

CONCO>E TŪHURA

Standards and Qualifications Development

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
- Core Construction
- Temporary Traffic Management
- 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 the development and writing of skill standards. It encourages consistency in skill standard development and identifies the concepts that underpin the approaches suggested. It also builds upon the advice, instructions and illustrations provided by the New Zealand Qualifications Authority (NZQA), and eases the process of submission, approval and listing of new standards.

The main audience for this guide is those who work in standard-setting bodies (SSBs) developing qualifications and assessment standards. It would be ideal for managers and leaders to ‘workshop’ the guide with their teams.

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

- provide guidance as industry or stakeholder subject matter experts to qualifications or learning programme developers;
- implement qualifications by developing and delivering learning programmes;
- assess learning outcomes in workplace-based or provider-based settings;
- assure the consistency of assessment outcomes (e.g. moderation or quality assurance); and
- have an interest in the vocational education system.

How to use this guide

The development of standards and qualifications is a partnership. Standard-setting bodies (SSBs) must provide guidance to their industries and also consider national and regional interests under Part 4 of the Education and Training Act 2020.

NZQA provides reassurance to the general public by ensuring accuracy and consistency across standards and qualifications. Section 452 of the Education and Training Act empowers NZQA to develop rules for the listing of standards on the Directory of Assessment and Skill Standards (DASS) and qualifications on the New Zealand Qualifications and Credentials Framework (NZQCF).

The legislative powers of the different parties are not in conflict and do not cancel each other out. They are intended to work hand-in-hand, each taking into account the needs of the other.

We recommend that the following NZQA documents (or updated versions of them) are referred to alongside this guidance.

1. NZQA’s Guidelines for listing skill standards on the Directory of Assessment and Skill Standards.¹ We refer to this document as the NZQA Guidelines.
2. NZQA’s Aromatawai and the principles of assessment² which explores culturally sensitive assessment practice.

¹ New Zealand Qualifications Authority, ‘Guidelines for Listing Assessment Standards on the Directory of Assessment and Skill Standards’ (Wellington: New Zealand Qualifications Authority, June 2024). <https://www2.nzqa.govt.nz/assets/Tertiary/Approval-accreditation-and-registration/Standards/Skills-standards/Guidelines-for-listing-skill-standards-on-the-DASS.pdf>

² New Zealand Qualifications Authority, ‘Aromatawai and the Principles of Assessment Supporting Aromatawai and the Development of Quality Assessment Practices’ (Wellington: New Zealand Qualifications Authority, August 2022), <https://www2.nzqa.govt.nz/assets/About-us/News/aromatawai-and-the-principles-of-assessment.pdf>.

INITIATION OF QUALIFICATIONS DEVELOPMENT

Workforce Development Councils (WDCs) are the SSBs for industry standards, micro-credentials and qualifications. The development of entirely new qualifications generally arises from the emergence of new technologies or employment groupings (or roles). It may also be linked to new regulatory conditions, such as a legislative requirement that practitioners in a particular area be qualified and licensed. The review of existing qualifications is prompted, in general, by the work programme of the standard-setting body (SSB) and/or any concerns about the continued relevance of that qualification. These concerns may be raised by industry or other stakeholders, or by SSB qualifications developers or moderators.

The processes that SSBs use to develop and review assessment standards and qualifications vary. In a perfect world, a representative group of industry experts and other key stakeholders such as providers meets with SSB staff. These subject-matter experts set out the key criteria, the knowledge and skills required of a new graduate in the occupation concerned. The SSB qualifications developers are then able to develop assessment standards using NZQA guidelines, which they can then take back to their subject-matter experts for confirmation or amendment. This process may be supplemented by a wider consultation with stakeholders. The resulting standards and qualifications are then submitted to NZQA for approval and listing.

