



Qualification Frameworks in the Asia-Pacific Region

APQN Project No. 2

By

Manuel T. Corpus

Accrediting Agency of Chartered Colleges and Universities in the Philippines
(AACCUP), PHILIPPINES

Anthony Davies

New Zealand Qualifications Authority
(NZQA), NEW ZEALAND

Judy Forsyth

Australian Qualifications Framework Advisory Board Secretariat
(AQFAB) AUSTRALIA

Felix Leung

Hong Kong Council for Academic Accreditation
(HKCAA), HONG KONG

Miriam S. Cervantes

Accrediting Agency of Chartered Colleges and Universities in the Philippines
(AACCUP), PHILIPPINES

Kapugamage Tillekeratne

Wayamba University
SRI LANKA

Dominic T. Martinez

Researcher

Introduction

The development of national qualifications framework (NQFs) is a major theme internationally. Initially, the development of such frameworks was largely restricted to the British Commonwealth countries, such as Scotland, South Africa, Australia and New Zealand. Over the last twenty years this interest has extended to other parts of the world. The format and detail of such frameworks vary from quite prescriptive to loose types of frameworks.

This whole area of qualifications framework is under considerable change, with the development of a European Union Qualifications Framework, along with a number of other regions examining ways to develop both country and regional frameworks for benchmarking qualifications.

There is considerable development and interest by a number of countries in developing and enhancing qualifications framework. This project discusses issues around the design and structure of qualifications framework, reports on the survey of NQFs in countries in the region, discusses the challenges and advantages of implementing a qualifications framework and makes suggestions for the next steps in this project.

This project was established in 2003, at the inaugural APQN meeting in Hong Kong. Initially, it was proposed to undertake an inventory of qualifications framework in the Asia Pacific region. A preliminary report was made during the INQAAHE conference at Oman in March 2004. The survey was expanded in 2005, the results of which were presented at the APQN Conference in Shanghai, China in March 2006.

For the first time, this APQN Project No. 2 on “Qualifications Framework in the Asia Pacific Region” was finally proposed for funding in 2006. The scope of this study was also expanded to include the dynamics of the development of the QF in various countries. Because of this expansion of its scope, additional members of the Team, plus a researcher, were recruited. It is now composed of Judy Forsyth, Felix Leung, Tony Davies, Miriam Cervantes, Kapugamage Tillekeratne, Dominic Martinez, as Researcher; and Manuel Corpus, as the Project Team Leader. The final Team Report, including the five (5) country case studies written by the Members:

Judy Forsyth, Australia, pp. 13-19;
Felix Leung, Hong Kong, pp. 20-31;
Tony Davies, New Zealand, pp. 32-45;
Miriam Cervantes, Philippines, pp. 46-60; and
Kapugamage Tillekeratne, pp. 61-77

was presented during the APQN Conference at Kuala Lumpur, Malaysia last March 2007. Three Members of the Team (Judy Forsyth, Miriam Cervantes and Manuel Corpus) attended the Conference and presented the Team Report.

The Team acknowledges the contributions of the agencies represented in the Team in the form of manpower and finances, particularly the Hong Kong Council for Academic Accreditation which hosted the team meeting at Hong Kong in January 2007, and the Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACUP) for putting up a sizable amount to augment the budget still to be provided by APQN.

Section One: National Qualifications Framework

What is a National Qualifications Framework?

The organization of qualifications is one of the most basic features of any system of education and training. Generally, NQFs do not derive from specific needs, but more often from a national decision to establish a common framework that is as comprehensive as possible. NQFs tend to be top-down initiatives led by governments or government agencies.

NQFs:

- are often based on a set of general principles about how qualifications should be designed and what they should achieve;
- aim to provide a system for portability and transparency;
- establish commonality across different types of qualifications; and
- specifies qualifications in terms of standards, levels and outcomes.

What distinguishes a NQF from previous qualification systems?

NQFs:

- describe qualifications as a single set of criteria or a single definition of what is to count as a qualification;
- rank qualifications, usually as a single set of levels with a distinct level descriptors;
- describe vocational qualifications usually in terms of a comprehensive set of occupational fields;
- describe qualifications in terms of learning outcomes rather than prescribing inputs in terms of syllabus, lengths of teaching time, etc.
- provides a set of benchmarks against which any learning can be assessed in terms of its potential contribution to a qualification; and
- defines qualifications in terms of elements (e.g. units, credits, standards)

Principles underpinning a NQF

NQFs should:

- be achieved by accumulation over time, including credit accumulation and transfer;
- be transportable i.e., units of one qualification should be used for other qualifications;
- be transparent – that is, learners should know precisely what learning outcomes they are required to demonstrate to achieve a qualification; and
- not require any specific prior learning program;

The introduction of an NQF usually involves two processes; the balance between them will depend on the level of provision in a country and the existing system that is being replaced. The first process is the redesign of existing qualifications to fit the criteria of the framework, and the second is the development of new qualifications based on the framework criteria in occupational sectors and at levels where they may not have previously existed. These two processes have particular relevance to countries in the Asia-Pacific region which may be considering developing or further developing qualifications frameworks.

The extent to which an outcomes-based framework leads to a complete replacement of the old system depends on how prescriptive the criteria of the new framework are, and whether the framework criteria are made a legal requirement by the government.

Section Two: Background in Developing an NQF

The general concept of developing an NQF has its origins in a competence approach to vocational education and the need to manage the proliferation of qualifications and qualification bodies that had developed from the 1960s. The development of the NQFs in the 1990s had their origins in the neo-liberal economic policies of the 1980s and early 1990s, which were particularly dominant in the UK and New Zealand. These policies emphasized the primary role of the private sector in economic development. Consequently, it was assumed that employers themselves would be in the best position to identify training needs and to say what kind of vocational qualifications were needed. In both countries, the trade unions tended to be excluded, because of their association with “on-the-job” training and traditional apprenticeships.

The second driver for the development of NQFs was the need to provide some form of qualification to youth, who in previous periods would have gained unskilled manual jobs, but now with advancing changes in industry required to receive more formal training – and hence the recognition of this in the form of a qualification.

In New Zealand, the major driver was to place more control at the center, by creating the New Zealand Qualifications Authority, which was charged with creating a national qualifications system, and eliminating the large number of qualifications boards. In the United Kingdom, it was used to provide a mechanism for transferring the control of vocational education from providers to employers. In the UK, the idea of a national framework resurfaced and was linked to the government’s new interest in lifelong learning.

The third stage in the development of NQFs came around 2000, when qualifications frameworks were seen as a way of encouraging learning among low achievers in schools, and providing a link from senior secondary education to adult learning – both of which have been given a more vocational role with the aim of improving people’s employability along with governments desire to enhance their country’s knowledge economy.

