



Engaging more employers in nationally recognised training to develop their workforce: literature review - support document 1

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Introduction

This Support Document contains a literature review for the project entitled: *Strategies for engaging employers in nationally recognised training to develop their workforce*.

The trigger for this project is the observation that employer engagement with the national VET system (including employers with jobs that require vocational qualifications, those with apprentices and trainees, and those that use (other) nationally recognised training), prior to the onset of the COVID-19 pandemic, had trended downwards overall over the 14 years up until 2019, from 58% to 51% of all employers surveyed in the Employers' use and views of the VET system (NCVER 2019a).

The aim of the overall research project is to identify strategies to improve employer uptake of nationally recognised training in the current environment. This requires deepening the understanding of employer thinking and approaches to workforce training in general and in relation to nationally recognised training in particular. There is a significant body of literature on employers and workforce training. This is drawn upon to answer the four questions addressed in this research project:

- 1 How do employers choose training for their workforce?
- 2 What factors in the current environment affect employers training options to develop their workforce?
- 3 What are the elements of tailored strategies for engaging employers in nationally recognised training to develop their workforce?
 - What are the characteristics of successful employer engagement in nationally recognised training?

These research questions were also asked of representatives of three stakeholder groups via interviews in phase 2 of the project (see Support Document 2). The 15 stakeholder groups interviewed include:

- Employer networks and advisory bodies (six);
- Government industry training and skills bodies (six); and
- VET training provider peak bodies (three).

The perspectives of these key stakeholders are considered as their positions on peak bodies may affect employer views and practices, while offering a more strategic (less operational) overview of the motivations behind employer engagement in training of their workforce.

Interviews with employers were conducted in phase 3 of the project, informed by the findings of this literature review and the interviews with peak body stakeholders. The employer interviews include five or more employers from each of five industry sectors with comparatively low usage of nationally recognised training in 2019. While employer use of the VET system had trended downwards overall up until 2019, it remained relatively high in some sectors, such as in construction (73% of employers) and relatively low in others (30% to 40%,) including in the five industry sectors of: Transport and postal; Warehousing; Information media and telecommunications; Retail; and Agriculture (NCVER 2019b). The findings of interviews with employers in these five sectors are reported in Support Document 3.

Definitions

To provide context to this review of literature on employer training of their workforce we define some terms here. Firstly, we define nationally recognised training vis-a-vis other forms of training; the two key forms of training we are seeking to understand employer perspectives on. Secondly, we explain how these two key forms of workforce training are recognised, including via a new term added recently to the discourse.

Nationally recognised training vis-a-vis other forms of training

Nationally recognised training is defined as:

Training that leads to vocational qualifications and credentials that are recognised across Australia. Only registered training organisations (RTOs) that meet government quality standards such as TAFE, private providers, enterprise registered training organisations, vocational divisions of universities, community RTOs and schools that are RTOs can provide nationally recognised training (Naidu, Stanwick & Frazer, 2020).

Nationally recognised training is listed on the National Training Register (training.gov.au) and includes accredited courses, endorsed training package qualifications, training package skill sets and associated subjects (Naidu, Stanwick & Frazer, 2020).

Nationally recognised qualifications, from certificate I to graduate diploma, are VET qualifications within the Australian Qualifications Framework (AQF), which is the national policy for regulated qualifications in the Australian education and training system (Naidu, Stanwick & Frazer, 2020).

It is important to note that the term ‘accredited’, while loosely used by employers and stakeholders, specifically refers to a ‘nationally recognised course accredited by VET regulators and developed to meet training needs not addressed by existing training packages’ (NCVER Glossary of VET). A ‘statement of attainment’ is issued for completion of an accredited course and also for completion of one or more ‘units of competency’ or modules within an accredited course or part of an AQF qualification, as specified by a nationally endorsed training package (Naidu, Stanwick & Frazer, 2020).

A grouping of one or more units of competence can comprise a nationally recognised ‘skill set’ specified in a national training package, which clearly defines the skills and knowledge required to meet a specific industry need or a licensing or regulatory requirement (Naidu, Stanwick & Frazer, 2020).

Nationally recognised training can only be delivered by registered training organisations (RTOs), whether public, private, community-based or enterprise-based (ERTOs). RTOs must meet the standards and essential conditions in the Australian Quality Training Framework (AQTF) and state-based Guidelines where applicable, and are registered by the national VET regulator, the Australian Skills Quality Authority (ASQA), or a state registering and accrediting body (i.e., VRQA, WATAC).

Other forms of training

Other types of training that do not lead to nationally recognised certification are commonly referred to as ‘non-nationally recognised training’. They include structured training typically offered by in-house or external trainers with considerable industry experience and expertise, and vendor training provided by the company that has provided products, machinery or services to an employer (Naidu, Stanwick & Frazer, 2020).

Non-nationally recognised forms of training also include unstructured or informal training, where knowledge and skills are acquired by working alongside expert others, or through mentoring and coaching, or alone through learning by doing. In this report we use the term ‘non-nationally recognised training’ to mean training that does not lead to vocational qualifications and credentials that are recognised across Australia.

Initial or entry-level VET (IVET) is training that equips individuals to commence employment. It usually involves whole qualifications training for a particular occupation. **Continuing VET (CVET)** is training that supports workers’ ongoing employability and career development. It often involves specific skills sets training. In this report we focus on the learner. If they are a new entrant to work then they are doing IVET. If they are an existing worker, then they are doing CVET¹.

How various forms of workforce training are recognised

Nationally recognised training includes courses that lead to qualifications in the Australian Qualifications Framework (AQF) such as Diplomas and Certificates. It can also lead to short form credentials known as ‘skill sets’. These comprise a grouping of one or more VET competencies below the level of a full qualification that meet a client’s specific skills need, such as a licensing or compliance requirement or specific knowledge in an emerging area. The use of nationally recognised skill sets aligns strongly with industry needs for more flexible training options for their existing workforce. Australian governments have supported the uptake of nationally recognised skill sets, including via the 2015 training product reforms agreed by the COAG Industry and Skills Council promoting the greater recognition of nationally recognised VET skill sets.

Micro-credentials do not yet have a widely accepted definition. A broad definition often used, including in the recent Australian Qualifications Framework Review Final Report (Australian Government 2019) is:

A micro-credential is a certification of assessed learning that is additional, alternative, complementary to or a component part of a formal qualification. (Australian Government 2019, adapted from the definitions in a report by Oliver (2019)

This definition of micro-credentials goes beyond nationally recognised short-form skill set credentials to include new knowledge and skills gained via non-nationally recognised short forms of training that are considered to be assessed learning.

The recent Review of the AQF recommends that micro-credentials, as defined above, be investigated to help evolve the AQF response to emerging workforce skills and knowledge needs and that guidance be developed to facilitate credit recognition. The Review of the AQF argued that the traditional role of formal VET and higher education AQF qualifications is being challenged both by the availability of information through the web and other technologies, and by individual acquisition of skills and experience in a variety of settings outside the formal tertiary education and training system. On 9 December 2019, the Australian Government (Department of Employment, Skills, Small and Family Business 2019) accepted all recommendations of the AQF Review Final Report in relation to higher education. In relation to VET, the aims of the recommendations were accepted, contingent on further discussions with state and territory governments.

¹ See Circelli and Stanwick 2020 for further discussion on the distinction between IVET and CVET.

In VET, the future of micro-credentials is yet to be resolved. In February 2020, Skills Senior Officials released a discussion paper on micro-credentials, seeking views on how micro-credentials should be defined (Skills Senior Officials Network 2020).

