

# KEY COMPETENCIES IN TERTIARY EDUCATION

Developing a New Zealand Framework

DISCUSSION DOCUMENT

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## INTRODUCTION

This document offers a New Zealand framework for key competencies for the tertiary education sector. Key competencies are the knowledge, skills, attitudes and values needed by everyone across a variety of life contexts. It is hoped that it will generate reflection on core areas for learning in tertiary education programmes and qualifications and the implications of this for teaching and assessment. It is also hoped that government agencies will be able to use the framework in policy and operational work to achieve consistency about desirable learning outcomes across the school and tertiary education sectors.

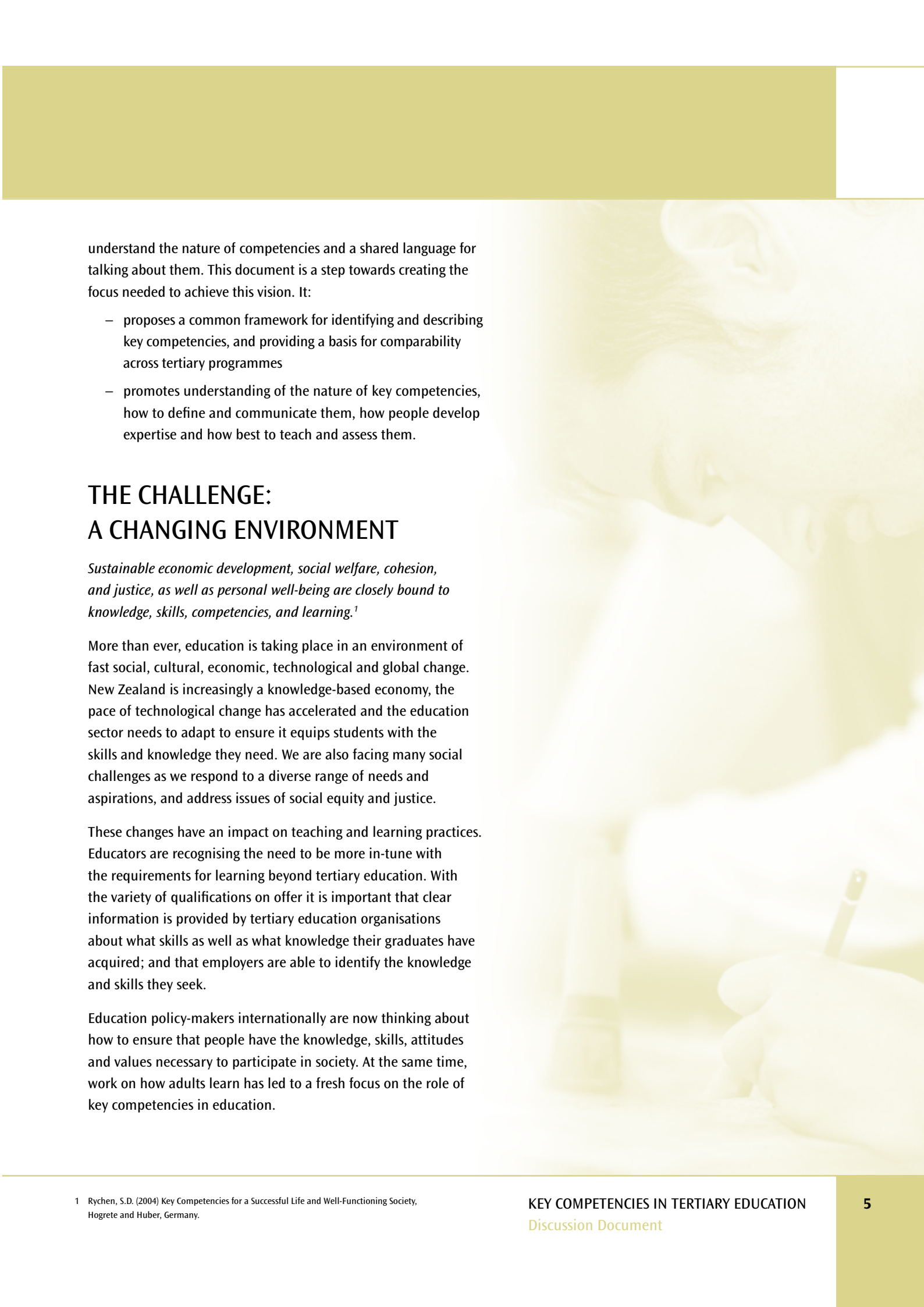
Government has a role to play in creating and sustaining an environment where key competencies are taught and learned effectively. This is because there are considerable social and economic benefits for all from a well-educated population. At the heart of this is the understanding that there are a diverse range of learners in New Zealand and that adults learn most effectively through completing the actual tasks of their roles as workers, students and family/whānau members.