Section Three: Types of NQFs in the Asia-Pacific Region

The APQN project has surveyed countries in the region, examined country websites in order to obtain information on NQFs. Across the Asia-Pacific region there are differences in how NQFs have been introduced and developed, which has resulted in different characteristics of NQFs. Despite strong cross national similarities within the region, there is no one model for an NQF which any country wanting to introduce a national framework must adopt.

Complete Frameworks

There are two types of complete qualifications frameworks found in the Asia-Pacific area: Enabling and Strong frameworks.

Enabling Frameworks

These frameworks give some indication of progression of pathways and staircasing between levels and in principle across sectors. This type of framework means that it has the potential to assist both learner and those involved in career guidance in making choices. These types of frameworks rely on agreement and have a low level of prescription and regulation. Some may see the Australian Qualifications Framework as a framework of this type, but in its actual implementation for the vocational education and training qualifications it is closer to a 'strong' framework (see country report).

Strong Frameworks

This describes the type of framework that is able to achieve the goals set out by government. It is often characterized by degree of prescription, with strict requirements that are specified for including a qualification on the framework. An example of this type of framework is the New Zealand Qualifications Framework (see country report).

Complete but not yet Unified Qualifications Frameworks

This describes where there are complete frameworks in one or more areas, but there is not a total qualification framework. An example of this type of framework is the Philippines which has developed a vocational and training framework, which is not yet unified with the academic/higher education framework.

Partial Frameworks

These describe whether the framework covers all qualifications (vocational, training and academic) or just specific to type, level or sector. For example, some countries have frameworks that are by level, e.g., often many NQFs exclude university qualifications. An example of this type of framework is India.

Asia-Pacific Countries – Qualifications Frameworks

Complete QF	Complete but not yet unified QF	Partial QF	In Development	Not Developed or no information
Australia	Hong Kong	Fiji	Buthan	Bangladesh
New Zealand	Philippines	India	Brunei	Cambodia
Malaysia		Maldives	Pakistan	China
		Singapore	Samoa	Japan
		Sri Lanka		Laos
		Thailand		Macau
				Mongolia
				South Korea
				Vietnam

Section Four: Common Features of Qualifications Frameworks in the Asia-Pacific Countries

Rationalizing Qualifications Frameworks

Traditional education normally defines quality in terms of inputs, (e.g., faculty credentials, facilities, library, contact hours, etc.) Progressive educational systems, on the other hand, define quality in terms of outputs, i.e., what the students have learned, such as, skills, knowledge and desired attributes that they can use to qualify them to do certain tasks on their own. A qualifications framework can provide the structure within which the quality of educational institutions can be developed.

Stages of Development of QF

Australia and New Zealand are comparatively in the advanced stage of implementation. As pointed out earlier, qualifications frameworks started with Commonwealth countries with Australia and New Zealand included. A few countries have developed their QFs, are at the threshold of final adoption or are at the initial stage of implementation. Hong Kong, India and Sri Lanka fit into this mold. About two years back this survey found Malaysia, Philippines, Thailand and Indonesia formulating their respective NQFs. They have advanced substantially albeit awaiting approval of their frameworks either through legislation or by administrative fiat.

How is Qualifications Framework Understood?

The countries surveyed in this study define qualifications framework in so many different ways. Some elements found common in the adopted definitions can, however, be extracted, such as:

- a single and comprehensive system of qualifications;
- this system sets out agreed titles and descriptors;
- these titles and descriptors are used to support qualifications; and
- the framework covers all qualifications gained through study, training and experience.

The OECD contributes this definition of qualifications framework:

A qualifications framework is an instrument for the development and classification of qualification according to a set of criteria for levels of learning achieved. This set of criteria may be implicit in the qualification descriptors themselves or made explicit in the form of a set level descriptors. The scope of frameworks may be comprehensive of all learning achievement and pathways or may be confined to a particular sector, for example, initial education, adult education and training or an occupational area. Some frameworks may have more design elements and a tighter structure than others; some may have a legal basis whereas others represent a consensus of views of social partners. All qualifications frameworks, however, establish a basis for improving the quality, accessibility, linkages and public or labor market recognition of qualifications within a country and internationally.

Purposes of Qualifications Frameworks

The different countries have spelled out similar purposes or uses of the frameworks indicating borrowings from foreign models. Most stated purposes or uses of QFs are:

- to provide consistent recognition of outcomes;
- to help develop flexible pathways between education and training sectors, and between these sectors and the labor market;

- to insure consistency in the use of qualification titles; and
- to provide reference for quality assurance reviews.

Architecture of Qualifications: Levels and Descriptors

One of the main features that distinguishes a national qualifications framework from previous qualifications systems is the ranking of qualifications on a single hierarchy expressed as a single set of levels, each with its distinct level descriptors.

What is casually called the architecture of qualifications involves the determination of the levels and the corresponding specification of descriptors in terms of fairly concrete knowledge and performance indicators. The countries under study have adopted different number of levels and descriptors:

Countries	Number of Levels	With Descriptors?
Australia	11 (implicit)	Yes (implicit)
New Zealand	10	Yes
Hong Kong	7	Yes
Sri Lanka	6	Yes
Philippines	9	Yes
Malaysia	8	Yes
Thailand	5	
Maldives	11	No data
Fiji	8	No data

Section Five: Challenges and Successes in Developing NQFs

Lifelong Learning and Employability

The encouragement of lifelong learning and its contribution to employability is widely stated by governments as part of their rationale for introducing an NQF. However, it is now clear that the outcome of introducing an NQF is positive for the promotion of lifelong learning, as it is heavily dependent on changes in the demand for skills and knowledge, which the NQF itself can do little to stimulate. In the Asia-Pacific region countries, life-long learning or learning gained through informal means are intended to be credited in formal education, and in the levels of qualifications.

Role of Stakeholders

The development of an NQF can have the potential to involve the range of stakeholders involved. This can result in an advantage of providing greater involvement in decision making about qualifications and extending the sense of ownership of the framework. It can, if pushed too far, reduce quality and create bureaucratic delays, by shifting the balance from experts in different occupational fields to stakeholders. There is also a risk that an overemphasis on stakeholders who have a political interest, can also undermine the quality of qualifications.

The involvement of stakeholders is extensive as exemplified in the Hong Kong experience believing that acceptance and implementation of the QF would be facilitated if stakeholders are tapped in framing the NQF.

Modularity, Unitization and Credit

Most NQFs have been associated with developments variously referred to as unitization or modularization – i.e., the breaking up of qualifications into smaller components known as modules or units. The literature suggests that this approach would introduce greater flexibility for learners and employees. The criticism that is often leveled at this approach is that it can result in “educational grazing” with people acquiring units or modules of work, which may or not be related to a whole qualification.

