Moving beyond training packages: first steps

Steven Hodge and Hugh Guthrie

Abstract

Training packages are central to the practice of vocational education and training (VET) in Australia. In the context of debate about the future of VET, questions must be asked about the role of training packages in any transformation. In this paper two basic questions are raised and directions for inquiry advanced. The first is about the processes and structures through which industry bodies and governments control training package design and use. If training packages are to evolve or be superseded, principles will need to be formulated concerning the roles and influence of government and industry. The paper argues for a set of principles that can guide shifts in the context around training packages as the latter change. The second question is about curricular form in future VET. Training packages are currently based on a competency-based training (CBT) model. The paper weighs up the case for CBT's influence in future VET and reviews alternative models and principles that might inform any shift away from a competency-based foundation. The principles and models considered in the paper are proposed to inform debate about changes to VET that are inevitable.

Introduction

Training packages are central to the practice of vocational education and training (VET) in Australia. They contain the units of competency that guide the work of all program designers, trainers and assessors in the national system. The packages include rules for constructing qualifications and skill-sets from the component units, and a range of industry-specific information such as special instructions for assessment. Training packages are central as well in that they serve as the symbolic vehicle of industry leadership, with content development controlled by bodies with strong industry representation. Government also uses training packages as one of the planks of its own influence on the system, with funding meted out on the basis of unit, skill set and qualification completions, and priority areas signalled in terms of particular qualifications from particular packages. To say that training packages are central to Australian VET may even be an understatement.

Australian VET is also subject to intense scrutiny, with regular reports, calls for reform and the occasional scandal contributing to the sense that it is an unstable sector. In this context, the question of the future of VET seems an obvious one to ask. And whether the future holds incremental or transformational change, training packages will be caught up in the process.

The real issue that this paper seeks to highlight is that in a world of significant change in the nature of work, have Australia's Training Packages had their day in meeting the broad and sustained education and training needs of individual Australians and their employers? Is their development and maintenance process too cumbersome? Is a more flexible and timely set of arrangements needed now? How do they balance the needs of the 'here and now' as well as be futures focused? These are topics that should be thought-through not only as a contribution to policy debate, but as a preliminary to any research that would seek to provide evidence-based guidance for moving beyond training packages. This paper is therefore a 'think piece' that aims to explore these issues from two main perspectives. First, we take the stance that training packages are curriculum documents, or curriculum guidance documents, and consider criticisms and alternatives proposed in recent work on CBT by Wheelahan (2016), Billett

(2016) and Hodge, Atkins and Simons (2016). Based on these sources, we identify some dimensions of debate that potentially set directions for future VET curricula. Second, we discuss what would have to change in the practices and mechanisms surrounding training package development and maintenance if VET curricula were to move in the indicated directions. In this part we draw on work by Guthrie and Clayton (2018) and Beddie, Hargreaves and Atkinson (2017) which has addressed some of the challenges to fundamental improvement to our system. We set the stage for considering these perspectives by summarising the evolution of Training Packages and clarifying some of the key issues.

Training packages: their evolution and issues

From the mid 1990s, training packages have been one of the three pillars of the VET system, along with frameworks that describe qualifications (the Australian Qualifications Framework) and the quality of VET's providers (the VET Quality Framework). Training packages define the competencies required by different occupations and industries and describe how these competencies may be packaged into nationally recognised and portable qualifications that comply with the Australian Qualifications Framework.

Immediately before training packages there were National Core Curricula. Their development was progressively overseen by a range of bodies: the Curriculum Projects Steering Group (CPSG), the Australian Committee for TAFE Curriculum (ACTC) and finally, around 1991, the Australian Committee for Training Curriculum (ACTRAC). This was an era when VET was mainly - indeed almost entirely - TAFE. Those on these bodies were the heads of curriculum development in each state and territory although, progressively, some industry and private provider representation was added. The national curriculum process was described in a series of manuals (for example Sandery 1985, Guthrie et al. 1989, ACTRAC 1994). The last manual provided a template for the curriculum documentation.