In this report, we use the term 'micro-credentials' when we mean both nationally recognised and non-nationally recognised short forms of training. When we mean nationally recognised short forms of training, we use the term 'skill sets'.

How do employers choose training for their workforce?

Why employers train

Research shows that the reasons employers train their workforce have not changed appreciably over time. The primary factor is to improve their business.

As Smith and Billet (2004) pointed out, employers' training decisions are driven by the business case that often reiterates the need to continue responding to the impact of organisational change and new technologies.

Townsend and his colleagues (2005) found similarly that employers identified the critical importance of needing employees with the capability and expertise to perform on the job to deliver the aims of their business. These researchers concluded that employers engage in training activities that make a difference to their business, and that training can be nationally recognised or non-nationally recognised.

Cully (2005) observed that employers provide training to upskill their workforce, to promote innovation and the production of higher-quality services and products, and to return other commercial benefits to the enterprise. Cully identified these as 'pull' factors, which lure employers into providing training.

Skill shortages provide another example of a pull factor; employers will turn to training as a means of meeting a skill requirement if they are experiencing difficulties in recruitment. Most pull factors, however, are internal and are concerned with how employers aim to meet their overall business strategies. For example, if competing with other employers in the same line of business through higher-quality products or services, employers need to ensure that their workers have the skills needed to meet the quality standards. Even in highly competitive industries where the profit margins are tight, unit costs can be lowered by improving productivity; training workers in new skills may be one way.

In a more recent study, Smith and her colleagues (2017) found employers were providing more training than in the previous five years for the same reasons identified in the past. When asked about their motivations, employers responded that the major factors influencing their decision included: the constant need to improve the quality of products and/or services; to enable adoption of new technology; and to meet increasing regulations. These researchers also noted that for large employers the main reasons for workforce training were related to business strategy, new technology, and workplace health and safety factors, whereas factors linked to improving quality were cited more often by small companies. Also noted was that workplace health and safety is less important in driving training among small employers compared with large employers.

White, De Silva and Rittie (2018, p.3) provided the following summary that reinforces these findings from past research:

The key drivers of employer investment in workforce training include improving the quality of a product or service, the adoption of new technology, and to meet legislative, regulatory or licensing requirements. Various types of training - accredited (i.e. nationally recognised), unaccredited (i.e. non-nationally recognised), informal - are accessed by employers to fulfil their training needs.

Key points

- The reasons employers train their workforce have not changed over time.
- Employers invest in training to improve their business
- The relevance and flexibility of training are more important to employers than its type

Why employers use nationally recognised training to train their workforce

Previous research has identified several factors for employers' choice of nationally recognised training.

Townsend, Waterhouse and Malloch (2005) found employers chose nationally recognised training as they believe that an employee with certain qualifications will get the job done. Also associated with this sense of trust in qualifications are motivations linked to industrial relations; qualifications meet mandatory contractual obligations, standards and regulations. Finally, by providing employees with career paths through nationally recognised qualifications there can be higher levels of morale and employee retention in the workplace to satisfy human resources policies.

Cully (2005) also found a key motivating factor for the use of nationally recognised training among employers are regulatory and contractual requirements that oblige employers to provide nationally recognised training for employees. Such training includes licensing to operate equipment or to deal with materials that might otherwise put people at risk of harm such as when using toxic chemicals. Cully referred to these reasons as 'push' factors, that compel employers to provide training. Employers might agree as part of enterprise bargaining arrangements to the provision of training for their staff. Similarly, when bidding for commercial work, the contract might mandate certain levels of training provision – a practice common on large building projects.

Other researchers reported similar factors, especially around legislative or licensing requirements; to meet the requirements of industrial agreements, awards or enterprise agreements; and to provide specific job-related skills for their businesses (Smith, Oczkowski & Hill 2009; Smith et al., 2017).

In addition, enterprises gain major advantages from providing nationally recognised training such as: the ability to attract higher quality staff; access to government training subsidies if the training offered by the employer leads to a qualification; the integration of the training with production through flexible options in the training delivery; and the confidence that workers are trained to a recognised standard (Smith, Oczkowski & Hill 2009; Smith et al., 2017).

NCVER (2019a) in its 2019 *Employers' Use and Views of the VET System* found that about 20% of employers arranged or provided their employees with nationally recognised training that was not part of an apprenticeship or traineeship, down 2.5 percentage points from 2017. Of these employers, the top reasons for using nationally recognised training were: legislative, regulatory or licensing requirements (55%); to provide the skills required for the job (49%); and for staff career development (40%). Some 79% of employers were satisfied with nationally recognised training as a way of meeting their skills needs, similar to the 2017 survey findings.

The NCVER (2019a) survey also found that about 8% of employers were dissatisfied with nationally recognised training as a way of providing employees with the skills they require for the job, similarly to in 2017. Of these, 52% felt that relevant skills were not taught and 36% felt that the training was of a poor quality or a low standard.

Why employers use non-nationally recognised training for their workforce

Townsend, Waterhouse and Malloch (2005) found that for many Australian employers, qualifications are not a key issue. Rather the key concern is having employees with the required capability and expertise to perform on the job. Employers are seeking to develop skills that are highly job relevant or organisation specific. These employers engage a range of training activities for their employees, including informal training and experiential learning as well as nationally recognised training. As one employer put it: 'Competence is experience and verified in action, and they will believe it when they see it' (Townsend, Waterhouse & Malloch 2005, p.6).

Key points

- Employers use non-nationally recognised training because it is tailored to employer needs; convenient to access at flexible times; of lower cost; and because in their view, nationally recognised training is not needed

White, De Silva and Rittie (2019) noted that most employers using non-nationally recognised training are satisfied that it provides the required skills for their workers. In many cases employers believe that nationally recognised training is simply not needed by their business or if they choose it over comparable nationally recognised training they do so for reasons of lower costs; more convenient to access; delivery at flexible times; and better tailored to employer needs and preferences. They prefer to use in-house trainers or industry specialist trainers with a high level of industry knowledge. In the same report, employers responded that the training content of the chosen non-registered training provider was judged to be more appropriate, or it was the only suitable one available. Around half of the employers using non-nationally recognised training did not use an external training provider, but for those who did, private training providers and professional/industry associations were the main providers chosen, largely because of their high level of industry knowledge and the suitability of the course content for their employees.

The *Employers' Use and Views of the VET System 2019* (NCVER 2019a) found that 49% of employers arranged or provided their employees with non-nationally recognised training, similar to 2017. Of these employers, the top reasons for using non-nationally recognised training were to: provide the skills required for the job (57%); meet and maintain professional or industry standards (36%); and meet highly specific training needs (35%). Some 87% of employers were satisfied with non-nationally recognised training as a way of meeting their skill needs, similar to 2017.

Why employers don't train their workforce

As an interesting alternative way of looking at this issue of training, a CEDEFOP (2019) report provided the reasons indicated by European Union enterprises for not providing (further) training in 2015. A large majority of enterprises who did not train staff indicated no need for it as they perceived available skills as matching their current needs. This view was found to be held by larger enterprises in particular.

Another frequent motivation for not providing training was that employers had adopted a different strategy for skills development. Many companies had recruited new staff with the required skills to fulfil company needs

Key points

- Some employers don't train because they have already recruited staff with the required skills or staff who have been trained recently
- Other reasons are a lack of time to organise training and for staff to participate in training

rather than train their current workforce. Larger organisations more often adopted this strategy compared with medium and small enterprises.

Other reasons still important, but less frequently indicated, were a high workload, a lack of time for staff to participate, high costs of courses or that there had been major training efforts in previous years.