Internationally, many governments have developed frameworks for key competencies at the tertiary level. In New Zealand the development is consistent with the aims of the Tertiary Education Strategy 2002-2007. In the Strategy the government focused on the skill development necessary for participation in society, including:

- raising foundation skills so that all people can participate in New Zealand's knowledge society
- developing the skills New Zealanders need for our knowledge society.

These strategies stem from a vision for New Zealand in which **most** adults have the required **mix of generic and specific skills** and the **adaptability** to contribute to national economic and social wellbeing. They will further develop their skills to adapt to changing labour market demands thereby benefiting as individuals and providing our country with a competitive advantage in the global knowledge society.

The government will not be prescriptive in establishing teaching programmes or qualifications to deliver key competencies. Rather, the role for government is in assisting the development of a shared understanding. This will help educators, learners and employers to



understand the nature of competencies and a shared language for talking about them. This document is a step towards creating the focus needed to achieve this vision. It:

- proposes a common framework for identifying and describing key competencies, and providing a basis for comparability across tertiary programmes
- promotes understanding of the nature of key competencies, how to define and communicate them, how people develop expertise and how best to teach and assess them.

## THE CHALLENGE: A CHANGING ENVIRONMENT


*Sustainable economic development, social welfare, cohesion, and justice, as well as personal well-being are closely bound to knowledge, skills, competencies, and learning.<sup>1</sup>*

More than ever, education is taking place in an environment of fast social, cultural, economic, technological and global change. New Zealand is increasingly a knowledge-based economy, the pace of technological change has accelerated and the education sector needs to adapt to ensure it equips students with the skills and knowledge they need. We are also facing many social challenges as we respond to a diverse range of needs and aspirations, and address issues of social equity and justice.

These changes have an impact on teaching and learning practices. Educators are recognising the need to be more in-tune with the requirements for learning beyond tertiary education. With the variety of qualifications on offer it is important that clear information is provided by tertiary education organisations about what skills as well as what knowledge their graduates have acquired; and that employers are able to identify the knowledge and skills they seek.

Education policy-makers internationally are now thinking about how to ensure that people have the knowledge, skills, attitudes and values necessary to participate in society. At the same time, work on how adults learn has led to a fresh focus on the role of key competencies in education.

<sup>1</sup> Rychen, S.D. (2004) Key Competencies for a Successful Life and Well-Functioning Society, Hogrefe and Huber, Germany.



## Meeting the challenge: the key shifts required

Specialist skills are needed to perform all tasks – for example, the ability to weave a basket, file a report, change a tyre or take a patient’s temperature. Underpinning the competent execution of these tasks is a range of other skills and abilities, sometimes referred to as generic skills. These might include communication skills, teamwork or management skills. It is the combination of these specialist and generic skills that results in a successful performance.

While people generally agree that generic skills are important, there are difficulties in identifying, defining, teaching, assessing and understanding how they can be incorporated into teaching programmes and qualifications.

One way to achieve this is to develop lists of generic skills. Lists might include desired characteristics such as good team working, leadership and strong communications skills. The problem is while the lists may look right, they do not bring out the key components that underlie those skills, which many of them have in common. For example, communications skills are an essential component of both team working and leadership. Communication depends on a mix of skills – understanding social context, using appropriate methods and tools and understanding the information and/or ideas to be expressed.

There are different ways to develop people’s expertise through education. Meeting the challenges of a changing educational environment will require shifts in understanding, thinking, practice and in outcomes at all levels of the tertiary education sector. The government has identified three key shifts, moving towards:

- a **shared understanding** of desired outcomes in relation to key competencies within and between education and employment sectors
- fostering the development of **higher levels of competence** for effective participation in the knowledge society
- enhanced **teaching and learning** of key competencies in tertiary programmes.

