



Rationalising VET qualifications: selected international approaches



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INTRODUCTION

In many vocational education and training (VET) systems internationally, rationalising the number of qualifications is a current or recent priority, but what is the best way to achieve this? This research summary explores approaches taken overseas, such as occupational clustering, and looks at how these might be applied in the Australian context.

More detailed information on the various countries examined can be found in the support document, *International models to rationalise VET qualifications, including occupational clusters: case studies*.

HIGHLIGHTS

- Two main methods have emerged internationally to significantly reduce the number of qualifications: reviewing existing vocational qualifications to remove those not in use or are duplicates, or reorganising qualifications into clusters, routes or vocational pathways.
- Internationally, many qualification structures have been changed, such that they comprise: learning related to general capabilities, such as language, literacy and numeracy; technical skills appropriate to several related occupations; and further specialisation through optional units.
- Ongoing qualification review processes ensure that qualifications remain relevant and they respond better to changing needs in the workforce.
- Units of competency will become increasingly important in a VET system with a reduced number of qualifications. Internationally, modules (or their equivalent) are used to provide skills specific to an occupation and to allow a quick response to emerging skills or regional needs.

REASONS FOR REDUCING QUALIFICATIONS

Plans to rationalise Australia's VET qualifications can be usefully informed by international experiences

Rationalising VET qualifications is a policy initiative in several countries, including Finland, England, New Zealand and the Netherlands.¹ Internationally, many reasons are given for reducing the number of VET qualifications currently available to individuals, such as:

- Jobs are more diverse and career paths more individualised than previously (Finland).
- There are too many qualifications that hold very little value to employers or individuals (England).
- Industry has concerns about the clarity and relevance of qualifications; there is a lack of user-friendliness in the system and a duplication of some qualifications (New Zealand).
- There is a desire to create better transparency and functionality of qualifications (the Netherlands).

In Australia, a current objective of the government is to rationalise the number of VET qualifications available, with the aim of making the VET system simpler to navigate for learners and industry. A further aim is to ensure that qualifications are more responsive to the changing needs of industry. In this context, research by Korbel and Misko in 2016 indicated that, of the 1600 'in use' qualifications, most enrolments (85%) are located in 200 qualifications. Korbel and Misko also showed that 336 qualifications had zero enrolments in 2015, with 283 of these qualifications also recording zero enrolments in 2014.

Plans to rationalise Australia's VET qualifications can be usefully informed by the experiences of other countries, presenting an opportunity to improve the quality and relevance of the VET sector. Table A1 provides a summary of the four main countries investigated.

WAYS TO REDUCE QUALIFICATIONS

Approaches to rationalisation can be characterised as either qualification reduction or occupational clustering

Internationally, two main qualification-reduction approaches have emerged:

- reviewing existing qualifications and removing those not in use or are duplicates
- reorganising qualifications into clusters, routes or vocational pathways.

Both of these methods have resulted in significant reductions of qualifications: Finland has reduced its number of VET qualifications from 351 to 164 (Finland Ministry of Education and Culture 2019); New Zealand from 4610 to 909 (New Zealand Qualifications Authority 2019a); and, the Netherlands has lowered its number of VET qualifications by about 30%, to 179 qualifications (Cedefop 2018; Smulders, Cox & Westerhuis 2019).

Reviewing existing qualifications and removing those not in use or are duplicates

Of the countries investigated, New Zealand, Finland and England all undertook reviews of their current qualifications. In Finland, this review process involved consolidating all existing vocational qualifications, by merging them or converting them into modules (modules being similar to Australia's units of competency).

¹ Note that the Dutch example is focused on upper secondary VET and the English example is aimed at 16 to 18-year-old learners who have completed the General Certificate of Secondary Education.

A professional steering group oversaw this process and consultations were held with key stakeholders, such as employers, teachers, public authorities and education and qualifications committees, as part of the development process (Finland Ministry of Education and Culture 2016).

While the review process is only in its early stages, England has highlighted 5000 qualifications for review because they have either no, or low, numbers of enrolments. Funding for these qualifications is likely to be removed (BBC 2020).

Information on the review process undertaken by New Zealand is more forthcoming than other countries and is detailed in box 1. In summary, New Zealand flagged qualifications for review, based on criteria such as the existing review schedule, numbers of enrolments, industrial factors and developer preparedness.