Smith and her team (2017) also observed that Australian employers have good intentions about training, but time constraints mean they are not always able to implement these. They believed that employers require more assistance in streamlining their business planning and planning the provision of training. A good example was the introduction of government initiatives such as the 2012 National Workforce Development Fund, but they proposed that more direct assistance might be more practical, and function as a particular form of 'workplace curriculum' (see also Billett 2001).

Workforce training differences by employer size and sector

Stanwick (2009) noted there is quite a lot of literature in Australia and overseas which indicates that small businesses are less likely to engage in formal accredited training than larger industries. Companies that offer employees the opportunity to gain qualifications for development within a job are usually of medium to large size.

McGraw (2014) attributed this greater use of nationally recognised training in larger companies to three factors: economies of scale in training delivery; more employees who work in more highly skilled jobs; and larger companies can make longer-term investments due to greater market certainty and larger profit margins.

Also, larger organisations more actively use branding that positions them to attract the best employees with offers that include nationally recognised skills development and training (Wallance et al., 2014).

Similar issues emerged in the study by Townsend and his colleagues (2005). The companies that offered employees the opportunity to gain qualifications for development within a job were more often medium to large. Typically, the qualifications that were focused upon were across certificates I to III and included short form training in licences such as crane driving, rigging, scaffolding, forklift driving, certification in first aid and occupational health and safety.

Dawe and Nguyen (2007), in a systematic review of the education and training needs of small business, found that two-thirds of small businesses in Australia did not provide structured training for their employees. They discovered that for small businesses the concern is specific business needs, and that formal training often does not meet that need. Small businesses are more likely to engage with non-nationally recognised informal or on-the-job learning.

Similar findings emerged from Mawer and Jackson's (2005) study, which found that small to medium-sized companies provide limited accredited training because they have recruitment strategies focused on the already skilled. They treat training primarily as a 'maintenance' issue rather than as a key strategy in overall workforce and business development. In addition, they train existing workers on an individual basis as identified specific needs arise and do not perceive a high need for training for lower skilled workers. At the core of their training philosophy is the value of experience and skills acquired on-the-job over nationally recognised training. Supplier or vendor training is a significant and highly valued component of their overall training, particularly in the retail sector. Finally, these businesses did not

Key points

- Small businesses are less likely to engage in nationally recognised training than larger businesses
- There is evidence of greater use of non-nationally recognised training in certain industry sectors
- Strategies for engaging employers in nationally recognised training need to be tailored to company size and specific type of training required

have much knowledge of the formal VET system, being unaware that skills gained through on-the-job training could be counted towards nationally recognised qualifications through the recognition of prior learning (RPL).

To engage small and medium-sized companies in nationally recognised vocational education and training, Mawer and Jackson (2005) outlined the importance of the availability of staff with formal responsibilities for training or a senior manager who values the formal VET system. Furthermore, industry and employer associations have a greater role in promoting nationally recognised skills development and better formal recognition of the structured and semi-structured learning, such as the training provided by suppliers and equipment manufacturers for the existing workforce. Most employers and employees did not see skills development for the existing workforce as the responsibility of government, although they were appreciative of government incentives.

Dawe and Nguyen (2007) also found that strategies that meet the needs of the diverse range of small businesses demonstrate three essential elements: a clear focus on business-specific needs; a personal approach through a recognised local facilitator or business service organisation able to reach small business operators who may not be positive about training; and flexible provision which carefully individualises training information, content and delivery to the needs of each small business. Strategies that fit with the way small business learns are clearly more successful than direct or formal training.

Smith and her team (2017) also examined differences between Australian employers who use nationally recognised training and those who do not. Nationally recognised training was used by almost half of the employers, with larger employers using it more than smaller ones, although medium-sized employers were the biggest users. Employers who used nationally recognised training were more diverse and in an environment of change and were operating in a more complex structure such as across multiple sites. Funding for training was viewed as important particularly by larger employers. Those firms that were most likely to use nationally recognised training tended to have multiple sites; have a diverse employment structure; be affected by regulation and licensing; be expanding their operations; and to be in industries where technology use was increasing rapidly.

Other analysis revealed that users of nationally recognised training, compared with non-users, are more likely to have formal training structures and to plan and evaluate training. They are more likely to recognise the benefits of using external training and to purchase training from other sources apart from RTOs, such as equipment suppliers and employer associations, but are also more likely to provide informal training opportunities (Smith et al. 2017).

There is also evidence of the greater use of non-nationally recognised training in certain sectors. For instance, an NCVET (2013) study found that 64% of companies in the mining sector employ staff whose role is primarily to provide non-nationally recognised training, coaching or mentoring. This figure increased to 91% for contracting firms in the mining sector.

Mawer and Jackson (2005) found in their case studies that the perceived relevance of the form of training varied by industry. In the retail industry, which is a major user of non-nationally recognised training, employers claimed that nationally recognised retail training programs were too generic for their needs, and training providers were less willing to tailor the programs. In addition, retail employers were reluctant to give access to structured training for casual staff, although they gave them the same levels of access to informal and product-related training as they did to permanent employees.

In conclusion, strategies for engaging employers in nationally recognised training need to be tailored to company size and sector and the specific type of training required. These factors do influence the suitability of nationally recognised VET training and the degree of its uptake (OECD 2019).

Current factors affecting employers' workforce training

There is no shortage of commentaries about the future of skilling in Australia and other countries. They all suggest that VET is in a world of unprecedented change; a characteristic thrown into sharp relief by the COVID-19 pandemic.

Employer engagement in the post-COVID skills needs environment

Cedefop, the European Union's reference centre for vocational education and training, in a post COVID-19 commentary based on the European context, pointed out that a key lesson learned from prior economic downturns is that while a crisis affects everyone, low-skilled adults are the most impacted. Cedefop (2020) estimated that, as almost half of European adults have low or outdated skills, there is an urgent need for effective strategies for upskilling and reskilling of all adults, and strategies designed to take into account the needs and contexts of enterprises. Irrespective of the consequences of the COVID-19 crisis, job displacement due to technological, demographic and other structural changes will continue, and even more rapidly, in the near future. Massive upskilling and reskilling of the adult population will be critical to safeguard the new job opportunities created by transformations in the economy. These new job opportunities will outweigh the jobs and skills lost.

The Australian Heads of Agreement for Skills Reform, published by the Department of the Prime Minister and Cabinet in August 2020, acknowledged the importance of VET to Australia's future growth and prosperity, and the role the sector will play in the nation's economic recovery in the wake of COVID-19. As Australia recovers from the pandemic, the VET sector will provide crucial support for job seekers through access to initial learning, and for job keepers through reskilling or upskilling.

A PricewaterhouseCoopers report (PwC 2020) argued the need post COVID-19 is for an Australian business-led recovery that acknowledges how technological change has reshaped the skills that employees require to perform in a digital world. Machine learning, automation and artificial intelligence, to name a few technological advances, mean further disruption and change to jobs, and the need for the workforce to flex into new roles and develop new skills.

This PwC report pointed to the role for Government in working in partnership with business to enable employees to constantly upgrade their skills to allow career progression throughout a lifetime of learning. In addition, the report highlighted the role of a national credentialing system that embraces shorter-form credentials. Micro-credentialing was put forward as an area that requires government and industry partnering to establish incentives and programs to support it, including the role of government in reducing the administrative burden and simplifying the system to make engagement with upskilling opportunities more readily available.