At the time of writing in 2024, Workforce Development Councils (WDC) are the standard-setting bodies for most industries. Under their Orders in Council,³ WDCs as SSBs must engage with many different stakeholders who can represent or speak for the workforce needs of the sector concerned. Though industry is a very important stakeholder, it is not the only one. Relevant stakeholders typically include:

- Industry bodies such as employers, professional associations and regional business groups
- Tertiary education providers: ITPs, WBLOs, PTEs, Te Pūkenga⁴ business divisions and wānanga⁵
- Iwi and hapū that can speak to the particular needs of Māori employers and workers
- Regulatory bodies that establish and enforce standards of practice, and protect the interests of the public

SSBs need a series of Technical Advisory Groups (TAGs) to help determine the need for new or revised qualifications, and to agree standards of competence and their written expression through the development process. TAGs meet as a group on an as-and-when-required basis to agree definitions and scope of skill needs and standards. Qualifications developers can also cross-check information and advice with relationship managers who maintain a longer-term horizon in their interactions with industry. The following section discusses this process in more depth.

WORKING WITH TECHNICAL EXPERTS

Getting the right mix of technical expertise

In recruiting for technical advisory groups, SSBs must consider identifying and selecting the right people, including the right mix of people. They must also consider how confident they can be in the breadth, depth and credibility of representation.

In reality, most group members are self-selecting. Some will be ‘the usual suspects’ with long-standing sector relationships and advisory roles (e.g. with WBLOs) and/or they will be large employers. SSBs may also request input through various channels and advertise advisory roles. They should also consider whose voice is missing from a group, why that might be and how to consult them.

Identifying and recruiting stakeholders is comparatively straightforward with respect to education providers, iwi and hapū, WBLOs and regulatory bodies. Although of course their perspectives and interests vary, there are a limited number of them, their scope or mandate is reasonably clear, and the particular ‘stake’ of each one is often long-standing and known.

Identifying the right industry stakeholders is somewhat trickier. While no stakeholders anywhere ever speak with one ‘voice’, it is particularly the case with respect to ‘industry’. The New Zealand construction and infrastructure industry is composed of a few very large employers and a huge number of small-to-medium sized employers. They vary enormously not only in size but also in their business models and scopes of work. This means that their ways of conceiving work roles and implementing qualifications can be quite divergent. This has implications for how skills and competence levels are conceived.

It is also important to remember that stakeholders are not only representing particular organisations, workforce views or their ‘stakes’ in relation to qualified workers or enrolled learners. They are also representing or reflecting the sense they have made of their own experiences, which span their own engagement with learning and assessment, qualifications and the world of work. Their advice will be shaped by their own experiences of school and post-school training. It may draw on first-hand experience of teaching and assessing trainees, probably making use of unit standards. Group members will be familiar with certain learning settings but perhaps not with others. They will have perspectives on the relationship between ‘the theory’ and ‘the practical’.

³ See A Background to the Emergence of Skill Standards – another guide in the Good Practice toolkit- for more detail.

⁴ At the time of writing, Te Pūkenga (the national network of vocational education providers) is being disestablished. Its constituent providers (ITPs and WBLOs) will continue to exist.

⁵ Secondary schools are also WDC stakeholders (though they are not tertiary education providers).

Getting the best from technical advisors

In order to get the best from technical advisors, SSBs need to pay particular attention to their motivations, the challenges that they face and the context in which they are providing guidance.

Many advisors operate in multiple advisory roles within the same SSB or across different ones – e.g. advising qualifications developers and providing workforce information to relationship managers. Or they may serve on advisory groups for different entities in the system – e.g. SSBs, WBLOs and tertiary education providers. Yet they may not have a deep understanding of the distinctions between those roles.

Industry representatives may have recent experience of working with WBLOs on qualifications development and have shifted to do it with WDCs, with the possibility of this changing again in 2025.⁶ Some representatives (e.g. providers) will have a good understanding of education but others may not (e.g. industry). Some have been impacted by the wider context of a prolonged period of sector change.

The volume of documentation and the number of steps involved in qualifications development can be overwhelming for advisors. Qualifications developers need to ensure that advisors understand the big picture of qualifications development (and their role) within the system and what comes after, without exposing them to more detail than necessary. In other words: communicate enough but not too much.

