - Construction trades workers	70.6	93.6
32 - Automotive and engineering trades workers	69.7	91.0
42 - Carers and aides	55.2	77.1
81 - Cleaners and laundry workers	53.6	70.8
35 - Food trades workers	52.9	83.5

Note: Matching between the intended occupation of the training activity and the occupation after training occurs at the ANZSCO sub-major group level.

Source: VET students by industry - Total VET graduate outcomes information (2016).

Three of these intended occupations are also linked to the highest rates of employment after training, as shown in table 7. In addition, there are occupations from the managers, professionals and sales areas, but these have much lower rates of employment in the same occupation after training. Similar to above, there are many reasons why training may not appear to match employment.

Table 7 Graduates with a greater than 90% rate of employment after training, by intended occupation of training activity, 2016 (%)

Intended occupation of training activity (ANZSCO sub-major group level)	Total employed after training (%)	Employed in the same occupation as training (%)
63 - Sales support workers	93.8	23.5
33 - Construction trades workers	93.6	70.6
24 - Education professionals	91.5	24.4
32 - Automotive and engineering trades workers	91.0	69.7
34 - Electrotechnology and telecommunications trades workers	90.7	71.1
12 - Farmers and farm managers	90.7	10.4

Note: Matching between the intended occupation of the training activity and the occupation after training occurs at the ANZSCO sub-major group level.

Source: VET students by industry - Total VET graduate outcomes information (2016).

The symposium's task

The thought leaders (see appendix A) were grouped around six tables, with industry, provider, regulator, government and research interests represented on each table. Three sets of roundtable conversations, framed by essays prepared by Sara Caplan, Kwong Lee Dow and David Beckett (see appendix B), were conducted. Some discussion-starter questions were also included (see appendix C).

Participants were urged to challenge prevailing thinking — unconstrained by existing governance or system arrangements — and to have a future-focused discussion. The symposium was lively. Participants fulfilled the brief to be wide-ranging in their discussions, although the limited time did not permit full consideration of all the issues brought to the table. What follows is a synthesis of the day, presented according to the dominant themes that emerged.

There are no black-and-white solutions in the VET world. It is a juggling act, one that requires the deft balancing of legitimate dichotomies. Some of these dichotomies are presented in this paper, with a view to prompting further reflection on the task of reform. As one symposium participant reflected: 'this vastly diverse system cannot be changed at whim'. Reform needs to be undertaken after careful consideration of the likely impacts on all those involved in the system.

Also to emerge during the day was the analogy of the policy puzzle (Stewart-Weeks 2016). With so many players in the system working on their individual 'pieces', it can become hard to see the complete puzzle; to do so calls for a 'slowing down' of the work on the pieces to allow consideration and to enable reflection of the whole. The enthusiasm in the symposium suggested an appetite for a reform process, one that focuses on the whole puzzle and identifies the work that must be done to cope with the complexities facing the Australian workforce and the broader community in a globalised economy.

You cannot separate the product from practice.



The major themes to emerge from the symposium are presented below.

Where it is possible, we have identified a view firmly held by a representative of a particular stakeholder group or where there was consensus. This has, however, proved difficult, given the intertwined nature of many of the discussions and, importantly, because those groups, industry and educators in particular, are not homogenous.

As one person pointed out, 'industry' is made up of a variety of players: peak industry bodies and employer groups; individual employers; and unions (who were not present on the day and who will be engaged through other mechanisms). Another, an educator, observed that to get a good grasp of the skills required in a particular occupation entailed 'actually talking to real workers and real managers (as well as industry stakeholders, not instead of)'. This suggests the need for even more nuanced consultations during the reform process. Nevertheless, what did emerge were some clear areas of agreement and which cast light on what might be done to improve the training product system.

Design and implementation

Design and implementation must be considered together. Along with good training outcomes, this is the puzzle we are striving to make whole.

The consensus of the day was that the product cannot be separated from the practice.

The seminal position of training products in the system lends itself to differing interpretations.

For some, predominantly industry, they remain a pillar of the competency-based approach; for others, such as educators, they are a tool.

That the system should remain industry-driven was broadly acknowledged. But warnings were sounded in Caplan's paper: if training products do not deliver what employers need, the employers will walk away from accredited training and find other ways to skill their workers. This highlights central tensions in the system: how do we train for now – the primary interest, it appeared, of those industries employing lower-qualified workers – and for the future, a question preoccupying policy-makers and researchers. And do we train for a particular set of tasks or for a career? This is a question which, depending on the nature of those tasks, will attract different answers from employers, learners and teachers alike.

The imperative to consider design and implementation together also underlines the need for greater educational involvement in the design, and employer involvement in the implementation and assessment. These were matters that arose throughout the day and to which this paper will return.

Today or tomorrow?

Another note of caution was injected into the discussion: while it is important to have the capacity to understand, to the extent this is ever possible, the future shape of work and the

associated skills and knowledge requirements, not everything is new: there are some constants in human behaviour for which the economy and, in turn, the training system must provide.

That the system should not be fixated on change was a clear industry view.

Furthermore, it was pointed out that to train for something too far into the future will not serve employers or individuals in today's workplace, with some industry voices in the room being very clear on that issue. With better definition of the fundamentals, it may be easier to preserve the integrity of national accredited training and build in the flexibility and forward-looking attitude it also requires — and to address the clarion call coming from all parties represented: simplify the system!

Could this be done by creating a common core for all qualifications, further underpinned by specialist, sector-specific skill sets (as elaborated on in Sara Caplan's paper, appendix B)?

While some industry peak bodies advocate for this approach, the answer to this question was equivocal. The principle sounds attractive but the diversity of industries served by the system suggests a common core could be difficult to achieve.

One size does not fit all. Some industry specialisations affect the core, as well as the technical requirements for training. Moreover, regulation and licensing are industry-specific. There was recognition that skills sets could help the system to be responsive to the changing requirements for skills among existing workers, but to meet the potential inherent in skill sets would require better funding arrangements and recognition of their role within the training products framework.

Occupation or industry?

Should, then, we move to a broader notion of industry-based qualifications instead of concentrating on occupations.

Again, while there was interest in the exploration of a capability-based approach⁶, participants were cautious about universal solutions.

The system has to be able to take account of both labour market settings and the specific purposes of the qualification as an entry to a vocation and career, or to undertake a specific job.

Could simplification be achieved by having fewer training products and qualifications? 'Perhaps' is the answer, although one industry representative pointed out that low enrolments in some training packages (for example, those associated with the funeral industry) did not mean they were redundant. Other industry voices recognise that some employers only want to train for the job and do not see it as their responsibility to train or educate more broadly.

⁶ Noting a pilot is currently being undertaken by the NSW Department of Industry, Skills and Regional Development.

There is a fear that competency-based training leads to the lowest common denominator, but this shouldn't be the case. Competency should be 'best practice'; it should be about excelling — Symposium participant.

Competency

The mood of the room was to reject any revolutionary action to abandon the competency-based training (CBT) system on which Australian VET is founded. Instead, it was thought possible – and necessary – to redefine the notion of competency so that the system could deliver the underpinning knowledge, skills and capabilities the workforce must acquire. Technical skills should not be compromised, but broader capabilities and disciplinary knowledge need to be added to the training.

Narrowly defined units of competency signal what skills a job role or task requires.

This is not only important for industry; educators noted that these smaller components of an applied learning path can motivate students by revealing what has been accomplished and what more needs to be learned.

But in the knowledge economy, we must also be able to articulate the principles or theory behind the competency and the higher-order cognitive skills required to do the job and transition between jobs.

This is a prevailing interest of researchers in this area. One researcher expressed this notion as the graduation from the micro to the macro, or from the atoms that make up 'competency' to the notion of 'capability' and being 'work-ready and employable'. Some employers, too, are looking for a wholly developed learner. Their focus is on a suite of capabilities clustered around four key areas of skill: functional, behavioural, cognitive and technical.

In considering contemporary work patterns, it was agreed that training products must capture the entire range: from a requirement to do a specific task, to a worker's capacity for holistic workplace awareness and social interaction beyond a particular job. What remains unclear is how to achieve the right balance between these technical task-specific skills and the essential, yet more generalist, work skills — and determining how generic any of these skills actually are. Here again it was pointed out by an industry representative that the nature of the job may determine what generic skills are needed: someone working, for example, with animals may not need the same type or level of communication skills as someone working in hospitality.

Consistency or flexibility

So we arrive at another of the dichotomies in the system, in that it strives to be both consistent and flexible, and back to the point about design *and* implementation.

The participants all appeared to agree that learners could acquire higher-level critical and cognitive skills in a practical setting, but this may depend as much on curriculum design and teacher capability as on the training product itself.

This leads to the issue of standards.

Standards

The consensus was that training packages represented a set of occupational standards.

One participant described them as 'the teacher's bible'. But in practice, trainers may not consult the bible too often after having developed their teaching plan/approach. This suggests that the interlocked nature of industry and educational involvement in the VET system calls for an additional set of *educational* standards. Specifying the competency requirement is not enough; the training products must also give consideration to the delivery of the skills, and guidance on how employers can support both training and skilling.

It was acknowledged that in some, but not all, cases, industries' 'companion volumes' work well. It was also pointed out that, in some instances, companion volumes have become unwieldy and are not always used by educators.

Both an educator and a regulator were in favour of adding greater guidance to training products, with suggestions for delivery.

The suggestions here were the number of recommended hours for a course, whether it was suitable for online delivery, what work placements were needed. Unresolved was how such suggestions for educational standards might be enforced. As one industry person observed, it is the endorsed components of the products that are regulated and therefore have the most (and perhaps even too much) content.

The current system does not emphasise reflection on teaching, including referring back to the training packages on a regular basis, a point particularly emphasised by the educators in the room. Teachers need to keep building their own capabilities through discussion with colleagues, peer review and communities of practice. This could be fostered by developing a practice of enquiry among educators and a 'research mind'. A knowledge-based society requires knowledge-based teaching, in which scholarly practice and critical inquiry are embraced.

In terms of training products, this meant a capacity to interpret the standards that teachers were required to deliver and to adapt these to the student cohort. An industry representative suggested that this should be an essential capability for all RTOs but was difficult to enforce in such a large market of training; however, representatives of an industry peak body and regulators suggested this should be the baseline capability for registration.

