

STANDARDS REVIEW

A. Introduction

1. As part of an ongoing joint programme that delivers on NCEA enhancements, both NZQA and the Ministry of Education (MoE) plan to align their review processes for achievement standards and unit standards. This is an opportunity to address issues of duplication, credit parity, consistency, fairness, and coherence for all achievement and unit standards on the National Qualifications Framework (NQF).
2. The majority of unit standards are developed for use in tertiary institutions and industry-based learning, though many are used in schools. However, achievement standards are developed on the basis of the New Zealand curriculum and used mainly (but not exclusively) in schools. Any standards review, therefore, must address the wider issue of providing a set of principles that can be used across all standards of the NQF. Conducting a standards review in the wider context of the entire NQF will allow greater opportunity to develop genuine and powerful pathways for all learners, whether they attend school, a tertiary institution, training institution, or work.
3. The current standards review has been initiated for the following reasons:
 - to improve programme and pathway coherence for learners;
 - to improve the design of all standards;
 - to better align standards with the mandated New Zealand Curriculum;
 - to enhance support for assessors' professional practice;
 - to improve the credibility of the NQF.
4. The purpose of this paper is to provide a set of guidelines which standard reviewers must use as they conduct their reviews. These guidelines complement existing registration guidelines (see Appendix 3) and do not replace them, and could be applied to all standards on the NQF.
5. It is expected that all standard setters will select their own personnel for reviews.

B. The Four Stages of the Review Process

1. The standards review process comprises four stages, depicted in Figure 1. The overall goal of the process is to address issues of duplication, credit parity, consistency, fairness, and coherence for all achievement and unit standards on the NQF. This will be achieved through the application of a set of principles for the standards review that have been developed during Stage 1 of the review process and are explained in this document. The set of principles addresses the broad issue of what constitutes a *fit-for-purpose* standard. These principles will underpin future standards development and review across the entire NQF.

2. Stage 2 of the review process will fulfil the Cabinet NCEA improvements directive to align the achievement and curriculum-related unit standards with the mandated New Zealand (secondary school) Curriculum.
3. Stage 3, comprising a review of unit standards *not* derived from the New Zealand Curriculum, could take place concurrently with Stage 2. The unified nature of the NQF means that achievement and curriculum-related unit standards cannot meaningfully be reviewed without consideration of the implications for the remaining standards on the NQF. Industry Training Organisations will be encouraged to use their review cycles to apply the principles developed during Stage 1 to this work.
4. Stage 4 flows on from Stage 2, with the alignment of curriculum standards to the revised New Zealand curriculum leading to the development of new and emerging standards where appropriate.