Your views on a national framework proposed here are welcome and will be valuable in providing a collaborative structure for achieving the key shifts (see page 16 for questions to consider). Existing mechanisms such as the National Qualifications Framework and Tertiary Education Organisations’ charters and profiles would enable this framework to be embedded into practice.

# KEY SHIFT 1 – BUILDING A SHARED UNDERSTANDING: A NEW ZEALAND FRAMEWORK FOR KEY COMPETENCIES

## Concepts and principles underpinning the framework: from generic skills to key competencies

### *Defining competency*

Recent international research recommends a shift in emphasis from a precisely defined ‘skill’ to the broader term ‘competency’. A competency includes all the skills, knowledge, attitudes and values needed to do something. Competence does not exist as something that can be learnt in isolation, it is demonstrated in the performance of a task.

For example, an ability to present ideas to a group develops as we interact with different people. We may demonstrate having learned a defined skill of ‘public speaking’, by giving a presentation to a small class, but cannot necessarily expect to perform in the same way when presenting to a large audience with a more diverse range of people.

Competence:

- **is developed most effectively in contexts that have meaning and purpose.** For example, language literacy and numeracy need to be taught across a range of levels and dimensions in the tertiary system.
- **exists on a continuum from novice to expert.** It is developed throughout life: increased proficiency is the ability to combine and use key competencies appropriately in increasingly complex situations, rather than as a straight line development of individual competencies.

A learner proficient in a range of competencies will readily adapt to ever changing requirements of work, family/whānau and community in our knowledge society.

### *What are key competencies?*

International research has attempted to identify *key competencies* as those needed by everyone, across a variety of life situations. They are integral to completing any task. Key competencies are used in combination with other competencies. The concept of key competencies implies a broader concept than the term *generic skills*. Learning any key competency needs to include:

- **all aspects of a competency** (skills, knowledge, attitudes and values). It is not just what individuals know and can do but also whether and how they use them
- **relationships with the other key competencies.** For example, to be an effective team worker we need to balance listening with asserting our views
- **specific competencies that provide the learning context.** For example, we cannot communicate effectively unless we understand what we are expressing and can perceive whether we are being understood
- **the ability to adapt and apply** to new contexts.

## A New Zealand Framework for Key Competencies

The shift to a shared understanding of competencies means that we can progress from creating lists of desirable skills to identifying and exploring the key competencies that underlie all performance. By developing a common framework of the groups of key competencies valued in New Zealand, we can help to ensure that teaching and learning is focused on educating individuals to perform effectively in a range of contexts.

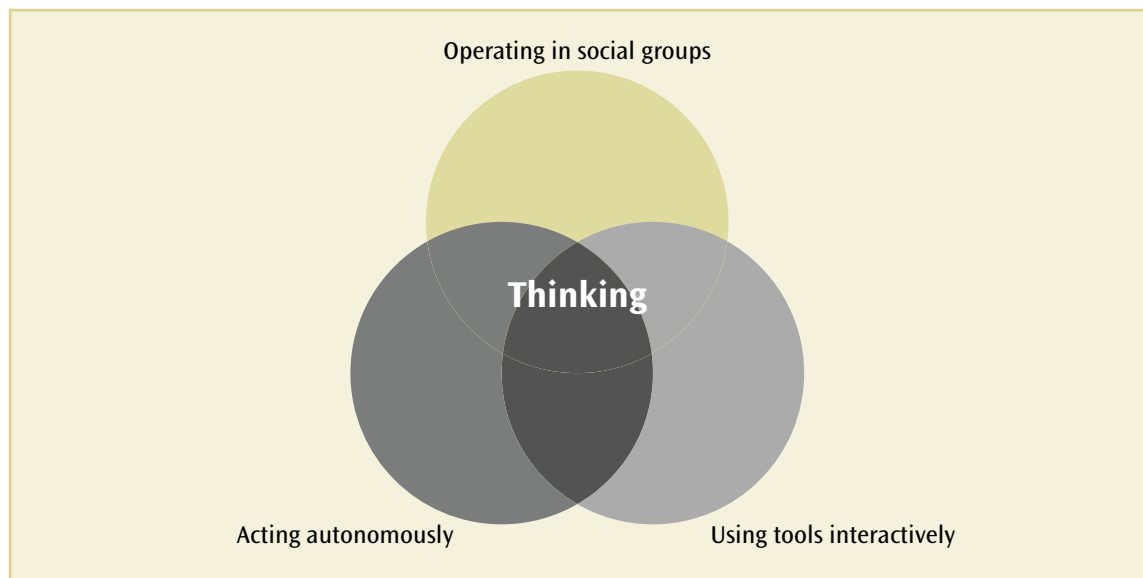
A New Zealand tertiary education framework for key competencies is proposed to help educators shape the way they specify key competencies and incorporate them into their programmes and qualifications.

