

CONCO>E TŪHURA

Programme Development and Delivery

Good practice in the development and implementation
of skill standards-based qualifications

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NZQA SUPPORT FOR THE GUIDES

NZQA supports ConCOVE Tūhura's approach in developing these guides to help standard setting bodies and end-users develop a deeper understanding of skill standards.

As the building blocks of vocational qualifications and micro-credentials, skill standards have huge potential to support consistent graduate outcomes and meet industry needs. We envisage that the toolkit approach to the good practice guides will be particularly useful to the target audiences, some of whom may be new to standards-based qualifications and programmes. – NZQA

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Technical Advisory Groups for:

- Rigging
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- Glazing
- Painting
- Structural Detailing
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Their collective knowledge and experience have been invaluable in shaping this resource to support assessment practice in vocational education and training.

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AN INTRODUCTION TO THIS RESOURCE

Good practice toolkit

In late 2023, skill standards began replacing unit standards, becoming compulsory components, where they exist, of the programmes leading to New Zealand national qualifications. The first skill standards were approved and published by the New Zealand Qualifications Authority in 2024. National qualifications and programmes of learning developed from 2024 onwards will be based on skill standards.

This is the introduction to the 'toolkit' of good practice guides. The toolkit audience is those involved in the process of developing and implementing skill standards-based credentials and qualifications:

1. standard setting and qualifications development;
2. learning programme development;
3. learning programme delivery;
4. assessment of learning; and
5. moderation of outcomes.

These roles sit within Work Based Learning Organisations (WBLOs), Institutes of Technology and Polytechnics (ITPs), Private Training Establishments (PTEs) and wānanga for programme development and delivery (including assessment); Standard-setting Bodies (SSBs) for standards and qualifications development and moderation of outcomes; and industry and other stakeholders for advice on qualifications and programmes.

There are six guides in the toolkit:

1. A Background to the Emergence of Skill Standards
2. An Overview of the System
3. Standards and Qualifications Development
4. Programme Development and Delivery
5. Assessment and Consistency Measures
6. Industry Stakeholders and Advisory Work

The guides were developed with research and input from sector entities and teams. Each guide discusses the most challenging issues and sets out guiding principles, illustrated with practice interpretations. It is designed to help standard-setting bodies (SSBs) and tertiary education providers deepen their understanding of what skills standards should be and do in order to achieve the quality and consistency that will meet the needs of industry and learners.

FOCUS AND AUDIENCE

This guide focuses on what is involved in the development and delivery of programmes of learning that implement skill standards and skill standards-based qualifications. For the purposes of this guide, 'delivery' does not include assessment. Assessment and moderation are covered by a separate guide in the toolkit, Assessment and Consistency Measures.

The intended audience for this guide is:

- programme developers, capability developers and teacher educators in ITPs, PTEs and WBLOs;
- teaching and tutoring staff in provider-based or distance settings; and
- trainers and mentors in work-based settings.

It would be ideal for managers and leaders in tertiary education providers and WBLOs to 'workshop' the guides with their teams.

The guide is also useful for those working in other parts of the vocational education system, whose work sits 'upstream' or 'downstream' of the main audience. For example, those who:

- develop qualifications and standards
- assess qualifications and standards
- assure the consistency of qualifications and standards
- provide qualifications or learning programme developers with subject matter expertise as industry or stakeholder representatives
- have an interest in the vocational education system.

The guide assumes development and delivery for a qualification that the provider has not before offered, and that this would be for a national qualification based on skill standards. The guide is still relevant for providers familiar with offering programmes towards unit standards-based national qualifications and where they are updating such programmes to lead to skill standards-based national qualifications.

CONTEXT CHANGES IMPACTING PROGRAMME DEVELOPMENT AND DELIVERY

What has changed, in a nutshell

Skill standards bring a number of changes affecting programme development and delivery. They are summarised in the following figure. The rest of the document explains the changes and their implications in more detail.

Figure 1 What changes with skill standards

What changes with skill standards					
Compulsory for national qualifications	More integration of knowledge and skill	Written for assessors (not learners)	Specification of assessment conditions not assessment practices	Indication of content or curriculum without prescription	Involves a different SSB relationship

These changes can be grouped into three main themes.

First, the 2023 changes to NZQA Rules make skill standards a compulsory building block and assessment mechanism for all programmes of learning leading to national qualifications. Skill standards replaced unit standards in late 2023. The first ones were approved and listed in early 2024. Qualifications that are new for 2024 are, or will be, skill standards-based. Qualifications that have been, or are being, revised from 2024 onwards will be skill standards-based where skill standards are available.