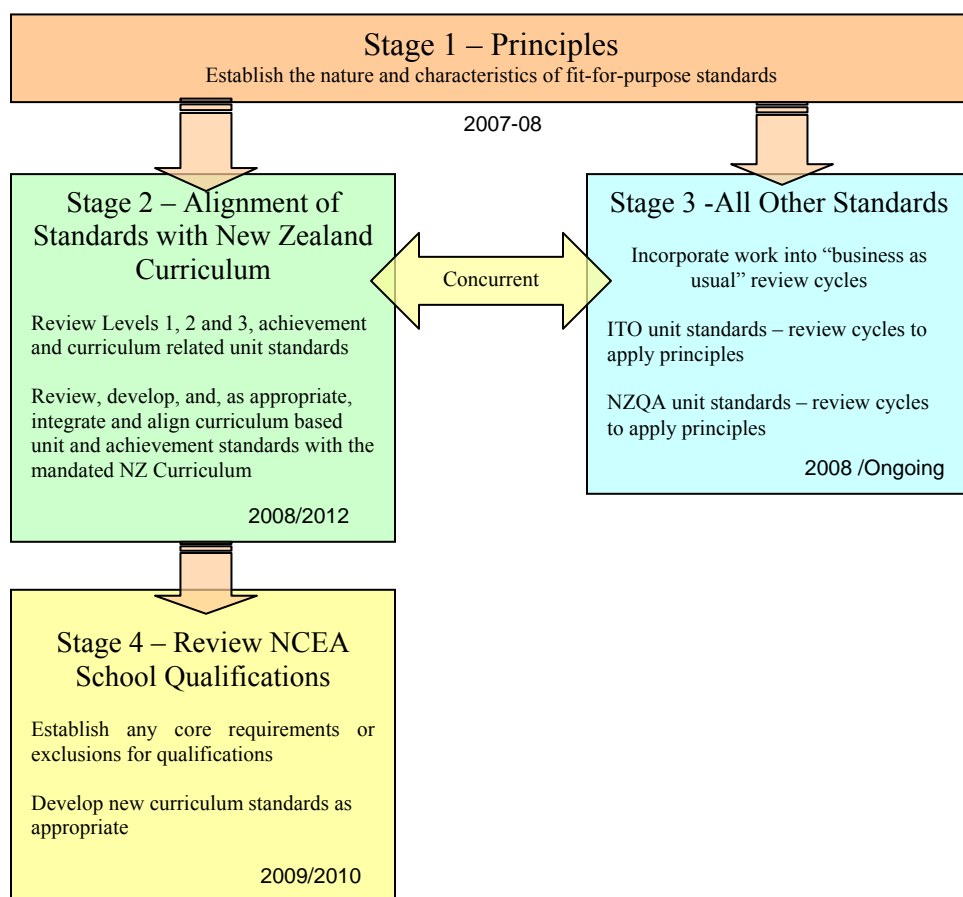


Figure 1. Graphical depictions of the four-stage standards review process with time frames for the completion of each stage.

C. Principles for the Standards Review

NZQA currently has a set of registration criteria for standards. The general requirements of these criteria are described in Appendix 3. All reviewers should make themselves familiar with these requirements. The following principles develop and extend these requirements and must be used in all reviews. Reviewed standards will be monitored in terms of their adherence to both the registration criteria and the following principles by the Standards Review Expert Group. (see Appendix 1 for the Terms of Reference).

Principle 1: The standard must be derived from a curriculum or established body of knowledge

1. For secondary schools, the New Zealand Curriculum is the primary source document and, where possible, standards designed for use in secondary schools should derive from it. When there is no formal *curriculum* document - for example, in the case of industry and other non-school sectors, and also for some secondary school subjects - other documents describing a range of concepts, skills, and knowledge can serve the same or similar functions. It is these base documents or established bodies of knowledge and understandings that should provide the rationale for all standards.
2. It is expected that standards will often reflect subject-specific concepts, skills and knowledge. In many foundation or curriculum documents, however, broader cognitive, conceptual or social skills are also identified (e.g., the *Key Competencies* for secondary schools). These transcend subject-specific knowledge, and can provide a means to recognise higher grades of achievement by defining qualitative differences in achievement distinguishing grade levels (see Principle 4). They also provide a framework for the acquisition and retention of subject specific knowledge.

Checklist

- a. Does the standard derive from a curriculum or established body of knowledge?
- b. Does the standard appropriately identify relevant competencies as well as subject-specific knowledge?
- c. Does the standard have a coherent relationship to related standards?
- d. Is it appropriate to explicitly document relevant competencies in the standard?
- e. Will users of a standard (candidates, employers, TEOs, schools and parents) regard it as clear and functional in terms of the information it provides about a candidate, both in regard to subject-specific knowledge and to broader competencies?

Principle 2: A standard must have a clear purpose

1. There should be a demonstrable need for a standard. It should not unnecessarily duplicate an existing registered standard (see also Principle 6). It should have clear and achievable learning outcomes, worthy of certification. Learning outcomes are statements that specify what candidates who have achieved the standard will know or be able to do. Outcomes should usually be expressed as concepts, knowledge, skills, or competencies.
2. Consideration should be given to the balance between the flexibility of a standard and its coherence with other related standards. A flexible standard is one that is not overly context-bound but is useable across a variety of foreseeable contexts. Coherence means that a standard should be well-integrated with other standards that are likely to form components of assessment for the same course of study or qualification as the standard in question.
3. A valid standard should:
 - complement other standards, to promote high quality learning in any subject, discipline, or programme of study within which the standard is likely to be situated;
 - promote the development of broader competencies that are related to life-long learning;
 - foster community confidence in any qualifications of which the standard is a component.

Checklist

- a. Are the learning outcomes clear?
- b. Is the standard flexible enough in its outcomes to be used across the range of foreseeable contexts?
- c. Have other related standards been identified and analysed to ensure consistency and coherence, such that standards that are commonly used together to assess a course of study encourage integration of knowledge, skills and understanding?
- d. Will the standard foster community confidence in any resulting NQF qualifications?

