

INTRODUCTION

Tertiary education in New Zealand provides a wide range of learning opportunities spanning foundation skills to doctoral studies. The sector also contributes to the national innovation system through its research activities; more than 60 percent of all New Zealand's research output comes from the tertiary education sector.

A key feature of the New Zealand system is the integration of funding and provision across vocational education and training, higher education, workplace training, Adult and Community Education (ACE) and tertiary education within the senior secondary school.

LEARNING OPPORTUNITIES

Learning opportunities within the New Zealand tertiary education system can be categorised as formal (that is, contributing towards a recognised qualification) and non-formal (that is, not contributing to a recognised qualification). They can be further divided into situations where students are enrolled with an education provider and where students are learning through a relationship with an employer or community organisation.

TABLE 5.1: TYPES OF LEARNING OPPORTUNITIES PROVIDED THROUGH THE TERTIARY EDUCATION SYSTEM

	Formal	Non-formal
Enrolled with an education provider	Student Component-funded students International students Targeted training programmes Tertiary education in schools Industry training and Modern Apprenticeships (off-job training)	ACE through TEIs and schools
Employment and community-based learning	Industry training and Modern Apprenticeships (on-job training)	ACE through community organisations Adult literacy programmes

Formal learning

Formal learning covers all learning which contributes towards a recognised qualification.

The majority of formal learning in tertiary education is funded through the **Student Component fund**. The Student Component fund funds tertiary education learning from second-chance education through to doctoral studies. It is available to tertiary education institutions (TEIs), as well as those private training establishments (PTEs) and other tertiary education providers (OTEPs) that have met the required quality standards and demonstrated the relevance of their provision to the Tertiary Education Commission (TEC). Funding is allocated on a per student basis, with differential rates set by subject area. It is a contribution towards the costs of education. In most cases an enrolment fee is also charged to the student.

International students also make up a significant number of formal students (50,450 in 2004). New Zealand attracts international students from around the world, with 86 percent coming from the Asia-Pacific region. International students are required to pay the full costs of their tuition. Australian citizens and New Zealand permanent residents are treated as domestic students and therefore can attract Student Component funding and pay domestic fees.



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Industry training provides training designed by and delivered in conjunction with industry, which counts towards recognised qualifications. The costs of training are jointly funded by government and industry. The training is administered and supported through the 41 industry training organisations (ITOs), which have been established by particular industries or groups of industries.

All trainees enter into a training agreement with their employer. Most of the training takes place on the job and progress is assessed by registered assessors. On-job training can take a number of forms. The learning can be self-paced, or the training can be delivered by an experienced staff member or an external trainer. In some cases, on-job training is complemented by off-job training purchased from tertiary education providers (TEPs).

Modern Apprenticeships are a work-based education initiative for young people aged 16 to 21 that combines training apprenticeships with training towards recognised qualifications at levels 3 and 4 of the qualifications register. Each apprentice has an individual training plan that includes the range of specific and generic skills to be learnt. The apprenticeships are administered by the TEC which contracts the services of Modern Apprenticeships Co-ordinators. The co-ordinators act as mentors to the apprentices and their employers.

The government provides several **targeted training funds**, which provide fully-subsidised education and training to specific groups:

- Youth Training is targeted to youth up to the age of 18, who have left school with no or very low qualifications. The programmes funded by Youth Training provide foundation and vocational skills training at levels 1 to 3 of the qualifications register.
- Training Opportunities is a labour market programme for people aged 18 and over who are disadvantaged in terms of employment and educational achievement. The programmes funded by Training Opportunities provide foundation and vocational skills training at levels 1 to 3 of the qualifications register.
- Skill Enhancement is a vocational training programme for young Māori (Rangatahi Māia) and young Pasifika (Tupulaga Le Lumana'i). The programmes funded by Skill Enhancement provide a bridge from school to work or further tertiary education, in a wide range of skills, including trade skills at levels 3 and 4 of the qualifications register.

Learning environments

The traditional image of tertiary education is the lecture theatre, with anything from 50 to 500 students listening and taking notes as a lecturer or tutor explains the subject. This is by no means the case today. Tertiary education includes a wide range of learning environments. Large providers are increasingly decentralising their campuses to provide access to tertiary education in more communities. Tertiary education includes a range of practical and theoretical activities. On-job education and training is becoming more common, and not just within industry training.

A notable trend over the last five years has been the growth in **extramural or distance education**. Provision ranges from fully distance-based learning, through to courses involving on-campus block courses and local learning groups with tutoring and mentoring support. Around 33,300 students in 2004 were taking courses of this kind.