SSBs should also be thoughtful about how and when groups meet. The considerable time commitment involved is particularly demanding for industry representatives from small-to-medium sized enterprises. This is not only about how much time is spent in total but how that time is segmented (e.g. into 2-3 hour meetings online or for fewer, entire days) and what happens during those periods. SSBs may wish to consider how they recognise and reward expert advice.

It is worth finding out what reasons technical advisory group members have for participating. For example, tertiary education provider members benefit from gaining information from the group that helps them ensure learning programmes are relevant to industry needs. Iwi members may be particularly concerned with strengthening mātauranga Māori and pathways for their young people. Some industry members appreciate learning about the qualifications development process and overall system so they can share this with their own stakeholders. Others value having their ideas broadened or challenged or find it helpful to develop more precision about skills and to see how this translates to qualifications.

Qualifications developers will also need to attend to matters that affect the quality of guidance. They need to lead the group and maintain its cohesion. They should foster rapport between group members, so the conversation is rich and not only occurring ‘through’ the developer. They should also create space for disagreements to be explored, moderating them and moving the group towards agreement.

Developers will also need to keep the group intact and connected between meeting times. Technical advisory groups often have ‘drop-outs’ and therefore also replacements or late-joiners. This can fragment momentum, especially if newbies seek to relitigate positions that have already been agreed.

Experts on equity and diversity may need additional support, especially if they are a lone voice within a larger group or face any resistance from other group members. Developers should try to ‘level the playing field’ as much as possible to enable different contributions. It is worth considering whether advice has to come only via a group or whether it can be obtained in other ways or at other times.

The developer’s main task with any group is to draw out the expertise needed. They should be asking questions that allow the skills to be identified and described. However, some group members will be more used to teaching trainees rather than describing skills. So, starting with a question like “what do you need?” is probably too broad to be useful. On the other hand, asking questions about what matters in relation to specific known practice or what could be improved is more likely to yield the kind of guidance needed. Taking the group through a possible learner journey may also help, as can asking how advisors how they know when a job is done well.

In some cases, it will be important to make explicit any shared or agreed knowledge base. Without this, it may be difficult to agree the skills involved. Developers should also ask about any differences in the way skills are used (or not) across different contexts or workplaces.

SSBs must also identify and manage any blind spots and rigidities. One of the great challenges for industry representatives is to see beyond the model of their own business and its immediate environment to think about industry or sector needs more widely. Employer biases may skew the planning for a qualification or assessment standard, for example, discounting older or disabled learners/workers, not seeing training as an investment or not being ambitious enough. Some employers confuse the skills needs of their industries with desirable attributes, such as reliability, in their employees.

Sometimes the standards development process is derailed by external pressures such as licensing or the desire of some employers to use progress towards qualifications in order to influence wage levels. Industry representatives also face the challenge of shifting their mindset away from competing in business against other industry advisory group members to working collaboratively with them.

Groups can get bogged down if the developer does not assert their own expertise as a developer, or if they allow their role to be undervalued. It can be difficult to focus the attention of subject-matter experts and keep them out of the detail in each standard. On the other hand, there’s been a long-standing tendency for industry representatives to dive into detail and try to ‘write the unit standards’. It is valuable to have industry take on a role “as members of the education community, rather than recipients of education’s ‘outputs’”⁷. However, they are not standards writers and should not be expected, encouraged or permitted to spend time engaged in structuring and wordsmithing standards.

It can also be difficult to future-proof the work while also providing for outcomes that suit the current reality. There is also the ever-present danger of being overly prescriptive in a way that damages the system overall. If the only teaching and learning is about conforming to existing practice, and narrowly assessed, vocational education can become superficial and or, worse, quickly outdated and useless.⁸ Qualifications developers should be prepared to occasionally not take the advice offered and be able to justify that.

⁶ At the time of writing, the Government had initiated consultation on proposed changes to the vocational education system. One proposal is that WDCs no longer exist from 2025 with standard-setting being done by Industry Training Boards.

⁷ Karen Vaughan, ‘The Role of Apprenticeship in the Cultivation of Soft Skills and Dispositions’, *Journal of Vocational Education & Training* 69, no. 4 (2 October 2017): 540–57.

⁸ 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).