Principle 3: A Standard must allow valid and reliable assessment

1. While a standard does not, in general, prescribe or proscribe particular assessment approaches, standard writers must ensure that the criteria for a standard are such that it is possible and manageable to design valid and reliable assessments to measure candidates' achievements against that standard. Any standard for which this is not the case is not fit for purpose. It is for this reason that Principle 3 pays particular attention to considerations that *primarily* relate to assessment, but which must nonetheless be taken into consideration by standards writers.

Validity

2. The prime consideration in the review of a standard should be the validity of the assessment that can be developed to measure achievement in relation to the standard. A *valid* assessment activity is one with results that are fit for purpose. That is, it assesses fairly what it is intended to assess and does not require candidates to meet criteria that are beyond the scope of the standard.
 - A first consideration is the extent to which the assessment of a candidate's performance adequately samples the range of achievement objectives in the standard.
 - A second consideration is the extent to which the assessment supports the development of broader competencies that are related to life-long learning.
 - A third consideration is the extent to which the standard supports good teaching and learning in courses of study using that standard.
 - A fourth consideration is the extent to which the quality of the assessment will foster community or sector confidence in any resulting qualifications.
3. Standards writers must ensure that the criteria of a standard are such that assessment activities can be developed which:
 - provide candidates with opportunities to demonstrate achievement across the full range of grades available in the standard.
 - allow an assessor to balance a holistic judgment of a candidate's overall performance in relation to the standard, with more specific judgments of the candidate's performance in relation to particular assessment criteria, giving appropriate weight to each.
 - guide and motivate candidates' learning in a way that is consistent both with mastery of the concepts, skills and knowledge specified in the standard and, where possible, with broader competencies that are related to life-long learning.
 - do not require time, resources or effort on the part of candidates or assessors that is out of proportion to the relative importance of the standard's content, level of difficulty or credit value (see Principle 5 for more on credit values).

Reliability

4. A *reliable* assessment activity will produce results that accurately and consistently reflect a candidate's achievement in relation to the standard. Reliability can be affected by a number of factors such as the selection of activities, questions or assessment items, the context of the assessment, and the consistency in the application of criteria by assessors to the work of the candidates.
5. To ensure that reliable assessments can be developed, standards writers must ensure the following:
 - for internally assessed standards, criteria must be specified in a way that promotes a range of potential assessment activities, such that candidates will

not be unduly advantaged or disadvantaged by the choice of assessment activity.

- for standards that are to be assessed in time-limited examinations, a minimum of one hour must be available for the assessment of each standard, so that candidates have time to demonstrate their achievement across a range of activities or activity components without undue time pressure. In practice, this means that no more than three standards should be assessed in any one three hour examination session.

Checklist

- a. Does the standard as written make it possible to devise assessments that are reliable and valid?
- b. Is it most appropriate to assess the standard internally or externally, taking into account practical constraints on the volume of external assessment?
- c. Will users of a standard (candidates, employers, TEOs, schools and parents) regard results as reliable and valid, in terms of the information it provides about a candidate?

Principle 4: Where more than one credit-bearing grade is available, grade distinctions must be based on qualitative differences in achievement.

1. A qualitative difference in achievement is one that requires a candidate to demonstrate higher-level concepts, skills, and knowledge competencies to attain the higher grade, rather than, for example, simply displaying multiple applications of the same concepts, skills or knowledge required for the lower grade.
2. Grade distinctions should not be based on the candidate being required to acquire and retain more subject-specific knowledge. Rather, grade distinctions should reflect the *quality* of the achievement and the extent to which the candidate has demonstrated higher level achievement.
3. Where appropriate, qualitative differences should be identified by reference to broad *competencies* (cognitive, conceptual, or social skills relating to life-long learning). For example, standards designed for use in secondary schools could relate to the *Key Competencies* (see Appendix 2). In the non-school sectors, other competencies or skills may be applicable if there is justification for more than one credit-bearing grade. Where qualitative differences cannot be identified by reference to broad cognitive or conceptual skills/competencies, the tools used to define those qualitative differences should nonetheless be made clear. In any event, the use of qualifiers (e.g. Describe vs. *Clearly* Describe) to distinguish achievement at a grade boundary, should be avoided wherever possible. If such qualifiers are used, they need to be well specified and explained in the explanatory or special notes for the standard.
4. The qualitative differences in achievement required to attain each available grade level should be transparent to all potential users of a standard; that is, the levels of

achievement recognised by the standard must be described in sufficient detail for a user to understand the concepts, skills, and knowledge required.