Assessment

Bringing industry back into the system at the point of assessment was considered a necessary step in quality assurance, such that employers could monitor the outcomes from training and improve their input into training product design and delivery. This would help to ensure that graduates were work-ready. Strengthened formative assessment could also give students a clearer idea of how the skills they were learning relate to their chosen career and would help to align the VET system with university pathways.

Graded assessment was seen as a useful diagnostic tool for enabling the learner to recognise the areas where they needed to improve. It should be incorporated as part of the feedback

The language of training products was thought to contribute to the lack of common understanding.

loop to help build knowledge during training. It was suggested there was also the potential to extend current practice in some regulated workplaces, where a standard assessment instrument is specified for some units. Where documented assessment requirements accompany a unit of competency, the focus is on the task or job role. What is also needed is direction on the knowledge necessary to perform in the whole job or occupation.

Greater consistency in outcomes would be achieved by ensuring the Training and Education Training Package is strong and effective, and that the certificate IV is seen as the starting, not the end, point for educators. One trainer warned that ramping up teacher education qualifications could push those people who are working in industry (and whose main focus is not teaching) out of the system. This underlines another of the balancing acts required to retain a hallmark of the system, namely, its industry knowledge and experience.

In summary, participants suggested there needed to be flexibility and transparency within assessment approaches to enable educators to meet the needs of their learners and providers to differentiate their services, while employers can be certain of what the graduates of the system have achieved.⁷

In general this was a consensus view of both educators and industry.

Building bridges in the system

It follows that in a system where design and implementation are equally important, and where occupational skills and higher-order analytical skills and creative ability are both crucial, the employers, educators and learners need to understand each other. This was a refrain throughout the day. Consultation is crucial, so is information brokerage/translation/facilitation. For example, one industry person explained that they used the term 'soft skills' to embrace what on the day were dubbed 'employability' or 'generic' skills.

Part of the reform process must be to clarify roles and responsibilities within the system and to facilitate strong links between RTOs and industry, both through their staff, who have and retain industry experience, and directly with employers. At the moment, industry, which is interested in what is delivered, and providers, who are interested in how it is delivered, can be at odds.

The tenor of the discussions indicated that what the system urgently needed was better consultation between providers and industry and regulators.

It was felt that greater consultation and collaboration should occur during the design of training products (by including the views of RTOs), as well as during aspects of training delivery, particularly in relation to the role of industry in assessment practices. This might help to shed light on the positives in the system and diffuse the focus on its flaws. It might also tease out different perspectives on some of the dilemmas the system faces; for example, how to achieve the right balance between technical skills development and more

⁷ TAFE Directors Australia (TDA) is undertaking a three-year national quality assessment initiative with a series of pilot reviews in high delivery qualifications or fields of education that attract public funding, with the initiative trialling mechanisms to engage industry more meaningfully in the articulation of competencies and in the validation of assessments to ensure competencies are met.

academic learning. This point is illustrated in a question posed by an educator about how they could prove their assessment of a student's broader skills to the regulators?

The language used in training packages was thought to contribute to the lack of a common understanding. It was explained that trainers sometimes interpreted a training package in ways not expected by the authors. This problem could be addressed by simplifying the original texts and/or providing accompanying consumer guides, as well as specifying what needed to be assessed to demonstrate core competencies or more generic attributes.

Most participants at the symposium did not see the training product as being drafted to speak directly to learners.

The RTO and trainer were there to translate the intent of the package to the learners, in terms of course content and vocational outcomes. It follows that the effort of simplifying training products should concentrate on ensuring that industry and educators understand each other. This task would entail clarifying the terminology and deciding on a common usage; for example, of what is meant by generic, soft or twenty-first century skills, and which term should be adopted. A further complication here was highlighted by David Beckett's suggestion (appendix B) that training products be revised to give greater prominence to the social nature of the workplace. This gave rise to the question of how to define and impart the competencies required to do a job that extends beyond one individual.

Addressing disadvantage

The discussion about the broader public benefit from training focused mainly on disadvantage. Competency-based training has much to offer. For those previously disengaged from education, the incremental and applied learning approach helps them to perform better, by enabling them to progress through small, manageable tasks. CBT can thus be a motivator for success. However, educator peak bodies suggested this may not be helpful if learners want to transition to higher education.

Some discussions focused separately on young people entering the labour market for the first time and also on more mature people having to retrain. For the younger cohort, lower-level certificates (I and II) may need to be broader in scope, such that they impart fundamental knowledge and skills to those who have missed out on these at school and to prepare them more generally for the world of work. It may even be desirable, as some industry people and educators suggested, to address these gaps outside training packages, whose focus is on specific occupations. Young people also need help to make good decisions about their further study and career paths, but this was not seen as a specific role for training products.

Some argued that, for older people, retraining for work needs to focus on the certificate III level. Here, delivery of the training products may require additional resources to address deficits, for example, in the area of digital literacy, and for recognition of prior learning and experience. An industry peak body and public sector representatives suggested specific re-engagement courses would be more beneficial than lower-level occupational qualifications. On the other hand, industry people commented that some occupations only need a lower-level qualification (for example, meat processing).

Clear delineations and functions for each set of players are required. It is just as important for them to figure out what they don't want to do as it is for them to determine what they do want to do — Symposium participant.

It was also noted that there can be crossovers among these cohorts. These presented educators with further challenges, in dealing with different motivations and expectations as well as learning styles, among disadvantaged or disengaged learners. How RTOs addressed these issues should be part of any consideration in choosing a provider or course.

This point was also related to the question posed about differentiation. Do we need different products for different cohorts? Some thought no: teachers should be able to recognise the different perspectives and backgrounds of their students and accommodate these. Beckett asserted that a diversity of learners in class was more advantageous than streaming. And, on the demand side, it would be unfair if the national system did not support the development of transferrable vocational skills.

Another view raised was that training products should prepare people to be work-ready and that foundation and employability skills should be treated separately. One researcher asked if these skills should be offered by community educators rather than industry-focused RTOs? If so, it must be remembered that having foundation skills can help people get into the labour market and to transfer from industry to industry.

The consensus was that prevocational training does have a place in the system.

Getting the foundations in place may also address the issue of churn, whereby people complete a lower-level qualification but do not get a job, so they return to the training system at a similar level rather than progressing to higher-level qualifications.

One group had a conversation about the important role VET plays in regional communities. VET has the potential to develop the specific skills local employers need and to give people the opportunity to stay in their communities to learn, subsequently working and flourishing there. Here, however, arises another dichotomy: how do you make the training products relevant for local areas but maintain national consistency?

It was agreed that all RTOs must be able to address a lack of basic skills. Some states have introduced diagnostic tools to test language, literacy and numeracy (LLN). Overall, though, the funding attached to LLN units and to the professional development of staff still needs to be improved. It may also be useful, in terms of delineating responsibilities, to distinguish between social disadvantage and vocational disadvantage. One view was that vocational disadvantage is an issue the entire VET sector should address, but social disadvantage is more a factor for the public VET sector.

Make it simpler

There was no dissent expressed to the proposition in Sara Caplan's paper that current training products, their administration and the updating cycle are overly complex. But nor was there consensus on how wide consultations on training products should be or whether a quick turnaround on revisions was achievable.

Discussions suggested that the process must be guided by clear principles and goals and be based on a more solid understanding of what works and what is needed.

⁸ See, for example, http://wace1516.scsa.wa.edu.au/assessment/olna.

Who does what?

This leads to the broader matter of roles. Throughout the day, the importance of an evidence base to underpin reform was mentioned, with this seen to be something for which governments were responsible. The evidence required included information about possible future demand for skills and the types of skills, good data and research about the current system, and pilots to test new approaches. This sort of work could help to answer the question of how training products might capture the roles and skills that are yet to emerge and how we identify synergies for training product development across the whole system. In addition, it was government's role to provide support for developing foundation skills in the community, while industry's role was to make employment a viable option for people and to help remove barriers to work.

A clear message emerged that the system must involve industry more at the end of the process (during assessment and validation) as opposed to maintaining the current emphasis on initial training product development.

This would close the loop and ensure the desired outcomes are being achieved. But the loop does not ever truly close. Learning continues on the job and industry should play a greater role in nurturing new VET-trained employees and developing the foundation capabilities and employability skills required on the job, such as problem-solving, digital literacy and communication skills. This could be achieved through human resource management, organisational development and professional development.

The role of the RTO and trainers was articulated as being at the intersection of product and practice.

Educators need more say on delivery but they need clear signs about what is expected, for example, in terms of the number of recommended hours; whether the competencies are suitable for online delivery; and the workplace components needed. In other words, the provider needs to understand how to convert the occupational standards into effective training, a conclusion which confirms the case for having educational standards and for greater regulatory attention to outcomes.

The balancing act here requires mutual recognition and respect for the expertise of each set of players in the system, as well as clear delineations of functions. To avoid too much blurring of those functions, it was suggested that the system might also need information brokers, whose job would be to keep the parties in the loop and make sure they were speaking a common language. The brokers might also be able to inject the voices of actual employers and learners into the discussions.

The symposium conversations did not extend to detailed discussion of pathways, although the point was made that we cannot ignore the interconnectedness of all three education sectors, and that VET's job would be made easier if school students were being taught some of the higher-order cognitive in addition to core foundational skills. Establishing a culture of learning for life starts before VET.

Don't change everything — Symposium participant.



Some suggestions from the floor

The proposal for trialling initiatives with certain industries was well received – by those with a greater appetite for change – recognising that all industries are different and similar approaches will not necessarily work everywhere. A pilot study could unpack occupational qualifications (possibly across industries) and determine where there are common vocational functions, those that might be shared in a variety of occupations. The exercise could also investigate how more abstract cognitive skills can be articulated or specialisations designed within the training product framework.

Another good start would be to make some simple enhancements to encourage support for reform. One proposal was for improving how training packages are stored and information is shared. A relational database, as opposed to merely Word documents on a static database, was suggested. Those in the training system, as well as employers and potentially learners, could then access specific information about the training packages, qualifications, skills sets and units of competency associated with their occupation of interest. Such an improvement would also facilitate a better understanding of the commonalities and compatibilities across training packages, thereby supporting efforts to reduce duplication or to reap efficiencies across the system.