This holistic approach to the purpose of education suggests that competencies identified for Māori to achieve their aspirations align well with recent literature and research that say competencies for work are the same as competencies for life. It recognises that a person is more likely to achieve excellence in their chosen field when some kind of deeper connection takes place between their inner being and their outward skills and abilities.

The tertiary education framework has four groups of key competencies (figure 1):

1. Operating in Social Groups
2. Acting Autonomously
3. Using Tools Interactively
4. Thinking

Figure 1: Overarching Framework of Key Competencies



### ***Operating in Social Groups***

Operating in social groups includes all of the competencies that are relevant when interacting with other people, and can include situations where people are required to compete, cooperate and/or share. It is about the competencies needed to live, work and play with other people.

Operating in social groups encompasses the ability to:

- relate well to others
- cooperate
- manage and resolve conflict
- assert and defend rights and responsibilities
- support, fulfil responsibilities and contribute
- motivate groups to achieve a particular outcome.

### ***Acting Autonomously***

Acting autonomously means that individuals are able to define themselves and operate effectively in a variety of spheres of life in workplaces, family/whānau or community roles.

Acting autonomously includes the ability to:

- identify and take action regarding one's interests, limits and needs
- form and conduct life plans and personal projects
- act within the big picture/larger context.

In many situations individuals have to conform in social groups and balance this with their own aspirations. In considering a change in job, for example, an individual could be influenced by personal goals and interests as well as family obligations. Therefore, this key competency group is about managing oneself while remembering that we are always part of a wider social context.

### ***Using Tools Interactively***

The word tools is used broadly to encompass instruments that are used to meet many everyday demands. It includes language,



information and knowledge as well as physical tools, like computers, for example. Using these tools interactively means having the skills to operate, for example, a computer and its software, being aware of the new ways of making meaning using the tool, and adapting it for different tasks.

Using tools interactively means the ability to understand, use and make meaning from:

- language, literacy and numeracy
- symbols
- knowledge
- technology.

The government's work on foundation learning focuses on developing people's competence of literacy, language and numeracy at a foundation level and how they are used, adapted and applied alongside a wide range of other competencies.

### ***Thinking***

The proposed framework also identifies thinking as a competency integral to all three groups. Thinking encompasses the ability to:

- think creatively (original ideas/or applications)
- use cognitive and meta-cognitive strategies, including for example, critical and logical thinking, learning to learn and adapting to new contexts, and reflection and judgement.

Thinking encompasses key aspects of internal scrutiny and awareness and is essential in the appropriate application and adaptation of competencies within specific and new contexts.

The framework is a culmination of New Zealand and international work,<sup>2</sup> and has the potential to be used for international assessments.<sup>3</sup> However, it must reflect the New Zealand context. For example, community-focused expectations should counter-balance individual-focused expectations. This is a particularly important consideration for Māori and Pasifika communities. This suggests that competencies required to act autonomously need to be balanced with those that support and contribute to the wellbeing of others, including contributions to family/whānau and wider community.

2 The most recent extensive research programme on competencies has just been completed by the Organisation for Economic Cooperation and Development (OECD). It is called Defining and Selecting Competencies (DeSeCo).

3 One of the benefits of this work is to identify key competencies that could be included in future international assessments such as the Adult Literacy and Life-Skills Survey and Programme for International Student Assessment of 15-year-olds.

### Case study: Hei Ara Kokiri and Literacy Aotearoa

Hei Ara Kokiri, an iwi education authority, and Literacy Aotearoa, a community-based provider, combined their expertise and networks to provide adult literacy programmes in the Taupo and Turangi districts. The tuition was mainly one-to-one and geared to the individual's needs.