5. An assessment standard should allow access to *Merit* and *Excellence* grades, if and only if two qualitative distinctions in achievement can be made above the level of performance required to receive credit (i.e. a grade of *Achieved*). Where just one such distinction can be made, the standard should allow access to a *Merit* grade, but not an *Excellence* grade. Where no such distinction can be made, the standard should allow access to a single credit-bearing grade (*Achieved*).
6. Where a *Merit* or *Excellence* grade is available for an assessment standard, care should be taken to ensure that the criteria for those grades are consistent with the relevant NQF level descriptors.

Checklist

- a. Can qualitative differences in achievement be identified and differentiated?
- b. Are the qualitative differences in achievement required for the attainment of each grade level clearly identified?
- c. Do all available grade distinctions identify qualitative differences in performance?
- d. Will users of a standard (candidates, employers, TEOs, schools and parents) regard *Achieved*, *Merit* and *Excellence* grades as clear and functional in terms of the information it provides about a candidate?

Principle 5: Credit Parity

1. Credits allocated to a standard must reflect the notional learning time that is, on average, expected to be required by a candidate to meet the outcomes and achievement requirements of that standard. Notional learning time includes time spent in structured tuition, self-paced learning and practice, gathering and providing evidence for assessment purposes and performance in actual assessments. In general, one credit should reflect a notional 10 hours of learning, practice and assessment for an average candidate.
2. In traditional school subjects achievement standards were originally designed to provide for 24 credits for a 'subject'. There is no immediate intention to alter the 24-credit limit on achievement standards for each subject at each NQF level. In making judgments about credit parity it is useful to consider the amount of time required for a candidate to meet the criteria for a standard as a proportion of the total time spent in a full-time programme of study for that subject. For example if the learning time required for a standard is estimated to be, say, one sixth of the total time expected to be spent on a one-year fulltime course, then one sixth of 24 credits (i.e. 4) would be a useful way to estimate the credits for the standard.

3. Reviewers must ensure credit parity across standards in a given programme of work or subject area.

Checklist

- a. Is the credit value allocated to a standard commensurate with the credit values of comparable standards?
- b. Can the credits allocated to a standards be justified on the basis on “notional learning time” and/or, in the case of school curriculum based achievement standards, by referral to the proportion of time spent on a one year full time course?
- c. Will users of a standard (candidates, employers, TEOs, schools and parents) regard the credit value as appropriate, given the level and requirements of the standard?

Principle 6: Standards should not duplicate one another

1. A standard must have a discrete purpose. It must in some way be unique from other standards in terms of its intended outcomes. Duplication occurs when the central knowledge/skills, understandings, and competencies specified for a standard are all largely similar to those of another standard.
2. Duplication does not refer to a situation in which outcomes across a set of (multiple) standards overlap partially with those of another set of standards. Nor does it refer to a situation in which standards overlap partially, or wholly, in the outcomes required, but in which each of the standards requires that the outcomes be demonstrated in a specific and unique context. In such a case the outcomes could be considered different from those of a standard for which the outcomes are generic in terms of context, or for which a different specific and unique context is required.
3. A standard expresses a set of expected outcomes. Where two or more standards express very similar outcomes, they are unlikely to have discrete purposes. In this situation, a candidate can potentially achieve two standards, and receive two associated sets of credits, for demonstrating a single set of outcomes for a single purpose. The intention behind Principle 6 is to eliminate this scenario.
4. An exclusions list generally prohibits more than one set of credits gained from duplicating pairs of standards from contributing to the same NQF qualification. However, there are a number of areas in which pairs of standards with substantial overlap in outcomes are not identified in the exclusions list. In some such cases, exclusion would not be desirable, either because there is a partial overlap only, or because the *purposes* of the apparently duplicating standards are quite different. To remove *all* duplication, therefore, might be problematic and potentially adverse to the principles of the NQF.