In another useful commentary, TAFE Directors Australia (TDA, 2020a) emphasised the need to target small and medium enterprises during and post COVID-19. It was argued that TAFE institutes during the pandemic have shown their ability to adapt to changing employer needs around training, including online, remote and more connected learning experiences to promote upskilling, reskilling and cross-skilling to

Key points

- Having an effective VET system that supports continuing learning of the workforce has never been more important
- The rapid changes triggered by the COVID-19 pandemic present a unique moment for RTOs to work in closer partnership with businesses at local level as well as governments working with businesses at sector level

meet key new employment demands. The TDA report emphasised the need for the TAFE network to continue to partner with businesses to take forward the new forms of digital learning to acquire competencies.

More specifically, TAFE Directors Australia (2020b) proposed that the Australian Government fund access to the blue tech market (i.e., technology-intensive jobs requiring sub-degree level qualifications) down to the individual job role, especially to respond to the re-employment of those within industries affected by the COVID-19 pandemic. This funding targets in particular the development and delivery of micro-credentials for digital skills to support skilling and up-skilling programs of industries into the COVID-19 recovery phase.

Finally, a review of skills, training and workforce development by the WA Government (WA Department of Training and Workforce Development 2020) reflected that COVID-19 demonstrated the importance of new technologies and diversification. The review promoted greater engagement by TAFE (the state's primary provider of VET) with training for industry sectors, especially sectors that support Government priorities. There is a need to better position TAFE capability to support major government industry spending and development that has been brought forward. These projects are in defence, advanced manufacturing, resources including critical minerals, energy that includes LNG and renewable hydrogen, precision agriculture and agrifoods, and the state's rail developments including its METRONET. Towards meeting these skill needs, this WA report identified the need for more modular, accessible and timely upskilling experiences.

Overall, the rapid changes triggered by the COVID-19 pandemic present a unique moment for business and government to work in closer partnership with RTOs. The aim is to achieve the major task of helping employees to continually upgrade their skills in ways that protect them against the rising tide of technological change and allow employees to progress through their career throughout a lifetime of learning.

Characteristics of successful employer engagement in nationally recognised training

The VET system in Australia is designed to be relevant to employers. It has been continually adapting to maintain its relevance and to make it more accessible to employers to choose to train their workforce.

Industry standards for nationally recognised VET products

As Bowman and McKenna (2016) described, the national VET system was intended to be ‘industry driven’, with industry encompassing both employers and employees. Industry has a key role in the Australian national VET system. To be relevant to industry is its key aim, with Australia’s economic productivity and competitiveness reliant on the workforce having the right skills, now and in the future (Australian Workforce and Productivity Agency 2013; Bowman & McKenna 2016; Buchanan 2020; Stanwick 2009).

A feature of this is having industry standards for nationally recognised training products. Industry determines the training outcomes of the Australian national VET system to achieve the dominant driver; a competitive Australian workforce. Industry identifies the skills and knowledge that individuals need to possess to perform effectively in the workplace, couched in terms of competencies, and sets these out in training packages. Nationally recognised training credentials are designed to be wanted and used by employers to meet Australian industry workforce needs around required knowledge and skills, and to ensure continued national competitiveness.

Training packages comprise units of competency that are assembled into qualifications and skill sets, with the packaging rules being the road map to the approved job-aligned outcome. Training packages codify what is taught and assessed in the VET sector. In short:

Training packages set out the nationally endorsed standards and [combinations to form qualifications) used to recognise and assess people’s skills in a specific industry, industry sector or enterprise (Training packages @ Work, 2009).

As Misko (2010) commented, other accredited courses that sit alongside training packages also allow for the development of skills required but not yet captured in training packages.

Training packages are a critical component in encouraging employer involvement in the VET system providing a set of nationally endorsed standards and qualifications used to recognise and assess skills in a specific industry, industry sector or enterprise. National portability of training outcomes is the dominant consequence of having these standards.

As Bowman and McKenna (2016) noted, the structures through which industry is involved in training package development has changed several times over 25 years, and again since their report (see Siekmann and Circelli (2021) for an update on Industry’s role in VET governance).

Currently, training packages are developed by Industry Reference Committees (IRCs) working with Skill Service Organisations (SSO) that provide professional services support. The over 60 current IRCs report to

Key points

- The national VET system is intended to be ‘industry driven’
- Training packages are a critical component in encouraging employer involvement in the national VET system

the Australian Industry and Skills Committee (AISC). The AISC comprises government-appointed industry representatives from the Commonwealth and each State and Territory. The AISC coordinates development of training packages and refers training packages to the Skills Ministers for endorsement and final approval. The AISC also advises on policy directions and decision making in the national VET system to help ensure industry relevance (Department of Education, Skills and Employment 2020)².

National standards for VET providers that include employer engagement

There are national standards for VET providers (i.e. RTOs) to assure quality delivery of the skill standards or competency outcomes specified in training packages (and complementary accredited courses). This is another major strategic element of the national VET system (Bowman & McKenna 2016; Stanwick 2009).

As Misko (2010, p.3) explained,

Having strong mechanisms for the development and review of training packages and accredited courses is only part of the picture. These must be complemented by effective teaching and rigorous assessment practices, as well as up-to-date materials and technology for learning.

The role of RTOs is to design and deliver courses that will lead to the performance standards or competency outcomes specified in training packages (and accredited courses).

RTOs determine how learners are trained to meet the specified performance standards in training packages. A training provider must meet the national standards of the day to become a RTO, responsible for the design and delivery of nationally recognised training and assessment of VET students, and the issuing of qualifications and credentials to those deemed competent in the described skills and knowledge set down in training packages and other accredited courses.

The current Standards for Registered Training Organisations (RTOs) (of 2015) promotes employer engagement that the VET training provider must meet to become a RTO, and to ensure training and assessment is consistent and of high quality. By meeting these standards, RTOs deliver a large degree of consistency in VET outcomes, as specified in training packages and other accredited courses.

The national regulator, the Australian Skills Quality Authority (ASQA)³, ensures the national standards for RTOs are met for the delivery of nationally consistent, training and assessment across Australia's VET system, to protect the interests of all VET students. An RTO must be approved to have an accredited course on their scope for delivery (Commonwealth of Australia 2020).

In recent times, ASQA has welcomed the Australian Government's release of the rapid review into its regulatory practices and processes by mpconsulting (2020). This report outlined how ASQA will work together with the sector and key stakeholders towards better regulation in the future. Its recommendations confirmed ASQA's re-focus and shift in emphasis from input and compliance controls to provider self-assurance and excellence in training outcomes. Where appropriate, providers will be supported by ASQA to address non-compliances and return to sustained compliance as soon as possible. This shift in regulatory approach relies on strong cooperative relationships and effective ongoing

2 There are upcoming reforms on Industry Engagement Reforms - Skills Reform see Ministerial Statement: <<https://www.dese.gov.au/skills-reform/resources/ministerial-statement-27-october-2021>>; Minister's media release: <<https://ministers.dese.gov.au/robert/landmark-vet-reforms-drive-our-skills-led-economic-future>>; DESE industry engagement page: <<https://www.dese.gov.au/skills-reform/skills-reform-overview/industry-engagement-reforms>>.

3 Western Australia and Victoria retain VET Regulators who also regulate against the Standards for RTOs

engagement between ASQA, RTOs and other stakeholders. In addition, ASQA will need to provide timely information and guidance that encourages and supports continuous improvement through provider self-assurance. ASQA is making changes in these directions (see Australian Skills Quality Authority, 2020).

A national training market offering a diversity of training providers to employers

The other key element of the national VET system is the national training market. Both Bowman and McKenna (2016) and Stanwick (2009) point to this market as another significant and enduring element of the national VET system that engages employers.