Second, the technical make-up of skill standards affects how programmes are designed and delivered, particularly with regard to assessment. The technical differences include more instruction and guidance for providers about what to cover, the conditions for assessment and what assessors should look for as evidence of reaching the standard. At the same time there is less prescription in how standards are written. And there is also a shift to standards that encourage knowledge to be inferred from skill, rather than making hard distinctions between knowledge and skill.

Third, the moderation of assessment outcomes now sits with a different SSB- Workforce Development Councils (WDCs), established under the 2020 Education and Training Act. SSBs have always moderated the standards and qualifications that they developed. This used to be the ITOs and NZQA for NQS-developed standards. However, the Crown-owned WDCs have a wider, educational leadership mandate than the previous industry-owned ITOs.

WDCs work with many stakeholders (e.g. industry, providers and iwi), have a focus on future (not just immediate) workforce needs and provide investment advice to the TEC. At the time of writing this guide in 2024, the Government was consulting on a proposal that might return the standard-setting role to bodies similar to ITOs.

Tertiary education providers' experiences differ leading into these changes. With unit standards being optional components of qualification programmes prior to late 2023, only some Institutes of Technology and Polytechnics (ITPs) and Private Training Establishments (PTEs) used them. This would typically be to offer what Te Pūkenga termed Programmes of Industry Training (PIT) based on unit standards-based qualifications and programmes of learning developed by ITOs. (All Industry Training Organisations used unit standards-based qualifications for their delivery of assessment).

Providers (e.g. many ITPs) with no prior experience with standards-based assessment would be used to offering what the now-disestablished provider network, Te Pūkenga, termed Programmes of Study (POS). These providers may be able to draw on some alignments with their graduate programme profiles. They may find the companion guide in this toolkit, A Background to the Emergence of Skill Standards, useful to build an understanding of standards-based assessment.

Establishing the need for programme development

The decision to develop a new qualification is triggered by demand from industry, whose representatives then influence the SSB about what goes into the qualification. The decision to offer a qualification (the programme leading towards awarding it) may be triggered by industry or employer demand, often referred to as 'business need', 'community need' or 'local need'. Industry then influences the providers about how, when and where it will be delivered (and sometimes by whom).

Most providers already have a combination of regular and ad hoc stakeholder engagement channels for establishing the type and level of demand. Demand can also be generated by approaches from the community, iwi or individual employers. It is also not uncommon for a provider's own tutors or trainers, or a faculty or department, to make suggestions about new programmes of learning.

One of the first jobs of any provider is to explore the motivations behind requests and establish the credibility of a stated need. For example, local employers may want to show commitment to education or professional development to help with recruitment of new workers or retention of existing ones. An industry association may want to recognise workers who have already developed skills but lack that formal recognition. There may be an industry-wide need for upskilling in light of changes to the nature of the work or in response to regulatory requirements. Suggestions from individual tutors or trainers may be based on stakeholder feedback or may simply be an individual whim or interest.

The provider may also engage with others with a less direct relationship or who are stakeholders in the system as a whole – for example, other providers. This can help avoid duplication of effort or provision or, conversely, may be focused on setting up in competition to existing provision.

Determining ways to meet the need

The provider will need to determine what existing award, or qualification will meet the business need and, secondly, what kind of programme needs to be developed. It could be an entirely new, standalone programme. Or it might be a new programme that has a bridging focus – i.e. it prepares learners for entry into an existing programme towards an existing qualification. Or the need may be for a higher level programme to which learners can graduate from an existing programme and extend their skills.

It is worth remembering that qualifications serve different purposes. For example, they can be used:

- for entry into the labour market;
- as tools for upskilling and facilitating pathways within the labour market;
- to offer opportunities for social inclusion and social mobility – more likely to be a driver when demand comes from iwi or community than from industry.

SSB qualifications developers have already worked with industry (and often also some providers) to write the standards and qualifications and have these approved and listed by NZQA. That process will have involved bringing together the right mix of stakeholders, drawing out their advice, moderating the different perspectives and translating them into a coherent, written expression of the required competence (i.e. the skill standards). SSBs may include providers in their advisory groups so they can get a perspective on programmes of learning.

Providers must consider the learner market: the likely uptake of, and graduate outcomes from, a new programme. Stakeholder advice will be invaluable here, as will existing learner outcomes and learner experience data on similar programmes. So will institutional and stakeholder data that can be compared against existing programmes to help shed light on the market for the proposed programme – e.g. Equivalent Full-Time Students (EFTS) and learner numbers; completion rates, ‘success’ factors and graduate outcomes; learner feedback, industry feedback and community feedback.

Before embarking on any programme design, providers will need to go through the appropriate proposal and approval processes at their institution (e.g. Quality Assurance Committee or Approvals Committee) and gain funding approval from the Tertiary Education Commission. The general process involves setting out a business case that covers the demand; timeframes and costs; pathways and graduate destinations; alignment with Government tertiary education priorities (including matauranga Māori)¹; personnel; and approach to meeting learner needs (especially for underserved learners).