5. Any situation in which candidates can use credits from two standards that have substantial overlap in purpose, outcomes and context towards the same qualification needs to be addressed. This type of situation arises where unit standards are used both in the school setting and in tertiary/industry sectors. In some such cases it will be appropriate to delete one of the duplicating standards. In many others, the duplication may need to be addressed through maintaining an exclusions list.
6. Consideration of whether a standard is internally or externally assessed is relevant to a consideration of duplicating standards, particularly in schools. Whether a standard is to be internally or externally assessed should be determined by consideration of the most appropriate (valid and reliable) form of assessment for the standard (see Principle 3). Some pragmatic considerations need to be taken into account in this regard. One such consideration is the constraint that no more than three standards are to be externally assessed in any one three hour examination session (see Principle 3). Another is that, in some cases, it may be appropriate to designate a standard as externally assessed for the purposes of school-based assessment, but internally assessed for non-school users.

Checklist

- a. Is the standard under review duplicated by another standard? To what extent is any duplication justified by differences in context?
- b. Is the designation of each standard as internally or externally assessed appropriate in each case?
- c. Would changing this designation have a major overall impact on assessor and candidate workload? If so, is this change justified or precluded by Principle 3 above?
- d. Can one of the duplicating standards be deleted from the NQF without creating inflexibility or hindering genuine candidate achievement?
- e. If neither of a duplicating pair of standards can appropriately be deleted, then is using the exclusion list justified on the grounds of the potential for inappropriate double counting of credits?
- f. Has the possibility of different modes of assessment (internal/ external) for schools and workplaces, been considered?

CONDITIONS OF ASSESSMENT

1. Conditions of assessment are not necessarily to be specified as a formal component of standards themselves. Nonetheless, writers of internally assessed standards must use the guidelines described here to develop conditions of assessment, to be included as an adjunct document for each standard, to help to ensure consistency in the application of the standards throughout the country.
2. In the case of externally assessed standards, consistency is achieved by means of the central administration of assessment.

3. In the case of internally assessed standards, issues such as the appropriate conditions for the collection of evidence, the number of appropriate assessment opportunities, and authenticity of student work need to be specifically addressed. These must be documented in the *Conditions of Assessment* for each standard. As noted above, while these will not be a formal part of a standard, they will be an essential adjunct for every internally assessed standard.
4. The *Conditions of Assessment* should include guidelines regarding the following specific issues:
 - Appropriate conditions for the **collection of evidence** for a candidate's achievement over a period of time in relation to different aspects of the standard (potentially including conferencing). These conditions need to specify the necessary and sufficient assessment conditions to ensure that a candidate receiving credit for a standard has fully met the requirements of that standard, *at the time the standard is awarded by the assessor*, and that these requirements are applied consistently, regardless of any variation in the assessment activity, or in the context in which the standard is being assessed. *This means that the candidate should be able to demonstrate achievement for all the requirement of the standard concurrently*
 - The **number of assessment opportunities** appropriate for a standard. When the most appropriate or probable form of assessment for a standard is a discrete assessment activity, the *Conditions of Assessment* should include National guidelines as to the number of assessment opportunities that are appropriate for a standard within a course of study, and the context(s) within which assessment opportunities can appropriately be provided.
 - guidelines may specify the number of further assessment opportunities as *multiple* provided that a lack of restriction regarding the number of opportunities would not compromise the overriding principle described above.
 - when the most appropriate or probable form of assessment for a standard is *not* a discrete event, the guidelines might specify *continuous* assessment as appropriate – clearly in this case defining a specific number of opportunities would not be relevant.
 - the *Conditions of Assessment* will be an important element in ensuring that work that provides assessment evidence is **authentic**. It is important that conditions of assessment provide national guidelines about authenticity strategies, including whether the assessment can be undertaken outside formal contact time with the assessor, and what limits on formative feedback and advice during the assessment process are necessary to ensure the authenticity of a candidates performance in relation to the standard.

Checklist

- a. Does the standard lend itself to multiple assessment opportunities? If so, is advice provided in the assessment conditions as to how many are appropriate?
- b. If collection of evidence over time is appropriate in this standard, is advice provided in the assessment conditions about what limits should be placed on this, if any?
- c. Does assessment for the standard present authenticity risks such that assessment conditions should be specifically written - for example, assessment to be completed under supervision. If so, is this advice provided in the conditions of assessment?
- d. Will users of a standard, and its attached “conditions of assessment” (employers, TEOs, schools, parents and candidates) regard it as fair, nationally consistent, clear, and functional in terms of the information it provides about a candidate?