Levels and Level Descriptors

An NQF has levels, usually with descriptors for distinguishing the levels of difficulty in progressing up to different levels. Examples of levels and level descriptors are attached in some of the country reports. In the development of level descriptors, it is quite difficult to achieve a balance. On the one hand, generic descriptors can sometimes be perceived as being too vague and general, whereas, on the other hand, very specific descriptors can be perceived as prescriptive and therefore quite restrictive. One of the more thoughtful attempts to develop an approach to levels is that undertaken by the Victorian Qualifications Authority in Australia.

Assessment Issues

An outcomes-based NQF requires a new approach to assessment based on formal criteria and the judgments of qualified assessors rather than the traditional approaches of examinations or tests. There are, however, problems with criterion-based assessment. The first concerns sampling. It is not easy to generalize beyond the sample and even less possible to state with confidence that the person being assessed has the required broader knowledge and skill to cope with all the circumstances. The second issue concerns whether the person being

assessed has the appropriate knowledge, either for a particular job or progressing to a higher level of qualification.

One way to overcome these difficulties is for the NQF criteria to be flexible enough to incorporate specific content as well as outcomes in their definition of a qualification and that these are linked to appropriate forms of assessment which are likely to include examinations.

Integration of Vocational and Academic Learning

There are both administrative and political reasons for integrating all qualifications within a single framework. Administratively, a single integrated framework should be more coherent, easier to manage and ought to make all kinds of progression simpler. Politically, integration is tied to the concept of promoting parity between academic and vocational learning. This often results in serious division and debate between the two sectors. Some see such a concept as “dumbing down” the rigor of academic learning and doing away with the idea of education for its own sake. Others perceive it as a way to broaden training by requiring it to be more educational.

The Recognition of Prior Learning (RPL)

One of the expected outcomes from establishing NQFs has been the promise of recognizing prior learning. This was seen as particularly important for those who had been excluded from formal schooling, while recognizing the considerable skills and knowledge that people gain in informal ways. The major impediment is the restriction on compatibility between informal skills and knowledge developed in specific circumstances. An example of this is the learning associated with Maori indigenous culture in New Zealand. Another impediment is that when people do get formal qualifications through RPL, such qualifications are rarely recognized as equivalent to those obtained through formal study. There is also a discrepancy between the activities required to submit evidence of the learning engaged in at work and the actual learning involved. Another impediment is the infrastructure issues which could require independent (of providers) assessment centers and trained assessors that are widely distributed and accessible.

Costs

There is a cost in operating an NQF. As a result of this, operating and running an NQF can be seen as taking resources away from other activities. This has particular implications for the Government and/or stakeholders in terms of ensuring there is adequate resourcing to implement and manage the ongoing requirements of the qualifications framework. This requires a resource strategy to be developed prior to implementation, which includes the ongoing implementation costs as well as public information, etc.

Many of the countries studied reported getting technical assistance from other countries and regional agencies, like, the Asian Development Bank. In addition, some countries pooled the resources of the principal agencies involved in the pre-implementation stage, and the assistance of other stakeholders.

Section Six: Issues for APQN

There are a number of issues that could be considered for further consideration, either by regional groups such as the APQN or alternatively, other regional organizations such as UNESCO, APEC, etc.

An Asia-Pacific Seminar on Qualifications Frameworks

The project team suggests that APQN might like to consider organizing a seminar on Qualifications Frameworks for countries that are considering developing or further developing their qualifications frameworks. This could draw on the material of this project, along with using key people from within the region to run various sessions.

Establishment of an Asia-Pacific Regional Qualifications Framework

The development of the Bologna process for higher education qualifications in Europe, along with the European Qualifications Framework may impact on this region as well. In particular, the European Union has indicated a desire to benchmark its framework to regional frameworks rather than individual country frameworks. APQN may need to consider whether it has a role in facilitating discussion about establishing such a Framework.

Quality Assurance of Qualifications in the Asia-Pacific Region

The development of qualification frameworks across the Asia-Pacific region will require these to be effective, and agreed quality assurance mechanisms to be in place across the region. The European Union has drawn up some generic principles to guide individual countries in the European Union about what needs to be put in place for quality assurance of both qualifications and education provision.

Networks and Linkages across the Asia-Pacific Region

There is a huge range of experience across the region in developing and maintaining qualifications frameworks. Countries which are at the beginning of the process could learn valuable lessons from those that have already implemented or partially implemented qualifications frameworks, and thus avoid many of pitfalls and problems. APQN has a list of both individuals and organizations that could be used to assist countries considering developing and implementing qualifications frameworks.

Conclusion

National Qualifications Frameworks has been a major theme in debates especially in fora held under the auspices of the International Labor Organization.

The phenomenon has reached the Asia Pacific region. Growing interest in QF among AP countries has been noted. While adoption of NQFs appears to take a slow pace, the trend is increasing. This can be due to external influences rather than internal initiatives.

As NQFs are introduced, formulated and implemented, the countries will invariably face certain issues which were encountered by those who have had earlier experiences.

The issues identified by the Team resulting from this study include the organization of a seminar on QF; the prospect of establishing an Asia-Pacific QF; the quality assurance of qualifications; the quality assurance of the provision of education; and the establishment of materials and linkages in the Asia Pacific region.

Attending to these issues poses an opportunity and a challenge to APQN. This report can augment other literature on QF especially as it represents the initial effort in the study of QF in this region.

THE AUSTRALIAN QUALIFICATIONS FRAMEWORK (AQF)

By
Judy Forsyth
AQFAB, Australia

Why the Qualifications Framework was developed?

The Australian Qualifications Framework (AQF) is the framework for the recognition and endorsement of all national qualifications in post-compulsory education and training in Australia. The AQF was established in 1995 by the Ministers responsible for education, employment, training and youth affairs in the State, Territory and Australian Governments – known as the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) – to give effect to agreed standards in relation to the provision of education and training in Australia.

The AQF is a continuation of a well-established system of national tertiary awards, authorised by all Governments in the federation of Australia, dating back to the 1970s. It was developed in response to a decision by MCEETYA that the overall system of qualifications should support the major reforms in vocational and technical education (VTE) in the 1990s, which required a new suite of national qualifications based on industry competency standards. This decision reflected a key objective of Ministers to support continuous learning across the interfaces among all three sectors – schools, VTE and higher education – through cross-sectoral articulation of programmes, credit transfer and recognition of prior learning. So the AQF at the outset had two main objectives: to reform the training system and to ensure that all qualifications it comprises are brought into productive relationships, giving access to both employment and continuous learning.