Box 1: The qualification review process in New Zealand

Commencing in 2011, New Zealand conducted a review of all levels 1 to 6 vocational qualifications (certificates and diplomas). The process had three stages:

Stage 1: The New Zealand Qualifications Authority (NZQA) published a schedule of qualifications to be reviewed, based on the review date specified on the New Zealand Qualifications Framework (NZQF) and/or one or more of the following reasons: duplication and proliferation; workforce changes or social, industry and technological shifts; changes in legislation or government policy; lack of use of a qualification (for example, after two years); and a request from a developer.

Stage 2: Members of review working groups developed a plan, conducted the review and submitted a report on the review's outcome to NZQA with recommendations for change. The review working groups comprised industry training organisations (ITOs), relevant industry bodies, standard setting bodies, education and training providers, and other representatives.

Stage 3: Developers implemented the agreed recommendations and submitted any new or revised qualifications to NZQA for approval, after which a regular qualification review process commenced (Korero Matauranga 2019).

This review was completed in 2018. A review of the outcomes was commissioned in 2019 and is still underway (New Zealand Qualifications Authority 2019b).

Reorganising qualifications into clusters, routes or vocational pathways

Another method for rationalising qualifications, one that has been applied overseas, is to reorganise qualifications into clusters, routes or vocational pathways, as seen in England, the Netherlands and Finland. While each jurisdiction may use different terms, the underlying principle is the same – to study a broad-based qualification, with the option of specialising later. However, the approaches used by the countries to determine the occupational clusters were different:

- England started from scratch by defining 'T Level routes' and developing the qualification structure (Independent Panel on Technical Education 2016). T Levels are two-year, technical study programs, available alongside 'A Levels' (academic pathway) and apprenticeships, for students who have completed the General Certificate of Secondary Education (GCSE) (Institute for Apprenticeships and Technical Education 2020). Box 2 provides more detail on the development process.

- Finland restructured its qualifications by merging similar qualifications and converting other qualifications into modules – as opposed to full qualifications (Finland Ministry of Education and Culture 2016). These qualifications were grouped under ten industry areas: education; humanities and arts; social sciences; business, administration and law; natural sciences; information and communication technologies (ICT); technology; agriculture and forestry; health and welfare; and, service industries (Finnish National Agency for Education 2019).
- Information on the approach taken by the Netherlands to form their clusters could not be found.

Occupational clustering is not a new concept in Australia. Previous research has highlighted how reorganising qualifications under grouped occupations may be beneficial to the Australian VET system (see Wheelahan, Buchanan & Yu 2015 and Snell, Gekara & Gatt 2016). Box 3 explores these benefits further.

Box 2: How England developed T Level routes

England established 15 T Level routes in the areas of: agriculture, environmental and animal care; business and administrative; catering and hospitality; childcare and education; construction; creative and design; digital; engineering and manufacturing; hair and beauty; health and science; legal, finance and accounting; protective services; sales, marketing and procurement; social care; and transport and logistics (UK Department for Business, Innovation and Skills & UK Department for Education 2016). The process for developing these routes involved five stages:

Stage 1: Defining the T Level routes

Information on occupations in the UK economy was sourced from the Labour Force Survey (LFS) and used to examine the occupations to which the routes should lead. The Office for National Statistics (ONS) Standard Occupational Classification (SOC) 2010 was then used to determine the occupations requiring technical education; this step was achieved by removing those occupations thought to be too low-skilled or to require higher-level qualifications or significant experience. The remaining occupations were assigned a route, and the skills and tasks were then analysed to cluster homogenous occupations, using information from ONS. This formed the basis of the routes.

Stage 2: Testing the routes for alignment against apprenticeship standards, tech levels and technical certificates

Apprenticeship standards, tech levels² and technical certificates were mapped to the proposed routes to understand the extent to which the existing training provision aligned to the routes. Overall, the alignment was good.

Stage 3: Testing the homogeneity of skills and knowledge requirements between occupations within routes, using the United States occupational database O*NET

O*NET contains detailed information on the skills and knowledge requirements within occupations and was used to ensure the highest possible homogeneity between occupations within each route. This made it possible to develop meaningful training programs.

2 Tech levels are level 3 qualifications, which provide post-16 students with the knowledge and skills they need for skilled employment or for further technical study (UK Department for Education 2017).

Stage 4: Testing the industry coverage of the routes

Standard Industrial Classification (SIC) codes, which classify businesses and other statistical units by type of economic activity, were mapped to SOC data to ensure no key industries were excluded. Around 44% of all industries were covered by the routes.