BROAD PRINCIPLES OF STANDARDS-BASED ASSESSMENT (SBA) IN CONTEXT

Qualifications developers should have a good grasp of standards-based assessment and, in particular, the following six principles. These are discussed in detail in A Background to the Emergence of Skill Standards guide in this Good Practice toolkit. They are revised in brief below.

1. As the NZQA Guidelines state, an assessment standard identifies “what the person will be able to do once awarded the standard.” A standard is not a curriculum nor a programme. Well-constructed skill standards provide clear guidance for the development of programmes and set out expectations about what constitutes appropriate assessment design and delivery.
2. Purposeful assessment is best placed near to the learning context or environment. Online or paper-based tests may be valuable for evaluating progress against standards that are about knowledge and understanding. They are not effective in assessing practical skills. Assessment Specifications can be used to encourage providers to ensure that their assessment practices are principled and valid (that is, assessing the skill they set out to assess).
3. Success should not be rationed in a standards-based assessment environment. Within practical limits, learners should be permitted more than one opportunity to show what they have learned or can do. If they achieve the requirements of the standard, they should be awarded the standard. This principle is one of the foundations of the concept of transferability. Assessment Specifications can encourage providers to think of assessment as a process, rather than as an event, which can support this principle. SSBs are using the Assessment Specifications to indicate a range of suitable activities such as “...oral, visual, video, written and/or practical activities demonstrated in the workplace” to encourage a potential range of approaches.
4. In a similar way, learners who have attained a particular standard should not be required to prove, at a later date, that they are competent in some parallel, or similar activity.
5. An assessment standard (unit-, achievement- or skill-) is the written expression of a required competency. That’s all it is. It cannot be ‘delivered’ (delivery is what a programme or course does).
6. As general principles, developers of assessment standards should observe the following (see NZQA Guidelines, p5):
 - a. When revising existing standards, the opportunity should be taken to combine existing standards, where practicable. Combining – or merging – ‘theory’ and ‘practical’ standards is especially valuable. This facilitates ensuring that the “practical or applied aspect” (NZQA Guidelines, p12) of the standards is explicit.
 - b. Credits relate to the significance or value of the skill or knowledge. They should reflect this without being permitted to be a key determinant in the process.
 - c. Prescriptive detail should be minimised throughout. Areas requiring particular discipline during development of skill standards are the Assessment Criteria and Indicative Content.
 - d. Transferability (or, ‘portability’) should always be considered, though never at the expense of sound and clear identification of the skill and knowledge requirements of the industry concerned.

⁹Once judged competent, the learner should not be required to prove it again in a different context. Their competence should be ‘portable’.

KEY IDEAS IN SKILL STANDARDS

The audience is not learners

Unit standards were often written as if to be read by learners, as well as those delivering education. The principal audience for skill standards is those who develop and deliver learning and assessment programmes, and not learners. Standards should be oriented towards outcomes for learners, but their key users are the education community. Standards should be written with this in mind.

Thoughtfulness, precision and consistency

Language should be concise, clear and consistent. Developers should ensure that every word counts. Unnecessary repetition should be avoided (for example there is no need to continually include ‘...in the XXX sector’. Once established, it’s obvious).

On the other hand, it makes sense to stick to formulae once correct terminology has been established. If ‘acceptable procedures’ are what the assessor should be looking for, it is appropriate to use that phrase in each of the Assessment Criteria. However, the meaning of words like ‘acceptable’ may have to be clarified. The Assessment Specifications can be used for this.

Pompous language should be avoided. ‘Prior to the commencement of’ can simply be stated as ‘before’. ‘In conjunction with’ or ‘in unison with’ should be stated as ‘with’. Tautology (saying the same thing twice in different ways) should be avoided. The phrase “includes but is not limited to...” was common in unit standards but it is tautological. Instead, we recommend using the word ‘includes’ to convey the point that the list following it offers several examples and is deliberately incomplete.