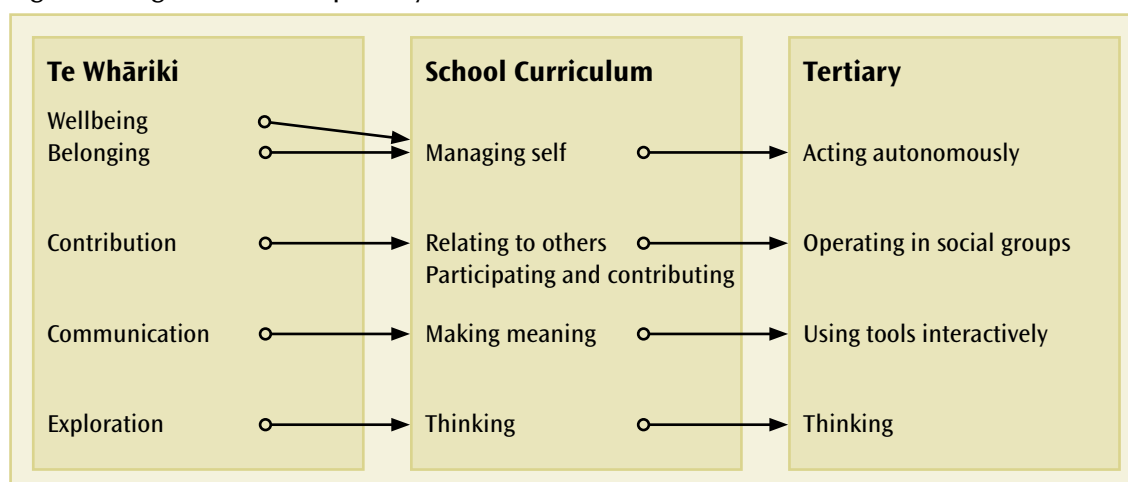
Students identified they needed to develop their reading and writing to give them more confidence in helping their children with their homework and/or coping with further studies and employment, building up their independence, improving their oral communications to give them the confidence to go for job interviews and cope in the workplace, or gain their driver's licence. The learners saw the benefits of gaining these competencies as having achieved something, having become law-abiding, more employable and independent.

At the end of the course students were quoted as saying that they:

- had walked into their child's class and read to her, having never done this before
- had built up the confidence to go for interviews and seek employment
- had told their friends and relatives to enrol, or shared their success with others
- had been accepted into further education or training courses
- were now communicating better with their families
- had felt the rush of achievement, gained self-confidence, built up independence and lost their fear of learning.

International work is also being used in redefining the essential skills of the New Zealand school curriculum. This could lead to a consistent framework for key competencies across the wider education system. Figure 2 shows how the proposed key competencies framework for tertiary education compares with the draft New Zealand Curriculum key competency groups and aligns with the early childhood education curriculum Te Whāriki.

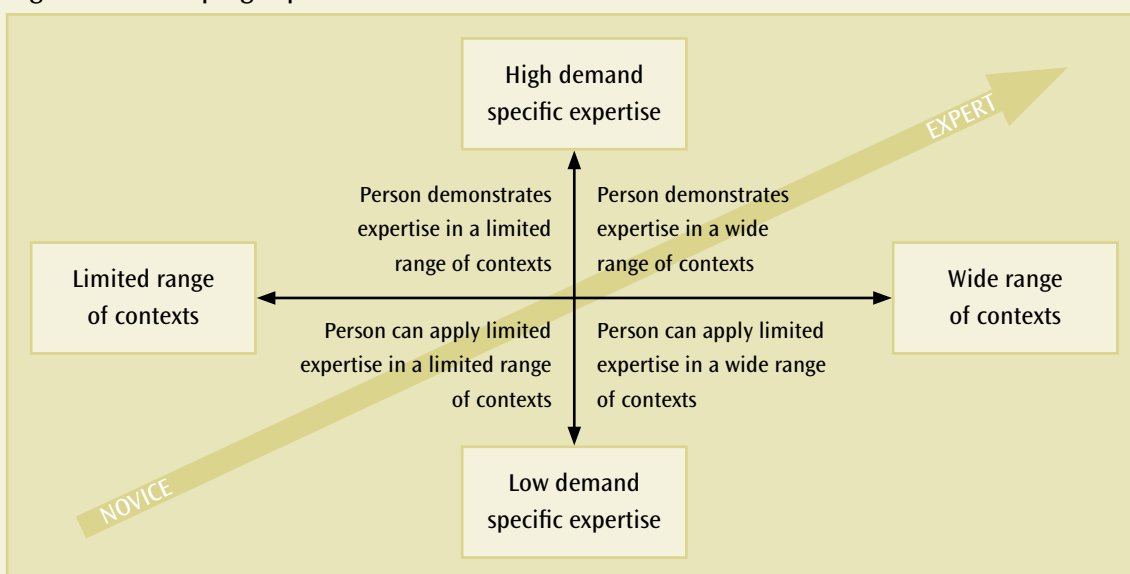
Figure 2: Alignment of competency frameworks used across the sectors.