NCVER is currently undertaking research to investigate the level of unused or rarely used qualifications in the Australian system and to learn from the practices implemented by other countries that have already begun a systematic process of qualification rationalisation (Misko & Korbel forthcoming). The concern is that having too many qualifications or duplicate qualifications on registers clogs up systems and makes pathways less easy to interpret.

Another pilot study could test the suggestion that training products include specified standards of delivery. This would be a change in direction from the current policy so needs careful consideration. To determine the feasibility of this suggestion, it might be useful a) to investigate and promote best practice in using and updating companion volumes, as well as examine why these volumes tend not to be widely consulted by trainers; and b) test the introduction of standards for the delivery, in terms of educational standards, work placements, mode of delivery and assessment, for example.

Discussion on the day referred to relevant pilot studies already undertaken or underway. It might be useful to synthesise these studies to identify the gaps in knowledge. One participant suggested that gathering the evidence of what can work might encourage people to embrace reform.

Final comments

The symposium was asked to focus particularly on what reform means for industry, educators and students. The views expressed can be summed up as follows:

- Industry: simplicity and certainty; functional, behavioural, cognitive and technical skills;
 greater involvement at the end of the training cycle
- Educators: involvement in design; professional development; regulatory focus on the quality of delivery
- Students: clarity; good quality teaching; portability; top-up skills.

While many industry people insisted that VET must remain targeted at training people for work, and that training products keep this central focus, the wider benefits of training were mentioned during the day. No one dissented from the view that VET offered disadvantaged learners, young and old, a second chance. The question was to what extent this was a job for training products. What did emerge was a view that this type of training, as opposed to more narrowly targeted industry skills, was a public sector responsibility. Another wider benefit was that of VET as an ingredient in the glue that fosters cohesive communities.

Support for reform was broadly consistent with the areas identified in the 2014–15 review of training packages and accredited courses⁹, with the following general suggestions:

- Qualifications could be streamlined but with the caveat that low use of the training package does not automatically signal obsolescence.
- More simplicity and clearer language are required in relation to both the competencies required and their assessment:
 - This might be achieved through greater involvement of educators in the design phase and of industry in assessment.
 - There was no unanimity on whether to rename training packages to better reflect their purpose.
- Skill sets should be better acknowledged in the training system.

An additional area worthy of further consideration is that of establishing a set of educational standards to give providers guidance about delivery and to assist in raising the quality of the outcomes of the training. Suggestions were offered in relation to the inclusion of educational standards in the endorsed components of training packages because they are regulated, but a consensus on the best approaches for greater regulatory attention to outcomes was not reached.

While the lens of the symposium was on training products, participants did observe that the reform of the products cannot be made in isolation from other factors, including not only teaching and assessment (which received considerable attention during the discussion), but also regulation and funding. It will therefore be difficult to arrive at clear and unanimous conclusions on a way forward on training products alone.

^{9 &}lt; https://www.education.gov.au/outcomes-review-training-packages-and-accredited-courses>.

Moreover, while the symposium was very well attended, not all voices could be captured. In particular, the following groups were not adequately represented: trade unions, students, some industry sectors and those working within the fields of disadvantage, equity and access. Their views will need to be incorporated into plans for reform and their implementation.

An important outcome from the symposium was the realisation of how challenging it is to pose questions and elicit discussion that specifically focuses on the design of training products. Nevertheless, the event was imbued with a desire for sophisticated discussions about reform and for action coupled with a caution to not change everything.



- CSIRO (Commonwealth Scientific and Industrial Research Organisation) 2016, *Tomorrow's digitally enabled workforce*, viewed 11 September 2016,
 - http://www.csiro.au/en/Research/D61/Areas/Data-for-decisions/Strategic-Foresight/Tomorrows-Digitally-Enabled-Workforce>.
- Green, R, Marsh, I & Pitelis, C 2015, Future skills, industry policy and a new social contract, Australia's future workforce?, CEDA, June 2015
- Stewart-Weeks, M 2016, 'Contradictions of government and its impossible standards', *The Mandarin*, viewed 25 August 2016, http://www.themandarin.com.au/67827-martin-stewart-weeks-the-contradictions-of-government-command-and-control/.

Recent relevant NCVER publications

- Misko, J 2015, Developing, approving and maintaining qualifications: selected international approaches, NCVER, Adelaide, viewed 30 December 2016, https://www.ncver.edu.au/publications/publications/all-publications/developing,-approving-and-maintaining-qualifications-selected-international-approaches>.
- Misko, J 2010, Responding to changing skill demands: training packages and accredited courses, NCVER, Adelaide, viewed 30 December 2016, https://www.ncver.edu.au/publications/publications/all-publications/responding-to-changing-skill-demands-training-packages-and-accredited-courses.
- Misko, J & Korbel, P forthcoming, *Retiring and rationalising qualifications: what are the facts?*, NCVER, Adelaide.
- Wheelahan, L, Buchanan, J & Yu, S 2015, *Linking qualifications and the labour market through capabilities and vocational streams*, NCVER, Adelaide, viewed 30 December 2016, https://www.ncver.edu.au/publications/publications/all-publications/linking-qualifications-and-the-labour-market-through-capabilities-and-vocational-streams.

Additional information

NCVER suggested the following documents as preparation for discussions on the day.

- The VET era: equipping Australia's workforce for the future digital economy, CSIRO report for TAFE Queensland, July 2016,
 http://tafeqld.edu.au/about-us/research-papers/#.V3xDz_l95ph.
- Australia's future workforce, Committee for Economic Development of Australia (CEDA), June 2015,
 - http://www.ceda.com.au/research-and-policy/policy-priorities/workforce.
- Outcomes from the 2014—2015 Review of Training Packages and Accredited Courses
 https://www.education.gov.au/outcomes-review-training-packages-and-accredited-courses.
- VET products for the 21st century, April 2009
 http://www.coag.gov.au/sites/default/files/vet_products.doc>.

Recent international context

Further, NCVER recommended that participants familiarise themselves with the United Kingdom Post-16 Skills Plan to reform vocational education. Links to relevant documents were offered as follows:

- Post-16 Skills Plan
 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/536043/
 Post-16_Skills_Plan.pdf>.
- Press release
 https://www.gov.uk/government/news/technical-education-overhaul-unveiled-by-skills-minister.
- Report of the Independent Panel on Technical Education https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/536046/ Report_of_the_Independent_Panel_on_Technical_Education.pdf>.
- 'What Australia can learn from England's plan for vocational education', Gavin Moodie,
 The Conversation, July 2016,
 https://theconversation.com/what-australia-can-learn-from-englands-plan-for-vocational-education-62418.



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Megan	O'Connell	Mitchell Institute
David	Pattie	Australian Government Department of Education and Training
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Essay 1 Workforce needs Sara Caplan, Chief Executive Officer, PwC's Skills for Australia

Hypothesis

Training products that focus on current jobs, occupational structures and qualifications cannot deliver for an economy with fast-changing human capital needs.

What do training products look like now?

Over the last few years training products have largely been developed by industry skills councils (ISCs), who were responsible for the training packages, which dictate the standards for all nationally recognised qualifications in the vocational education and training (VET) sector. These are comprised of units of competency that have been combined according to the packaging rules set by the relevant ISC to become the core and elective units that constitute qualifications at each level of the Australian Qualifications Framework (AQF). They tend to be very detailed, highly technical specifications for the skills, knowledge and attributes against which an individual needs to be assessed as competent. They are not something a non-expert could interpret, so an employer would typically find it difficult to know what a particular qualification really includes, what someone will learn as a result of undertaking the qualification and the skills a graduate should have attained. It could be argued that they are not designed for that purpose, but unfortunately there is no other national source of information that interprets these for parents or employers, or in fact the individual vocational learner. Therefore, individual registered training organisations (RTOs) have to be relied on for that interpretation.

Over the years the training packages and units have been tweaked and redeveloped to the point where there is now a proliferation of units, many of which are very similar, overlapping and duplicated across a number of training packages and sectors. In addition, far from specifying the required competencies as identifying the capacity to perform a specified set of skills, there are many qualifications where there may be only one core unit, often Workplace Health and Safety, which everyone undertaking this qualification nationally has to undertake. This makes it very difficult for a non-expert to know what they are getting when an individual presents themselves with a certain qualification. All a prospective employer knows for certain, in this example, is that the person has been assessed as competent in workplace health and safety. Other than that, they may have a set of units taken not only from the training package in which the qualification sits, but also, due to the huge flexibility, from a wide range of other non-related training packages. While flexibility can be good, this once again does not make it easy to establish what exactly two individual learners undertaking the same qualification really have in common, in terms of their learning.

When PwC's Skills for Australia was awarded the role as a skills service organisation (SSO), one of the first things we did was to print out all of the training packages for which we were responsible. I wanted to see what these looked like physically and to have a resource that our whole team could refer to and read. It was a great exercise and brought home how impenetrable the standards have become. It is no wonder that interpreting them has become an industry in itself and that we need a team of experts in Victoria to compare all units and decide on how long it should take to deliver them (a decision that is then used almost exclusively to determine the funding given for each qualification). What you find is that there is little consistency in the language and level even within AQF levels; there is little consistency in the length of qualification or in the level of mastery within levels; and no consistency in the size of units of competency. There are hundreds of units of competency in some qualifications and training packages and a small number in others. What might be considered as showing flexibility in choice can actually be a bewildering array of units, and what happens is that choice is limited by the small subset that training providers

choose to offer. Unless you are an expert in combination of units, a provider could end up delivering a qualification that has the same name, but takes twice as long as the version another provider is delivering. A learner therefore is getting a very different experience, depending on which provider they choose.

Another aspect to the current training package landscape is the length of time taken from inception to adoption of a new version of a qualification or package. This can take up to three years, and is rarely fewer than two years. This is historically due to the level of and process for consultation undertaken on the content of the training, the geographic viewpoints, the regulatory process and the allocation of hours to determine funding. In practice this means that often the training package is out of date before it is published for use, necessitating an immediate further review. This approach means that there is little stability for providers of training, who find it hard to invest in purchasing or developing high-quality training materials, curriculum content etc. to accompany the qualifications, recognising that these are likely to change in an unplanned way on a regular basis.