The AQF aims to:

- provide nationally consistent recognition of outcomes achieved in post-compulsory education;
- help with developing flexible pathways which assist people to move more easily between the education and training sectors and between those sectors and the labour market by providing the basis for recognition of prior learning, including credit transfer and experience;
- integrate and streamline the requirements of participating providers, employers and employees, individuals and interested organisations;
- offer flexibility to suit the diversity of purposes of education and training;
- encourage individuals to progress through education and training by improving access to qualifications, clearly defining avenues for achievement, and generally contributing to life-long learning;
- encourage the provision of more and higher quality vocational education and training through qualifications that meet individual, workplace and vocational needs, thus contributing to national economic performance; and
- promote national and international recognition of qualifications offered in Australia.

The Australian Qualifications Framework

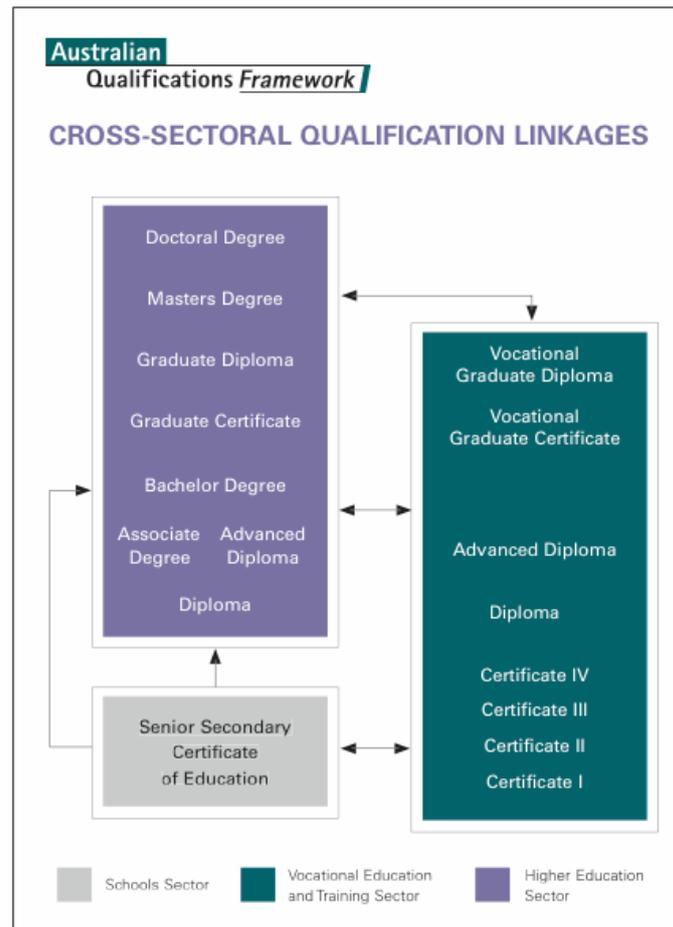
The AQF classifies the (now) fifteen national qualifications according to the “accrediting” sector – the sector responsible for setting the standards and the underpinning quality assurance mechanisms – and according to pathways for progression of learning within and between sectors. Each qualification is described in a detailed AQF Guideline including outcomes and pathways descriptors (see Appendix One).

The AQF Guidelines are revised on a cyclical basis to ensure they remain best practice. The VTE qualification descriptors are currently under review to ensure they reflect contemporary industry practice.

The following two AQF diagrams represent its basic structure:

AQF Table of Qualifications (by sector of accreditation) March 2005

Schools Sector Accreditation	Vocational and Technical Education (VTE) Sector Accreditation	Higher Education Sector Accreditation
Senior Secondary Certificate of Education	Vocational Graduate Diploma Vocational Graduate Certificate Advanced Diploma Diploma Certificate IV Certificate III Certificate II Certificate I	Doctoral Degree Masters Degree Graduate Diploma Graduate Certificate Bachelor Degree Associate Degree, Advanced Diploma Diploma



The AQF is complemented by an AQF Register of Recognised Education Institutions and Authorised Accreditation Authorities in Australia, which facilitates public verification of all qualifications approved by governments for offer in Australia.

A detailed description of standards setting, quality assurance and certification for each sector follows.

Schools sector

Under the AQF, the Senior Secondary Certificate of Education (SSCE) is a generic national title for the senior secondary certificates which the States and Territories have legislative responsibility to accredit and issue.

Within each State and Territory, statutory bodies exercise three levels of quality assurance: curriculum development including explicit standards as a basis for reliable assessment; registration and accreditation to control consistency of standards and currency of the qualification; and external examinations, assessment validation and external moderation procedures.

The statutory bodies meeting as a national agency have set national guidelines for assessment quality and equity, and national principles and protocols for certification.

Schools also deliver VTE qualifications under VTE compliance requirements and consistent with MCEETYA national guidelines for VTE in schools.

Finally, MCEETYA 'Common and Agreed Goals for Schooling in Australia' constitute a basis for measurable targets, monitoring and evaluation and public accountability to underpin all years of schooling, including the final years certificated as the SSCE.

Vocational and Technical Education (VTE) sector

The Australian governments have established a national training system founded on a partnership between governments and industry. Through the former Australian National Training Authority (ANTA) and currently through the Australian Government Department of Education, Science and Training (DEST), a national system of VTE has developed, such that standards setting, quality assurance and the issuing of AQF qualifications in the VTE sector is nationally standardised to a much greater extent than in other Australian education sectors.

An important feature of the Australian national training system is the key role played by employers and industry in the development of training policies, priorities and the National Skills Framework which provides the overarching quality assurance framework underpinned by the AQF. This provides a common foundation for the national recognition and integrity of Registered Training Providers and the qualifications they issue. It also ensures that the VTE system delivers skills that employers need in the workplace.

A key component of the National Skills Framework is Training Packages. They comprise nationally endorsed competency standards and assessment guidelines aligned to the respective AQF VTE qualifications for the delivery of training, and the recognition and assessment of skills and knowledge. Under standard packaging rules, Training Packages are developed by industry through national Industry Skills Councils to meet the identified training needs of specific industries or industry sectors, and are regularly reviewed. State and Territory governments only accredit courses in very specific circumstances where there are no endorsed Training Packages. Accredited courses comprise sets of competencies against the respective AQF VTE qualifications guidelines.

A Statement of Attainment is issued in recognition of completion of selections of competencies, which may in turn accumulate towards a full qualification.

The Australian Quality Training Framework (AQTF) is another key element of the National Skills Framework which provides the basis for a nationally consistent, high quality VTE system. The AQTF comprises two sets of nationally agreed quality standards:

- *Standards for Registered Training Organisations (RTOs)* – RTOs must meet these standards in order to be registered to deliver and assess nationally recognised training and issue nationally recognised qualifications.
- *Standards for State and Territory Registering/Course Accrediting Bodies* – these standards provide a common framework for the authorities in each state and territory that register and audit training organisations and accredit courses.