APPENDIX 1

EXPERT GROUP

Terms of Reference

Purpose

- a. A new curriculum will be implemented in 2010 and standards need to be aligned to this new curriculum, and;
- b. Duplication and credit parity issues within the current set of standards can be appropriately addressed as part of the review.

The Standards Review Expert Group has been formed to establish the principles for the standards review and development, and to agree the characteristics of an effective standard. It is expected that this advice will be made available to MoE and NZQA officials as the review is undertaken.

This Terms of Reference (TOR) sets out the scope of the Expert Group, their accountability for the project and the process and procedures under which they will work.

Scope

The Standards Review Expert Group will provide advice and recommendations to the Ministry of Education (MOE) and the New Zealand Qualifications Authority (NZQA) on:

- the proposed approach to the standards review;
- the principles for the standards development and review; and
- the characteristics of an effective standard.

A discussion document on the standards review has been prepared and will provide the basis for the discussions by the Expert Group.

Both NZQA and MOE will share ownership for the establishment of the meetings and the subsequent reporting of the group.

Membership

Members of the Standards Review Expert Group will comprise individuals who have an in-depth understanding of standards based assessment and standard setting.

Accountability

The outcome of the Standards Review Expert Group meetings will contribute to the review process and will be confidential to the members of the group.

The Expert group will report to the Chief Executives of the MoE and the NZQA or their delegates.

APPENDIX 2

COMPETENCIES

Capabilities for living and lifelong learning

The New Zealand Curriculum identifies five key competencies:

- thinking
- using language, symbols, and texts
- managing self
- relating to others, and;
- participating and contributing.

People use these competencies to live, learn, work, and contribute as active members of their communities. More complex than skills, the competencies draw also on knowledge, attitudes, and values in ways that lead to action. They are not separate or stand-alone. They are the key to learning in every learning area.

The development of the competencies is both an end in itself (a goal) and the means by which other ends are achieved. Successful learners make use of the competencies in combination with all the other resources available to them. These include personal goals, other people, community knowledge and values, cultural tools (language, symbols, and texts), and the knowledge and skills found in different learning areas. As they develop the competencies, successful learners are also motivated to use them, recognizing when and how to do so and why.

Opportunities to develop the competencies occur in social contexts. People adopt and adapt practices that they see used and valued by those closest to them, and they make these practices part of their own identity and expertise.

The competencies continue to develop over time, shaped by interactions with people, places, ideas, and things. Students need to be challenged and supported to develop them in contexts that are increasingly wide-ranging and complex.

Thinking

Thinking is about using creative, critical, and met cognitive processes to make sense of information, experiences, and ideas. These processes can be applied to purposes such as developing understanding, making decisions, shaping actions, or constructing knowledge. Intellectual curiosity is at the heart of this competency.

Students who are competent thinkers and problem-solvers actively seek, use, and create knowledge. They reflect on their own learning, draw on personal knowledge and intuitions, ask questions, and challenge the basis of assumptions and perceptions.

Using language, symbols, and texts

Using language, symbols, and texts is about working with and making meaning of the codes in which knowledge is expressed. Languages and symbols are systems for representing and communicating information, experiences, and ideas. People use languages and symbols to produce texts of all kinds: written, oral/aural, and visual; informative and imaginative; informal and formal; mathematical, scientific, and technological.

Students who are competent users of language, symbols, and texts can interpret and use words, number, images, movement, metaphor, and technologies in a range of contexts. They recognize how choices of language, symbol, or text affect people's understanding and the ways in which they respond to communications. They confidently use ICT (including, where appropriate, assistive technologies) to access and provide information and to communicate with others.

Managing self

This competency is associated with self-motivation, a "can-do" attitude, and with students seeing themselves as capable learners. It is integral to self-assessment. Students who manage themselves are enterprising, resourceful, reliable, and resilient. They establish personal goals, make plans, manage projects, and set high standards. They have strategies for meeting challenges. They know when to lead, when to follow, and when and how to act independently.

Relating to others

Relating to others is about interacting effectively with a diverse range of people in a variety of contexts. This competency includes the ability to listen actively, recognize different points of view, negotiate, and share ideas.

Students who relate well to others are open to new learning and able to take different roles in different situations. They are aware of how their words and actions affect others. They know when it is appropriate to compete and when it is appropriate to cooperate. By working effectively together, they can come up with new approaches, ideas, and ways of thinking.