The conclusion of this is that the current situation is far from ideal. Employers complain of qualifications that don't meet their needs, individuals find it hard to know where to find a quality training program; and providers just try to make the best of the situation. The problem is that the nature of work and jobs is changing — and fast. The unsatisfactory status quo is even more dangerous for our future as we try to help people prepare for new skills, new jobs, careers that change radically and the need to learn new skills throughout their working lives and adapt to new technologies.

How are jobs changing?

The future of work (jobs, tenure, careers and skill development) in Australia will be significantly different from the past.

The jobs needed in the future will vary considerably from those of today, with automation, robotics, digital disruption and the elimination of geographic barriers challenging current jobs at all levels.

As in the past, new jobs will emerge and the focus needs to be on equipping, or re-equipping, Australians to exploit those new roles and to be flexible to change. Key to Australia maintaining its international competitiveness, and being a destination for talent, will be the pace at which we reposition work around the new opportunities and shape the agenda.

It is also likely that the profile of work in future will change, with there being a greater preponderance of flexible portfolio careers and new routes into and out of work. New, personally rewarding roles within the voluntary sector will emerge and exist alongside more traditional employment options, and the general increase in life expectancy and the societal and economic contribution of the elderly will present new options.

It is important to recognise that the pace of change is accelerating, with career shifts that used to take 20 or 30 years now occurring in five years or fewer.

In addition, new options are arising on how support can be provided to workers, both at the start of and during their working lives, to maximise their potential during their working careers, with new routes into work, such as higher apprenticeships — challenging historic prejudices — and the emergence of new learning options, such as Massive Open Online Courses (MOOCs), making learning available in a virtual rather than physical environment.

The recent report from the Foundation for Young Australians, *The new basics*, identified a set of 'enterprise skills', skills which employers value in individuals and which provided the basis for the majority of jobs advertised in Australia from a sample of 4.2 million job adverts over the last three years. These skills are general in nature and apply across a huge range of sectors and types of work; these are the skills that will enable people to get their first job or enable them to adapt and transfer to other sectors or roles as the nature of work changes. In the work we are doing as an SSO with our sectors, these skills consistently come through as those that each sector views as the common set of skills required for virtually all employees.

Why do we need training products?

Australian qualifications and training have been, and still are, a huge brand globally, recognised as a sought-after standard and a mark of a quality education. This is particularly so in the higher education sector, with Australian universities leading the way, such that education has become Australia's third largest export. Unfortunately there has been some recent damage to the VET brand in Australia. This is largely due to poor practice amongst some providers in relation to offering low-quality programs to vulnerable people under the VET FEE-HELP scheme. Partly as a result, there has been a sharp reduction in the number of people undertaking VET programs, including apprenticeships and traineeships domestically.

Rebuilding the VET brand has to be a major priority and there are a number of strands to this task.

One of these strands has to be strengthening the consistency and rigour of our training packages. At present there is huge variation in how providers deliver — either in terms of the level of mastery demonstrated by candidates to be deemed competent, often shown through the length of study undertaken, or in the balance between how much 'real' experience and skills development there is versus simulated or case study-based learning.

Another has to be improving the quality of training and assessment. Recently a new version of the qualifications required to become a qualified VET practitioner has been released. Controversially, some last-minute changes were made to the recommendations of the previous ISC on the core units in one of these qualifications — strengthening the requirements in terms of expertise in assessment design and making the possession of skills in language, literacy and numeracy (LLN) needs diagnosis and remedy a core requirement. These changes, while without doubt making the qualifications more difficult to attain, are perhaps a short-term fix, one designed to deal with some of the immediate quality issues in the sector. In the longer term, the Industry Reference Committee for Education, comprising experts from all parts of the VET sector, including practitioners, is keen to take a step back and look strategically at the whole suite of qualifications that takes someone from being an entry-level trainer/assessor to an expert practitioner, taking into account the very different nature and pedagogy involved in learning, training and assessment, now and in the future.

We need a standardised way of presenting the standards for our national qualifications, so that all stakeholders, whether employers, learners, VET practitioners, parents, schools, peak bodies or government understand exactly what knowledge, skills, behaviours and experience someone needs to be deemed competent in a particular vocational qualification. That standardisation is what a nationally recognised training package should bring.

How do training packages have to change if they are going to match the jobs and skills of the future?

As shown earlier, jobs are changing at four times the pace they used to; they are more digitally aligned and the nature of growth industries is changing. If we are going to keep up with this increased pace, the implication surely is that training packages have to change four times faster — what took two years now has to take six months. To me, that is far more realistic. It is not surprising that employers in the IT sector find it hard to use our current training packages. Often they are out of date before they are published, irrespective of attempts to ensure they are generic enough to be future-fit.

As previously mentioned, the feedback we have had from each of the industries with which we work is that for almost every job a set of 'core' skills is required; these generally comprise some communication skills, some numeracy skills, some digital skills, often some financial skills, some personal presentation/work awareness type skills and the core technical skills for their sector and level. Underpinning these, people need a set or sets of specialist skills aligned to their particular job role. People are also interested in being able to extend and add to these skills, either in breadth or depth, as jobs flex and progress in the workplace or as new requirements in, say, technology are introduced. For example, someone working in marketing might have the core set, then add a brand marketing skills set, then a digital media skill set, and then perhaps a design skill set, depending on where their role

and interest take them. In education you might have the core, and then add a skill set in assessment design, or elearning or large group training.

That core, in reality, changes little over the years. The most recent changes would include raising the priority and profile of creativity, critical thinking, innovation and entrepreneurship, and digital skills.

Developing a set of industry-relevant skill sets, which can be built upon and updated, can be accomplished through the industry reference committee (IRCs)/skills service organisation arrangements.

We are working hand in hand to develop units of competency based on what employers say they will need in terms of skills now, and in the future. In our role as an SSO we meet with our IRCs, a wider set of employers, peak bodies etc. to help them to think strategically about the future of their sector: What is happening globally? How is technology disrupting their operations? Does Asia present opportunities and/or challenges? We take this big picture thinking and overlay that with demographics, economic data and feedback from a wide range of parties and use that to inform the future skills needs. This can form the basis of new skill sets.

How do we speed up the process? In the past, it seems that not every stakeholder was necessarily part of the entire development journey. Clearly, in a country such as Australia, with its huge geography and regional diversity, there are differences in skills, jobs and sectors. Consultation with each state and territory is paramount in ensuring that any nationally recognised qualification is fit for purpose in each state and territory.

Qualifications have to be fit for purpose to be delivered in both very small and very large organisations and in metropolitan and very remote areas. This needs skill in qualification design and in interpretation. It needs the involvement of stakeholders who understand and experience all of these contexts, throughout the design process.

This isn't easy, but it is necessary, because if you do it as you go along you build consensus, you build buy-in, and you build a cohort of people who believe in, support and want to deliver the qualifications to help to skill our future workforce.

As an example of how this has worked before, in the UK: I led the design of a set of new higher apprenticeship qualifications. I worked with a group of employers, large and small, rural and urban. We were united in our passion to create qualifications that were completely aligned to the job roles people would undertake in the workplace, so that learning and assessment was natural and didn't need to be simulated except in, for example, high-risk areas, and that both employer and employee saw the relevance of what they were learning.

We involved our peak bodies, universities, RTOs, regulators, or anyone who had a stake or approval step in the process of designing and implementing national qualifications. They worked as a team from the beginning and the process was collaborative, supportive, exciting and ground-breaking. We took a blank sheet of paper and from start to finish this took us eight months — from idea to delivery of the program. The regulators, who had a standard turnaround time of three weeks, dealt with our submission in two days. The department that made the decisions on funding turned these around in a week instead of a month. The spirit of collaboration was phenomenal and everyone wanted it to work.

Our first qualification was a level 4 (equivalent to the first year of a degree); we then produced a level 7, followed shortly after by two of the new 'Trailblazers'. One of the great consequences of this collaborative industry-led approach was that, as the qualifications were championed by employers, the momentum grew, and more sectors came on board. The new streamlined process was embedded, with the time scale for development to implementation for the Trailblazer further compressed. It was hard work and took a lot of volunteer time on the part of each stakeholder, but the result was a set of 'training packages' that were fit for purpose for employers and easy for parents, job seekers, students and reskillers to understand, and specified the key knowledge, skills and behaviours that were required to be deemed competent.

In summary, I believe that to enable us to adapt our training and skills to the rapid pace of change, we should adopt the following set of principles:

- Create a common core for all qualifications, comprising many of the enterprise skills outlined in the FYA report, weighted as appropriate for the sector in question.
- Underpin this core with skill sets that address a range of specialist skills within a sector, which can be built upon as an individual's job role changes or technology changes etc., such that an individual can add new skill sets to their existing qualification to provide the flexibility they need. Skill sets have the capacity to be created more quickly than full qualifications and therefore respond to imminent new technologies or areas such as security, regulation or legislation.
- Streamline all units to remove duplication across sectors and reduce the number of discrete qualifications. (The
 use of common core plus additive skill sets will promote this.)
- Have a much stronger focus on a coherent, comprehensive careers approach, one that deals with all stages of life. Careers support should be something that individuals can access throughout life, not just when at school or university. As the fast-paced change in jobs continues, we will all need to rethink our skills needs on a regular basis and continue to update them.

Of course, this means a fundamental change to the current Training Product Development Guidelines, with which we work to develop our training packages. A change will also involve working with various jurisdictions to harmonise funding arrangements for different classes of training products. However, the huge amount of feedback we are currently receiving from the sectors with which we work would indicate that we need to consider this now.

The risk is that, if we wait, employers will move away from nationally recognised and endorsed training and use solely their own in-house training. While this might equip their workforce for its immediate needs in the face of the slow pace of change in training packages, it means we will have lost the transferability of skills and the flexibility for individuals to change employment, given that their qualifications will not necessarily be recognised by another employer. Far from creating a highly skilled flexible workforce, we will be constraining people's ability to adopt new roles and skills and to take up the new opportunities that the future will offer.

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The views and opinions expressed in this essay are those of the author and do not necessarily reflect the views of the Australian Government, state and territory governments or NCVER.