In 1991 the National Training Board (NTB) was established (Clarke, in Moran and Bannikoff 2018, p. 129) coinciding with the move to competency-based training. As Clarke points out in this historical piece:

> "The NTB played a critical role in the development of competency standards and the endorsement of those standards, combined with the establishment of the National Framework for the Recognition of Training (NFROT)."

By the mid to late 1990s, registered provider numbers had grown, provision had diversified significantly and VET had become a nationally focused system.

There was increasing pressure from industry to control the nature of vocational training and reduce the influence of educators in the development and maintenance of VET qualifications. The disjuncture between the development of competency standards on the one hand and the national VET curriculum development process on the other increased industry's frustration and desire for more total control. This led in 1996 to the creation of the training package concept (ANTA 1997), aimed - so it said - at enabling registered training organisations (RTOs) to develop flexible training programs to meet particular enterprise, regional or individual training needs, while maintaining the core integrity of a national qualification.

Since their inception, a number of reviews and commentaries on the concept have occurred (e.g. ANTA 2002, Schofield and McDonald 2004, National Quality Council (2009) and later

reviews, including the review of training packages and accredited courses and revised arrangements for training product development around 2015-16 (DET undated) and a national training products reform project sponsored by the Victorian Department of Education and Training - see Beddie, Hargreaves & Atkinson, 2017). This latter project aimed to challenge current thinking and provide an eye to the future, while not being restricted by current governance arrangements. Its title ('Evolution not revolution: views on training products reform') suggested change, but not radical change, was needed. Most recently, however, there has been more strident commentary on the training package concept by both Moran and Bannikoff (2018) and Joyce (2019), amongst others. Moran & Bannikoff (2018, p.5) believe that:

> "Training Packages are costly, out of date, far too complex, and do not match the skills needed in modern workplaces. They have become the basis for an overbearing regulatory burden on RTOs and the training system more generally."

Likewise, Joyce (2019, p. 53) points out that:

> "Industry groups, RTOs, employer organisations and governments all voiced concerns that training packages are very cumbersome and complex and too hard to change. As a result, qualifications quickly fall out of date, and in some cases have been out of date for a long time."

Training packages have had other issues too, including the difficulty of defining a particular industry and consulting comprehensively with it. As industries and technologies develop and change, boundaries are re-drawn, and skill needs change, maintaining them becomes problematic – especially in those industries and occupational areas where change is rapid. They also tend to look most readily at current practice which makes it difficult to address emerging needs and support innovation or leading-edge enterprises. Thus, training packages do not enable the type of innovation needed to address the emerging and future needs of employers and industry (Moran and Bannikoff 2018). In short, they are not 'nimble'.

Practitioners in RTOs can find them difficult to interpret and therefore translate into sound learning programs that can be readily assessed (Hodge 2014). Hodge notes the difficulty with interpreting competencies, and this is attributed to the unclear language and 'jargon' associated with them. Guthrie (2009, p. 18) maintained that:

> "…at best, written competency standards are rough and ready, though useful, guides and we should be wary of assuming that actual realities of what competence is are reflected in the words used to describe them."

Despite this, they are the benchmark - the 'gold standard' - used in provider audits by Australia's VET quality regulator: the Australian Skills Quality Authority (ASQA). If they conform to templates that force training package writers to focus on a narrow range of occupational features (as argued by commentators such as Buchanan, Yu, Marginson & Wheelahan, 2009 and Hodge, Atkins & Simons, 2016) this not only compounds the problem for RTOs, but also suggests their initial quality control and verification processes prior to certification are inadequate.

Moreover, the whole process is overdesigned. Moran and Bannikoff (2018) suggest that they are slow to get to market, costly to develop and maintain and "have become voluminous and

complex, producing a very large number of qualifications and skill sets" (p. 20). Indeed, many unused or underused packages and qualifications are reported (Korbel & Misko 2016). These authors also report that enrolments in training package qualifications are heavily concentrated in relatively few qualifications. In fact, "there were 283 qualifications that recorded no enrolments over a two-year period (2014-15), with these spread across 49 training packages" (Korbel & Misko 2016, p. 3).