Registration of a training organisation as an RTO occurs under the AQTF and is a responsibility of each State/Territory Training Authority. RTOs are publicly listed on a national register, the National Training Information Service.

The National Quality Council (NQC) oversees quality assurance of the system. The NQC endorses Training Packages and other quality assurance arrangements, such as changes to the AQTF, under the National Skills Framework. The NQC also ensures the national consistency in the application of the AQTF standards for the registration and audit of RTOs. It has a key role in bringing together the major players in the VTE sector – industry, unions, governments, equity groups and practitioners – to oversee and support the current and future quality of VTE across Australia. The role of the NQC is also critical to ensuring the successful operation and national consistency in terms of qualifications and the delivery of training.

The National Skills Framework guides the States and Territories in their regulation and quality assurance of the national training system. It helps ensure that the system provides quality, industry-relevant training and that its products and services are mutually recognised by all RTOs across State and Territory borders.

While each State and Territory is primarily responsible for registering and auditing training providers, and accrediting courses, the Australian Government has a key leadership role and works closely with States and Territories to improve national consistency and quality.

Higher education sector

For AQF higher education (HE) qualifications, the AQF Guidelines codify standards set by the universities in a continuation of practice under a former system of tertiary awards by which Ministers ensured that the HE awards issued by non-university providers were at the same standard as the universities.

Universities (and a small number of other higher education institutions) are authorised by government to accredit their own qualifications. Universities set standards for qualifications designed to enable graduates to operate anywhere, and in any sphere, at a level of professionalism consistent with best international practice and in ways that embody the highest ethical standards. The universities are supported in their standards setting by the Australian Vice-Chancellors' Committee which has developed sets of national guidelines on the 'Nature of a University'; a 'Code of Practice for maintaining and monitoring academic quality and standards for higher degrees', and a 'Code of Ethical Practice for provision of education to international students in Australian universities'. The self-accrediting higher education institutions are required by government to have appropriate quality assurance process in place and must report annually to the Commonwealth government on an extensive range of indicators as a condition of receiving public funding. Their quality assurance processes are also subject to external audit by an independent Australian Universities Quality Agency (AUQA). The self-accrediting institutions are listed on the national AQF Register by way of confirming the government-approved standing of the qualifications they offer.

AQF higher education qualifications issued by other approved higher education institutions are accredited by State and Territory HE accreditation authorities in compliance with the requirements of the AQF guidelines for HE qualifications. Like the universities, the Government accreditation authorities are subject to external audit by AUQA. The State and Territory authorities maintain public registers of the institutions and their approved courses and these registers are a subset of the national AQF Register.

In 2000, MCEETYA endorsed the *National Protocols for Higher Education Approval Processes* (the 'National Protocols') which are a key element of the national quality

assurance framework for Australian higher education. They protect the standing of Australian higher education nationally and internationally by assuring students and the community that higher education institutions in Australia have met identified criteria and are subject to appropriate government regulation. This is underpinned by legislation enacted in all States and Territories giving effect to the National Protocols. In July 2006, MCEETYA approved revised National Protocols, which will take effect from 31 December 2007, pending development of National Guidelines and legislative change in jurisdictions.

Significant features of the Australian Qualifications Framework

There are two particularly noteworthy features of the Australian Framework:

1. The criteria for levels is implicit in the qualifications descriptors
 The AQF is structured according to a well-established progression or sequence of qualifications titles, through an implied eleven levels, with some qualifications spanning or sharing levels. This largely follows historical practice with the main innovations being inclusion of the SSCE in the national framework, and the addition of two lower level VTE qualifications. There are no numbered levels described independently of qualifications, for the historical reasons given, namely, that a long tradition of understood qualifications progressions and pathways has meant that a further organising structure has not been necessary - for domestic purposes, at least. It is possible but not inevitable that this may change in a context of rising demand upon national qualifications frameworks to function as instruments for international comparison of qualifications.
2. The framework unifies qualifications in schools, VTE and HE
 Qualifications accredited in each sector offer a choice of learning pathway – a general education pathway, an industry based pathway and an academic pathway.
 The main rationale for the structure of the AQF is to ensure that all the qualifications it comprises are brought into productive relationships which add value to the learning experience by highlighting choice and diversity across sectors (rather than by eliminating sectoral difference). To underpin implementation of the AQF to support these objectives, the AQF Advisory Board has overseen the development of a set of National Guidelines on Cross-Sector Qualification Linkages - including a guide to credit percentages at the diploma/degree interface - and a set of National Principles and Operational Guidelines for Recognition of Prior Learning (RPL). These guidelines provide a basis for institutions in all sectors to improve their practice, and for monitoring progress against the objectives for the AQF.

The schools/VTE qualifications interface is supported at the highest level by MCEETYA protocols which encourage school education to include VTE qualifications or units as part of or complementary to the SSCE and recognised by employers on the same basis as any other VTE qualifications.

Where similar flexibility for VTE and HE institutions is State or Territory Government policy, AQF qualifications may be delivered by providers in any sector subject to compliance with the AQF guidelines and underpinning quality assurance requirements. The fact that the AQF is strictly sectoral in the standards and quality assurance requirements for each qualification ensures that AQF qualifications are consistent in standards irrespective of whether delivery is by schools, VTE or HE institutions.

The Australian Qualifications Framework: www.aqf.edu.au

A Synopsis of Hong Kong Qualifications Framework

By Felix Leung
HKCAA, Hong Kong

Introduction

1. To enhance the capabilities and competitiveness of the local workforce and to ensure sustainable manpower development amidst the rapidly changing world, the Government announced the establishment of a seven-level cross-sectoral Qualifications Framework (QF) and its associated quality assurance mechanism in February 2004.
2. The QF is a hierarchy that orders and supports qualifications of academic, vocational and continuing education. It consists of seven levels from the lowest Level 1 to the highest Level 7. The aim of establishing the QF is to clearly define the standards of different qualifications, ensure their quality and indicate the articulation ladders between different levels of qualifications.
3. As an illustration, the QF Levels in the context of academic qualifications can be categorised as follows:

QF Level	Academic Level
7	Doctoral
6	Master, Postgraduate Diploma, Postgraduate Certificate
5	Bachelor
4	Higher Diploma, Associate Degree
3	Diploma
2	Certificate
1	Certificate

Generic Level Descriptors

4. Each level of the QF is characterized by Generic Level Descriptors (GLDs), which set out the generic learning outcomes of the qualifications located at that level. A copy of the GLDs is at **Annex**.
5. The generic learning outcomes are set out in four domains :
 - (i) knowledge and intellectual abilities;
 - (ii) practices and processes (applied knowledge and understanding);
 - (iii) autonomy, accountability and working with others; and
 - (iv) applied skills of communication, IT and numeracy.
6. The generic learning outcomes reflect the relative depth and complexity of learning attained from a qualification, and cover the academic, vocational and professional aspects of the learning.
7. The GLDs are designed as a developmental continuum. A qualification at a higher level of the QF places a higher demand on the learners in respect of cognitive abilities and applied skills.