According to Bowman and McKenna (2016), the national VET market is enabled by the quality assured elements of the national training system: the availability of quality assured products and of quality assured providers. The national VET market is made up of quality assured VET providers of various kinds - public and private, community-based and enterprise-based - competing to deliver training programs that equip students to meet the competency standards specified in training packages (and/or complementary accredited courses). The national training market opens up employer engagement to the full range of public and private RTOs. The training market provides for diversity and choice of provider for employers as well as individuals and governments. RTOs can distinguish themselves by product tailoring, price, location, mode of delivery and effective marketing.

Enterprise Registered Training Organisations (ERTOs) are a unique component of the national VET system. This is where the quality assured VET training provider is the enterprise or business itself. The employer is accredited to offer VET qualifications and credentials to their staff directly. These employers have invested considerable resources in their RTO systems. There is a suggestion that some ERTOs are winding back their RTO status to focus on their core business and restarting partnerships with external quality assured VET providers. As of October 2020, there are around 60 ERTOs (<https://www.ertoa.org.au/>).

The VET training market, made up of a full range of RTOs, aims to help stimulate the efficient allocation of the public training dollar. This aim ensures that public funding achieves the right mix and quality of skills to meet industry needs nationally, regionally and locally, as well as to assist graduates to obtain jobs and to progress to further learning. Governments' fund and subsidise VET training provision to support job outcomes. This may not take place if left entirely to enterprises and individuals.

Promotions and incentives

Finally, Stanwick (2009) and Bowman and McKenna (2016) argued that various peak bodies in the VET system encourage industry engagement in VET. Peak bodies include the Australian Chamber of Commerce and Industry (ACCI), the Australian Industry Group (Ai Group) and the Business Council of Australia (BCA). Engagement is also facilitated through Industry Skills Advisory bodies (e.g. Victorian Skills Commissioner) and VET training provider bodies (e.g. TAFE Directors Australia, ITECA). Finally, Commonwealth, state and territory governments have incentive schemes to encourage employer participation in VET (e.g. the Australian Apprenticeship Incentives program). Guidance can also be gained from the use of subsidies and levies in other countries (Muller & Behringer, 2012). This paper provides an overview of the available information concerning financial assistance or incentives, specifically, subsidies (including tax incentives and grants) and levy schemes to encourage employer provided training. In addition to offering a description of different incentive instruments, the paper discusses the strengths and weaknesses (or risks and opportunities, respectively) of different types or particular elements of instrument design. It also specifies principles of successful instrument design that have been put forth in the literature and concludes with some remarks regarding the choice of policies.

Strategies for further engaging employers in nationally recognised training to develop their workforce

The national VET system needs to continue to adapt and transform itself into an agile learning ecosystem for all. It needs to become more expert at supporting existing worker skill development, as well as prepare new entrants to the workforce. This is a major and continuing challenge for all national VET systems, as Cedefop (2019) raised recently.

Strategies to respond to this challenge encompass further adaptations to various aspects of the current national VET system.

Key points

- Further adaptations to nationally recognised training products, their provision and promotion to employers are required to support continuing skills development of Australian workers and through closer partnerships between RTOs and employers

Continuing VET, which supports the ongoing employability and career development of existing workers, is where the nature of VET provision comes to the fore, to meet workforce skills needs and work schedules. Further adaptations to nationally recognised training products and their provision are required for continuing VET to be successful. The gaining of employer understanding and commitment to nationally recognised training also needs further work through effective promotion. Successful adaptations in these areas will involve joint efforts and alignment by all social partners.

Further training product reforms and developments

Rationalise training packages

Various NCVER reports have highlighted some key issues about the use of the full range of training packages. For instance, Korbelt and Misko (2016) showed that an analysis of total VET students and courses for 2015 reveals that 20 training packages supported 90% of the enrolments; the remaining 57 training packages had 10% of all enrolments. Two training packages accounted for around 30% of enrolments, confirming that enrolments in training package qualifications are heavily concentrated in relatively few qualifications.

As reported by Wibrow and Waugh (2020), many nations have implemented policies that review and rationalise their equivalent training products and qualifications, finding that such reviews reinforce qualifications that are valued, as well as limiting their numbers. These policies around regular review of training products are directed at improving overall design, and promoting the utility of qualifications and greater flexibility in delivery. Regular reviews of existing VET qualifications can lead to the removal of those not in use, as well as to the reorganisation of qualifications into clusters or vocational pathways. Wibrow and Waugh's (2020) review of international trends in rationalising qualifications showed that many qualification structures have changed in numerous countries. Key developments included: learning related to general capabilities (i.e. language, literacy and numeracy); technical skills appropriate to several related occupations; and further specialisation through the use of optional units. It was proposed that units of competency will become increasingly important in a VET system with a reduced number of qualifications. The researchers cited examples of modules (or their equivalent) being used to provide

skills specific to an occupation and to allow quicker response to emerging skills or regional needs in an industry.

ASQA has recently reviewed all current VET accredited courses that contain training Package units of competency. ASQA's review sought to identify superseded or deleted units from the parent training package listed on the National Training Register (training.gov.au). The ASQA (2018) review found that 61% of VET accredited courses include training Package units, and 48% of all VET accredited courses contain superseded or deleted training Package units. ASQA contacted affected VET accredited course owners to amend their courses. In some cases, where deleted or superseded training Package units substantially affect the intended outcomes of the accredited course, ASQA has advised that it may cancel the course's accreditation and the course owner may need to apply to accredit a new course.

Reforming training packages

There is a large body of literature about the strengths and shortcomings of training package products (e.g. Department of Industry 2014). There are various views on future directions for the development of training packages to make them more appealing to employers for the training of their workforce. There are split views among peak bodies representing industry.

The Australian Industry Group (Ai Group) suggested a review of the training package model if VET qualifications are to serve the rapidly changing nature of work. Megan Lilly, Head of Education and Training at Ai Group (2020) explored a reimagining of VET qualifications in training packages across four articles in the Campus Review during 2020. She identified a reform direction for VET training product design and development around industry view on what that reform could look like, and what path it should not go down. A proposed future for the VET system was outlined, focused upon occupational skill standards rather than qualifications. Ai Group proposed an acceptance that, for a variety of reasons, employees and industry may not want full qualifications. The reasons include where: the qualification is not funded; it is not a requirement to undertake nationally recognised training to perform the work; the industry has a history of not paying for training for that occupation; the skill standards are out of date; and/or the IRC has inappropriately packaged the standards in qualifications that the industry does not value.

Ai Group proposed that a move away from a qualification-led approach to VET returns the system to a focus on the occupations that are well served by skills developed in the VET system. By simplifying training packages and focusing on skill standards, and their packaging into occupational skill standards, the VET system is more able to attend to the needed skills for jobs, embracing skill standards and skill sets which may be added to existing jobs or for a job in transition. According to Ai Group, occupational skill standards should continue to be developed and be updated for available jobs regardless of enrolment numbers in a qualification. Skill standards should be approved without the need for a related qualification, as skill standards and skill sets are seen by Ai Group as more highly useful outputs from the process than full qualifications for continuing VET.

Similarly, Lambert (2020) from the Australian Chamber of Commerce and Industry (ACCI), also across multiple articles in the Campus Review, challenged the notion of nationally recognised training having a full qualification focus. Lambert (2020) was firm about maintaining the alignment of the training Package qualifications to actual specific jobs and observable workplace performance. ACCI wanted to see reforms of training packages that reduce duplication, and ensure that all skills required are incorporated, but that do not change the fundamental concept that qualifications lead to jobs in particular occupations. ACCI envisioned a future in which there is a focus on a set of skill standards that are needed to perform the jobs that currently exist, including jobs in transition, and jobs identified as ones likely to exist in modern

workplaces. To ACCI, this shift would take the focus away from a qualification-led approach to VET, returning it to a focus on the occupations that are well served by skills developed in the VET system.