Most likely, a considerable number of the available units of competency are not or rarely used as well because the packages are based on a 'core and electives approach'. Thus, the whole process is potentially wasteful of resources. Finally, their design is often in the hands of package design experts rather than vocational discipline specialists and skilled educational practitioners based in RTOs who are industry current. Indeed, there is what might be described as something of a powerful 'complex' made up of informal and changing coalitions of groups with vested psychological, moral, and material interests that surrounds their development, certification and review. This carries with it all the attendant problems that 'complex' brings with it in terms of vested interests in preserving the status quo and subverting change.

The VET sector's stakeholders are described in Guthrie and Clayton (2018). They include politicians, policymakers and planners and government departments and agencies; industry - including peak employer and employee representative bodies and other associations with more specific occupational foci; individual employers; professional and regulatory bodies; regional development and community bodies; education and training providers, teachers and trainers and VET's learners. We would argue that these latter few groups are the least politically influential, yet are strongly affected by training package content and quality. The issue here is the challenge for the training package developers in reconciling an often-diverse set of views and coming up with packages that are workable. This reconciliation process, like that for policy development, is problematic. The reason is not only the diversity of voices but the weight each voice should be accorded by package developers.

Finally, Karmel, Mlotkowski and Awodeyi (2008) in asking the question 'Is VET vocational?' found that, with the exception of the trades, there is no neat match between the training package qualifications and the occupations in which most people end up working. They argued that "those developing training packages need to be aware that many graduates will not work in their 'intended' occupation" (p. 4). Moran and Bannikoff (2018) also argue that training package products sometimes have unclear connections to career pathways and employment outcomes. These findings suggests that, in reality, vocational education and training is somewhat more generic than specific.

The future form of VET curricula?

The spectacle of coalitions of stakeholder groups promoting their own interests through VET may obscure the fact that beneath it all is a powerful curriculum model that rests upon a set of educational principles and theories. In the churn of reports, bad press and shifting policy structures, it can be forgotten that there is a separate debate to be had about the *educational* goals and structures of Australian VET. The rhetoric of training reform and its long wake makes it hard to reignite the debate, with the consumerist language of 'packages' and 'products' predominating, and long-promoted versions of VET history suggesting CBT and training packages overcame curriculum. But there is some discussion about principles of vocational

education that provide material for a reconsideration of the curricular basis of Australian VET. In the following brief remarks, three dimensions of debate about future VET curricula are indicated, starting in each case from where we are now with CBT and training packages and moving out along lines suggested by Wheelahan (2016), Billett (2016) and Hodge, Atkins and Simons (2016).

The first dimension concerns the focus or goal of curriculum – what VET is about. Criticism often alights on the narrowness of the object of individual units of competency. For instance, Wheelahan (2016) draws attention to the fact that the units are generally about tightly defined tasks. A problem with this focus emerges when a given job calls for broader objects, such as manipulation of some body of knowledge, or a more complex process, or the more important application of key knowledge and generic skills. Billett (2016) offers the notion of is 'canonical knowledge' of the occupation – knowledge of materials, processes and methods specific to an occupation – as a more adequate orientation. His alternative embraces other elements, but we will draw them into discussion of the next dimension. For Billett, the occupation as such is the substantial focus of curricular design. In contrast, Wheelahan (2016) pushes the focus out to an even broader notion tied to the 'capabilities approach'. Setting up her account of this approach, she wrote,

> "VET qualifications should be designed to prepare people for a wider range of workplace destinations and occupations, rather than a specific focus on workplace tasks and roles." (2016, p. 191)