Mixing different standard types and qualities

There is nothing to prevent a programme of learning from implementing a mix of types of assessment standard. With skill standards being listed only from early 2024, they are few in number in comparison with the tens of thousands of unit standards still in circulation. Some of those unit standards are years away from revision and potential integration into skill standards. Programme developers will need to consider the mix of standards and standards types alongside business need, qualification purpose and learner market.

Skill standards are intended to encourage good practice in assessment through their conception and structure. They offer a potential that unit standards did not (and we make comparisons that underline this throughout this guide). Mixing assessment standard types (i.e. skill and unit) does not need to close down the opportunities for good programme design and good assessment practice. Nor should opportunities be obstructed by the likelihood that programme developers may at times encounter skill standards that are not ideal in their conception or writing. The focus for programme developers can be on what they do with the standards – i.e. aligning with the good practice guidance in this publication and its companion, the Assessment and Consistency Measures guide.

SIGNIFICANT ASPECTS OF SKILL STANDARDS

Bringing knowledge and skill back together

Skill standards should be written in a way that integrates knowledge and skill. This addresses one of most constraining aspects of unit standards on learning and assessment – fragmentation and overspecification with skills articulated as lists of discrete tasks. This in turn drove assessment-by-checklist, an approach echoed in moderation, as well as a tendency to overlook the knowledge that underpins skills. NZQA and the Ministry of Education received feedback referring to these issues in a consultation on proposals to simply qualifications.

In an effort to include important knowledge, qualifications developers produced standards that were specifically focused on knowledge alone or ‘the theory’. These standards were known colloquially as “DKO standards” because their outcomes specified that learners would “demonstrate knowledge of” something. Unfortunately, this approach continued the fragmentation, as well as making unit standards too narrow and inflexible to deal with any change in the dynamic nature of work.

The fragmented approach was based on confusion about what skill and competence in the workplace really means. It is a confusion seen elsewhere (e.g. Australia and the United Kingdom) with vocational standards and competency-based training. Skill has been conceived solely as knowing how, as if separate from knowing that. This has been roundly criticised for promoting a gap between specification and actually being good in practice, and for confusing information with knowledge. Treating knowledge as implicit or indirect, and leaving assessors guessing about whether or not a learner had it, has exposed occupations to dangerous knowledge gaps that only become apparent after assessment is complete.

It also made it harder for learners to develop the kind of capability to make on-the-spot adaptations in response to emerging problems. For example, using initiative to respond when there is not an existing protocol or fit-for-purpose material available, or translating a tricky request into a practical process.

Skill standards are therefore designed to be “more holistic and less atomised” and improve the ability to gather evidence about learning.⁶ NZQA explicitly encourages SSBs to focus on skills as including applied knowledge. Providers are likely to see the sorts of things shown below from listed skill standards.

Foregrounding skill and backgrounding knowledge

The Learning Outcomes foreground the skills required for this particular standard.

Figure 2 Learning Outcomes and required skills

40000	Manufacture a timber flooring cassette	Hua o te ako Learning outcomes 1. Select and prepare materials to manufacture a timber flooring cassette. 2. Manufacture a timber flooring cassette in a manufacturing environment to job specifications.
Kaupae Level	3	
Whiwhinga Credit	20	
Whāinga Purpose	This standard recognises the skill required to manufacture a timber flooring cassette. This skill aligns with the Flooring Cassette Manufacture strand of the New Zealand Certificate in Timber Structure Manufacture (Level 3) [Ref: 4319].	

² Reform of Vocational Education (RoVE), ‘Summary of Feedback from the Consultation on Simplifying New Zealand Qualifications and Other Credentials’ (Wellington: New Zealand Qualifications Authority, 2021).

³ Margaret Gregson and Brian Todd, ‘Realizing Standards of Practice in VET’, in Handbook of Vocational Education and Training: Developments in the Changing World of Work (Springer Link, 2019).

⁴ Stephanie Allais, Selling out Education: National Qualifications Frameworks and the Neglect of Knowledge (Springer, 2014).

⁵ Christopher Winch, ‘Applied Theoretical Knowledge and Professional and Vocational Education: Informed Know-How in a Non-Intellectualist Framework’, in Knowledge, Curriculum, and Preparation for Work (Brill, 2018), 51–67.

⁶ New Zealand Qualifications Authority, ‘Aide-Memoire to the Minister of Education: Changes to the Vocational Qualifications System. CR20772’, 24 June 2020.