## KEY SHIFT 2 – DEVELOPING HIGHER LEVELS OF COMPETENCE

This key shift is about aiming to develop more proficient individuals with higher levels of competence. As an individual develops a range of competencies they are able to apply them in increasingly complex contexts (see figure 3 below). For example, a novice may be able to perform a set function or role as part of a team to complete a regular task. An expert would be able to use a combination of communications, collaboration and leadership competencies to perform different roles in different teams to achieve a diverse range of outcomes.

Figure 3: Developing Expertise



As figure 3 shows, developing a single approach to competence is not likely to meet the needs of all learners; learners may move between and within quadrants depending on their level and range of expertise within different contexts.

The following case study shows how by developing competence to a foundation level the demands of a role were able to be met providing a basis for further learning.

### Case study: Workbase building competencies in the aged care industry

A Workbase programme at Mercy Parklands Hospital and Retirement Home (Auckland) was designed to lift the literacy, numeracy and specific industry skills of those who participated and provide the basis for the development of high-level generic skills and further learning. All the permanent caregivers were invited to take part in the programme. Participants were from a variety of ethnic backgrounds including Māori, Samoan, Tongan, Croatian, Fijian-Indian, and Chinese as well as Pakeha.

The programme was delivered on-site which meant it was set in the context of the daily working life of the participants. This gave it immediate relevance. Both caregivers and management saw the results of better communication within work teams as well as between themselves.

Originally caregivers had been working towards their Level 1 National Certificate in Support of the Older Person. However, during the programme the qualification was reclassified to Level 3. For the new qualification, caregivers had to develop a higher level of expertise to cope with new demands such as understanding theoretical material on the effects and diseases associated with ageing. They also had to research and report on community support services for older people as well as develop an activity plan to meet a selected resident's needs and interests. These tasks were not required at Level 1.

As a direct result of the competencies they had developed during the programme, staff demonstrated higher levels of communication and critical thinking including a greater awareness of the environment in which their industry operated and their role in it. Some caregivers went on to higher level courses, including two who were accepted into pre-nursing courses, others took up further training courses offered by Mercy Parklands. All were keen to extend their learning and model it to their families and communities.

## **The contribution of a New Zealand framework for key competencies to social, cultural and economic development**

The understanding of competency outlined in this document is based on research which argues that competencies for work are the same as competencies for life.

Globalisation and information technology have meant that people need to be able to operate effectively in local, national and international contexts. Individuals need to develop higher levels of proficiency by combining and using different competencies in increasingly complex contexts. Better teaching and learning of key competencies will be crucial to building a society where people have the knowledge and skills to lead successful lives.

The international work on key competencies is already informing policy development across government agencies in New Zealand. The recent focus on growth and innovation has increased attention on how the supply of people with high levels of competence can impact the level of economic output and economic growth.

For example, specific or technical competencies underpinned by higher levels of competence directly contribute to increased productivity through:

- improved performance
- increased ability to use and adapt existing skills to meet new demands
- increased ability to see, create and exploit new opportunities (new products/services, new markets and niches, new networks and linkages).

Consequently, we need to foster the development of higher levels of competence to support economic growth. In particular, the cross-cutting thinking group of key competencies, in combination with specialist and technical knowledge, forms an important element of economic transformation toward new markets and higher value-added products. Individuals with high levels of proficiency in this key competency group are more likely to exploit opportunities.