This suggests that the individual learner's capability needs must be considered paramount, and must be broadly based. Here Wheelahan reiterates the criticism of training packages that draws attention to the competency-based training (CBT) model underlying them. The 'specific focus on…tasks and roles' indicates the intention of units of competency to describe known techniques, equipment, and concepts to get done that which employers need doing. For Wheelahan, it is a focus on today's tasks with little regard for the wider occupation in which the tasks have their significance. To overcome this limitation, she proposes to shift the focus from current tasks to an occupational field. To develop an appropriate curriculum would require enquiry into those fields of practice with a broader focus on occupations and industries rather than tasks. The first dimension, then, points to a way beyond the limited focus of units of competence – which is not overcome by bundling competencies into a qualification – toward whole occupations or beyond them to fields in which occupations are situated. An advantage of the latter approach is that it more accurately addresses the likely future of work in which today's jobs are likely to transform or disappear, while industries and fields of occupations are likely to be the more enduring areas across which workers will apply their abilities.

The second dimension concerns these abilities located in the learner, and the agency of the learner with respect to shifting boundaries of jobs. The current approach does recognise generic skills (employability or core skills) and likely these would be regarded as more personal traits, although in reality, guided by the assessment requirements of units of competency, the focus of VET curriculum remains on 'job-oriented' tasks. In contrast, the capabilities approach championed by Wheelahan (2016) emphasises learner and worker agency. She distinguishes between capabilities as 'capacities to act' (p. 192) and the 'functionings' or realisations of acts which are concerned with achieving a specific goal. The training package approach does assume that skills and knowledge abide in people, but they are aligned to functionings, or

already-channelled capabilities. The capabilities approach shifts the focus to agency itself. But the approach is not learner-centric. Rather, it sees capabilities as necessarily developing in the context of broader 'social, economic and cultural conditions' (p. 192). In the VET context, such conditions are provided by occupational fields of practice. A tighter focus – for example, on tasks – will narrow learning to development of functionings, leaving capability growth and particularly desirable personal attributes enshrined in notions of generic competencies and employability skills to chance. For Billett (2016), the personal side of vocational education also calls for a more sophisticated analysis and approach. In addition to 'canonical knowledge of occupations', VET needs to develop the ability to mediate this knowledge for application to varied problems and contexts. This is a special kind of knowledge. In addition, a range of general 'capacities' (e.g. problem solving, communication, ability to learn) need to be developed that can underpin mediation of canonical knowledge in actual work situations. Billett also indicates the importance of learners coming to recognise and adopt occupations as their own vocation, enabled through broad understanding of the occupation. He offers the framing concept of 'personal domains of occupational knowledge' to sit alongside the informing body of occupational canonical knowledge. These personal domains include the sense of vocation, generic capacities and mediational abilities.

The third dimension we consider is indicated by a broad principle proposed by Hodge, Atkins and Simons (2016) that concerns the relationship between a single curriculum framework and multiple occupations (but could be wider notions such as Wheelahan's fields of practice). The premise of their proposal is that any curriculum model embeds assumptions about the knowledge to be developed by education. With respect to training packages, those assumptions presently derive from behaviourism with its doctrine that only what can be observed can be meaningfully represented in educational goals. This is an epistemological assumption. Now, behavioural assumptions may be appropriate to some tasks. But when applied to more complex or subtle occupations, behavioural representations tend to neglect, obscure or distort what is important to learn. Given this argument, Hodge et al. proposed that any vocational curriculum model intended to apply to multiple occupations must allow for the intrinsic knowledge and practice structures of an occupation to predominate in the teaching and learning of that occupation. It means that whatever over-arching curriculum model we seek for vocational education would have to have the flexibility to accommodate the way knowledge and practice is actually understood from within the occupation. That might mean that different occupations would require quite different curricular structures and components, leaving any national curriculum framework with the significant challenge of determining appropriate types and levels of standardisation that allow for the particularities of different occupations to show through.