The development of **e-learning** has also had a major impact on tertiary education in New Zealand. E-learning in tertiary education ranges from the use of technology to support teaching and learning in an on-campus course through to fully online courses that can be studied from anywhere in the world.

Non-formal learning

Adult and Community Education

ACE provides a bridge to further learning opportunities. It fosters a culture of lifelong learning, active citizenship, critical social awareness and increased control over the future for individuals and communities. The five national priorities for ACE are:

- Strengthening social cohesion
- Strengthening communities by meeting identified community learning needs
- Encouraging lifelong learning
- Raising foundation skills
- Targeting learner groups whose initial learning was not successful.

ACE is supported by and delivered through a range of community organisations. Funding for ACE is also available to schools and tertiary education institutions.

ACE Networks are collaborative groups of local ACE providers and practitioners who deliver a range of courses and liaise with interested and relevant agencies. The networks are varied in nature, reflecting local conditions and requirements.

The **ACE Innovation and Development Fund** has been set up to encourage and support flexible and responsive provision of ACE at local levels. It provides one-off funding of \$10,000 for projects that address emerging needs, social development and/or priority learner groups.

The **ACE New Provider Fund** was established in May 2004 to support previously unfunded ACE providers whose programmes and activities align well with the government's ACE priorities. The fund was allocated for the first time in July 2005.

Community Learning Aotearoa New Zealand (CLANZ) allocates small amounts of funding to community groups for community learning needs. Grants are usually under \$2,000, although special projects may receive up to \$10,000.

The government also funds ACE programmes in secondary schools. These programmes include adult foundation learning, languages, culture, art and leisure, business development, and health and fitness. There were 174,000 enrolments in 2004. Funding for schools was transferred from the Ministry of Education to the TEC at the start of 2004.

TEIs have also been able to run ACE programmes using Student Component funding. ACE programmes were provided by eight universities, 19 institutes of technology and polytechnics (ITPs), three colleges of education (CoEs) and two wānanga in 2004 and attracted 288,500 learners.

The huge increase in TEI ACE provision in 2003 and 2004 has led to significant policy changes in this area which will see greater consolidation and control of ACE funding in 2006. The new funding arrangement will involve the establishment of a single pool of ACE funding available to all ACE providers. There will also be a new funding framework to create a level playing field for all providers on the basis of the five ACE priorities referred to above. This will significantly increase the access community providers have to ACE funding, while limiting provision by TEIs.

Adult literacy and foundation education

A range of learning opportunities is also funded in the area of adult literacy and foundation education. The **Adult Literacy**

Innovations Learning pool provides funding for quality literacy learning opportunities. It provides funding for:

- new approaches
- reaching learners not currently accessing literacy learning
- strengthening literacy in existing provision, and
- learning with a focus on family and community links, new pathways and special groups.

In 2005, this fund became part of the overall Foundation Education Learning Pool.

The **Workplace Literacy Fund** supports improved literacy in the workplace. **Workbase**, the New Zealand Centre for Workforce Literacy Development, administered funding for basic skills until 2005, as well as promoting workplace literacy and supporting the development of literacy resources. The funding is now directly administered by the TEC.

There is a range of support provided for **English for Speakers of Other Languages (ESOL)**. These include:

- the National Association of ESOL Home Tutor Schemes, which provides English language skills and resettlement support for migrants
- the Multicultural Centre for Learning and Support Services (MCLaSS), which provides language and settlement support to migrants
- Community ESOL Advisory Services, which assess the learning needs of new migrants, and
- the English for Migrants scheme, which provides English language tuition for migrants to New Zealand who have pre-paid their training.

ESOL tuition is also provided through other funded provision, including Training Opportunities and Student Component-funded courses.

Tertiary education within senior secondary schools

The development and introduction of the National Certificate of Educational Achievement (NCEA) has supported new options for accessing tertiary education within the senior secondary school.

The **Gateway** programme enables senior secondary school students to access workplace learning as an integrated part of their school education. Students pursue individual learning



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programmes, gain new skills and knowledge in a workplace or their local community and gain unit standards that can be credited towards NCEA or other national certificates.

The **Secondary-Tertiary Alignment Resource (STAR)** assists schools to better meet the needs of senior secondary students by granting additional funding for schools to use in accessing a wide range of courses to provide greater opportunities for senior students. STAR funding is a capped resource available to schools with students in year 11 and over. The objectives of STAR are to enable schools to:

- facilitate transition to the workplace for students, particularly those intending to go straight into the workforce or those likely to leave school without any formal qualifications, and
- provide or purchase tertiary-type courses which will better meet students' needs, which will motivate them to achieve, and which will facilitate their smooth transition to further education, training and employment.