Essay 2 Student needs Professor Emeritus Kwong Lee Dow, AO, Honorary Fellow, University of Melbourne

Hypothesis

In the future, training products will provide sufficient support to RTOs and regulators in their efforts to continuously improve the quality and diversity of vocational education and training options and outcomes for students.

My broad response to the hypothesis is that the structure and form of training products will have a limited direct impact on student learning and the quality of what is provided for students, but will have major indirect impacts. Indirectly, improving training packages will strengthen the confidence of providers to initiate better delivery and assessment modes and procedures, which in turn will increase the validity of the Australian Qualifications Framework and the qualifications on offer, and encourage the regulators (especially the Australian Skills Qualifications Authority) to be bolder in asserting and sustaining standards of quality. All this should lead to continuous improvement in the VET system as a whole. Taken together, student opportunities and satisfaction should increase in both the immediate programs and also longer-term, as individuals acquire additional qualifications and more advanced skills and knowledge. Their careers should progress in parallel with these changes, while industries and the economy also move ahead.

To achieve that broad goal, training packages will need to differentiate a stable core of mandated requirements from the more flexible and open elements, those less susceptible to rigid classification and to placement into specific hierarchical levels. So skills in areas such as communication, teamwork and personal awareness will need explicit acknowledgment, along with student support activities of many kinds and career guidance and mentoring.

The foremost issue underpinning my response to the hypothesis is the quality of the outcomes produced by the VET sector. Of the four principal outcomes identified by Ministers in the 2014 National Partnership Agreement for Skills Reform, it is the one specified to achieve a higher-quality VET sector, which delivers learning experiences and qualifications that are relevant to individuals, employers and industry that is the primary focus of this essay. (The other three are: a more accessible and more equitable training system, a more transparent VET sector, and a more efficient VET sector.)

The role of training packages in the VET system today

Any speculative exercise on the future of training packages needs to take account of the role played by training packages in the overall operation of Australia's contemporary VET system.

Currently, training packages are one of a small number of key component elements of the system that are now deeply embedded in the structure of the overall system. But the way by which students are supported and improvements to the quality of their learning are ensured depend on the interactions and linkages between these component parts, and most especially the way in which the training packages guide and also constrain the delivery approaches of the providers. For the student (or learner, who may also be a worker and employee), the immediate influence on effectiveness and satisfaction is their direct experience with the chosen provider. It is mainly through the quality of the program devised by the provider that training packages impinge on students and on the quality of their learning.

Training packages and providers

Undoubtedly, the concept and implementation of training packages have tangible benefits and unquestioned strengths. At the same time, they have limiting effects on the wider and more encompassing focus needed by

providers to ensure students develop confidence and satisfaction from their learning experience. Three key features and their consequences are now discussed in turn.

Industry leadership in training package design

The requirement that training packages be industry-led has been true throughout the quarter century since the concept was first advocated and achieved. Very few people question this priority for the qualifications encompassed (the four levels of certificate, the diploma and advanced diploma, and the graduate certificate and graduate diploma – with the major focus on certificate III, certificate IV and diploma). Nevertheless, a highly complex set of arrangements has emerged in order to ensure this industry leadership is effective in practice and is sustainable. The role of the new skills services organisations (SSOs) seems likely to prove critical for the success of the new structural arrangements with industry reference councils (IRCs) and an overarching Australian Industry and Skills Committee (AISC).

In one sense, separating training packages, which provide the statement and design of content in terms of the skills and knowledge to be acquired and specifying the standards and levels of attainment to be achieved, from the methods of teaching and learning, which can be varied according to decisions of providers, is a quite traditional distinction. It is the distinction between curriculum (syllabus, in earlier terminology) and teaching method, a practice well entrenched at school level.

There are clear examples of where industries and enterprises recognise the value of what is being achieved through VET qualifications that have been tailored to priority needs, such that graduates from courses are highly sought after. In these instances the system is working well. In other areas and fields, where broader ranges of skills might be required than those that can be tightly prescribed, there is room for improvement, both in the specifications in the training packages, but even more from the devised programs from providers.

Training packages are nationally consistent

A second feature is that 'national consistency' ensures that qualifications are portable. This too is an undeniable benefit in most industries and fields for employment. But it can require that training packages are presented at levels of generality that do not take account of important priorities for some enterprises, or of the different capacities of students, who are characterised by varying backgrounds, levels of education and the extent of their life experiences. While the training packages and the companion volumes, which offer advice and guidance, can and do assist providers, their overall structure can become unwieldy and hard to navigate. Some commentators in recent reports go so far as to question whether, in practice, 'national consistency' is actually achieved.

Training packages prioritise skill formation

A third feature of Australia's training packages is the emphasis given to skills training and their assessment on a simple 'achieved or not achieved' basis. Rather than being defined as skills-based, the terminology used is 'competency-based'. However, the focus is largely on skills, skills acquisition and skills formation, and it is 'skills' terminology that is found in the titles of major committees and related bodies within the VET system. Again, few deny the decision to put the emphasis here, but in doing so, attention has been drawn to possibly undervaluing 'knowledge'. Thus, for example in Skills for prosperity (Skills Australia 2011), the authors argue for 'the importance and utility of knowledge as well as skill'. They quote a report (Buchanan et al. 2010, cited in Skills Australia 2011, p.116) which claims that the narrow approach to 'competence' in VET limits the ability of the sector to provide a quality general education, one that is transferable across a range of industries. In particular, it limits students' access to forms of knowledge that facilitate autonomous reasoning — at work and beyond'. Another report is quoted there as saying:

Consultations with industry groups and with providers also highlighted the importance of underpinning knowledge or theory in the development of competence ... the key issue appears to be the extent to which knowledge

requirements are made explicit in Training Packages. While some Training Packages express the knowledge component effectively at the unit level, others do not identify it as clearly.

(National Quality Council 2009, cited in Skills Australia 2011, p.117)

In summary, therefore, the training package element of the VET system sets it apart from the school and higher education sectors by being industry-led, explicitly structured to achieve national consistency, and with a major focus on skill formation. These are indeed valued strengths, which undoubtedly should be retained, in my view. However, they carry inherent dangers which require mitigation at appropriate points in the VET system.

Having reviewed the impact of training packages on providers, and consequently on their students, we consider next the impact of training packages on qualifications, and the relationship with the Australian Qualifications Framework, and how qualifications and their structures impact on students.

Training packages and qualifications

AQF qualifications are widely accepted as signifying the attainment of skills and competencies in a field, at a specified level, and so are seen as valuable currency by a student seeking engagement with an employer. As the world of work becomes increasingly diverse, with greater specialisation in occupations within each industry, so qualifications proliferate, and indeed today there are some 1600 qualifications, drawn from approximately 60 training packages. Those who formulate the training packages parcel up the units and skills sets into particular qualifications and judge the appropriate level of these qualifications (such as certificate III or IV), in accordance with the criteria of the AQF. These are important judgments, both for students as prospective employees and for employers. For the latter, it is important in the process of matching people with workplace needs and for determining the appropriate levels of engagement, seniority and thus the position of an individual in the overall employment structure, and, with that, their career position and prospects for advancement.

Earlier, when the AQF was superintended by an AQF Council, that council and its advisory staff contributed to judgments about the specificity of separately named qualifications and their levels within the 10-level structure. Now, it falls to those defining the qualifications from the training packages to make those judgments (through skills services organisations, through industry reference councils to the Australian Industry and Skills Committee). Tight prescription and very precise specification of a qualification may best suit an employer seeking the best fit for a job at hand, but for a student as a prospective employee, a broader-based qualification might enhance their job prospects for multiple applications for various employment opportunities. In other words, if the interests of industry become totally paramount, the prospects for a potential employee could be limited, and for as long as that qualification is the key driver for employment that disadvantage could continue.

This point takes added urgency with the calls today for broader-based training — for a change in balance from a focus mainly on specialist technical skills, to encompass elements such as communication skills, team skills and personal skills, all of which develop gradually over time and are less readily categorised into discrete levels of attainment. The training packages, in their formulation into qualifications, do therefore impact on the job prospects of students, and over time, may impact on their mobility and capacity to advance in their careers.

A further point to consider is the quantum or volume of learning that is prescribed to make up a qualification from the component unit. Around a third of the students who begin a qualification actually complete it, and it is claimed that this is partly due to students not needing the full qualification, but only some elements or specific skills for their job. In some cases qualifications could be broken down into smaller components (units, perhaps) where each is separately certified, to make clear what students have attained at a particular stage on the way to a complete qualification. This process already occurs in the AQF with the graduate certificate, graduate diploma and master degree sequences (stackable qualifications is a term sometimes invoked) and perhaps with the diploma, associate degree and bachelor degree. Whether there is room for a further breakdown within the current VET certification structures might warrant attention.

In the era of the National Skills Standards Council, the industry skills councils were responsible for the quality and the quality assurance of the training packages. They assessed evidence of compliance against no less than 12 standards, needing to (for example) demonstrate compliance against the AQF specifications for that qualification type. They were expected to show how the outcomes of specific combinations of units of competency, prescribed as part of the qualification packaging rules, met the specifications of the AQF qualification type.

Some commentators have asserted that it is not the standards for the training packages themselves that need to be revised in order to improve the quality of provision, but rather that there are inconsistent standards within the training packages that lead to inconsistent standards of delivery and of assessment.

Training packages and regulation

Having considered the way training packages are used by providers and, following that, their impact on qualifications, we lastly turn to the way in which the training packages are used by, and affect, the regulators of the VET system. The impact on the Australian Skills Quality Agency (ASQA) has been documented.

A review of ASQA in June 2014 found that 'a lack of guidance and clarity about the rules for Standards and Training Packages is creating unnecessary work for ASQA and providers' (House of Representatives 2014, p.23). The review also states that 'a lack of coordination in training package updates issued by ISCs creates unnecessary work for providers and impacts ASQA's operations' (House of Representatives 2014, p.23). These two points were described as two of six main themes from the review, and this has led Ministers to agree, through the new Australian Industry and Skills Council, that one of their 'three priorities for action' should be to 'reduce the burden on the VET sector arising from the constant updates to training packages'.