¹ Ministry of Education, ‘Tertiary Education Strategy 2020’ (Wellington: Ministry of Education, 2020), <https://assets.education.govt.nz/public/Documents/NELP-TES-documents/FULL-TES-2020.pdf>.

Figure 3 Indicative Content and background knowledge

The Indicative Content backgrounds industry's expectations about the knowledge that could be covered by a provider's programme of learning. In order to perform the skill of selecting and preparing materials, the learner will need to know (for example) about timber types, grades and dimensions, and compatibility with hardware and fixings.

Ihirangi waitohu Indicative content	
Materials	
<ul style="list-style-type: none"> • Timber types, grades and dimensions. • Standardised markings for assembly on-site. • Sheeting/decking types, grades and dimensions. • Compatibility with timber of the range of hardware and fixings used in flooring cassette manufacture 	
Fixing and Hardware	
<ul style="list-style-type: none"> • Fixing hardware types, specifications, purpose and fixing method. • Glue types, purpose and application method. 	
Assembly and Quality Control	
<ul style="list-style-type: none"> • Flooring cassette assembly sequence. • Quality checking procedures. • Workplace compliance requirements specific to flooring cassettes. 	
Storage and Transportation	
<ul style="list-style-type: none"> • Methods and Materials used to prepare flooring cassette for storage and transportation 	

Learning Outcomes make it clear

In some standards, different Learning Outcomes do the job of setting out the knowledge and the skills needed to achieve the standard.

Figure 4 Using Learning Outcomes to emphasise knowledge or skill

40113	Install data cable support systems and flush boxes
Kaupae Level	3
Whiwhinga Credit	15
Whāinga Purpose	This skill standard recognises the skills required to install data cable support systems and flush boxes in medium to large complex environments. This skill standard aligns with the New Zealand Certificate in Data Cabling (Level 3) [Ref: 5057].

Hua o te ako Learning outcomes
1. Explain the types of data cable pathways and their use.
2. Install data cable support systems.
3. Install flush boxes in timber and steel framing.

It remains to be seen whether or not this helps “bring knowledge back into standards” by weaving together knowledge identified as context-dependent or practical and knowledge that is context-independent or theoretical.⁷ The most likely way this may occur is through a focus on “problem-finding, problem-solving and shared engagement”.⁸ This can be designed into programme delivery.

If mātauranga Māori is part (or all) of the competency expressed in the standard, SSBs might require incorporation of te ao Māori concepts in the Indicative Content. However, it may be that mātauranga Māori forms part of programme development and delivery. This is consistent with the Tertiary Education Strategy priorities, particularly Barrier Free Access and Learners at the Centre, and their relationship with Quality Teaching and Leadership and Future of Work. Research on Māori success within construction and infrastructure vocational education shows that iwi involvement and inclusion of mātauranga Māori, te reo Māori and tikanga Māori lead to ākongā Māori success by supporting a strong sense of identity, culture and whakapapa.⁹

Larger credit values and learner progress

Skill standards will generally have larger credit values than unit standards. Combining knowledge and skill into one standard will automatically produce larger standards. However, there are other good reasons to do this such as:

- better contextualisation of the skills and knowledge;
- avoiding the implication that knowledge and skills exist in isolation (you cannot have one without the other); and
- signalling that the particular industry or user needs all of these skills to reach the standard.

Typically, unit standards have had credit values between one and ten.¹⁰ A variety of factors inadvertently encouraged ITOs to develop quite large numbers of one and two credit unit standards. These included a funding regime based on credit values, as well as pragmatic considerations of industry pressure and the rules and processes attached to standards development.

The small size of unit standards has encouraged some providers to behave as if the unit standard was a curriculum module in itself. This in turn allowed programmes to be developed which were no more than lists of unit standards.

This practice encouraged learners to read the unit standards as if they were a learning resource. The problem with this was that it reinforced the ideas about disconnecting knowledge and skill and encouraged the tick-box approach to assessment. It gave standards a job they were never intended to do. This thinking exposed learners to standards instead of reserving them as tools for assessment, to be used by assessors.

Further, many providers have used credit accumulation in unit standards as a proxy for learner progress. For example, these providers may have openly or tacitly encouraged learners to regularly check or tick-off their accumulation of credits. This is not entirely inappropriate. However, it does tend to come at the expense of fostering learners' own sense of progress and achievement against other measures – e.g. increasing levels of responsibility at work, higher quality of work output, faster task or project completion, greater independence in decision-making. It also allows providers to dodge their responsibility of reporting progress to learners, whānau and employers in clear and accessible ways.

Skill standards are or will typically be worth anywhere between five and perhaps 30 credits. The larger size of standard encourages a relocation of curriculum (what is covered or taught) away from individual assessment activities for each little part of that curriculum. It will also be much more difficult to use credits as a proxy for reporting learner progress.