Participating and contributing

This competency is about being actively involved in communities. Communities include family, whānau, and school and those based, for example, on a common interest or culture. They may be drawn together for purposes such as learning, work, celebration, or recreation. They may be local, national, or global. This competency includes a capacity to contribute appropriately as a group member, to make connections with others, and to create opportunities for others in the group.

Students who participate and contribute in communities have a sense of belonging and the confidence to participate within new contexts. They understand the importance of balancing rights, roles, and responsibilities and of contributing to the quality and sustainability of social, cultural, physical, and economic environments.

APPENDIX 3

General requirements for Registration of National Qualifications Framework Unit Standards

NZQA is committed to:

- maintaining the high quality and credibility of New Zealand's nationally registered qualifications, and;
- working in partnership with industry, professional groups, and all stakeholders to ensure that New Zealand has a world-class qualifications system.

A unit standard will be registered on the National Qualifications Framework (NQF) when it has been shown that:

- there is a demonstrable need for the unit standard, it does not unnecessarily duplicate an existing registered unit standard and it represents an achievable outcome worthy of certification in its own right;
- there are no unnecessary or unreasonable restrictions on the pace or mode of assessment;
- the language of the unit standard does not create unnecessary or unreasonable barriers to access in terms of gender, ethnicity, or cultural background;
- the content of the unit standard meets the requirements of the standard setter and is within its area of responsibility;
- the unit standard has been endorsed as being fit for purpose for the intended sector;
- the standard setter has evidence that both new and revised unit standards have been the subject of consultation with stakeholders;
- The unit standard meets the specific quality criteria as outlined in this document
- the outcomes in the unit standard are consistent with each other and the overall competence indicated by the title;
- the outcomes are achievable, manageable, coherent, assessable, and consistent with valid assessment practice; and
- the unit standard is of publishable quality - free from spelling, punctuation, and grammatical errors, consistent, and meeting current formatting requirements.

Unit standards must be fit for purpose. Periodic reviews and/or rollovers should ensure that this is so. The normal registration period is three years for new unit standards and five years for reviewed ones, although variations on these times are possible.

Unit standards may be written in Māori or in English.

APPENDIX 4

LEVEL DESCRIPTORS

Level	Process	Learning demand	Responsibility
1	<p><i>Carry out processes that:</i></p> <ul style="list-style-type: none"> - <i>are limited in range</i> - <i>are repetitive and familiar</i> - <i>are employed within closely defined contexts</i> 	<p><i>Employing:</i></p> <ul style="list-style-type: none"> - <i>recall</i> - <i>a narrow range of knowledge and cognitive skills</i> - <i>no generation of new ideas</i> 	<p><i>Applied:</i></p> <ul style="list-style-type: none"> - <i>in directed activity</i> - <i>under close supervision</i> - <i>with no responsibility for the work or learning of others</i>
2	<p><i>Carry out processes that:</i></p> <ul style="list-style-type: none"> - <i>are moderate in range</i> - <i>are established and familiar</i> - <i>offer a clear choice of routine responses</i> 	<p><i>Employing:</i></p> <ul style="list-style-type: none"> - <i>basic operational knowledge</i> - <i>readily available information</i> - <i>known solutions to familiar problems</i> - <i>little generation of new ideas</i> 	<p><i>Applied:</i></p> <ul style="list-style-type: none"> - <i>in directed activity</i> - <i>under general supervision and quality control</i> - <i>with some responsibility for quantity and quality</i> - <i>with possible responsibility for guiding others</i>
3	<p><i>Carry out processes that:</i></p> <ul style="list-style-type: none"> - <i>require a range of well-developed skills</i> - <i>offer a significant choice of procedures</i> - <i>are employed within a range of familiar contexts</i> 	<p><i>Employing:</i></p> <ul style="list-style-type: none"> - <i>some relevant theoretical knowledge</i> - <i>interpretation of available information</i> - <i>discretion and judgment</i> - <i>a range of known responses to familiar problems</i> 	<p><i>Applied:</i></p> <ul style="list-style-type: none"> - <i>in directed activity with some autonomy</i> - <i>under general supervision and quality checking</i> - <i>with significant responsibility for the quantity and quality of output</i> - <i>with possible responsibility for the output of others</i>