Reflecting on these three dimensions in relation to the current model of training packages it is possible to indicate lines of debate about vocational education goals and structures as follows. A future form of VET curriculum would have greater or lesser levels of standardisation. At present, we have a highly standardised, 'one-size-fits-all' approach. All occupations break down into task-units and the information is analysed and presented in behavioural categories. But according to Hodge et al.'s argument, a future curriculum model should be less standardised, with careful consideration given to exactly how appropriate standardising interests are reflected in the model. The next dimension concerns the focus of curriculum. A continuum can be discerned between the current narrow task approach on the one extreme to

Wheelahan's broad fields of practice on the other. Billett's canonical occupational knowledge sits somewhere between as being focused on occupations (rather than tasks or fields) and embracing canonical knowledge of occupations (rather than behavioural information). A third dimension concerns the person of the vocational learner. In current VET, this dimension is almost invisible. Although there is formal acknowledgement that generic skills (e.g. employability or core skills) should be developed, units of competency remain focused on tasks and assessment follows suit. Both Wheelahan and Billett's alternatives make room for a distinct personal aspect. For Wheelahan, capabilities describe the more personal aspect of vocational education. Billett's 'personal domain' with its components of vocational commitment, ability to mediate canonical knowledge, and capacities such as problem solving, also opens up a distinct learner-centred element of curriculum.

We can suggest then, that future VET curriculum could encompass the following principles. First, it would limit standardisation to just those aspects of the system necessary for administering funding, mechanisms for determining and revising curriculum, and demonstration of outcomes against, say, the new Australian Qualifications Framework. Further, we can suggest a future VET curriculum would aim for a wider goal than work tasks. That might be to a rich, occupation-specific goal such as canonical knowledge, or wider again to fields in which current occupations sit, but also related occupations, with the field considered as bounding occupational transformations in the near future. A third dimension would be the personal aspect and how it is represented in curriculum. The current system has no clear and assessible position on what personal dispositions and capabilities would be required to flourish in both today's and tomorrow's world of work. Although it not entirely clear how to conceptualise Wheelahan's capabilities from the perspective of curriculum design, this aspect has a distinct position in her alternative model. Again, the components of Billett's personal domain are not necessarily easy to conceive in curricular terms, but nevertheless, vocational curriculum could address the personal domain. The third dimension, then, concerns the necessary personal aspect – equipping learners to be empowered agents in an uncertain world of work – with questions remaining how this is to be understood and represented.

How do processes and structures therefore need to change?

Our first observation is to question the fundamental mantra that VET is 'industry led'. Rather, Guthrie & Clayton (2018, p. 2) contend that:

> "this is only partly true. While peak industry bodies play an important role in the process of policy formulation … a more accurate description is that the sector is government led but industry advised. Moreover, the policy and practices advocated by industry peak bodies can often be at odds with local industry and individual employer views about what is desirable."

Thus, in the context of delivering the specific requirements of training packages there can be a nexus over the nature of the training provided between industry views at a global and those expressed more locally, and between those individual employers that favour qualifications having immediacy of utility on the one hand over others amongst employers and industry bodies that favour the development of broader and more sustainable knowledge, skill and capabilities by the VET sector. This latter group also argue that more specific and often technically based training should be their domain, and that the education and training of the

workforce is a shared responsibility between providers and 'industry'. These differing views catch VET's providers between 'a rock and a hard place' in delivering what their various clients want and really need. This also challenges providers that are attempting to meet local innovative employer needs on the one hand, while being conscious that are subject to regulatory audit that is compliance-based, and uses the training package as the 'gold standard'. Moran and Bannikoff (2018, p. 26) argue that "regulation through ASQA fills the current policy and strategic vacuum by applying detailed, risk-averse controls at the delivery end of the system – an approach that polices the VET system" in line with the content of training packages. This, they suggest, undermines the type of innovation that would come from the interaction of capable providers and employers. Further, they maintain that this process "diffuses opportunities for RTOs to develop strong industry relationships and therefore to deliver responsive and relevant training" (p. 24).