Some providers may find larger credit values challenging for their business models. For example, PTEs with a specific and narrow focus and delivering to standards rather than entire qualifications may find that fewer, larger standards require them to redesign their course offerings, timing, subject matter, records administration, reporting protocols and so on. The more closely any provider has aligned courses to specific standards, the more the potential need for re-alignment.

The tendency towards larger credit values does highlight a tension with the principle of transferability or ‘portability’ of standards between qualifications. The more that the skills and knowledge of a discipline are combined in a standard, the more likely it is that some aspects of it are particular to that discipline. SSBs are likely to consider the possibilities of transferability though this should never be at the expense of sound and clear identification of the skill and knowledge requirements of the industry concerned.

⁷ Young, M., 2007. Bringing knowledge back in: From social constructivism to social realism in the sociology of education. Routledge.

⁸ Biesta, G., 2014. “Pragmatizing the Curriculum: Bringing Knowledge Back into the Curriculum Conversation, but Via Pragmatism,” *The Curriculum Journal*, 25 (No. 1, 2014), 29-49.

⁹ J. I. Smiler, ‘Me Pēhea Te Āhua o Te Whai Mātauranga Me Tohu Kaihanga Whare Mō Te Iwi Māori? What Does Carpentry Education and Qualification Look like for Māori? He Arotakenga Mātākōrero. Literature Review.’ (Te Whanganui-a-Tara Wellington: Te Pūkenga. Te Kōrari Rangahau, 2023).

¹⁰ NZQA's generally applied formula is that one credit should represent a ‘notional’ 10 hours’ learning and assessment. New Zealand Qualifications Authority, ‘Micro-Credential Approval and Accreditation Rules 2022’ (Wellington: New Zealand Qualifications Authority, 28 November 2022).

BRINGING LEARNING OUTCOMES INTO FOCUS

Learning Outcomes form the heart of each skill standard. Their description of competencies acts as a benchmark for the development of the learning programme. Learning Outcomes specify the critical skills. They also should not specify other skills that are not critical to the Learning Outcomes. Each standard's set of Learning Outcomes should have a clear link **back** to the standard's Title, and a clear link **forward** to the Assessment Criteria.

Figure 5 The relationship between Title, Learning Outcomes and Assessment Criteria

40000		Manufacture a timber flooring cassette	
Kaupae Level	3		
Whiwhinga Credit	20		
Whāinga Purpose	This standard recognises the skill required to manufacture a timber flooring cassette. This skill aligns with the Flooring Cassette Manufacture strand of the New Zealand Certificate in Timber Structure Manufacture (Level 3) [Ref: 4319].		
Hua o te ako me Paearu aromatawai Learning outcomes and assessment criteria			
Hua o te ako Learning outcomes		Paearu aromatawai Assessment criteria	
1. Select and prepare materials to manufacture a timber flooring cassette.		a. Properties and dimensions of materials are selected to meet job specifications.	
		b. Timber members are checked, planed or cut, and marked-up according to detail drawings and instructions.	
2. Manufacture a timber flooring cassette in a manufacturing environment to job specifications.		a. Placing of components, hardware, and fixings in sequence and position is completed according to detail drawings and instructions.	
		b. Components are checked and fixed using correct equipment and fixing methods.	
		a. Quality control checks are completed according to checking schedule and workplace procedures.	

Providers (usually polytechnics) that are used to using their own Graduate Outcomes (or similar) are likely to see nothing very new in the Learning Outcomes of skill standards. They may also look similar to the Graduate Profiles at the level of the qualification, developed by SSBs for listing with NZQA to identify the learning outcomes required and describe what the learner will know and be able to do on achievement of the qualification.¹¹ Providers that are used to working with unit standards (WBLOs, many PTEs and some ITPs) should note that Learning Outcomes are likely to be fewer in number than the Elements or Outcomes of unit standards.

The over-prescription in unit standards was at least in part driven by the tendency for the ITO-based developers to dutifully reproduce the tasks described by their subject matter experts (industry representatives), rather than re-articulating these as skills. SSBs, as Crown-owned rather than industry-owned and with wider stakeholder input, have more opportunity to distinguish between tasks (or desirable qualities in an employee, such as reliability or tidiness) and skills and knowledge that need to be identified by a standard. As we advise in this Good Practice Toolkit, Learning Outcomes should be more precise and less prescriptive, and therefore more concise.

It is entirely possible that some programmes will require the implementation of a combination of unit standards outcomes and skill standard learning outcomes. Something similar already happens in some ITP programmes that implement a combination of Graduate Outcomes and unit standard outcomes. This is particularly the case where unit standard outcomes are required by schools so that learners can include the credits towards the NCEA or another National Certificate (e.g. Level 2 Cookery).