In Lambert's reform there would be a simplification of training packages, being rebadged as occupational skill standards. These skill standards would be appropriately grouped into occupational skill standards when they reflect a job role or a set of closely connected job roles. Further, according to ACCI, accredited courses (which do not currently go through an industry development process) would be approved by ASQA directly and be titled 'supplementary accredited Courses' or similar.

Another peak industry body, the Business Council of Australia (BCA 2018), argued that the Australian VET system is not fit-for-purpose and that there are fundamental problems that need to be resolved. Significantly, BCA claimed that qualifications take too long to complete to keep pace with the changing nature of work. Employees must be better able to regularly update their skills, and not drop out of the workforce to obtain a full qualification.

BCA suggested that the design of the current VET system needs to change by shifting its focus from developing young people via full training in qualifications and relying on individuals or businesses to take care of other skills development needs. A future system must focus on ongoing skills development that includes roles for both VET and Higher Education (HE) and resolves the 'second class' attitudes towards VET by changing the funding bias that advantages the HE sector.

These discussions by three peak bodies of Australian industry reflect how skill sets have become recognised as an important short form of nationally recognised training. In addition, the independent Joyce Expert Review of Australia's VET system commissioned by the Prime Minister (Department of the Prime Minister and Cabinet 2019) commented that not all skills acquisition need formal training. Institutional learning is often impractical for employees. From an employer perspective, as the Joyce Review highlighted, employers often do not wish to train employees to gain full qualifications but prefer to train employees for the parts of qualifications relevant at the time⁴.

More modular nationally recognised training

Skill sets

There already are short form credentials in VET known as 'skill sets'. Stanwick and Siekmann (2019) reported that skill set usage ranges from upskilling, to meeting compliance and licensing requirements, responding to an established industry need, and as an entry pathway to more training. From their data analysis they reported that the number of skill sets in training packages have grown over time, from 20 in 2008 to a little under 1500 existing skill sets by 2019. Skill sets are more prevalent in some training packages, with over 200 skill sets in the Aeroskills Training Package, while seven current training packages have no skill sets at all. Those skill sets with the highest enrolments are compliance-related or safety-related, with the largest skill set based on 2018 enrolments being 'Responsible service of alcohol', followed by two 'Work zone traffic control' skill sets.

The overwhelming majority of skill sets funded in 2018 were through fee-for-service arrangements, with government-funded training accounting for only about 10% of skill set activity. However, based on a case study in which the New South Wales government provided significant funding for training Package skills

⁴ The Australian, state and territory governments have agreed that an immediate priority under the new Heads of Agreement for Skills Reform of August 2021 is to simplify, rationalise and streamline national VET qualifications across industry occupation groupings and the Australian Qualifications Framework. See <<https://www.dese.gov.au/skills-reform/skills-reform-overview/qualifications-reforms>>

sets, it was shown that participation in skill sets can be readily grown, if and when required, through the use of government subsidies.

Micro-credentials to embrace all forms of skill set training

Billett and his colleagues (2015) believed that the flexibility and responsiveness required for continuing education and training of the existing workforce requires a rethink of policy and funding guidelines of the national training framework (see also Billett et al., 2012a, b). While the focus of the framework is largely on nationally recognised training, they argued that the VET training system needs to better encompass the full extent of learning that occurs, through wholly work-based experiences and through work-based practice with direct guidance (see also Osborne et al., 2020). Such training needs to be formally acknowledged or recorded for certification purposes.

The Joyce Review concurred, as did the review of the Australian Qualifications Framework (Australian Government 2019). Both reports recommended that micro-credentials are an option to be developed beyond what is currently recognised in the national VET system, varying from a single module, subject, skill or competency to a suite of skills or knowledge, or a skill set that is, or is not, nationally recognised.

Unlike qualifications, the point of a micro-credential is to meet the unique needs of an individual learner. It is argued that the micro-credential is more responsive to the stage a worker is at in their career and what their employer needs from them, as well as their developmental needs. More use of wider forms of short-form credentials will enable Australian workers to respond to the changing nature of work, allowing learners to upskill and reskill over their working lives.

There are no guidelines in place regarding micro-credentials in Australian VET. South Australia has taken the lead in announced the piloting of an industry-led, non-nationally recognised, micro-credentials development and endorsement process in 2021.

South Australia's Training and Skills Commission (TaSC) and the State Department for Innovation and Skills (DIS) have invited applications from industry and their tertiary education partners for new micro-credentials development, including a blending of nationally recognised and non-nationally recognised training (DIS 2021a). DIS will support industry to develop micro-credentials which will then be endorsed by TaSC. Endorsed micro-credentials can be delivered by RTOs, other non-registered training providers and/or industry partners. Graduating students are to be 'issued with a certificate that indicates successful completion of the course endorsed by the Commission', the guidelines state (DIS 2021b). The credential endorsed by the Commission (TaSC) is to cover the expected outcomes, assessment methodology and quality measures, assumed to be built off the back of a training provider's capabilities. This assures the micro-credential is 'portable and could contribute towards a formal qualification,' the guidelines state. DIS offers support to work with ASQA to formalise the learning as a nationally recognised or accredited course if that is needed by industry.

Other countries where micro-credentials have been advanced into a national framework include New Zealand and Canada. In New Zealand, micro-credentials are integrated into the National Qualification System. The central authority therefore recognises them 'as part of New Zealand's regulated education and training system' (NZQA 2021). The website of the New Zealand Qualifications Authority provides the official definition of a micro-credential in New Zealand as:

A micro-credential certifies achievement of a coherent set of skills and knowledge; and is specified by a statement of purpose, learning outcomes, and strong evidence of need by industry, employers, iwi [Maori groups] and/or the community (NZQA, 2021).

The New Zealand Qualifications Authority website also provides a detailed explanation of the characteristics of micro-credentials, as well as the process for institutions to apply for recognition of a micro-credential, and for the registration of a learner's completion of the credential (NZQA 2021).

In Canada, the Colleges and Institutes Canada (CICan) (2020) has undertaken a wide-ranging research study to better understand the current and evolving landscape of micro-credentials that are being developed and on offer at Canadian colleges and institutes. The scan showed a great interest in micro-credentials across Canada and a degree of agreement on the purpose, characteristics and value of micro-credentials. Respondents saw them as an important component of their range of programs and agreed that they should be stackable, flexible, validated and accessible to vulnerable populations. All stressed the importance of involving business and industry partners.

CICan has launched a national framework for micro-credentials to offer a standard definition and guiding principles. Their aims are to help educators to create nimble and responsive micro-credentials that meet high quality standards and assist learners to choose the right credential for them. This new framework defined a micro-credential as a certification of assessed competencies that is additional, alternate, complementary to, or a component of a formal qualification. It also articulated the leadership role colleges and institutes are playing in offering micro-credentials, largely in response to the needs of employers in their communities.

The CICan (2021) research study noted that the European Commission also viewed micro credentials as part of its larger plan for a European Education Area, and due to:

the increasing need for upskilling and reskilling the labour force on the one hand, and the emphasis on student-centred learning and need for flexible learning paths on the other, have led to the emergence of and increased attention to new credentials and short study courses, often referred to as micro-credentials.