There is, however, an issue to be resolved here, because in contrast to this plea to 'reduce the burden ... from constant updates', a seemingly contrary position has been advanced in The VET era, a report from CSIRO to TAFE Queensland (2016). There it is stated:

The greatest hurdle to maintaining the relevance of VET offerings in the context of digital disruption may well be the multi-year national consultation process that is required to change VET courses ... For accredited training packages, offerings have to be standardised across the country, and the process of consultation and reaching agreement at a national level requires so much time that training packages are only updated every few years. Once agreement is reached, the course id fixed and training providers cannot make changes to the package without further national level consultation. Thus, when it comes to accredited training, there is very little ability to respond in a timely manner to changes in workplace practices and skill requirements.

While it is beyond the scope of this essay to seek to resolve what appears as quite competing and opposite claims, the issue underlines the weight of importance devolved to training packages and their revision and improvement for a system seeking to respond to greater and more rapid external pressures. It could be instructive to compare the differing approaches to this same issue between the VET sector and the higher education sector.

What do students need from training packages and what is the role of educators to ensure a quality educational experience?

For students, the training package provides a statement of what the units and the qualification in which they are enrolled actually require. The package will be meaningful for students only if it is written in jargon-free, plain and straightforward language. It can serve as a check (provide an evidence base) for students to confirm that the program devised by the provider covers the elements that meet the qualification and component unit requirements.

For students, the role of educators is in practice of greater significance. It is the educators who encourage and assist the students day by day, week by week, through the units of the program, and who frame the interconnections between the units. The educators are the trainers, the instructors and the professional teachers who manage classes

and learning experiences and who devise and conduct the progressive formative assessments and the summative assessments which determine success or otherwise.

While it is beyond the scope of this essay, note that the quality of the educational experience depends in large part on the effectiveness of the teaching, which in turn depends in part on the success of the training package for Certificate IV in Training and Assessment, as the baseline qualification for employment as a teacher. The questions of whether the requirements in this certificate enable adequate preparation for VET teaching and whether it helps to stimulate a quest for quality and improvement and offers hope of later professional and career advancement are taken up as a question for discussion at the end of this essay.

How can the design of training products shape a learning experience that is engaging and productive for each student, including providing the opportunities to transition to higher-level qualifications?

If it is indeed a responsibility of training products 'to shape a learning experience ... for each student', a reconceptualisation of the fundamental purpose of training products would be needed. At present, training products set standards for qualifications and so determine the appropriate levels of the specified requirements, but they do not seek to mould learning experiences to the needs of 'each' student. When students have their first encounter with the VET sector, they may come from quite varied backgrounds, at different ages and stages in the life cycle, and from major capital cities or smaller regional communities. (For example, the age profile of government-funded VET students in Queensland in 2014 shows just under half are aged between 15 and 24, a third 25—44 years and nearly a fifth over 45 years [Reeson et al. 2016, p.23]). Students sometimes require and respond to different approaches, different paces of learning, greater or lesser assistance and attention, and so forth. To what extent should training packages attempt to take account of these varied backgrounds and circumstances? Is this issue seen as resolved, or is it open for consideration and negotiation? These are further questions requiring resolution.

Training products can be more effective if the material content is carefully sequenced to proceed logically and stepwise from simpler to more complex elements, to mix the skills and underpinning knowledge and theory in the most appropriate way, ensure that industry-related experiences and workplace learning are well integrated, and that assessments of competencies really follow from the defined objectives.

Providing encouragement to transition to higher-level qualifications through the alignment of cognate courses, the exercise of credit transfer and appropriate recognition arrangements should be expected in a world where workforce change and progression has increasingly become the norm. Acquiring higher-level qualifications may involve moving from VET to higher education; however, just as many people today move from a higher education degree to a VET qualification to enhance their employability.

Those studying in either sector should find sufficient commonality in program design and performance and assessment expectations to move to the other sector without undue difficulty. A greater level of shared understanding between the two sectors of their different and alternative approaches would be mutually beneficial at this time.

How can the design of training products assist RTOs in designing and delivering the required training? Should they specify optimal instructional strategies?

Those who design training products need not only to understand workplace requirements and the priority needs of industries and enterprises, but also the different settings in which providers operate. Large-scale metropolitan TAFE institutes have different pressures from those experienced by small regional TAFEs, which attempt to sustain a wide range of options with classes of low student intakes and often to students disadvantaged by distant locations and limited financial resources. And specialist providers for one industry alone and private providers who enter the training sector with little background understanding of educational provision all have different priority needs and different levels of sophistication in understanding the training sector.

The prescriptive elements of the packages may need to provide alternative approaches or requirements to some extent, to cater for different delivery circumstances, including online and blended learning, the availability of equipment and facilities, and for potential differences in the manner of assessment, which can also be dependent on the capacity of delivery sites and personnel availability.

Changing technologies and the initial and ongoing costs of technology resources and of qualified personnel for teaching and equipment design and maintenance represent an ever-growing demand. Thus the 2016 CEDA report notes:

The jobs of the future are being defined by automation, robotics and computer technology applications that have the world on the cusp of a technology revolution the likes of which have never been seen. The implications for Australia, and how it shapes policies to adapt to the future, are therefore even more critical. (CEDA 2016)

This raises the question of whether training packages address the implications of MOOCs as potential components of qualifications and courses and units, and should they?

The specification of optimal instructional strategies could be helpful in pointing to the longer-term changes to be anticipated by RTOs. They might sometimes need to be mandated, and sometimes suggested. Clarity here would be helpful.

How can the design of training products support regulatory practice to ensure continuous improvement in the quality, breadth and flexibility of the training that students receive?

In the National Skills Standards Council's 2012 review of the standards for the regulation of VET, the view was expressed that government agencies sought a more 'learner-centred regulatory framework'. They cited the teaching and learning aspects of the standards as a key issue for the national regulator, who had argued that 'while the corporate and financial aspects are important, there is not enough emphasis in the standards on the governance of the RTO's core business of learning and assessment' (National Skills Standards Council 2012, ASQA submission, p.9). Regulators continue to claim that they are limited in dealing with registration of RTOs and accreditation of their courses by insufficient specificity in the training packages in relation to the requirements of quality, breadth and flexibility. They say that, following complaints from students about specific RTOs, they lack the grounds and criteria on which to declare that these RTOs have been found wanting.

Users too, have expressed related concerns. Thus the Age Discrimination Commissioner discussed findings from a recent ASQA report that found 'the standard of training delivered through the RTOs and private training providers was substandard with 80% failing to comply with existing national standards' (Senate 2014, para 4.11, p.27). This ASQA report says the problem 'has much wider application', that 'trainees and employees are not really being properly skilled', and that those 'RTOs that are trying to provide high-quality programs ... are being faced with unfair competition ... from those providing cheap and unrealistically short training programs' (Senate 2014, para 4.12, p.28).

A solution advanced in The VET era (Reeson et al. 2016, p. 37) is to require much more interaction between industry, the training package developers and the deliverers: 'To achieve the depth of understanding required to design training solutions which reflect industry needs (encompassing not only training content, but also the mode, timing and scale of delivery), interviewees believed that more one-on-one conversations were needed'. They speak of development officers who 'actually go out to industry, do the industry needs analysis ... more business development officers working with industry, more trainers and assessors working in industry and less administrative staff'.

This reads like a counsel of perfection, but nonetheless could well be a pointer to the direction of change.

Finally, two further thoughts

- Despite the formal complex structures in the VET system and the focus on national consistency, many reports highlight 'variability' and 'inconsistencies' in the quality of VET provision. Can the design of training packages go further than is presently the case to mitigate this problem, or does the solution to this issue lie elsewhere?
- Can the training package for the Certificate IV in Training and Assessment be reformulated to make a more positive contribution to the effectiveness of VET teachers and trainers, and thereby impact on the quality of the student experience in other words, to raise the quality of the student experience. It is increasingly acknowledged that at school level, the quality of teachers and teaching far outstrips other factors in determining the effectiveness of student learning and achievement.

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Essay 3 The public benefit Professor David Beckett, Centre for Vocational and Education Policy, Melbourne Graduate School of Education, University of Melbourne

Hypothesis

The design of training products in the future must respond to an increased need for fundamental capabilities in literacy, numeracy and workplace engagement skills and a greater need for VET to be differentiated for specific cohorts, including those with limited prior education attainment.

'But we don't know anything'

I am looking back — so we can look forward. Around 2000, I was researching how staff in a Melbourne aged care facility (ACF) learned how to manage very challenging residents, those with dementia (Beckett 2001). These PCAs (patient care attendants) met me, willingly, but didn't think they had much to contribute. At the very first meeting, in the facility itself, we were introduced by the ACF manager (herself a registered nurse), and I gave a brief explanation of the project. They listened in silence, and then one piped up: 'We're happy to help, Dr Beckett, but we don't know anything'. Of course I didn't believe them, but their perception of their own complete ignorance of how they manage residents on a 24-hour basis, in a secure ACF, was exactly the right starting point for what turned out to be fascinating fieldwork. As I wrote at the time:

Who are the workers in an ACF? The profile is shaped not only by nursing, but also by health care work of widening variety: physio- and other therapies; welfare and other agencies; and a growing number of 'patient care attendants' (PCAs), 'nursing assistants' and the like. Various stages of residents' medical dependency necessitate 24-hour care (especially the high dependency of the 'nursing home'), so shift work is a feature, as is the part-time, predominantly female workforce. Clearly the nursing/non-nursing divide is up for re- negotiation as patient care attendants take up some of the traditional jobs of nurses. In some low-care ACFs these 'unregulated workers' provide the whole workforce, but in others none are employed at all. All of these aspects require management and leadership (especially with heightened public expectations, media attention and accountability to regulatory bodies).

I've not had further involvement with the aged care industry, so I'm not cognisant of changes in the workforce there. The point is that this vivid remark has stayed with me, because the six or seven PCAs I got to know were clearly exceptionally skilful in their work; yet they denied they were knowledgeable and were under-recognised for their skills – industrially, professionally and educationally. As the Australian population ages, and we all head for ACFs, or seek similar care in our own homes and amongst our families, there's something unsettling about their expression of 'we don't know anything'. It hits us personally, as we age. There is, to be blunt, absolutely no 'public benefit' in having workplaces like an ACF staffed by people who believe their own 'fundamental capabilities' amount to nothing! As we will see later, these PCAs were wrong about their ignorance.