We contend that what is now required is greater power sharing, especially as the voices that are continually downplayed or even ignored are those most immediately concerned with training package content and implementation: VET's providers and their students. Indeed, Beddie and her colleagues (2016) reported that what the system urgently needed was better interaction between providers, industry and regulators. Higher levels of provider representation and input to the deliberations of Industry Reference Committees (IRCs), which also drew on student experiences and views, would be a good starting point.

In terms of our suggestions concerning future VET curricula, governments would likely need to grapple with the challenge of limiting standardisation. But this also overlooks the extent to which VET's current training package offerings are actually standardised in terms of both content and quality. The current system has overstepped the mark here, unintentionally impacting on the representation of occupations and fields in competency documents, and alienating trainers in the process. Governments need to curtail the educational effects of its supposed standardisation.

A reduction in standardisation at the curricular level then invites a new kind of contribution from those who are well-placed to represent occupations and fields. Sophisticated inquiry methods such as ethnography and phenomenology may be appropriate ways to build more nuanced vocational curricula, based on direct engagement with workers in workplace contexts, employers and industry representative groups. Potentially, rich descriptions of Billett's (2016) canonical knowledge or Wheelahan's (2016) functionings, could come from expert workers, employers and vendors building from the ground up. Inquiry into fields of practice might invite contributions from peak bodies, analysts of industries and labour markets, and social scientists. It is clear that development of future curricula along lines we indicate would require many voices and a move to much greater power sharing. It would also move it towards a more generic and sustainable form of education and training and away from its current job-specific base.

The personal or individual aspects of future VET curricula that we have described prompt our second observation that there is a need to come to a firm decision about whether VET curriculum is concerned about the needs of individuals – as VET providers believe, advised by the broad and more specific capabilities of the occupation they are training for, or does training remain job and job-role focused as the present Australian CBT model demands? We suggest that the former represents a better way forward as it is one which could finally give more proper

regard to generic employability skills and capabilities and improve the flexibility and relevance of what is able to be offered.

We drew attention to challenges of conceptualising Wheelahan's (2016) capabilities and Billett's (2016) personal domains for the purpose of representation in curriculum. There needs to be greater attention given to advice about what capabilities are most valued, and how these capabilities might best be learnt, for example by making use of more empowering and enduring educational approaches to delivery such as problem-based learning. One solution would be to re-package: separating training packages into a component concerned with more industrial issues of required competencies/capabilities and qualifications and another focused on the content and nature of the associated education and training. This would allow training providers to focus only on those elements of most concern to them, but with access to broader contextual information when needed. There would also need to be careful work done to distinguish levels of personal capabilities – which will resist determination in terms of known job roles and work environments – and some of the aspects proposed by Billett (2016) that may be closer to current generic skills. Considerable methodological innovation would be required to discern what of the individual dimension of vocational preparation can be meaningfully translated to curriculum representations that can underpin training program design.

Conclusion

From our perspective there are a number of other changes to processes and structures that could be adopted as 'first steps', recognising that immediate and very significant change may be more detrimental than helpful to the system. There is significant change fatigue within the sector, especially at provider level (Guthrie & Clayton 2018). However, we have already pointed to significant concerns about the extent to which current approaches are meeting the present and longer-term needs of individuals and industry. This includes the recently completed review of VET commissioned by the Morrison Government (Joyce 2019). An upside is that this latter review may drive a mood for more substantive change to training products and processes.

Beddie and her colleagues (2016) suggested a 'half way house' of change: testing new initiatives before wholesale implementation. This, they argue, should be seen as 'good practice'. They suggested a way forward was to conduct a series of pilots and trials that could inform more significant changes to the design of the training product system. But this will require a level of innovation, even bravery, on the part of Service Skills Organisations and their associated IRCs, as well as those bodies that oversee their operations, most notable the Australian Industry Skills Committee (AISC) – whose formal role is to approve training packages for implementation. The key question is: 'Are they up for it?' We suggest that a primary focus for any pilots must be those industries which are subject to rapid change, for example those most affected by the use of Information Technology and 'big data'. The upside, however, is that would allow experimentation to occur without substantive change being initially required.