Programme content and consistency of outcomes

The Indicative Content part of each standard gives high level guidance to providers on what to consider including in their programmes. It is not a curriculum, nor direct instruction. It is an indication about the expectations of industry, with whom the qualifications developer worked in writing the standard.

Programmes of learning typically relate to complete qualifications. This means that providers can take indicative content as relevant to qualifications rather than to individual standards within them. Indeed, indicative content might make reference to surrounding skills (e.g. numeracy) that are not part of the standard (or the qualification) but that the provider might want to take into account. This means that providers can use their professional expertise to design and deliver their programmes to cover material in a way that they see fit for their learners.

SSBs may also place the technical or 'theory' aspects of a standard with the 'practical' Learning Outcomes. The provider needs to read carefully for signals about the knowledge needed for the skill acquisition. Consider the example of skill standard 40000 shown earlier, which includes a Learning Outcome about selection of material – i.e. something that requires judgement and underlying knowledge as the basis for that judgement. Indicative Content in skill standards therefore also specifies the scope of the knowledge required to underpin the selection of material.

We note that some ITPs already use the term 'indicative content' in their 'course descriptors' (programme outlines). Further, the use of graduate profiles (incorporating learner outcomes and graduate attributes) means that learners, employers and educators should need to understand qualifications at different levels and their implications for career pathways.¹²

Some providers may have questions about how consistency of learning outcomes will be moderated by SSBs. Some may even be concerned about 'failing' moderation if what their programmes cover differs from indicative content and if 'indicative' is taken as 'required' by SSB moderators. Providers should therefore build relationships with SSBs and take up opportunities to be part of advisory groups on qualifications development (so implementation is also considered). This will also help reduce industry representatives' experience of 'advisory fatigue' when contributing to numerous groups with different purposes about their competence needs.

¹¹ The Graduate Profile was established out of the Targeted Review of Qualifications (TRoQ), also known as the Mandatory Review of Qualifications, that begun in late 2009.

¹² Selena Chan, 'New Zealand's Move to Graduate-Profile Framed Qualifications: Implications, Challenges and the Occupational Identity Solution', International Journal of Training Research 14, no. 1 (2016): 5–18.

Teaching and assessment expertise and professional development

Teaching expertise

With less prescription in the standard, there is an even greater need for good course design and a high level of professionalism and skill from the teachers or trainers and assessors. Good vocational education (and good outcomes) demands good teaching and, in our competency-based model, this extends beyond the craft apprenticeship approach of tacit or uncodified teaching.¹³

It is rare (at least initially) for ITP vocational teachers or tutors to have the required mix of subject matter knowledge, pedagogy and workplace qualifications and experience.¹⁴ New teachers or tutors are likely to have only recently moved 'off the tools' or from a practice environment. They are likely to have no formal education expertise, though they may have some experience in training in the workplace (though this is not usually a prerequisite for becoming a vocational teacher and is different from teaching in an ITP).

International research highlights that vocational teachers' use of professional development resources is heavily influenced by their organisation's expectations and career stage.^{15,16} In addition to structured mentoring and development in education theories, teaching practice and assessment, new teachers or tutors will need support around making the significant identity shift from trades worker to trades teacher.¹⁷ There is also compelling evidence from Australia about vocational teachers and the quality of their teaching. Those with an existing higher-level qualification, who also achieve a teaching qualification at Level 4 or higher, are not only more confident in all aspects of vocational teaching but are more effective with it and more likely to engage in ongoing professional development.¹⁸

Employers who provide training for ITO or ITP programmes of learning may be able to get support as a delivery partner. Experienced apprenticeship trainers or employers may also find opportunities to share the expertise they have built up over time. Some ITOs provide professional guidance for trainers and supervisors (often also the employer in small businesses) who verify the evidence used for assessment.¹⁹

Assessment expertise

In particular, skill standards demand more and better assessment capability. Arguably unit standards fostered the possibility that course assessment design could be built directly off unit standards. This meant that assessors lacking in assessment capability could take a mechanistic approach to assessment – for example, administering a multi-choice test or having learners complete worksheets with tick-box answers for each and every (small credit-value) standard or where this constitutes invalid assessment (i.e. it tests something other than the skills in question). This may be particularly challenging for workplace-based assessors (typically contracted to WBLOs). They can be used to an event-focused approach, administering pre-made worksheets or tests rather than working with naturally occurring evidence and professional judgement, and recording the nature of that evidence and their reasoning. It may also be challenging for ITP tutors.