Courses can involve work-based learning and/or study towards credits for NCEA and recognised tertiary qualifications.

COMPETENCIES AND QUALIFICATIONS

The results of learning through tertiary education can be viewed in terms of improving competencies and attainment, or progress towards attainment, of recognised qualifications.

Key competencies in tertiary education – developing a New Zealand framework

The Tertiary Education Strategy 2002/07 (TES) placed a strong focus on the role of tertiary education in developing skills necessary for participation in society, including:

- Raising foundation skills so that all people can participate in New Zealand's knowledge society, and
- 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.

Recent international research advocates a shift in emphasis from precisely defined 'skills' to the broader term 'competency'.

A competency includes all the skills, knowledge, attitudes and values needed to do something.

Competency does not exist as something that can be learnt in isolation. It is demonstrated in the performance of a task. Competence is developed most effectively in contexts that have meaning and purpose. It also exists on a continuum from novice to expert.

Towards a New Zealand framework

The Ministry of Education has developed a discussion document offering a New Zealand framework for key competencies for the tertiary education sector. The framework proposes three key shifts:

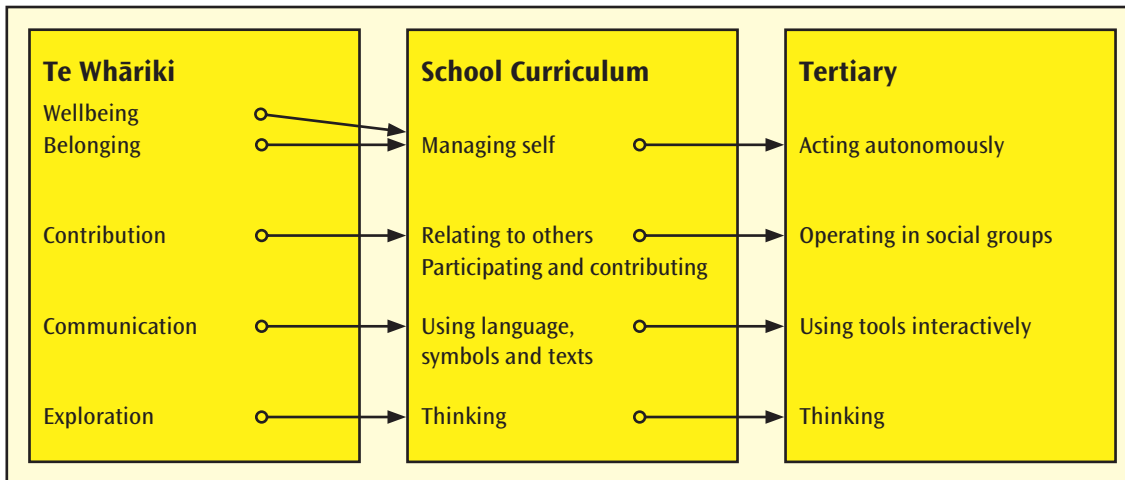
- building a shared understanding of desired outcomes in relation to key competencies within and between the education and employment sectors
- developing higher levels of competence for effective participation in the knowledge society, and
- enhancing teaching and learning of key competencies in tertiary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

The tertiary education framework has four groups of key competencies:

- operating in social groups, including relating to others, managing and resolving conflict and motivating groups to achieve a particular outcome
- acting autonomously, including identifying and taking action regarding one's interests, limits and needs and acting within the big picture/larger context
- using tools interactively, which means the ability to understand, use and make meaning from language, literacy and numeracy, symbols, knowledge and technology, and
- thinking, including creative thinking, critical thinking, reflection and judgement.

International work is also being used in redefining the essential skills of the New Zealand school curriculum. This will lead to a consistent framework for key competencies across the wider education system. The figure below 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 5.1: ALIGNMENT OF KEY COMPETENCY FRAMEWORKS ACROSS SECTORS



Source: Ministry of Education (2005), *Key Competencies in Tertiary Education, Developing a New Zealand Framework, discussion document*. (Updated to reflect latest draft of school curriculum key competency groups)

The Ministry has been seeking feedback on the discussion document before moving into implementation of the framework. Existing mechanisms such as the National Qualifications Framework (NQF) and charters and profiles will be used to enable the framework to be embedded into practice.

Learning for Living – a focus on foundation competencies

Raising foundation skills so all people can participate in our knowledge society is a key element of the TES. The goal of the government’s Learning for Living programme is to build adults’ fluency, independence and range in language, literacy and numeracy so that they can use these competencies to participate effectively in all aspects of their lives.