The European Commission has launched a project called MICROBOL to look at how micro-credentials can support the implementation of European Higher Education Area (EHEA) reforms. The definition adopted for the purposes of MICROBOL, which will be further refined in the course of the project, is the following:

A micro-credential is a small volume of learning certified by a credential. In the EHEA context, it can be offered by higher education institutions or recognised by them using recognition procedures in line with the Lisbon Recognition Convention or recognition of prior learning, where applicable. A micro-credential is designed to provide the learner with specific knowledge, skills or competences that respond to societal, personal, cultural or labour market needs. Micro-credentials have explicitly defined learning outcomes at a QF-EHEA/NQF level, an indication of associated workload in ECTS credits, assessment methods and criteria, and are subject to quality assurance in line with the ESG (Erasmus and Program for the European Commission 2020, p 12).

Improving understanding of employer workforce training needs

As part of VET governance systems, there is the requirement to have an up-to-date understanding of the training needs of industry, and its constituent enterprises or businesses.

According to Cedefop, (2008, 2009, 2019, 2020), the development of a new generation of labour market and skills intelligence is required to ensure the relevance and responsiveness of VET in shaping actual programs and informing practice. Big data, patents and scientific papers, learning opportunities on the internet and the use of artificial intelligence provide opportunities for useful and actionable intelligence when combined with traditional data sources.

In Australia, this is the role of the National Skills Commission (NSC) borne out of the Joyce Review. The National Skills Commission provides expert advice and national leadership on the Australian labour market and current, emerging and future workforce skills needs. The (NSC) has created the Jobs and Education Data Infrastructure (JEDI) intended to provide a real-time view of the Australian labour market. JEDI draws on complex data from multiple sources into its data engine, transforming it into meaningful insights for many different users.

The NSC argued that skills are the common language linking all jobs and training in the Australian labour market (NSC 2021). It has created a data-driven Classification of Skills, below the level of jobs and qualifications, to enable users to explore the connections and transferability of skills types within and between different types of jobs⁵.

The NSC is also working to understand the variability in VET qualification pricing nationally for government subsidised qualifications, as a first step in the pathway to developing nationally consistent prices for VET.

Strengthened collaborations between RTOs and employers

All stakeholders appear to agree that industry's main role should continue in national VET training product development. This includes the identification of the jobs that exist and are forecast to exist in their sector; the skills and knowledge needed, including the level of skill to perform the jobs; and the way those skills can be demonstrated to prove competency. Industry Reference Committees (IRCs) should continue to set requirements relating to qualifications and their appropriate level, methods of assessment, and delivery models, such as apprenticeships and workplace experience. Skill standards (units) and skill sets should exist without the need for them to be included in a qualification.

However, Smith and her team (2018) reminded us that for employers, RTOs are the major source of knowledge about nationally recognised training. Also, the RTO's role has shifted to that of 'navigator' rather than merely 'informant'. Rather than merely selling products to employers, RTOs need to build their skills in working collaboratively to identify the employer's needs and to suggest ways of meeting them. This relationship may not necessarily lead to immediate business for the RTO but may help both parties to develop and grow. Similarly, employers are educating RTOs about their industry through this partnership.

In the previously mentioned OECD (2019) report, VET providers are encouraged to conduct more outreach with local employers and industry experts. This outreach is crucial to ensure that sound curriculum development, as well as training delivery is informed by local industry. OECD employer survey reports suggested that collaboration between employers and training providers needs to be strengthened, with local employers and industry experts reporting being rarely involved in defining the current training packages.

Engaging directly with professional associations or sector bodies that represent a group of employers is noted as being particularly valuable to raise the levels of engagement by small and medium-sized employers who face unique barriers to engagement.

As noted by the OECD (2019), there is a need to better align training with the demands of emerging and growing industries. The OECD pointed to, for instance, the role of regional development organisations in assisting with the design of new training programs in STEM-related occupations. These are often a critical source of new job creation at the local level.

⁵ How this new Australian Skills Classification fits with the move to micro-credentials is yet to be determined.

Using applied research partnerships with employers to build engagement

The OECD (2019) has linked greater engagement to the encouragement of RTOs to conduct more outreach with employers and industry experts. There is a need to ensure that accountability frameworks for RTOs take into account how often and how intensely they engage with industry in the design and delivery of apprenticeship programs. An innovative and responsive partnership between RTOs and employers is more likely to make employers view VET qualifications positively. Townsend and his associates (2005) throughout their interviews found that employers made many comments about their relationships with RTOs, particularly their desire for more personal contact with RTOs to promote increased flexibility and responsiveness, and a desire to work more with those RTOs that have a business orientation.

An example, focused on public providers, was a call by TAFE Directors Australia (2020a) that the Australian VET sector draw upon successful Canadian VET sector cases that have changed their image through promoting partnerships that offer applied research. It was argued that applied research partnerships better meet the skill requirements of industry through providing hands-on opportunities for learners to work alongside employers to solve real-world challenges. The applied research projects serve to extend current endeavours in growing the impact of work-experience, practical placements and apprenticeship and traineeship activities through embedding students in these applied research projects.

Australian examples cited by TAFE Directors Australia (2020b) included trade teachers at SkillsTech (TAFE Queensland) who worked with two international suppliers of high-pressure polyethylene gas pipelines, and with international gas experts, to find and fix leaking joints in a pipeline newly laid in the Western Darling Downs region in Queensland. The research team identified new work procedures and skills for welders, which led to a new industry training centre at SkillsTech. In a second example, a partnership between South-East Water and Holmesglen Plumbing Department tested a new sustainable water management system for a new housing development in south east Melbourne called 'Aquarevo'. The applied research resulted in an improved understanding of how the overall water footprint can be reduced in large housing developments, while Holmesglen Institute plans to use the research to develop training programs for apprentices and licensed tradespersons in the installation and use of these new technologies.

Growing support for enterprise RTOs to build greater employer engagement

Smith and her colleagues (2015) investigated how the qualifications delivered by Enterprise Registered Training Organisations (ERTOs) contribute to improved employee and employer engagement, increased skill levels and other benefits. These entities typically have set up specialist training arms, and are required to exhibit the same characteristics, and adhere to the same regulatory frameworks, as specialist RTOs. Since enterprise RTOs offer qualifications, there is considerable investment in resources in their RTO systems, and they are major users of nationally recognised training for workers within companies. Many viewed them as the companies that are most experienced in this method of making qualifications available through work, and as a result, many argued that they are the most committed to its success (Smith et al. 2005).

Enterprises that take the step to become an enterprise RTO are likely do so to meet specialised skill needs for their workforce or to meet a need for training large numbers of workers to a high standard of quality. They perceive the possibility for greater customisation of training and more control over delivery (Enterprise RTO Association 2009 a, b). They are likely to be larger enterprises working in industry sectors, characterised by relatively slow organisational or technological change (Smith et al. 2005). In some cases, ERTOs offer training via traineeships (apprentice-like arrangements, used mainly in service industries), enrolling large proportions of their new and sometimes existing workers. Smith et al. (2015) found that the specific focus of ERTOs on the nationally recognised training (i.e. qualifications and skill

sets), that were most relevant to their businesses, was reflected in the fact that the vast majority have a major focus on only one training Package. The top five training packages used by ERTOS are: public safety transport and logistics; community services; business services; and resources and infrastructure (Smith et al. 2015).

Enterprises gain benefits from being an RTO in their own right. These benefits include the ability of the business to deliver qualifications to large groups of workers quickly and customised to the enterprise’s own needs and requirements; the ability to seek and use available government funding for training to develop their own training infrastructure; and to gain supply-chain benefits by training workers from other organisations, such as subcontractors or suppliers, to ensure the quality of work performed by these organisations (Enterprise RTO Association 2009a). They also have a stream of workers ready to move onto higher-level training and promotional positions.