Stage 5: Testing the future viability of the routes

UK Commission for Employment and Skills Working Futures data and the cross-government 'future of work' project provided information on the net change of employment, as well as replacement demand, over the 10-year period, 2012–22, to explore the future viability of the routes. Overall, five routes were predicted to see a net decline in employment and all routes were predicted to see significant replacement demand.

The information presented in this case study has been derived from annex B in the Report of the Independent Panel on Technical Education (Sainsbury Review) of 2016. The equivalent SOC and SIC codes in Australia are the Australian and New Zealand Standard Classification of Occupations (ANZSCO) and the Australian and New Zealand Standard Industrial Classification (ANZSIC).

Box 3: Benefits of occupational clustering for the Australian VET system

The concept of grouping occupations together and having more broad-based qualifications is not new in Australia. Previous research by Wheelahan, Buchanan and Yu (2015) into vocational streams and Snell, Gekara and Gatt (2016) into occupational clusters has investigated their applicability to the Australian VET system. The underlying theory is that, by grouping similar occupations according to common capabilities and developing training content based on these groups, individuals can train for a number of occupations rather than one, with the option of specialising down the track.

The research by Wheelahan, Buchanan and Yu (2015) and Snell, Gekara and Gatt (2016) identified the following benefits of this approach to vocational training. It would:

- enhance the connection between qualifications and jobs
- improve career mobility due to the better transferability of skills
- allow experimentation within a broad occupation group before specialising, resulting in better informed career decisions
- enable workers to be more adaptive to rapidly changing circumstances.

For more information on the vocational streams program of work, see *Vocations: the link between post-compulsory education and the labour market: summaries*, available at: <<http://hdl.voced.edu.au/10707/364014>>.

CHANGES TO THE STRUCTURE OF QUALIFICATIONS

Occupationally clustered qualifications comprise general capabilities and technical skills related to several occupations, facilitating specialisation through electives

Introducing occupational clustering into their VET systems led to changes in the structure of qualifications in Finland, England and the Netherlands. The basic structure of each qualification comprises units related to general capabilities, such as language, literacy and numeracy, and a technical component, covering vocational skills relevant to several occupations. Further specialisation can occur through optional units.

For example, in Finland all qualifications contain units of learning outcomes, which can be compulsory or optional vocational units (for all qualifications), or common units, such as communication and interaction competency, mathematical and scientific competence, and social and labour market competency (for initial vocational qualifications only) (Finnish National Agency for Education 2019). The Finnish system also allows individuals to either complete full qualifications, parts thereof, or combine units from different qualifications to suit their learning needs (Finland Ministry of Education and Culture 2019).

In England each T level course is two years in length and consists of a technical qualification, comprising core theory, concepts and skills for an industry area, as well as specialisation to a skilled occupation or set of occupations. This is complemented by English, maths and digital skills, if needed. There is also a mandatory industry placement of 45 days (UK Department for Education 2019; UK Department for Business, Innovation and Skills & UK Department for Education 2016).

Qualifications in the Netherlands also comprise general learning, consisting of language, numeracy, citizenship and career management skills; basic vocational learning relevant for all occupations within the qualification; profile modules specific to an occupation; and optional modules (Smulders, Cox & Westerhuis 2019).

IMPACTS ON UPDATING QUALIFICATIONS

An ongoing review process remains vital to the continued relevance of qualifications

Many of the countries examined wanted to rationalise their VET qualifications to enable them to respond more effectively to emerging skill needs. The question is: how did they accomplish this and what steps have been taken to ensure their qualification numbers remain at reduced levels?

To address emerging skill needs, the Netherlands introduced optional modules, which can be defined every three months and delivered to students immediately. These modules are relevant to several qualifications and are jointly developed by companies and educational institutions (Smulders, Cox & Westerhuis 2019).

On the other hand, New Zealand and Finland introduced ongoing qualification review processes to ensure that their qualifications remain relevant and, further, that qualifications have the capacity to respond better to the changing needs in the workforce (Cedefop 2019; New Zealand Qualifications Authority 2014).

Additionally, in order to keep the number of qualifications at appropriate levels and avoid duplication, any new qualifications introduced in New Zealand are underpinned by the following principles:

- based on needs
- clear graduate, education and employment outcomes
- flexibility – programs lead to the award of qualifications
- collaborative development
- accountability and improvement (New Zealand Qualifications Authority 2014).