Learning for Living is about making a range of shifts in understanding, thinking, practice and outcomes at all levels of the tertiary education sector in order to ensure that programmes deliver the competent individuals that New Zealand needs. In order to build literacy, language and learning in New Zealand adults, these shifts will need to include:

- moving towards a shared understanding across education providers and employers of the literacy, language and numeracy competencies that all adults need
- clearer articulation of literacy, language and numeracy competencies in a broad range of existing tertiary courses and qualifications (including courses that focus on specific knowledge and skills), and
- capability development to increase the effectiveness of literacy, language and numeracy teaching.

The first phase of the strategy is the development of a set of aligned initiatives that will improve quality and build capability. These initiatives comprise:

- developing descriptive standards that define competence in reading, writing, speaking, listening and numeracy
- learning progressions to provide snapshots of what adults know and can do as they build their competency from novice to expert
- teaching and learning materials, including assessment tools
- professional development and educator qualifications, and
- tailored quality assurance arrangements, unit standards and course statements.



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This phase is supported by a number of research and development projects across a range of foundation learning, which will develop knowledge about:

- access and participation
- funding and targeting
- effective integration of foundation learning into broader learning programmes
- development of expertise
- quality assurance arrangements, and
- professional development.

The New Zealand Register of Quality Assured Qualifications

The New Zealand Qualifications Authority (NZQA) was established in 1990 with a key function of having an overview of qualifications in the senior secondary school and tertiary education sectors. This function was initially exercised through the development of the NQF, comprising national certificates and diplomas and their component standards. This framework has now been expanded through the development of the New Zealand Register of Quality Assured Qualifications, which incorporates qualifications recognised and assured by universities, ITPs and CoEs.

The register provides a way of:

- identifying clearly all quality-assured qualifications in New Zealand
- defining common naming conventions and requirements across the various systems of qualification approvals
- ensuring that all qualifications have a purpose and relation to each other that students and the public can understand
- maintaining and enhancing learners’ ability to transfer credit by the establishment of a common system of credit, and
- enhancing and building the international recognition of New Zealand qualifications.

The register establishes 10 levels of qualifications and the qualification titles that can be used at each level.

FIGURE 5.2: LEVELS AND QUALIFICATION TITLES FOR THE NEW ZEALAND REGISTER OF QUALITY ASSURED QUALIFICATIONS

LEVEL	NAMING SEQUENCE
10	Doctorates
9	Masters Degrees
8	Postgraduate Diplomas and Certificates, Bachelors Degrees with Honours
7	Bachelors, Graduate Diplomas
6	Graduate Certificates
5	Diplomas
4	Certificates
3	
2	
1	

Source: New Zealand Qualifications Authority (no date), The New Zealand Register of Quality Assured Qualifications, Te Āhurutanga

For each qualification there is a statement of learning outcomes, which includes what the whole qualification represents in terms of the application of knowledge, understanding, skills and attitudes, as well as the components of the qualification.

Each qualification has a specific credit value which represents the amount of learning and assessment that is typically required to achieve the qualification.

The general qualification definitions are as follows:

Certificates may be used in a wide range of contexts across all levels up to and including level 7, and are often used to prepare candidates for both employment and further education and training.

Diplomas often prepare learners for self-directed application of skills and knowledge. These qualifications often build on prior qualifications or experience and recognise capacity for initiative and judgement in technical, professional and/or managerial roles.

Graduate Certificates are designed primarily as a vehicle for graduates to pursue further study at an undergraduate level, either as a bridge to further study in a new area or to broaden and deepen existing knowledge areas.

Bachelors Degrees provide a systematic and coherent introduction to the knowledge, ideas, principles, concepts, chief research methods and problem-solving techniques of a recognised major subject or subjects. They involve at least one sequential study programme preparing learners for postgraduate study and supervised research. Bachelors degree programmes are taught mainly by people engaged in research and emphasise general principles and basic knowledge as the basis for self-directed work and learning.

A **Bachelors Degree with Honours** may be awarded to recognise advanced or distinguished study in advance of a level 7 Bachelors Degree. It typically involves an additional year of study and/or research at level 8.

Graduate Diplomas are designed as a vehicle for graduates to pursue further study at an undergraduate level to either broaden knowledge and skills in a familiar subject or discipline or develop knowledge in a new area.

Postgraduate Certificates serve to recognise continuing professional development in the same area as the candidate's original degree. They are designed to extend and deepen knowledge and skills through formal instruction and directed inquiry.

Postgraduate Diplomas are designed to extend and deepen a candidate's knowledge and skills by building on attainment in the principal subject(s) of the qualifying degree. They provide a systematic and coherent survey of current thinking and research in a particular body of knowledge and may include instruction in relevant research methodologies.