Language should be neutral and non-idiomatic. This allows the widest range of people to grasp the meaning and allows the phrase to stand the test of time. A phrase such as, “...navigate the employment landscape...” may seem clear to a writer in 2023. However, it is not a universally understood phrase. It also mixes metaphors and is potentially about to be overtaken by some other, idiomatic meanings of the words ‘navigate’ and ‘landscape’.¹⁰ Caution must be exercised when using terms that industry representatives use. Part of the SSB’s job is to interpret the jargon. Some of these are obvious enough: when bricklayers say “mud”, the SSB records “mortar”. When industry refers to a “minor” fault or an “acceptable process”, the SSB must ensure that the standard clarifies what “minor” means. Minor compared to what? Acceptable to whom?

Principles over prescriptions

Many existing unit standards contain extensive range statements. A long list of tools is overly prescriptive, likely to be out-of-date immediately, and unnecessary. Instead of the list, SSBs should focus on the principles involved and identify any differentiating features. We suggest the following examples as a good way to replace lists of specified items:

- “...used by electricians on a daily basis.”
- “...a range of tools to measure, cut and hold.”
- “...materials chemistry includes composition, form, treatments, malleability, flammability and volatility...”
- “The level of skill and knowledge required is that of a trade professional rather than an expert with specialist technical duties.”

¹⁰ See, for the example, the changing use and meaning of the word ‘literal’ in English language. Martha Gill, ‘Have We Literally Broken the English Language?’, The Guardian, 13 August 2013, <https://www.theguardian.com/commentisfree/2013/aug/13/literally-broken-english-language-definition>.

Combine knowledge and skill wherever possible

Where possible, skills and the applicable knowledge should be combined into single standards. This encourages programme design which maximises the direct application of the knowledge to the skill. The following sorts of questions can assist in determining the appropriate approach:

1. Is knowledge fundamentally irrelevant? (If someone can use the sewing machine, it does not matter if they don't know how it works). Then the standard focuses on the skill alone.
2. Can knowledge be inferred from the demonstration of skill ("can do, must know")? In this case, only the level or depth of knowledge need be specified within the standard.
3. Is knowledge all that's needed? In this case a 'theory' standard is acceptable. As an example, a carpenter is highly unlikely to ever build a truss but does need to be able to identify and know the purposes of about 15 different types of truss to understand their functions and to install them correctly.

Future-proofing as much as possible

Avoid using overly specific language or references that tie the standard to current contexts such as particular technologies (tools, machines) or techniques. New technologies, concepts and terminology are always just around the corner.

Revising standards is a relatively slow process, so it should not be relied on for fixing errors or updating references as things inevitably change. SSBs can develop and use programme guidance documents for additional clarification. These can be amended or supplemented rapidly.

THE GOOD PRACTICE OPPORTUNITY IN SKILL STANDARD COMPONENTS

In this section we set out the different parts of a skill standard in the order that they appear in the NZQA skill standard template. We explain what each component means, and how best to make use of each when writing the standard. The name of each component is capitalised (e.g. Indicative Content).

Title

The NZQA Guidelines require a title that "reflects the outcomes of the standard." The word 'outcomes' should be applied at its most general level with the specifics left to the Learning Outcomes.

Titles should be as brief as possible. "Maintain gas appliances" is sufficient. "Maintain, identify and rectify faults in gas appliances and associated equipment" is unnecessarily long and complex. The additional words are not excluded by the briefer title ("Maintain gas appliances") so the other words should not appear in the title if they can be deduced from it. However, the other words should appear, and should be enlarged upon, in the Learning Outcomes and Assessment Criteria parts of the standard.¹¹

Purpose Statement

Skill standards are not for people who "...want an introduction to..." That description applies to a programme or course of study. The standard (other than the detail of the Indicative Content) describes what a learner should have achieved in order to attain the standard. Therefore, the standard describes a state that exists after the programme, or after some other means of gaining the knowledge or skill.

The Purpose Statement should be confined to a description of the skills and knowledge recognised by the standard. Describing a person's context ("...for people working in the XXX industry") should be avoided where practicable because it gives the appearance of excluding learners from other contexts or excluding those with pre-existing skill who are not currently working in the particular industry. Suitable approaches are, "People credited with this standard are able to..." or "This standard recognises the skills of..."