8. The GLDs are used to comparatively locate a qualification in the QF. The generic learning outcomes in the GLDs provide benchmarks for the design of learning programmes at a given level.

Principles for assigning QF level to a qualification

Process

9. Level assignment is not an exact science. It is essentially a professional judgment and should be an essential part of the quality assurance process.
10. Drawing from overseas QF experiences, a level assignment exercise is normally conducted as an interactive process involving staff with different expertise. Awarding bodies learn by doing and do by learning. Level assignment will become easier when evidences supporting the decision are building up gradually with the launch of the programmes.
11. One important source of information to be taken into account by the provider is the programme specifications which normally set out the learning objectives, the learning outcomes, and the exit requirements. These may provide useful indicators to the level of learning outcomes, and are used to measure against the generic learning outcomes as expressed in the GLDs.

Content

12. Providers should note that while the generic learning outcomes are expressed in four domains of the GLDs, the content of a qualification at any specific level does not necessarily have to encompass learning outcomes in all four domains of the GLDs. Qualifications with the same QF level indicate that the qualifications are comparable in terms of their generic learning outcomes. It does not imply that the qualifications have the same purposes or content or specific learning outcomes.
13. A level is assigned on the basis of the learning outcomes to be attained by the learners upon their completion of the programmes. The assigned level is independent of the performance of the individual learners of the programmes.
14. The level of a programme has no correlation with the length of study or the size of learning. A longer or larger programme does not necessarily imply an award at a higher level.
15. Only one level can be assigned to a qualification. A qualification with learning outcomes falling short of the requirements expressed in the GLDs for a level should be assigned one level below.

Quality Assurance

16. The Accreditation of Academic and Vocational Qualifications Bill (the Bill) was introduced into the Legislative Council on 6 July 2005. This bill provides for the accreditation of academic and vocational qualifications under the QF by the Hong Kong Council for Academic Accreditation (HKCAA) and for related and consequential matters. A Bills Committee has been set up to scrutinize the Bill.

17. According to the Bill, HKCAA will be specified as the Accreditation Authority and the Qualifications Register (QR) Authority. It is tasked with the responsibility of assuring the quality of qualifications recognised under the QF. Also, as the QR Authority, it is required to administer the QR.
18. All qualifications recognised under the QF must be quality assured by the Accreditation Authority or a comparable quality assurance mechanism accepted by the Accreditation Authority.

Qualifications Register

19. The QR is a centralized online database on whole or modular qualifications, learning programmes and providers. It provides searchable online information for free reference by the general public. Only quality-assured qualifications will be put onto the QR. As such, aspiring learners can make informed choices about learning programmes, and employers can choose suitable training for their employees according to actual needs.
20. The QR prototype has been developed and tested run with a number of interest groups and potential users. The QR is being refined and will start operation upon the enactment of the Bill.

Industry Liaison

21. Industries play a pivotal role in the implementation of the QF and the development of Specification of Competency Standards (SCSs). Industry participation is of paramount importance. Thus far, 12 Industry Training Advisory Committees (ITACs) has been established to provide a platform for employers, employees, professional bodies and other stakeholders to exchange their views on manpower development and upgrading, and to work with EMB to take forward the QF. These include:
 - (i) Printing & Publishing;
 - (ii) Watch & Clock;
 - (iii) Chinese Catering;
 - (iv) Hairdressing;
 - (v) Property Management;
 - (vi) Electrical & Mechanical Services;
 - (vii) Jewellery;
 - (viii) Information & Communications Technology;
 - (ix) Automotive;
 - (x) Beauty;
 - (xi) Logistics; and
 - (xii) Banking.
22. The Government is setting up ITACs at a steady pace, subject to the industries' response. Despite the difference in progress, each ITAC is expected to set out the SCS and complete the relevant consultation exercise for its industry in about one year. When the SCS is in place, the Government will encourage training providers to design courses that cater to the specific needs of different industries.

Specifications of Competency Standards

23. Qualifications recognized under the QF are outcome-based and are not confined to academic attainment. In the case of the academic sector, the outcome standard of qualifications is mainly the knowledge and skills a person possesses. In the vocational sector, the outcome standards of qualifications are set by individual industries.
24. The SCS for an industry mainly comprises the competency standards required at various levels. These competency standards represent the industry benchmarks for the skills, knowledge and attributes required to perform a job at a certain level. The competency standards will be grouped together to form a qualification at a particular level. The ITACs have been tasked to develop, maintain and update the SCSs.
25. The competency standards applicable to an industry are presented as "units of competency" in its SCS. Every "unit of competency" comprises eight basic items:
 - (i) Name;
 - (ii) Code;
 - (iii) Level;
 - (iv) Credit;
 - (v) Competency;
 - (vi) Range;
 - (vii) Assessment Criteria; and
 - (viii) Remarks.

Recognition of Prior Learning

26. The major purpose of setting up a Recognition of Prior Learning (RPL) mechanism under the QF is to enable employees of various backgrounds to receive formal recognition of the knowledge, skills and experience already acquired. The RPL mechanism enables employees with learning aspirations to know what competencies they have acquired through experience or previous training in the industries, so that they can determine their starting point for learning and progression, and reduce duplication in training for the same skills. The RPL mechanism will operate based on SCSs formulated by the respective industries to ensure its credibility.
27. The RPL mechanism is a "recognition" rather than "exemption" system. This principle is premised on the assumption that the skills and knowledge possessed by the employee seeking recognition have been acquired through previous learning and/or work experience and can be recognized through the RPL mechanism. On the other hand, giving an exemption would imply that the employee does not possess such skills and knowledge in the first instance.
28. Assessment agencies will be nominated by the ITACs and undergo accreditation by the HKCAA after the enactment of the Accreditation of Academic and Vocational Qualifications Bill. There can be a variety of ways to conduct the assessment, including workplace demonstration and interview. Anyone who passes the assessment will be issued a statement of attainment to facilitate further studies.

Implementation Timeframe

29. The Accreditation of Academic and Vocational Qualifications Bill was passed by the Legislative Council at its meeting on 2 May 2007. The QF and its associated quality assurance mechanism will be formally implemented when the new Ordinance comes into operation in the first quarter of 2008.