The benefits to workers of an ERTOS employer are reported to be equivalent to those for companies in many ways. Workers receive qualifications free of charge, they develop useful skills, and they can progress to higher level positions and higher-level qualifications. For many workers, particularly in industries which do not have longstanding qualifications such as cleaning and meat processing, the opportunity to gain a qualification is a major event for an individual (Smith et al. 2009). The relatively low prior education achievement, and the fact that many employees speak languages other than English, confirmed evidence from previous studies that enterprise RTOs assist disadvantaged worker groups (Smith et al. 2015).

Finally, ERTOS are not entirely self-sufficient in their training, and so also provide benefits for other training organisations. Most work with other RTOs to provide training, and nearly three-quarters (73%) of enterprise RTOs reported that they purchase nationally recognised training from a private RTO, and 60% from a public RTO. In terms of non-nationally recognised training, nearly half (48%) reported that they purchased training from a private RTO and 25% from a public provider.

Employer preferred modes of training provision

In their final report on continuing training, Billett et al. (2015) reached a general conclusion from all phases of their multi-year study that an effective model of national continuing education and training provision needs to include, and to accommodate, learning experiences in both work and educational settings. They identified four models as being the most effective, which are preferred by workers and their supervisors, including the conditions under which each is preferred. Each model is suited to particular purposes with strengths and limitations that need to be considered. Billett et al. noted that none of the models on their own provide a holistic response to effective continuing education and training (see Table 1).

Table 1 Models of continuing education and training

Model	Summary description
Wholly work-based experiences (i.e. on-the-job)	Learning across working life through on-the-job experiences, in the course of everyday work activities and interactions, learning on one’s own or indirectly, and/or supported by more experienced co-workers.
Work-based experiences with direct guidance (e.g... mentoring, demonstrating)	Individuals’ learning at work supported by the direct guidance or mentoring of more experienced co-workers or supervisors through joint work activities and engaging in supported activities for learning that cannot be acquired without the assistance and demonstration of more experienced workers.
Work-based experiences with educational interventions (e.g. applying classroom-taught theory to workplace activities; action learning, project work)	A process of learning which combines learning undertaken through workplace activities and interactions supported by expert input from trainers either on or off site, or using projects, such as in action learning, to extend this learning and enhance practice aspects of work. The learning is often accredited and leads to certification.

Wholly education institution-based experiences

Some continuing education and training through programs based in education institutions or offered online by those institutions. The experiences provide the kinds of learning individuals require for specific goals, such as changing occupations or developing new skills, which cannot be learnt through current work.

Source: Billet et al. (2015)

Maintain currency of qualified VET trainers and grow trainer diversity

A major reason that employers choose non-nationally recognised training is the access to credible and experienced professional trainers who are still closely connected with their industry (White et al. 2018). Some consider that public provider trainers who offer nationally recognised training do not have this industry currency. More specifically, to engage even more fully with industry, VET professionals need broader skill sets. These skills include understanding workplace environments and their industrial relations arrangements, promoting learning in the workplace, tailoring training to best meet employee and enterprise skill needs, and customising training and assessment to workplace contexts (Billett et al. 2015).

In another study, when considering how continuing professional development might be most effective for VET practitioners, Tyler and Dymock (2017) argued that two elements stand out: how continuing professional development might best be structured, organised and monitored for the VET practitioner workforce; and how it might best be implemented to enable individual VET practitioners to maintain industry currency and pedagogical expertise. The range of organisational responses proposed in the literature include making VET practitioners individually responsible for their own professional development and imposing a mandatory requirement as part of a national registration scheme. Other options are to allow for more casual and part-time VET practitioners whose substantive employment is in industry.

Ways to enhance the quality of teaching in the accredited VET sector in Australia have also been revisited in recent research by Misko et al. (2020) who found that stakeholders are generally united on the need to implement systematic approaches to teacher preparation, mentorship support and opportunities for continuing professional development. The authors also found that there is strong support for using teacher capability frameworks and/or professional standards as diagnostic tools and guidelines for teacher self-evaluation and reflection, including for the planning of objectives for personal and professional development. Misko et al. (2020) concluded that limited appetite exists for a nationally prescribed VET teacher capability framework due to the diversity of the VET sector. The preferred option would be to develop a set of core capabilities, to be locally adapted.

Other broad strategic initiatives Misko et al. (2020) proposed to address RTO teaching quality include regular collection of VET workforce data, and the addition of smaller micro-credentials or skill sets in the VET teaching suite of qualifications that can be scaled-up to a full qualification beyond the entry level qualification.

The Western Australian Department of Training and Development (2020) suggested training quality and relevance can be promoted through greater use of VET teachers with current knowledge of workplace practice and equipment. Actions listed include improving the diversity and currency of the VET workforce by increasing Aboriginal teachers, particularly to deliver culturally relevant units; utilising return-to-industry options in partnership with business; and developing new teaching modes and technologies.

Promote nationally recognised training more effectively to employers

Transparency is another enduring objective of the national VET system identified by Bowman and McKenna (2016). The employer peak bodies have provided numerous reports that argued for a simpler

VET system to allow employers to engage more easily with it and enable employers and employees to understand the system and make informed choices about training. This requires effective promotion of the national VET system through suitable communications and marketing.

How the national VET system, and its adaptations are promoted to employers is critical since what employers know and understand is their starting point for engagement.

A more strategic approach to communications and marketing has emerged with a greater focus on individuals. For example, the National Careers Institute (NCI) was established in 2019 to improve the quality of career development and resolve a significant amount of fragmented and difficult to use career information and services available to all Australians.

The former Australian National Training Authority (ANTA 2000) also investigated the need for a more strategic approach to communications and marketing to engage employers. There are three key messages from the ANTA report that are of interest to this study:

- Simplify the language of VET: employers viewed their knowledge and information base on the emerging national VET system as inadequate and the available knowledge and information as too complicated and jargonistic
- Better information on VET: employers indicated that they are not well informed about what VET learning products are on offer, the range of Australian Qualifications Framework qualifications now available in the VET sector, and that it is not widely understood that the basis of VET qualifications is industry validated competency standards and assessment
- Make the system less complex to engage with.

The ANTA marketing strategy report provided specific guidance on the varying degrees to which employers value learning and training, and what actions will work with each segment.

Build learning cultures in workplaces to support continuing professional development

Billett et al. (2014, 2015) emphasised over a number of reports, that employers need to facilitate training partnerships with RTOs through putting in place numerous cultural, financial, strategic and other supports for training, if the training is to fully engage with meeting industry skill needs (see also Callan & Ashworth 2004). These foundations include the need for continuing education and training to be a central part of workforce and organisational development.

A key feature is the creation of a learning culture, whereby learning is valued by employers, employees feel that they are supported financially and professionally in their learning, and training is regarded as important and credible. In addition, training must be an integral characteristic of business planning and in the implementation of organisational strategy.

Summary

This literature review points to factors that affect employer training choices for their workforce as background to identifying strategies for improving employer engagement in nationally recognised training to develop their workforce. It suggests that an ongoing adaptation of the national VET system is required to meet the continuing needs of Australia's workforce.

The identified strategies include further adaptation of the nationally recognised training product and how it is provided, renewing promotional efforts to employers and influencing their attitudes and the attitudes of their workforce to learning.

Delving into the details of what might work, and in ways in which all social partners can agree, is the purpose of Support Documents 2 and 3 of this study, where the focus is upon gaining the current views of respectively influential peak body stakeholders of VET (see Support Document 2) and employers themselves (see Support Document 3).

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