Masters Degrees are normally designed to build on the principal subject(s) of the qualifying degree. However, the degree may build on relevant knowledge and skills derived from occupational experience, as in the Master of Business Administration (MBA). Different discipline areas have different traditions. Typically they require students to demonstrate mastery of theoretically sophisticated subject matter; evaluate critically the findings and discussions of literature; research, analyse and argue from evidence; apply knowledge to new situations; and engage in rigorous intellectual analysis, criticism and problem-solving. A Masters degree programme contains a significant element of supervised research, usually resulting in a thesis, dissertation or substantive research paper.

Doctoral Degrees are research degrees at a significantly higher level than masters, undertaken under the guidance of recognised experts in the field of study. The doctorate is awarded on the basis of an original and substantial contribution to knowledge as judged by independent experts applying contemporary international standards.

A **Higher Doctorate** is awarded for independent work of special excellence, as judged by leading international experts, which is completed before a person makes an application to enrol for the degree. **Honorary Doctorates** are awarded in recognition of exceptional contributions made to the institution awarding the degree, to a profession or to society at large.



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RESEARCH AND KNOWLEDGE CREATION AND TRANSFER

The country's innovation system is a complex network of research organisations, educational institutions, industry associations, financial institutions and communities. That system relies on the supply of knowledge, highly-skilled workers and financing to support the growth of new ideas, products, processes and organisations to create economic, social and environmental benefits.

The tertiary education system plays a key role in furthering research and innovation in New Zealand. The advancement of knowledge through education and research is a core function of the tertiary education sector. The sector also undertakes significant research focused on adapting, transferring and exploiting domestic and international knowledge and technology. It does this alongside, and sometimes in partnership with, other research organisations, industry and business, community organisations, and government. The tertiary education sector is responsible for the largest share of the country's research output.

Most importantly, the tertiary education sector is responsible for the training of the research workforce and for producing graduates with skills, knowledge and attributes that enable them to contribute to the innovation system.

The primary roles of tertiary education research activities are to:

- support degree-level teaching and ensure that degree graduates are of high quality and informed by up-to-date scholarship and developments in the knowledge base
- train New Zealand's future knowledge-creators and innovators
- contribute to improving the knowledge base through high-quality research that generates new knowledge, and
- interpret new knowledge and disseminate it as a means of influencing people in communities and business.

Universities make an important contribution to the national research effort in the area of basic research, which involves exploring and expanding the frontiers of knowledge. Whereas the Crown Research Institutes (CRIs) and many other research providers are more likely to focus on applied or strategic research, the traditional role of the universities in postgraduate training and the nature of the funding for research in the

universities mean that university-based researchers have greater opportunity to work in basic research. Statistics New Zealand (SNZ) estimates that two thirds of all research conducted in the tertiary education sector is basic research. The survey reports that just over half (51 percent) of the basic research in New Zealand was conducted in the universities.¹

As part of the tertiary education reforms, the government has developed two major new means of promoting and funding research in the sector.

The first is the **Centres of Research Excellence (CoREs)** established during 2002 and 2003. The CoREs have been designed to support world-class research that will contribute to New Zealand's development as a knowledge society. The CoREs are inter-institutional research networks with researchers working together on a commonly agreed research plan.

The second is the **Performance-Based Research Fund (PBRF)**, which is being phased in over the period 2004 to 2007 and will shift the basis of research funding from a system based on student enrolments to one where funding will be allocated on the basis of research performance.² One consequence of the shift to the PBRF is that much more information is now collected on research in tertiary education, for example the quality of the research, the people conducting research in tertiary education organisations and the relative research performance in different research fields and organisations.

A considerable amount of tertiary research is also funded through research contracts. Some of these come from government-managed research funds, such as those administered by the Foundation for Research, Science and Technology (FRST). However, many of them come from the private sector. In some areas, universities and some ITPs have entered into more formalised knowledge creation and transfer programmes with the private sector, involving joint research programmes, commercialisation of research outputs and development of research and technology parks.

¹ Statistics New Zealand, *Research and Development Survey 2004*. The survey estimates that about 35 percent of all New Zealand research is basic research. It makes these estimates by calculating the expenditure on research activities by research type, as reported in the responses to its survey.

² Detailed information on the operation of the PBRF can be found in *New Zealand's Tertiary Education Sector: Profile & Trends 2002*, Ministry of Education (2003), pages 108-110 and in *Performance-Based Research Fund: Evaluating Research Excellence – the 2003 Assessment*, Tertiary Education Commission (2004), pages 15-23.