WBLOs can struggle to oversee and upskill workplace-based assessors as they are not employees. ITPs can struggle to provide in-house upskilling that is timely and to the

necessary depth, especially balanced against any need to 'hit the ground running' with programmes and get tutors in front of a cohort of learners. Internal moderation systems are unlikely to be able to address this, though they can identify or confirm issues and where support is needed. There are some written resources^{20,21,22} and more in development²³ aimed at staff arriving from industry. These focus mainly on capability to teach and train, rather than assess specifically. Providers are likely to have their own resources, specific to their context and internal systems.

Inconsistencies in assessment practice (across both sets of assessors) and between different assessors emerge out of the lack of professional assessment knowledge and skill. Larger standards will help move these staff away from assessing each (unit) standard separately so that's good. But loss of that unit-by-unit 'safety net' and encouragement to use naturally occurring evidence means these staff will require more professional development and support. There are examples by which assessors and assessment can be professionalised²⁴, and the system can be strengthened with a focus on professional conversation for learning within an assessment 'community of practice'.²⁵

The assessment of skill standards is covered in detail in the Assessment and Consistency Measures guide in this toolkit. However, there are four main things that providers need to consider when developing and delivering their programmes using skill standards. These are shown in the following table.

Table 1 Assessment considerations in programme development and delivery

Assessment focus	Consideration
Programme overview	Not encouraging learners to read standards
Assessment approach	Placement of assessment close to learning context
What assessors look for	Use the Assessment Criteria: think about what the assessor is to look for rather than what the learner must do. (learners should not be reading the standards as de facto learning material or a description of what to do).
Quality of evidence	Use Assessment Specifications with the Assessment Criteria: think about the quality of evidence to encourage for learners and the context for assessment that should be as close as possible to the learning environment

¹³ Jeanne Gamble, 'Why Improved Formal Teaching and Learning Are Important in Technical and Vocational Education and Training (TVET)', Revisiting Global Trends in TVET: Reflections on Theory and Practice 204 (2013).

¹⁴ A. Van Der Bijl and L.J. Oosthuizen, 'Deficiencies in Technical and Vocational Education and Training Lecturer Involvement Qualifications and Its Implications in the Development of Work Related Skills', South African Journal of Higher Education 33, no. 3 (August 2019).

¹⁵ Na Zhou, Dineke EH Tigelaar, and Wilfried Admiraal, 'Vocational Teachers' Professional Learning: A Systematic Literature Review of the Past Decade', Teaching and Teacher Education 119 (2022): 103856.

¹⁶ Moses Njenga, 'How Do Vocational Teachers Learn? Formal and Informal Learning by Vocational Teachers in Kenya', International Journal for Research in Vocational Education and Training 10, no. 1 (2023): 24–45.

¹⁷ Selena Chan, 'Perspectives of New Trades Tutors: Boundary Crossing between Vocational Identities', Asia-Pacific Journal of Teacher Education 40, no. 4 (2012): 409–21.

¹⁸ Erica Smith and Jacqueline Tuck, 'Do the Qualifications of Vocational Teachers Make a Difference to Their Teaching?', Research in Post-Compulsory Education 28, no. 1 (2023): 1–25. This research was based on an Australia-wide survey of 500 VET teachers also challenges the idea that professional development can make up for a lack of qualifications.

¹⁹ Karen Vaughan, Ben Gardiner, and Jan Eyre, 'The Transformation of Industry-Led Assessment of On-Job Learning in the Building and Construction Industries' (Wellington: Ako Aotearoa, 2012).

²⁰ T. McNamee, 'Induction Pack for Trainers: A Resource to Guide the Induction of New Vocational Educators' (Wellington: Ako Aotearoa, 2014).

²¹ Bay of Plenty Polytechnic, Waiariki Institute of Technology, Waikato Institute of Technology, and NorthTec, Manukau Institute of Technology, 'Signposts – A Professional Development Resource for New Tertiary Teachers' (Wellington: Ako Aotearoa, 2010).

²² See also various resources, research papers, case studies and awards for good practice promulgated by Ako Aotearoa: The Centre for Tertiary Teaching Excellence. <https://ako.ac.nz/>

²³ ConCOVE is funding the development of tools to support workplace trainers to improve practice. ConCOVE Tūhura, 'Supporting Technical Experts to Become Work-Based Trainers', ConCOVE Projects, 2024, <https://concove.ac.nz/concove-projects/supporting-technical-experts-to-become-work-based-trainers/>.

²⁴ Vaughan, Gardiner, and Eyre, 'The Transformation of Industry-Led Assessment of On-Job Learning in the Building and Construction Industries'.

²⁵ Karen Vaughan, Andrew Kear, and Heath MacKenzie, 'Mate, You Should Know This! Re-Negotiating Practice after a Critical Incident in the Assessment of on-Job Learning', Vocations and Learning 7, no. 3 (2014): 331–44.