If a qualification pathway is identified, this should be conditional: "This standard may contribute to the New Zealand Certificate in XXX..." or "This standard has been developed primarily for use within programmes leading to...". This type of wording avoids constraining unanticipated future use in other qualifications or stand-alone use for RCC or micro-credential purposes, as examples. In an environment where the concept of transferable outcomes is promoted, a hard link between any standard and a qualification is undesirable.

Learning Outcomes

Clarity of expression is crucial in the Learning Outcomes. This is especially so when an effort is being made to combine several unit standards into one (thus avoiding 'atomisation' and 'proliferation') and when knowledge and skill are being combined. "Plan and organise own work for resilient flooring installation" is an example of a Learning Outcome which both combines two concepts and uses words economically.

When incorporating aspects of knowledge into the Learning Outcomes, SSBs should not automatically default to "demonstrate knowledge of". What needs to be clear is what sort of knowledge, and why. There are several steps to take:

⁹Once judged competent, the learner should not be required to prove it again in a different context. Their competence should be 'portable'.

¹¹ Where there is only one Learning Outcome, NZQA's Guidelines require that the title be the same as that Learning Outcome.

- Identifying whether knowing this is actually required. (Train drivers need to know what the controls are and what they do. Is it certain that they need to know how they work?).
- Identifying whether knowing can be inferred from doing (and therefore whether this needs to be conveyed via the Assessment Criteria and/or Assessment Specifications).
- From this, identifying whether there need to be 'theory' and 'practical' Learning Outcomes or whether they can be combined.
- Using the Assessment Criteria to describe whether it's knowing about, knowing how or knowing why.

The Learning Outcomes are the heart of the standard. If it's not a critical skill, it shouldn't be there. If it's critical, there should be clear links back from the Learning Outcome to the Title, and forward from the Learning Outcome to the Assessment Criteria.

Subject matter experts regularly describe tasks rather than skills and this can lead to over-prescription. The leadership role of an SSB extends to distinguishing between tasks done (or desirable qualities in an employee, such as reliability) and the requisite skills and knowledge that need to be identified by a standard. In this way the qualifications developer acts as 'filter, not funnel' when consulting with industry expertise.

Assessment Criteria

Assessment Criteria provide guidance for assessors about what they should be looking for to provide evidence of competence against the Learning Outcome. The Performance Criteria of unit standards set out what the learner should do. Assessment Criteria specify what the assessor should look for. Assessment Criteria describe as clearly as possible 'what good looks like'.

Where an Assessment Criterion accompanies a Learning Outcome that relates to knowledge, it should build on the verb used in the Learning Outcome to clarify the nature of the knowledge required.

Table 1 Examples of knowledge-based Learning Outcomes with Assessment Criteria

Learning Outcome	Assessment Criterion	Explanation
Identify the uses and application of the resistance spot welding process used in vehicle repairs.	The principles, purposes, and advantages of resistance spot welding are described.	Note that 'what' is conveyed by 'purposes' and 'how' by 'principles'
Identify regulatory requirements in relation to crane operations within a workplace.	Role-specific safety requirements are described.	Assessor needs to take into account the (Level 3) context, the depth of knowledge required and the adequacy or fullness of the identification.

Where the Assessment Criterion accompanies a Learning Outcome that relates to practical skill, or the practical expression of a piece of knowledge, a brief sentence is the most efficient way of expressing what the assessor must observe through the assessment process.

Table 2 Examples of skill-based Learning Outcomes with Assessment Criteria

Learning Outcome	Assessment Criterion	Explanation
Test control and safety devices in gas appliances.	Acceptable procedures are used to evaluate correct operation and determine serviceability.	Assessment Specification may need to clarify acceptability.
Manufacture flooring cassettes to specification.	Work complies with applicable quality control measures.	Assessment Specification may need to clarify applicability.
Use measuring instruments in an industrial control system.	Acceptance testing results are documented to industry specifications.	Assessment Specification may need to clarify "industry specifications".
Demonstrate applied knowledge of the international system of units.	Relevant units of measurement are used.	The word "relevant" enlarges on "applied knowledge".