Level	Process	Learning demand	Responsibility
4	<p>Carry out processes that:</p> <ul style="list-style-type: none"> - require a wide range of technical or scholastic skills - offer a considerable choice of procedures - are employed in a variety of familiar and unfamiliar contexts 	<p>Employing:</p> <ul style="list-style-type: none"> - a broad knowledge base incorporating some theoretical concepts - analytical interpretation of information - informed judgment - a range of sometimes innovative responses to concrete but often unfamiliar problems 	<p>Applied:</p> <ul style="list-style-type: none"> - in self-directed activity - under broad guidance and evaluation - with complete responsibility for quantity and quality of output - with possible responsibility for the quantity and quality of the output of others
5	<p>Carry out processes that:</p> <ul style="list-style-type: none"> - require a wide range of specialised technical or scholastic skills - involve a wide choice of standard and non-standard procedures - are employed in a variety of routine and non-routine contexts 	<p>Employing:</p> <ul style="list-style-type: none"> - a broad knowledge base with substantial depth in some areas - analytical interpretation of a wide range of data - the determination of appropriate methods and procedures in response to a range of concrete problems with some theoretical elements 	<p>Applied:</p> <ul style="list-style-type: none"> - in self-directed and sometimes directive activity - within broad general guidelines or functions - with full responsibility for the nature, quantity and quality of outcomes - with possible responsibility for the achievement of group outcome
6	<p>Carry out processes that:</p> <ul style="list-style-type: none"> - require a command of wide-ranging highly specialised technical or scholastic skills - involve a wide choice of standard and non-standard procedures, often in non-standard combinations - are employed in highly variable routine and non-routine contexts 	<p>Employing:</p> <ul style="list-style-type: none"> - specialised knowledge with depth in more than one area - the analysis, reformatting and evaluation of a wide range of information - the formulation of appropriate responses to resolve both concrete and abstract problems 	<p>Applied:</p> <ul style="list-style-type: none"> - in managing processes - within broad parameters for defined activities - with complete accountability for determining and achieving personal and/or group outcomes

Level	Process	Learning demand	Responsibility
7	<p>Carry out processes that:</p> <ul style="list-style-type: none"> - require a command of highly specialised technical or scholastic and basic research skills across a major discipline - involve the full range of procedures in a major discipline - are applied in complex, variable and specialised contexts 	<p>Requiring:</p> <ul style="list-style-type: none"> - knowledge of a major discipline with areas of specialisation in depth - the analysis, transformation and evaluation of abstract data and concepts - the creation of appropriate responses to resolve given or contextual abstract problems 	<p>Applied:</p> <ul style="list-style-type: none"> - in planning, resourcing and managing processes - within broad parameters and functions - with complete accountability for determining, achieving and evaluating personal and/or group outcomes

Level	Involves skills and knowledge that enable a learner to:
8	<ul style="list-style-type: none"> - provide a systematic and coherent account of the key principles of a subject area; and - undertake self-directed study, research and scholarship in a subject area, demonstrating intellectual independence, analytic rigour and sound communication.
9	<ul style="list-style-type: none"> - demonstrate mastery of a subject area; and - plan and carry out - to internationally recognised standards - an original scholarship or research project. <p>Demonstrated by:</p> <ul style="list-style-type: none"> - the completion of a substantial research paper, dissertation or in some cases a series of papers
10	<ul style="list-style-type: none"> - provide an original contribution to knowledge through research or scholarship, as judged by independent experts applying international standards.

APPENDIX 5

QUALITY ASSURANCE STANDARD FOR ITOs

Section 1.2.2

Development and review of unit standards and national qualifications

The ITO submits national qualifications and unit standards that meet industry needs and are able to be registered on the NQF.

The ITO demonstrates this by

- i implementing a process for developing and reviewing Accreditation and Moderation Action Plans (AMAPs), unit standards, and national qualifications that results in standards and qualifications that:
 - are based on the needs of trainees;
 - are supported by industry;
 - meet NZQA registration criteria; and
 - are normally of sufficient quality to be processed without needing further development¹.

The *QA Standard for ITOs* can be found at:

<http://www.nzqa.govt.nz/for-providers/aaa/resources.html>

or click on the following link:

<http://www.nzqa.govt.nz/for-providers/aaa/docs/itostandard.pdf>

¹ Typically, an application that requires further development will require the ITO to resume the development process and the application will be subject to several quality assurance cycles.