The paper by Beddie and her colleagues (2016) and Joyce (2019) found that current training products, their administration and the updating cycle are overly complex. We, too, question the extent to which current processes are nimble enough to react to new practices and changes in a timely manner. At present there is considerable inertia which affects the ability to make changes and innovate, especially at the local provider level. But, the key word should be flexibility and guided by the extent to which development and implementation approaches can

move away from 'one size fits all' promoted by ASQA's audit process to one which allows more specific approaches that may be more fit for purpose in particular circumstances, occupations and industries. This means that education and training products such as training packages or VET curricula need to move from 'bible' to 'guide'. The issue with their 'biblical status' is twofold: first, and as noted above, they become the 'gold standard' by which institutions are audited for compliance rather than being a guide to practice where ASQA's auditors might make better use of professional judgement and the views of students and other end users. This requires that they are more free to make discretionary judgments about the quality of what is being offered to learners and employers in a particular context. Second, of course, they are no longer a gold standard if there is poor quality control in their structure and authoring, such that they are difficult to interpret and use. This, indeed, is the comment that many practitioners make about them.

References

ACTRAC (1994). *User's guide to course design for competency-based curriculum*. Frankston, Victoria: Australian Committee for Training Curriculum (ACTRAC)

ANTA (1997). *Training packages: An integrated approach to flexible training delivery*. Brisbane: Australian National Training Authority

ANTA (2002). *Training Package: Successes, issues and challenges in implementation*. Brisbane: Australian National Training Authority

Beddie, F., Hargreaves, J. & Atkinson, G. (2017). *Evolution not revolution: views on training products reform*. Adelaide: National Centre for Vocational Education Research.

Billett, S. (2016). Beyond competence: an essay on a process approach to organising and enacting vocational education. *International Journal of Training Research*, 14:3, 197-214.

Buchanan, J., Yu, S., Marginson, S. & Wheelahan, L. (2009). *Education, Work and Economic Renewal*. Sydney, NSW: Workplace Research Centre, University of Sydney.

DET (undated). *Outcomes of the review of training packages and accredited courses*. Canberra: Department of Education and Training website at https://www.education.gov.au/outcomes-review-training-packages-and-accredited-courses (Cited July 2019)

Guthrie, H., Jamison, B., McLean, S. & Woodward, S. (1989). *National Curriculum Projects Manual, Australian Committee on TAFE Curriculum*. Adelaide: TAFE National Centre for Research and Development.

Guthrie, H. (2009). *Competence and competency-based training: what the literature says*. Adelaide: National Centre for Vocational Education Research.

Hodge, S. (2014). *Interpreting competencies in Australian vocational education and training: practices and issues*. Adelaide: National Centre for Vocational Education Research.

Hodge, S., Atkins, L. & Simons, M. (2016) Towards an epistemically neutral curriculum model for vocational education: from competencies to threshold concepts and practices. *International Journal of Training Research*, 14:3, 230-243.

Joyce, S. (2019). *Strengthening Skills: Expert Review of Australia's Vocational Education and Training System*. Canberra: Department of Prime Minister and Cabinet

Karmel, T, Mlotkowski, P & Awodeyi, T. (2008*). Is VET vocational? The relevance of training to the occupations of vocational education and training graduates*. Adelaide: National Centre for Vocational Education Research.

Moran, T. & Bannikoff, K. (2018). *TAFE SA Strategic Capability Review 2018*. Adelaide: Parliament of South Australia.

National Quality Council (2009). *VET Products for the 21st Century*. Melbourne: NQC Secretariat, TVET Australia.

Sandery, C. (1985). *National Curriculum Projects manual*. Adelaide: TAFE National Centre for Research and Development.

Schofield, K. & McDonald, R. (2004). *Moving on … Report of the high level review of training packages*. Melbourne: Australian National Training Authority.

Wheelahan, L. (2016). Patching bits won't fix vocational education in Australia – a new model is needed. *International Journal of Training Research*, 14:3, 180-196.