'Fundamental capabilities' and workplace engagement

Training products are already designed to include 'capabilities in literacy, numeracy and workplace engagement'. And so they should: no one wants a coffee from a barista who can't count, can't communicate with the public or with café peers, or can't distinguish a latte from a lasagne.

An example of a training product where you would expect these capabilities to be prominent is the Certificate II in Hospitality (SIT20316), for which there are no entry requirements and which 'provides a pathway to work in various hospitality settings, such as restaurants, hotels, motels, catering operations, clubs, pubs, cafes, and coffee shops' (p.2). The work itself is 'operational ... routine, repetitive ... and under direct supervision'. Let's drill down a bit.

One core unit is *Work effectively with others* (BSBWOR203), a generic unit comprising three 'Elements', implanted as 'Core' in this certificate II. Throughout the Elements and Performance Criteria, we read that learners should 'develop effective workplace relationships' (as indicated by their undertaking 'activities in a manner that promotes cooperation and good relationships) and 'contribute to workgroup activities' (as indicated by 'provid[ing] support to team members' and 'shar[ing] information ... with the workgroup ...'). The third of the three Elements reiterates the need to be 'effective': 'Deal effectively with issues, problems and conflict' (as indicated by identifying and respecting personal, linguistic and cultural differences, and raising these and 'suggest[ing] possible ways of dealing with them ... or refe[rring] them to the appropriate person').

Overall, the Performance Evidence for this unit lists behaviour that amounts to being a good team member — being supporting and sensitive, but also, as you have just read, being 'effective', which, for me, means *making the difference that's needed in that workplace*.

Indicators for that might include productivity (more serves of coffee), profit (more in the till), less tension (more smiles) and less uncertainty (more confidence). And here we have a tension between the individualistic, behaviouristic focus of the unit and the expectation (since it is rightly a core unit) that working 'effectively' with others will just magically turn up, or be obvious anyway.

Yet we know ourselves that working effectively with others requires, of everyone, active listening, clarity of speech, shared framing of the issues and problems that inevitably arise at and through work, and a joint commitment to decisions that are intended to move the group forward. Actions are the outcome, but they are not mine (as an individual) alone.

Thus, I suggest the way to resolve this tension is to consider the Performance Evidence that looks for, or asks for engagement in:

- an event that solved a problem
- a process that was efficacious or innovative
- a decision that made a difference.

Performance Indicators that require these more highly relational (less overtly individualistic) experiences, yet do not dislodge any of the current Performance Indicators for this unit, could be:

- Engage with workgroup members to seek shared solutions to issues and problems
- Participate in conversations with workgroup members over changes to shared practices
- Assist in implementing revised or innovative outcomes of workplace activities ... and such like.

This worked example is from an entry-level certificate II. But it seems to me that any adult could understand and learn, in this more socially focused unit, what working 'effectively' with others actually required in her or his behaviour: that *some overt sharing of OUR relationships makes ME more skilful*, thus exemplifying the capabilities of 'literacy, numeracy and workplace engagement' more, as Australia is coming to expect. No one comes to the workplace completely ignorant of what is required. Almost all workplaces are social environments; certainly all public workplaces are fully social; this why the PCAs' self-ascription of utter ignorance was demonstrably false, as my fieldwork went on to show. 'But we don't' know anything' dissolved amidst abundant evidence that the management of residents with dementia was highly skilled work. The ACF was inevitably a highly social work environment. Dementia made it more, not less, so!

The obviously social nature of work is why the traditional casting of units of competency entirely in terms of individuals' performance (as what 'I' can or should do) is insufficient for the future of the Australian workforce. Instead, it is in the public interest (as well as belatedly acknowledging the social nature of our 'private' selves) to enrich the current design of training products such that more socially aware and socially responsible work, and training for work, is captured in the Performance Evidence and associated Performance Indicators, across a unit of competency.

It is all about us

'As humans, our comparative advantage is our humanity' claim the Queensland TAFE authors of *The VET era* (Reeson et al. 2016, p.54), and they are correct. They go on to advocate revisions of VET courses that 'support the growing importance of communications', in a technology-enabled world, where 'digital literacy is about using technology to solve problems and achieve practical ends and it represents a higher order of digital literacy'. Thus 'working with data' isn't best regarded as a back-room skill, but as part of overall public, professional and industrial communicability: 'In particular, higher order communication skills such as Active Listening and Negotiation, along with Service Orientation, are required in areas of employment growth' (p.54).

And, earlier:

Digital literacy will be increasingly important for all workers. This does not mean we will all need to become programmers ... Nevertheless ... many Australians still do not have the literacy and numeracy skills needed to participate effectively in the workforce and approximately 15% of Australians are not regular internet users ... Digital literacy skills (or the knowledge and skills to use digital technology to achieve desired valued outcomes) are likely to become a foundation skill set in the future (p.13).

'Effective' participation in the workforce, for 'desired valued outcomes', is the target here, and digital literacy is rightly in the mix. Apart from internet access, let's assume that social media is ubiquitous, especially among the young. It is changing the way politics and the mainstream media operate. Print is fading away; by contrast the screen flickers and glows, and images and messages (from and about the whole world) dance before us. This new form of literacy reshapes what we take to be communication and learning — both formal and informal — and is edging into the social nature of workplaces. Reeson et al. (2016, p.17) mention one of their interviewees, in the health sector:

we're working very differently with our support services ... So it's the doctor making that decision, but everyone that's put that information in would come from vocational training. So even the administration person at the front when they take the booking, when they ask the patient about their demographics, that's all there ... they're putting the allergy in ... every bit of information is so vital to the actual well-being of the patient.

Here, we have digital literacy contributing to higher-order communication: the conversation at the front desk, perhaps on the phone or on a screen, is data-focused, but not data-determined. The prospective patient is the focus. Notice also the social profile of the medical practice. Increasingly, professionals group themselves in clinics or business centres that offer a range of services (health, legal, financial and so on) with configurations of 'support services', as in this health example. The focus on the person, and her or his problems, and issues, requires a clustering of inter-, and perhaps trans-disciplinary practices. The ubiquity of data-focused communications, not just amongst the various clustered practitioners, but also from them, to the individual patient, or client or customer, requires a growing sophistication in the capability to engage (not merely inform) one another. Reeson et al. (2016, p.13, my emphasis) state that: ' [i]n general, the service sector (which includes health) will continue to be the major source of employment growth ... This trend means that people-centric skills will continue to be sought after'.

Back in the coffee shop, how is the barista looking? We've identified and discussed ways a unit of competency could better capture how s/he should work effectively with others. Now we can see the larger context.

The sociality — or 'people-centric' nature — of work, in one coffee shop and across Australia is the future of industrial and of professional work. All citizens have an interest in the humanity of work, as does the sub-set of

potential workers: no one wants a dehumanised experience at, or through, or from, work. Arguably, if 'a coffee a day keeps the doctor away', then it is equally important to ask, for the future: *is there a people-centric barista in the café?* Let's explore this in detail.

Turning again to the Certificate II in Hospitality, we find the elective unit: Prepare and serve espresso coffee (SITHF AB005). Most interestingly, we find a list of foundation skills, which are 'essential to performance in this unit, but [are] not explicit in the performance criteria' (p.5). These consist of some basic literacies, such as reading and writing, and numeracy (to do with the operation of the machinery) but also 'oral communication ... [which is] active listening and open and closed probe questioning to determine customer preference and offer suitable products'. There is also 'problem-solving', which is associated with efficient machine usage.

Amongst the seven Elements in this unit, we find only one which is people-centric, 'Advise customers and take espresso orders' (with Performance Indicators of 'provide information and recommendations' and 'identifying customers' preferences and take orders'). So, at the heart of the unit, apart from the behavioural relationship the barista has with the machinery and the ingredients, what ought to be equally important are the nationally significant people-centric skills of active listening, negotiation and service orientation. But these are under-recognised, both in the Elements (only one of seven) and also in the Performance Indicators, which do not focus on the social nature of the workplace or its learning.

This under-recognition of a nationally important fundamental capability is also an inaccurate reflection of what the work in the shop actually entails. That is, building on my previous sections in this essay, the shop is a social setting (as are most public workplaces) — the barista and her customers are a tiny temporary group (often, just a pair of people) who have conversations. The unit design fragments this into a list of 'problem/issue/preferences/advising — towards an action'.

To reiterate, all public work is social and this is what group work comprises. The social nature of this 'service industry' work is better regarded as (drawing upon Reeson et al. 2016) 'negotiation', where 'active listening' and a 'service orientation' deserve prominence in the design of the unit. The barista's opening question: 'What would you like?' invites the coffee customer into a group process of negotiation, with options and decisions, and an agreed outcome – the right drink. I argue that the best baristas bring to that negotiation, significant 'communicability' (which I define as a warm service orientation, which requires listening, chatting and often, customised coffeemaking), as well as what we can call 'technical' performance with the machinery and the ingredients.

So, in this unit on coffee-making, there is an opportunity to develop explicitly the higher-order communication skills, which Reeson et al. (2016) have established in their research as fundamental for the future of Australian vocational education. Digital literacy is important and also probably to be included as a front-of-house skill, in that orders, preferences and the ensuing negotiation could increasingly involve social media and online delivery. (We have this with takeaway/home delivery food already.) And 'reading' data from the coffee machine itself is probably also a growing literacy. (We also have this already with automotive under-bonnet plug-in data — the greasy mechanic is being replaced by the white-coat diagnostician.) Increasingly, then, it is the public's expectation that higher-level 'service' skills (principally communication) become apparent in our various engagements with work and with workers, and with the public.

Overall, I argue that all units of competency in Australia should be reviewed for the prominence they give to the social nature of work and the various capabilities that flow from that, such as communication with one's peers and with the public (in 'working effectively with others').

And I further argue that in workplaces and in training for workplaces it is in the public, indeed (cf Reeson et al. 2016), it is in the national interest, that the inevitable and desirable social nature of all public work becomes better reflected in the Elements and Performance Criteria of units of competency. Vocational education and training by its very nature is directed at the labour market. Most of us work for a living — and we do it publicly. But we work in differentiated ways. Should our training for public work be similarly differentiated? I explore this next.