As a general (though not exclusive) rule, a sound Assessment Criterion is one where the assessor can insert the words, "I can confirm that..." before the words of the Assessment Criterion. "I can confirm that relevant units of measurement are used by the learner."

The second person should not be used in the Assessment Criteria. Remember:

- Learners are not the key audience for standards.
- Assessment Criteria are not Performance Criteria.
- Assessment Criteria provide key guidance to assessors (not to programme design or delivery).

Assessment Specifications

Assessment Specifications are not lists of tasks, nor vague suggestions, and they may express firm expectations. Assessment Specifications express how the assessment process should tell what acceptable performance is, in order to confirm attainment of the standard's requirements. They give a context to the Assessment Criteria by giving an indication of how the assessor can validly confirm that the standard has been attained.

Assessment Specifications should be unambiguous statements of the quality of evidence that assessment should be drawing out. They may be expressed through a hierarchy of expectations of the standard. It should be clear whether they are making suggestions, setting strict expectations or somewhere between. Here are some examples:

- Assessment should take place in a workshop setting.
- Performance must reflect current industry best practice.
- Learners may be assessed in a real-life situation using naturally occurring evidence or in a realistic simulation such as a role play.
- It is expected that a portfolio forms the basis of the assessment process.

Assessment Specifications are an opportunity to encourage good assessment practice. They should value assessment as a process rather than as an event. They should not over-prescribe, but they must discourage inadequate or unprofessional process.

Many unit standards include sufficiency statements such as “Candidates must identify a minimum of eight...” These are symptoms of a low-trust model that assumes that tertiary education providers don’t know what they are doing. They are (for the most part) ‘finger in the air’ exercises by well-meaning people who are not expert assessors (i.e. why eight times? Why not seven or 44?).

Sufficiency statements are only proxies for competence and constrain meaningful assessment. They should be avoided unless there’s a clear link to the skill involved in the standard. As an example of that, if an intermediate typist must type 65 words per minute at 100% accuracy, then sufficiency statements are appropriate. In other cases the ‘fluke quotient’ or some participants’ wishes for over-prescription should be managed by using expressions like:

- It is expected that the assessment process affirms candidates’ ability to repeat performance against the standard.
- Assessment must confirm that the skill associated with a particular piece of plant could be applied to another piece of plant which is less familiar.

Where an Assessment Specification provides that ‘industry standards’ or ‘commercial competence’ or similar should be considered, these concepts should be explained in context. It is acceptable to do so in the ‘definitions’ part of the Assessment Specifications, though the programme guidance document may be a better place for this to avoid repetition and to allow for regular review and update.

‘To manufacturers’ specifications’ is normally a meaningful benchmark for Assessment Specifications. Terms like ‘company requirements’ and ‘standard operating procedures’ should be used with great caution. They may be applicable in the particular context of a standard (such as customer service aspects) but remember that companies regularly get things wrong. We would not need Worksafe if they didn’t. Any legislative or regulatory rule, or any manufacturer’s requirement, trumps workplace procedures or SOPs. In a similar regard, the phrase ‘in the workplace’ should be used with caution in an Assessment Specification. Some workplaces may not be appropriate settings for meaningful assessment. Moreover, interpretations of the word ‘workplace’ are affected by the breadth of meaning it might have under legislation. For example, under the Health and Safety at Work Act 2015, the company’s truck can be considered a workplace, during travel to a job. If this workplace is not what is intended as an assessment context, standards should be more precise about context. Note that ‘in a workshop’ or ‘in a manufacturing environment’ do not necessarily have the same meaning as ‘in the workplace’. Be sure not to inadvertently exclude an environment such as a polytechnic workshop.

Credit value

The credit value is the currency of the qualifications framework to enable meaningful comparisons between the ‘sizes’ of different qualifications. The simple time-based proxy for this, one credit representing 10 notional hours of teaching, learning and assessment, has never been more than a ‘rule of thumb’.