## KEY SHIFT 3 – ENHANCING TEACHING AND LEARNING

Many education providers and qualification developers already include key competencies in their programmes and qualifications. The National Qualifications Framework provides a good basis for articulating and assessing these learning outcomes across the school and tertiary sectors. The proposed New Zealand framework of key competencies will assist the tertiary sector to include, teach, assess and report key competencies in a more systematic way by:

- providing a shared reference point from which tertiary providers could plan for the consistent implementation of competency-based courses
- assisting educators, programme and qualifications developers to articulate, teach, assess and report key competencies without making them ‘add-ons’.

### ***Supporting learning: shared frame of reference***

Effective teaching is fundamental to effective learning and improving outcomes for students. The understanding of competencies that underpin the proposed framework makes it clear that competencies should be taught and assessed in meaningful contexts with proficiency inferred from performance in those contexts.<sup>4</sup> For example, assessment of proficiency in operating in social groups could be inferred (using professional judgement) from the successful process for, and completion of, group work. Similarly, teaching the acting autonomously projects could be based on the development of a project plan with milestones for completion of course work. This is already happening in many tertiary courses where students are developing key competencies in the context of acquiring specialist skills in particular subject areas. In the following example the students are learning specific research skills and are encouraged to use those skills in a meaningful way (see figure 4) that reflects the context in which the competencies will be performed. Other key competencies are also learned, such as relating to others.

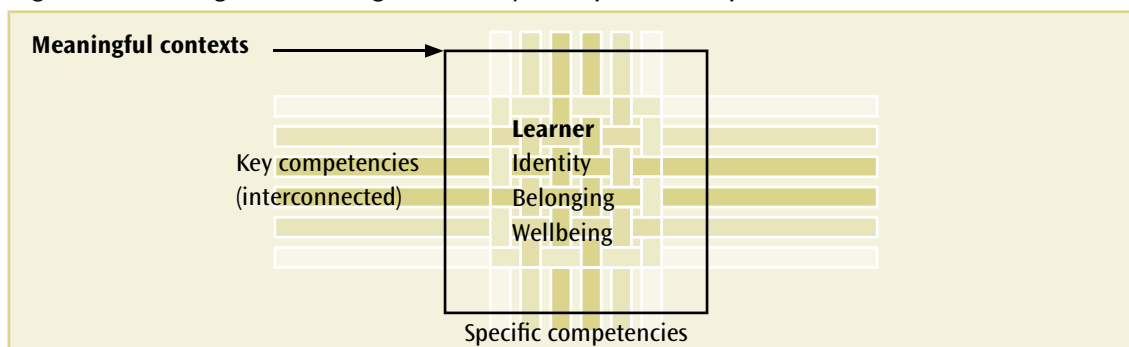
#### **Case study: University of Auckland Business School, Department of Information Systems and Operations Management course in Research Methods 2 (Qualitative)**

The course introduces qualitative research methods for the exploration, description and evaluation of information, concepts and knowledge.

Skills for qualitative research design and processes are developed via multiple methods of learning and teaching. Students study the theoretical concepts in texts, course books and other learning resources. Practical skills in qualitative research are developed through data gathered by: 1. Developing a research proposal. 2. Critiquing a thesis or dissertation. Student teams then pool their findings and make a presentation to the class. The presentation includes a discussion of ‘best research practices’ and its application to their own research. Each student then reflects on what they have learnt and writes an individual report linking theory and practice.

Figure 4 illustrates that this learning related to meaningful contexts is important to both ensure the engagement of learners and to provide opportunities to gain the learning needed for life.

Figure 4: Teaching and learning weaves key and specific competencies



The key competency groups are interconnected and need to be used in dynamic ways to help educators articulate the range of key competencies that their students are developing, for example, the key competencies of literacy may be focused on the ‘using tools interactively’ group. Performing effectively in writing also requires understanding of others and tailoring to the appropriate social context (operating in social groups) and having a clear understanding of values and arguments (acting autonomously).

### ***Assisting educators, programme and qualifications developers to articulate, teach, assess and report key competencies***

The framework will need to be supported by professional development so that programme or qualifications developers can specify the key competencies of their courses without needing checklists or onerous assessment.