24 January 2007

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GENERIC LEVEL DESCRIPTORS OF THE QUALIFICATIONS FRAMEWORK

Level	Generic Level Descriptors			
	Knowledge & Intellectual Skills	Processes	Application, Autonomy & Accountability	Communications, IT & Numeracy
7	<ul style="list-style-type: none"> ● Demonstrate and work with a critical overview of a subject or discipline, including an evaluative understanding of principal theories and concepts, and of its broad relationships with other disciplines ● Identify, conceptualise and offer original and creative insights into new, complex and abstract ideas and information ● Deal with very complex and/or new issues and make informed judgements in the absence of complete or consistent data/information ● Make a significant and original contribution to a specialised field of inquiry, or to broader interdisciplinary relationships. 	<ul style="list-style-type: none"> ● Demonstrate command of research and methodological issues and engage in critical dialogue ● Develop creative and original responses to problems and issues in the context of new circumstances. 	<ul style="list-style-type: none"> ● Apply knowledge and skills in a broad range of complex and professional work activities, including new and unforeseen circumstances ● Demonstrate leadership and originality in tackling and solving problems ● Accept accountability in related decision making ● High degree of autonomy, with full responsibility for own work, and significant responsibility for others ● Deal with complex ethical and professional issues. 	<ul style="list-style-type: none"> ● Strategically use communication skills, adapting context and purpose to a range of audiences ● Communicate at the standard of published academic work and/or critical dialogue ● Monitor, review and reflect on own work and skill development, and change and adapt in the light of new demands ● Use a range of software and specify software requirements to enhance work, anticipating future requirements ● Critically evaluate numerical and graphical data, and employ such data extensively.

Level	Generic Level Descriptors			
	Knowledge & Intellectual Skills	Processes	Application, Autonomy & Accountability	Communications, IT & Numeracy
6	<ul style="list-style-type: none"> ● Critically review, consolidate, and extend a systematic, coherent body of knowledge ● Utilise highly specialised technical research or scholastic skills across an area of study ● Critically evaluate new information, concepts and evidence from a range of sources and develop creative responses ● Critically review, consolidate and extend knowledge, skills practices and thinking in a subject/discipline ● Deal with complex issues and make informed judgements in the absence of complete or consistent data/information. 	<ul style="list-style-type: none"> ● Transfer and apply diagnostic and creative skills in a range of situations ● Exercise appropriate judgement in complex planning, design, technical and/or management functions related to products, services, operations or processes, including resourcing and evaluation ● Conduct research, and/or advanced technical or professional activity ● Design and apply appropriate research methodologies. 	<ul style="list-style-type: none"> ● Apply knowledge and skills in a broad range of professional work activities ● Practice significant autonomy in determining and achieving personal and/or group outcomes ● Accept accountability in related decision making including use of supervision ● Demonstrate leadership and /or make an identifiable contribution to change and development. 	<ul style="list-style-type: none"> ● Communicate, using appropriate methods, to a range of audiences including peers, senior colleagues, specialists ● Use a wide range of software to support and enhance work; identify refinements to existing software to increase effectiveness or specify new software ● Undertake critical evaluations of a wide range of numerical and graphical data, and use calculations at various stages of the work.

Level	Generic Level Descriptors			
	Knowledge & Intellectual Skills	Processes	Application, Autonomy & Accountability	Communications, IT & Numeracy
5	<ul style="list-style-type: none"> ● Generate ideas through the analysis of abstract information and concepts ● Command wide ranging, specialised technical, creative and/or conceptual skills ● Identify and analyse both routine and abstract professional problems and issues, and formulate evidence-based responses ● Analyse, reformat and evaluate a wide range of information ● Critically analyse, evaluate and/or synthesise ideas, concepts, information and issues ● Draw on a range of sources in making judgments. 	<ul style="list-style-type: none"> ● Utilise diagnostic and creative skills in a range of technical, professional or management functions ● Exercise appropriate judgement in planning, design, technical and/or supervisory functions related to products, services, operations or processes. 	<ul style="list-style-type: none"> ● Perform tasks involving planning, design, and technical skills, and involving some management functions ● Accept responsibility and accountability within broad parameters for determining and achieving personal and/or group outcomes ● Work under the mentoring of senior qualified practitioners ● Deal with ethical issues, seeking guidance of others where appropriate. 	<ul style="list-style-type: none"> ● Use a range of routine skills and some advanced and specialized skills in support of established practices in a subject/discipline, for example: ● Make formal and informal presentations on standard/mainstream topics in the subject/discipline to a range of audiences ● Participate in group discussions about complex subjects; create opportunities for others to contribute ● Use a range of IT applications to support and enhance work ● Interpret, use and evaluate numerical and graphical data to achieve goals/targets.

Level	Generic Level Descriptors			
	Knowledge & Intellectual Skills	Processes	Application, Autonomy & Accountability	Communications, IT & Numeracy
4	<ul style="list-style-type: none"> • Develop a rigorous approach to the acquisition of a broad knowledge base, with some specialist knowledge in selected areas • Present and evaluate information, using it to plan and develop investigative strategies • Deal with well defined issues within largely familiar contexts, but extend this to some unfamiliar problems • Employ a range of specialised skills and approaches to generate a range of responses. 	<ul style="list-style-type: none"> • Operate in a range of varied and specific contexts involving some creative and non-routine activities • Exercise appropriate judgement in planning, selecting or presenting information, methods or resources • Carry out routine lines of enquiry, development of investigation into professional level issues and problems. 	<ul style="list-style-type: none"> • The ability to perform skilled tasks requiring some discretion and judgement, and undertake a supervisory role • Undertake self-directed and a some directive activity • Operate within broad general guidelines or functions • Take responsibility for the nature and quantity of own outputs • Meet specified quality standards • Accept some responsibility for the quantity and quality of the output of others. 	<ul style="list-style-type: none"> • Use a wide range of routine skills and some advanced skills associated with the subject/discipline — for example: • Present using a range of techniques to engage the audience in both familiar and some new contexts • Read and synthesise extended information from subject documents; organise information coherently, convey complex ideas in well-structured form • Use a range of IT applications to support and enhance work • Plan approaches to obtaining and using information, choose appropriate methods and data to justify results & choices • Carry out multi-stage calculations.

Level	Generic Level Descriptors			
	Knowledge & Intellectual Skills	Processes	Application, Autonomy & Accountability	Communications, IT & Numeracy
3	<ul style="list-style-type: none"> ● Apply knowledge and skills in a range of activities, demonstrating comprehension of relevant theories ● Access, organise and evaluate information independently and make reasoned judgements in relation to a subject or discipline ● Employ a range of responses to well defined, but sometimes unfamiliar or unpredictable, problems ● Make generalisations and predictions in familiar contexts. 	<ul style="list-style-type: none"> ● Operate in a variety of familiar and some unfamiliar contexts, using a known range of technical or learning skills ● Select from a considerable choice of predetermined procedures ● Give presentations to an audience 	<ul style="list-style-type: none"> ● The ability to perform tasks in a broad range of predictable and structured contexts which may also involve some non-routine activities requiring a degree of individual responsibility ● Engage in self-directed activity with guidance/evaluation ● Accept responsibility for quantity and quality of output ● Accept well defined but limited responsibility for the quantity and quality of the output of others 	<ul style="list-style-type: none"> ● Use a wide range of largely routine and well practiced skills — for example: ● Produce and respond to detailed and complex written and oral communication in familiar contexts, and use a suitable structure and style when writing extended documents. ● Select and use standard applications to obtain, process and combine information ● Use a wide range of numerical and graphical data in routine contexts, which may have some non-routine elements.