Programme delivery context

Skill standards-based qualifications should also prompt providers to consider or reconsider some issues for delivery. For example, some providers structured programmes and learning support materials as modules that matched each unit standard. This was never a sound educational approach and can no longer be a default.

There are also context issues to consider. For example, campus-based providers and workplace-based providers have contrasting advantages and disadvantages.

Campus-based providers have an authenticity challenge. Classrooms, yards or campus workshops are not real-life situations and do not necessarily reflect enough of it for the development of many skills. These settings do have some advantages over 'real life' though²⁶:

- attention to physical and psychological safety;
- opportunities to learn without production pressures;
- opportunities for deliberate practice with reflection and learning from mistakes; and
- education expertise on hand.

Delivery can also address itself to a range of possible workplace contexts (not being limited to one workplace) and can be intentional about 'transfer of learning' from one (simulated) context or set of priorities to another.²⁷ However, skill standards will increasingly come with the requirement that assessment take place in an authentic setting. So, campus-based providers will need to consider what arrangements they can make here.

Work-integrated learning's (WIL) mix of academic activity and workplace practice offers possibilities through partnerships between learner, education provider and workplace or community. So do forms of practice-based learning such as limited duration work placements, internships, capstone projects, or community engagement projects, based on the idea that some kinds of knowledge and skill cannot be fully developed in institutional settings.²⁸ Fields such as nursing, teaching, law, and midwifery have long had preceptorships and practica. Other fields such as engineering, computer science, media studies, sports science, and business are following suit.²⁹

These models do require more or different risk management. For example, there may be liability under the Health and Safety at Work Act (2015), obliging providers and host organisations to exercise complementary duties towards the learners involved. This will include attention to bullying, harassment and inappropriate sexual behaviour which has been linked to work placements,³⁰ as well as trades apprenticeships and many other employment situations. Similarly, providers may need to consider risks with learner conduct and intellectual property.

Workplace-based providers have the opposite challenge to that of campus-based providers. As a real-life setting, they offer all the authenticity in the world for developing skills. But, because of this, learners may receive fewer 'affordances' to learn and practise (i.e. learning opportunities that have genuine possibilities for action). New Zealand research³¹ highlights the typical reasons that learning may be limited:

- poor workplace culture with little allowance for questions, mistakes and exploration;
- using learners as cheap labour units;
- business models that prevent learner progression;
- prioritising work output at the expense of learning;
- having no designated people in teaching and mentoring roles;
- not managing safety risks (physical, psychological, reputational);
- having no mechanism by which learning is recognised and rewarded; and
- leaving teaching and learning up to chance.

Despite those challenges, there are many ways that workplaces can maximise learning. These include collaboration with an institutional provider for some of the apprenticeship learning programme. In particular employers should develop positive learning environments for underserved learners such as Māori who have higher non-completion rates related to a lack of culturally appropriate support and resources.³² Workplaces can also strengthen the learning environment by reframing everyday work events and interactions as learning opportunities and adding intentionality and structure to them³³ by doing some or all of the following:

- ensuring learners have access to skilled trainers/teachers and mentors;
- aligning policy and practice for learning and professional development (including no tolerance for harassment and bullying); and
- establishing and maintaining a wider culture of support for learning throughout the business (including for experienced and expert workers).

Regardless of context, there are plenty of steps that can be taken to strengthen the learning environment and support structures.

²⁶ Karen Vaughan, 'The Integration of Work and Learning in New Zealand', Working paper (Wellington: New Zealand Council for Educational Research, June 2012).

²⁷ Karen Vaughan and Jo MacDonald, 'Training for a Reflective Workforce: Transfer of Learning for Support Worker Apprentices' (Wellington: Careerforce Industry Training Organisation, 2017).

²⁸ Karen Vaughan, 'Even Better than the Real Thing: Practice-Based Learning and Vocational Thresholds at Work', in *Integration of Vocational Education and Training Experiences: Purposes, Practices and Principles*, Editors: Sarojni Choy, Ingrid Berglund, Viveca Lindberg and Gun-Britt Wärvik (The Netherlands: Springer, 2017).

²⁹ Many ITPs now offer WIL, as does every university in New Zealand. WIL is compulsory in all University of Waikato programmes.

³⁰ Jenny Fleming and Kathryn Hay, 'Understanding the Risks in Work-Integrated Learning', *International Journal of Work-Integrated Learning*, 2021, 167–81.

³¹ Karen Vaughan, Paul O'Neil, and Marie Cameron, 'Successful Workplace Learning; How Learning Happens at Work' (Wellington: Industry Training Federation, April 2011).

²⁶ Karen Vaughan, 'The Integration of Work and Learning in New Zealand', Working paper (Wellington: New Zealand Council for Educational Research, June 2012).

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