Descriptive standards, currently being developed for foundation learning, could also be explored to guide the development of learning outcomes for higher levels of competence. For foundation learning the intention is to clarify the expectations that are integral to adults’ abilities to participate in the workplace, in families/whānau and communities and in further learning. The Draft Descriptive Standards: Describing the foundation competencies that adults need to meet the demands of their everyday lives, will be released shortly on [www.minedu.govt.nz](http://www.minedu.govt.nz).

These descriptions could describe the outcomes that would be characteristic of someone operating at a high level of competence. The descriptions would:

- develop a common language to describe higher-level key competencies (by educators, learners, employers and government agencies)
- clarify expectations of learning achievement of key competencies by adult learners
- guide learning progressions and learning outcome statements in qualifications, while also raising the professional skills of educators.

To be effective such standards would need to support educators to enhance the teaching of key competencies. This could be in the form of learning progressions frameworks, teaching and learning materials (including guidance around assessment for different purposes) and professional development for providers and tutors.

## MOVING FORWARD TOGETHER – FEEDBACK

This document discusses a proposed shared framework for key competencies in New Zealand, exploring the nature and definition of competencies. It concludes that the development of a shared framework would assist the tertiary sector to articulate, teach and report on key competencies in a systematic way.

The government wants to encourage evidence-based approaches to teaching and learning that are relevant, adaptive and innovative. The development of initiatives that are focused on developing key competencies will help to ensure that the assistance and programmes offered by the government are increasingly able to support tertiary providers and employers to help learners gain the competencies they need in a diverse range of contexts.

It is important that stakeholders are able to consider and comment on what is proposed. Circulation of this document is the first step in that process.

The Ministry of Education welcomes your comments and feedback. Consider the following questions and send your comments back to us by 18 April 2005.

- **Do you think the framework is a useful starting point for informing a shared understanding of the key competencies? If yes, why do you think that? If not, why do you think that?**
- **Do you think these competency groups are helpful in developing a common understanding? If not, why not?**
- **How will we get a shared understanding about what key competencies are needed? What support do you think will be needed?**
- **Do you think developing descriptive standards for a sample of key competencies would be useful? What key competencies should we use?**
- **What can we do to promote higher levels of proficiency of individuals in a range of key competencies?**
- **How can key competencies be more clearly articulated through tertiary programmes?**

Your response is appreciated. The deadline for feedback is 18 April 2005. Please send comments to:

**Key Competencies  
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## GLOSSARY

An explanation of terms and names used in this document.

**Competence:** the extent to which a person can achieve expected results in a particular context.

**Competency:** the capability needed to undertake a task or meet a demand. Competencies are performance-based and manifested in the actions of an individual in a particular context. A competency includes skills, knowledge, attitudes and values needed to meet the demands of a task.

**Context:** the environment or circumstances surrounding a particular situation.

**Descriptive standards:** describe a definition of competence for each of the areas – reading, writing, speaking, listening and numeracy – so that they guide instruction and assessment.

**Generic skills:** relate to the existing or historic use of the term. The concept of competencies includes all of the skills, knowledge, attitudes and values needed to meet the demands of a task and implies a broader concept of skill than the term ‘generic skills’.

**Key competencies:** those competencies (including, knowledge, skills, attitudes and values) needed by everyone across a variety of different life contexts, for example, in communicating with others.

**Knowledge:** what people know (both ‘knowledge of’ and ‘know-how’).

**Learning progressions:** provide snapshots of what adults know and can do as they develop competence. Learning progressions help learners set goals for their own development.

**Skills:** what people can do in relation to physical skills and cognitive strategies, including generic and specialist skills.

**Task:** a job to be undertaken.

**Tertiary Education Institutions:** Crown entities which include universities, polytechnics, colleges of education and wānanga. Each tertiary institution is governed by its own council.

## USEFUL WEBSITES

You may find the following websites useful for more information on key competencies:

**SCANS** [www.scans.jhu.edu/NS/HTML/Index.htm](http://www.scans.jhu.edu/NS/HTML/Index.htm)

**Equipped for the Future** <http://novel.nifl.gov/lincs/collections/eff/eff.html>

**DfES** [www.dfes.govt.uk](http://www.dfes.govt.uk)

**NCVER** [www.ncver.edu.au](http://www.ncver.edu.au)

**DeSeCo** [www.statistik.admin.ch/stat\\_ch/ber15/deseco/news.htm](http://www.statistik.admin.ch/stat_ch/ber15/deseco/news.htm)

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