In the skill standard context where excessive specification should be avoided, another useful measure may be the volume of the material involved in a standard: the number of Learning Outcomes and Assessment Criteria vs the number of credits may provide another rule of thumb. In many cases the balance can be altered significantly by examining whether the Assessment Criteria are genuinely concise guides to the assessor, or merely a loose list of the tasks that comprise that aspect of the job.

Whatever approach (or combination of approaches) is taken, they are blunt instruments, but asking whether the volume matches the credit value does assist SSBs in refining both Learning Outcomes and Assessment Criteria.

Indicative Content

Indicative Content is guidance at a high level for the purposes of providers (for both programme development and delivery). It is not a list of jobs or tasks. It is not an opportunity for a ‘grab-bag’ set of low-trust instructions in the manner of a range statement. It is certainly not a curriculum nor an indicative curriculum. It is a starting point for professional educators to work from. Their professionalism and knowledge should be assumed.

Grouping the items by type (e.g. topic, focus, category) or by some priority level helps the programme developer interpret them. Under these headings, bullet-pointed words and phrases are sufficient. A second tier of bullets is definitely too much prescription.

Precision in wording is crucial. Compare these examples for the way in which the wording conveys what is most important:

- “Understanding the use of multi-meters for testing” is only about knowledge.
- “The use of multi-meters for testing” principally implies the knowledge but could include the practical application.
- “Using multi-meters for testing” links the activity explicitly to the skill and leaves the knowledge aspect to inference.

As a general rule it should be possible to link the items in the Indicative Content back to the Learning Outcomes. This should not be slavish, but it ought to be principled and explicable. Information presented should be relevant to the Learning Outcomes and ‘fall out’ of them. If there were a one-for-one relationship, there’d be no point in the Indicative Content. In a similar way, it’s entirely appropriate for Indicative Content to be used to ‘fill in’ detail for the Assessment Criteria.

Moreover, programmes of learning and assessment generally relate to complete qualifications rather than to individual standards. A well-designed programme covering all of the requirements of a qualification may possibly present a series of modules based on the individual standards involved, but there is no actual need for that approach. Indeed, providers should be looking for the most appropriate ways to present all of the material related to the entire qualification, not standard-by-standard.

Similarly, providers who develop and deliver programmes of learning that result in the award of standards may well decide that their particular course does not need to be confined to the precise words of the standards.

Therefore, it may be useful for SSBs to use the Indicative Content to draw attention to related outcomes from different standards within the same qualification. The potential for this technique to limit transferability should be noted, however.

A slightly different example could be provided by a trade such as Carpentry. The Level 4 qualification has no literacy requirement of any kind. However, it does require that learners use adhesives and power tools safely. While there may be many ways of ensuring that they do so, it might be quite appropriate for a provider to include in the programme a module on reading and interpreting information such as instructions and safety data sheets.

Resources

Resources listed should be relevant and current, and care should be taken over where and how references are made. Note NZQA's advice (p15/16 of the Guidelines) encourages future-proofing by publishing resource information somewhere other than in the standard "so it can be kept up-to-date, without the need for a new standard version."

Legislation and associated material are particularly difficult in regard to being up-to-date. One way that SSBs have handled this in the past is to use words such as "Tax Administration Act 1994 or its replacement". This is generally a sound approach but note that legislation is quite frequently not replaced like-for-like in which case these words are not necessarily apt.

Using programme guidance documents to list the legislation, where it can be amended readily in the future, makes most sense. In that case, the resources list can use words like:

"Legislative and regulatory documentation applicable to the industry and the employment context (such as occupational safety and health). For up-to-date information please see programme guidance (www._____)."

For clarity the list of those resources that are referred to should be in two parts:

- a. for learners: only resources that are actually required to attain the level of skill and knowledge identified. Over-specification risks material that is genuinely needed being overlooked.
- b. for the programme: resources required by the provider and/or that may need to be referenced in some way during the course. A good example is the Health and Safety at Work Act 2015 which workers operating at Level 4 (other than prospective health and safety professionals) are highly unlikely to need to refer to but mostly need to be aware of.

The programme guidance document is also an appropriate place to list resource items that have peripheral relevance, and where their usefulness and value can be enlarged upon.

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