LESSONS FOR AUSTRALIA

With a reduced number of qualifications in the VET system, units of competency will be increasingly important

By examining international approaches to rationalising VET qualifications, the following key points can be highlighted for consideration by the Australian VET system:

- Occupational clustering appears to be the preferred qualification structure of the countries examined, as it is seen to provide more career mobility and to satisfy industry demand for labour. In this approach, qualifications are more broad-based and flexible, with specialisation through electives, thus reducing the number of overall qualifications in the VET system.
- Occupational classifications such as ANZSCO can be used to group similar occupations to form occupational clusters. Mapping the skills and knowledge contained in these occupations using an established occupational database, such as the United States-developed O*NET, can test the homogeneity across occupations in the cluster. Qualifications can then be drafted from this information.
- With a reduced number of qualifications in the VET system, units of competency, skill sets and micro-credentials will be increasingly important for providing skills specific to an occupation and for allowing a quick response to emerging skill needs or regional needs.
- Training package content needs to be regularly reviewed to ensure it meets changing skill needs. To enable this, reliable and up-to-date industry information on labour demand and workforce trends needs to be used. These insights should be informed by industry, experienced VET educators and neutral economic advisors, and complemented by high-quality data.
- Consideration needs to be given to the impact that changes to qualification structure or removal of qualifications may have on those learners requiring additional support. Courses for these learners (that is, bridging support, specialised courses for those with a disability) generally have fewer enrolments, making their review for culling more likely (BBC 2020; Korpi et al. 2018).
- The countries examined tend to have fewer levels than the Australian Qualifications Framework (AQF): England, Finland and the Netherlands have eight, while Australia and New Zealand have ten. As highlighted in the 2019 AQF review, reducing the number of qualification levels may enable greater distinction between levels and reduce duplication of units of competency and qualifications (Australian Department of Education, Skills and Employment 2019).
- An additional consideration for Australia, not raised in the international research, is that qualifications for some industries are embedded in industrial awards, with implications for industry engagement and timelines on any VET rationalisation or clustering work.

Table A1: Comparison of international models to rationalise VET qualifications

	Country			
	<i>Finland</i>	<i>England</i>	<i>New Zealand</i>	<i>The Netherlands</i>
Area covered in review	All VET qualifications, covering both senior secondary and post-school VET.	16 to 18-year-olds who have completed General Certificate of Secondary Education.	All VET qualifications (levels 1 to 6).	Upper secondary vocational education.
Rationalisation of qualifications				
<i>Reason</i>	<p>There was a significant increase in the number of VET qualifications during the 2000s.</p> <p>Jobs are more diverse and career paths more individualised than previously.</p>	There were over 13 000 qualifications available to 16 to 18-year-olds but which had little value to employers or individuals.	There was industry concern about the clarity and relevance of qualifications, lack of user-friendliness in the system and duplication of qualifications.	Wanted to create better transparency and functionality of qualifications for upper secondary VET.
<i>Approach taken</i>	<p>A professional steering group reviewed qualification structure and proposed changes.</p> <p>Consultations were held with key stakeholders (employers, teachers, public authorities and education and qualifications committees) as part of the development process.</p> <p>A number of former full qualifications were either merged or turned into 'competence areas' (specialisation areas).</p>	<p>Introduced 'routes' that covered both employment-based and college-based technical education:</p> <ol style="list-style-type: none"> 1. Define the routes. 2. Test route for alignment against apprenticeship standards, tech levels and technical certificates. 3. Test homogeneity of skills and knowledge between occupations within routes using O*NET. 4. Test industry coverage of routes. 5. Test future viability of routes. 	<p>A qualification review process was developed by NZQA and was undertaken in collaboration with qualification developers and their stakeholders.</p> <ol style="list-style-type: none"> 1. NZQA published schedule of qualifications to be reviewed, based on review date specified on the NZQF and/or one of the following: duplication and proliferation; workforce changes or social, industry and technological shifts; changes in legislation or government policy; lack of use of qualification; and, request from a developer. 2. Reviewers developed a plan with timelines and approach, conducted the review and submitted a review outcome report to NZQA with recommendations for change. 	<p>Qualifications are now clustered but we have been unable to find information on whether they reworked previous qualifications or created new qualifications.</p> <p>In terms of developing the content for qualifications:</p> <ul style="list-style-type: none"> ▪ Knowledge, skills and behaviours for each vocational/ occupational standard are drafted by panels of industry and teaching experts. ▪ Qualification profiles (educational standards) are drafted by social partner and VET representatives before being adopted by the education ministry. ▪ Curricula are developed by VET colleges and training firms based on the qualification profiles.