Public work and differentiation of training products

I use the term 'public work' very broadly: all the paid labour market counts, including self-employed people. Private (for example, artists and volunteers) and (regrettably) domestic work is not what I mean. To avoid endless definitional disputes, I'll state if you have a CV and you expect it to help you to gain or keep employment, you are, or want to be, in public work (not to be conflated with public-sector work, which is a sub-set). The VET sector of the education industry has a range of training products, which, viewed as qualifications, fit within the Australian Qualifications Framework.

The differentiation of qualifications for specific cohorts, such as those with limited prior attainment, needs to be viewed cautiously, and perhaps with scepticism. There is a case for demand-driven cohort-specific qualifications, if we look, for example, outside VET, and into teacher education.

Across Australia we know that primary teaching as an education sector labour market is overwhelmingly unbalanced in favour of women. No one is seriously suggesting that some cohorts should be dedicated to men or that selection for standard courses should favour men, to redress this imbalance. But within the general teacher education courses for primary teaching, we have examples of specific subject options targeting maths (but not other curriculum areas).

Within the teacher education courses for secondary teaching, maths, science(s) and some languages are priorities for selection. Note the structural difference already: the 'generalist' nature of primary teaching and its various registration requirements across the states of Australia are not going to be compromised by a maths-specific option. Your registration as a primary teacher in Victoria is as a 'generalist' — and that is a portable registration — recognised in other states, notwithstanding any specific option you have completed within that qualification. But the discipline-specific nature of secondary teaching (that is, 'learning area' — what you teach in the school, for example, English, history) does not risk being compromised if labour market demand for a specific learning area has arisen (as it has, due to low application rates from graduates of maths and science[s]). Your registration is specific to a learning area to start with, and you should be aware of your employability when you apply for your secondary teacher education course in your state.

Teacher education courses are overwhelmingly funded from the public purse. Commonwealth-sponsored places are the norm, with some fee places available, and these fee places have a limited appeal to international students, due to the local nature of registration requirements, which both primary teaching and secondary teaching courses must satisfy (for example, they may not gain you employment in Singapore).

What do we learn that maps into VET here?

Given the AQF, which is a continuum of educational attainment with links across to various labour markets such as school teaching (nursing would be another interesting example) and the predominance of public funding for VET, I can't see a strong claim on differentiation of training products for specific cohorts.

In addition, we are constantly reminded that, for example, 'a significant proportion of Australian jobs that exist today will no longer exist in 20 years' time' (Stephen Martin in CEDA 2015).

And I can connect this prediction with the earlier sections of this essay. The CEDA report went on:

Modelling conducted for this report suggests almost five million jobs face a high probability of being replaced in the next decade or two while a further 18.4 per cent of the workforce has a medium probability of having their roles eliminated. Jobs that involve low levels of social interaction, low levels of creativity, or low levels of mobility and dexterity are more likely to be replaced by automation. (CEDA 2015, p.8)

My claim is that the best way to acknowledge, develop and reward the diversity of the social nature of work and of life itself is to revise training products in favour of the higher-level communicability highlighted by Reeson et al. (2016), and already apparent in work and training experiences but under-recognised in the formalities of units of competency. The CEDA (2015, p.15) report resonates with the sentiments expressed in this report, where it states:

To position Australia's workers with the skills to adjust to emerging technologies and to maximise the nation's human capital, the nation needs ... to ensure all stages of the education process focus on instilling competencies rather than the retention of specific knowledge. With public funds being invested, it is important that the skills being taught are not firm specific, but instil broad competencies that represent a valuable public investment.

The nature of a 'competency' is itself contentious, with universities and professional bodies taking a less reductive approach and recognising more 'capabilities' (as this essay does). Furthermore, the notion of being 'firm-specific' is merely one way to define a cohort: gender, market demand, and — more controversially — Indigeneity are other examples. However, overall, I share this view.

Public work is, also, and importantly, national work. Training products should maximise everyone's prospects of employability, and they can better do this by revision in favour of the 'fundamental capabilities' I have advocated in earlier sections of this paper.

The public interest – what do we learn from surgeons?

Recent research in the *Medical Journal of Australia* on the members of the Royal Australasian College of Surgeons (RACS; Hillis et al. 2015) is relevant to this essay, because substantial fieldwork amongst the several thousand Fellows and trainees showed that within their nine main professional competencies, 'attributes relating more to society were prioritised less than individualised skills' (Hillis et al. 2015, p.433).

In the Discussion section of that article, the authors draw out this finding, which is somewhat disturbing in the context of the public interest. After all, surgery, in common with law, the military and the priesthood, are the four medieval professions that carry the prestige of a hallowed social contract with the public:

Similar studies [to this MJA study] have emphasised that values held in high regard by society, such as altruism, charity and communication, are not well appreciated ... Surgeons require expertise in each of these [nine] competencies, but it is the integration of all these attributes [that feed into the competencies] that will make a competent surgeon. In a health environment where collaboration and teamwork is [sic] regarded increasingly as a core skill, and where the ability to influence the health system through management, leadership and advocacy is becoming more desirable, these areas will require greater prioritisation among trainees and Fellows.

(Hillis et al. 2015, p.437)

Here is a profession justifiably proud of its expertise, but it resides in individuals. Surgeons practise alongside each other not with each other. Trainees sit beside the Fellows, and watch and presumably learn, so traditionally it has been a master—apprentice relationship.

What is poorly developed, according to these findings, is a sense of the greater, public good. But also lacking is a robust sense of teamwork and the collaboration that sustains shared participation and ownership of outcomes. It is very much a Lone Ranger culture. The future lies in giving priority, at the RACS, to the social nature of the work of surgery, both amongst surgeons and other health workers — and also outwards into the public realm. As customers, we are increasingly urged to seek 'second opinions' from our professionals (and many who claim the status of 'professional' are often dodgy, anyway). By contrast, owners of coffee shops have always been market-oriented, well aware of the public's interest in that next café, and in that second and subsequent opinion. The public have choices.

Training products and the future

My overall argument in this essay has been that training products should reflect an important human experience: the explicit sharing in the dynamic nature of the work (its problems, issues and innovations), and being accountable for that, at least, and most immediately, in the particular workplace, extending as far up as the public's national interest in that work (as customers, clients, patients, tax-payers, consumers, citizens and so on).

This is fundamentally the challenge for what surgeons should do better, for what baristas should be confident they can keep doing, and for what the patient care attendants were always were doing — but failed to recognise it.

By this I mean that a unit of competency needs to be serious about the social nature of work and to attempt to calibrate it through the Elements and through Performance Indicators. This doesn't compromise the individualistic nature of the Elements of a unit, or the need to have Performance Indicators that are evidential; rather, it is just that the evidence will be more expansive.

Centrally, and as a main example, if we take the national significance of communication (and its various clustered concepts, such as active listening, negotiating and new notions such as recognising oral and visual cues, and sharing decisions which move the workplace or a problem or an issue forward, perhaps innovatively), then what is required are some Performance Indicators that reflect how we learn powerfully from each other, not just from what we find we can do within our 'selves'.

The PCAs were convincingly *capable* (more than merely competent) in managing residents with challenging behaviour. In one memorable case, which they shared with each other and me (Beckett 2001, p.150), they puzzled about what to do with a resident who, when the bell rang for dinner, went in and threw the food around. By listening to the woman's family, piecing together what they knew of the women's background and activities in the ACF itself and what they had learned (without being taught) about the pathology of dementia, they came up with the explanation that the resident was regressing to her childhood on the farm, where her task at dinner time was to feed the chickens in the farmyard — by throwing food to them.

The process through which the PCAs came to this resolution of the problem (which enabled them to manage her behaviour differently) was itself salutary: no one had told any of them what to do, since no one actually knew what to do, but through active listening, some 'theory', some reflection and trust, and shared decision-making, they agreed on a way forward. They communicated with each other and even to the residents with dementia, very effectively. In the jargon of competency-based training, they 'worked effectively with others'.

I suggest that training products be revised to give greater prominence to this concept of the social nature of the workplace.

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The views and opinions expressed in this essay are those of the author and do not necessarily reflect the views of the Australian Government, state and territory governments or NCVER.

Appendix C: Questions guiding group discussion

Session 1 Workforce needs

What is the best starting point for designing training products? Consider...

- working back from professional excellence and high-end products
- progressive sets of competence.

How can training products take into account emerging occupations and future jobs? Consider the role of:

- labour market analysis
- accredited courses
- skill sets
- a proactive system or a reactive system.

How should training products be developed and kept up-to-date? What about...

- wider consultations
- a six-month turn around for revisions
- other mechanisms for keeping up to date.

What are the roles of industry in the design and implementation of training products?

 Consider the tension between specific employer requirements and broader occupational or cross-industry training needs.

What should be the role of educators in shaping, implementing and interpreting training products?

Are there too many ...?

- training packages
- qualifications
- skill sets.

Session 2 Student needs

Should we redefine competency to match the changing nature of work? What about \dots

- training products supporting graded assessment
- fostering creativity as well as technical excellence.

What are student needs in a changing job market, and how can training products be designed to meet these needs?

• Think about the implications of the shift to a service-oriented and innovation-driven economy.

Can training products support teachers and trainers to shape the learning experience for students?

How can curriculum and standards best work together to support teaching delivery?

What do students need from training products? Is it ...

a clear sense of vocational direction

- specific skill development
- a defined qualification for a job or a career
- alignment with academic pathways.

What role could training packages play to support quality delivery and in assuring training outcomes? What about ...

- guidance for RTOs to deliver the training products
- mandated instructional strategies.

How do training products meet the greater demand for social-emotional skills, higher-order cognitive skills, and creativity and entrepreneurial skills?

Session 3 The public benefit

Do training products play a role in ensuring that vocational education makes a broader contribution to society and the economy?

Do training products have a role to play in lifting the reputation of vocational learning?

Do the following have a role in setting a new direction for training products, which meets the needs of a wider variety of VET students?

- reframing generic vocational competence to embrace broader capabilities, skills and knowledge
- do we need a new language: no more 'training packages'?

How can training products meet the needs of various cohorts of learners, especially those with limited prior education attainment?

Do equity considerations need to be considered separately from industry requirements in the design of training products?

Think about foundation versus vocational education.

What type of training products are needed to tackle the continuing role of VET in improving literacy and numeracy?

Considering embedded versus stand-alone LLN.



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