	Country			
	Finland	England	New Zealand	The Netherlands
Result	Reduced VET qualifications from 351 to 164, with 3200 modules.	Developed 15 T Level routes, which are two-year, technical study programs for students who have completed a General Certificate of Secondary Education.	3. Developers implemented agreed recommendations and submitted any new or revised qualifications to NZQA for approval. Qualifications reduced from 4610 in 2011 to 909 in 2020.	Reduced VET qualifications by 30%; have 179 qualifications, 491 profiles (specialisation within a qualification) and 1000 optional modules.
Impact on qualification development				
Structure	<p>Qualifications consist of units of learning outcomes, which are either vocational units or common units.</p> <p>Vocational units include both compulsory and optional units.</p> <p>Common units include communication and interaction competency, mathematical and science competency and social and labour market competency.</p> <p>Updating qualifications is a continuous process.</p>	<p>Each route has a two-year college-based program consisting of:</p> <ul style="list-style-type: none"> ▪ core theory, concepts and skills for an industry area and includes English, maths and digital skills ▪ specialisation to a skilled occupation or set of occupations ▪ industry placement of at least 45 days. 	<p>Now have a regular review schedule to ensure qualifications maintain relevance.</p> <p>Policy requirement in place that new qualifications do not duplicate existing qualifications.</p> <p>Principles underpinning qualification design are:</p> <ul style="list-style-type: none"> ▪ based on needs ▪ clear graduate, education and employment outcomes ▪ flexibility — separate qualification from programs ▪ collaborative development ▪ accountability and improvement. 	<p>Qualifications are competence-based and consist of:</p> <ul style="list-style-type: none"> ▪ general part (language, numeracy, citizenship and career management skills) ▪ basic vocational part applicable for all occupations within the qualification ▪ several profile modules (specific for the profile within an occupation) ▪ optional modules. <p>The optional modules can be defined every three months and delivered to students immediately and are used to respond rapidly to emerging needs.</p>
Institutional architecture	<p>Government makes decision on the structure of vocational qualifications.</p> <p>The Finnish National Agency for Education prepares qualification requirements for VET and determines which working life committee a qualification falls under.</p>	<p>The Institute for Apprenticeships and Technical Education is responsible for the procurement and management of the Technical Qualifications (TQ). Also has T Level panels comprised of employers and industry experts to form the outline content for the core and occupational part of qualifications.</p>	<p>The NZQA (administering the New Zealand Qualifications Framework) sets the guidelines for qualification development and approves qualifications.</p> <p>Qualification developers manage the review of qualifications with selected stakeholders and can be any of the following entities:</p>	<p>The Ministry of Education, Culture and Science governs the national system for qualifications.</p> <p>The Cooperation Organisation for Vocational Education, Training and the Labour Market (SBB) works with VET schools and the labour market on executing the following legal tasks:</p>

Country			
Finland	England	New Zealand	The Netherlands
<p>Working life committees are involved in developing qualification structure and requirements and quality assurance. They consist of employer and employee representatives, teachers and self-employed people.</p>	<p>The UK Department for Education manages the industry placements and some of the liaison with providers.</p> <p>The Education and Skills Funding Agency also liaises with providers.</p> <p>The Office of Qualifications and Examinations Regulation (Ofqual) administers the accreditation and regulation of qualifications.</p>	<p>industry training organisations, institutes of technology and polytechnics, private training establishments, wananga³, government training enterprises, and universities.</p> <p>Qualification developers invite mandatory and relevant stakeholders to contribute to the review of qualifications.</p>	<ul style="list-style-type: none"> advise, accredit and coach work placement companies develop and maintain the qualification structure provide research and information on the labour market, work placement and efficiency of VET-programs. <p>There are also nine sector chambers within SBB who help to develop the occupational profiles.</p>

Source: based on information from the support document, *International models to rationalise VET qualifications, including occupational clusters: case studies*.

3 Wananga are tertiary institutions that provide education based on Maori traditions and customs (New Zealand Qualifications Authority 2020).

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This document should be attributed as Wibrow, B & Waugh, J 2020, *Rationalising VET qualifications: selected international approaches*, NCVER, Adelaide.

This work has been produced by NCVER on behalf of the Australian Government and state and territory governments, with funding provided through the Australian Government Department of Education, Skills and Employment.

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

IMAGES: GETTY IMAGES

ISBN 978-1-925717-57-0

TD/TNC 140.15



Published by NCVER ABN 87 007 967 311

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