Level	Generic Level Descriptors			
	Knowledge & Intellectual Skills	Processes	Application, Autonomy & Accountability	Communications, IT & Numeracy
2	<ul style="list-style-type: none"> ● Apply knowledge based on an underpinning comprehension in a selected number of areas ● Make comparisons with some evaluation and interpret available information ● Apply basic tools and materials and use rehearsed stages for solving problems. ● Operate in familiar, personal and/or everyday contexts ● Take account the identified consequences of actions. 	<ul style="list-style-type: none"> ● Choose from a range of procedures performed in a number of contexts, a few of which may be non-routine ● Co-ordinate with others to achieve common goals. 	<ul style="list-style-type: none"> ● The ability to perform a range of tasks in predictable and structured contexts ● Undertake directed activity with a degree of autonomy ● Achieve outcomes within time constraints ● Accept defined responsibility for quantity and quality of output subject to external quality checking. 	<ul style="list-style-type: none"> ● Use skills with some assistance — for example: ● Take active part in discussions about identified subjects ● Identify the main points and ideas from documents and reproduce them in other contexts ● Produce and respond to a specified range of written and oral communications, in familiar/routine contexts ● Carry out a defined range of tasks to process data and access information ● Use a limited range of familiar numerical and graphical data in everyday contexts ● Carry out calculations, using percentages and graphical data to given levels of accuracy.

Level	Generic Level Descriptors			
	Knowledge & Intellectual Skills	Processes	Application, Autonomy & Accountability	Communications, IT & Numeracy
1	<ul style="list-style-type: none"> ● Employ recall and demonstrate elementary comprehension in a narrow range of areas with dependency on ideas of others ● Exercise basic skills ● Receive and pass on information ● Use, under supervision or prompting, basic tools and materials. ● Apply learnt responses to solve problems ● Operate in familiar, personal and/or everyday contexts ● Take some account, with prompting, of identified consequences of actions. 	<ul style="list-style-type: none"> ● Operate mainly in closely defined and highly structured contexts ● Carry out processes that are repetitive and predictable ● Undertake the performance of clearly defined tasks ● Assume a strictly limited range of roles. 	<ul style="list-style-type: none"> ● The ability to perform tasks of routine and repetitive nature given clear direction ● Carry out directed activity under close supervision ● Rely entirely on external monitoring of output and quality 	<ul style="list-style-type: none"> ● Use very simple skills with assistance — for example: ● Take some part in discussions about straightforward subjects ● Read and identify the main points and ideas from documents about straightforward subjects ● Produce and respond to a limited range of simple, written and oral communications, in familiar/routine contexts ● Carry out a limited range of simple tasks to process data and access information ● Use a limited range of very simple and familiar numerical and pictorial data ● Carry out calculations, using whole numbers and simple decimals to given levels of accuracy.

THE NEW ZEALAND NATIONAL QUALIFICATIONS FRAMEWORK

By

Tony Davies
NZQA, New Zealand

1 DEVELOPMENT OF THE NEW ZEALAND NATIONAL QUALIFICATIONS FRAMEWORK (NZQF)

Introduction

Since 1990 New Zealand has been developing and implementing a national qualifications system. During the 1980s, a series of education reports identified a need to reform education and training in New Zealand in order to improve competitiveness in global markets, create a modern education system that would encourage lifelong learning, and increase skill levels in the labour force. Successive governments have accepted that investment in education and training is of critical importance for the future well-being of New Zealand and its citizens. The NZQF was one policy initiative developed in response to New Zealand's need to develop its human resources.

The Qualifications Authority was established by the Government in 1990 and given the following functions¹ in regards to national qualifications:

- (a.) To oversee the setting of standards for qualifications in secondary schools and in post-school education and training:
- (b.) To monitor and regularly review, and advise the Minister on, the standards for qualifications in secondary schools and in post-school education and training, either generally or in relation to a particular institution or private training establishment or a particular course of study or training:
- (c.) To develop a framework for national qualifications in secondary schools and in post-school education and training in which—

All qualifications . . . have a purpose and a relationship to each other that students and the public can understand; and
There is a flexible system for the gaining of qualifications, with recognition of competency already achieved:

- (d.) To maintain effective liaison with overseas certifying and validating bodies, in order to recognise overseas educational and vocational qualifications in New Zealand and to achieve recognition of New Zealand educational and vocational qualifications overseas:

¹ These are set out in the following subsections of section 253(1) of the Education Act 1989

The Industry Training Act 1992 links industry based training and assessment to the standards developed for the NZQF.

Key Developments

The NZQF was developed through a two-year process of policy development and public consultation in 1990-1991.² On 15 October 1991, the Minister of Education endorsed a set of Qualifications Authority recommendations on the NZQF, and a timetable for implementation. The NZQF was officially launched in November 1991. Initially the Qualifications Authority decided there would be eight levels of achievement, following the Australian National Training Board's standards framework. The National Certificate was originally placed at levels one to four, and this was extended to level 7 in March 1995. The National Diploma was placed at levels five to seven, initial degrees at level seven and advanced degrees at level eight. The eighth level originally covered all postgraduate qualifications. The NZQF was extended to ten levels in 2001, as part of the development of the criteria for the New Zealand Register of Quality Assured Qualifications ('the Register'), in order to accurately represent postgraduate qualifications.

Qualifications on the NZQF were based on 'units of learning' - a term that evolved by mid-1993 into 'unit standards' - with a standard format, and a national catalogue. The first unit standards were registered in February 1993. In 2001, the NZQF was further developed to allow the registration of achievement standards for school curriculum subjects.

The NZQF was intended to lead to the development of unit standards and qualifications for sectors and disciplines that previously had no qualifications. The first NZQF qualification, a National Certificate in Dairy Manufacturing, was registered on the NZQF in January 1994, and the first students graduated with this qualification in May 1995. Many long-established sub-degree qualifications, particularly trade qualifications, were replaced by unit standards based national qualifications registered on the NZQF.

A record of learning (ROL) was to be kept for all learners gaining credit on the NZQF, with the Qualifications Authority being responsible for maintaining the ROL in a central computer database. Every learner gaining credits on the NZQF receives a ROL that records all their NZQF results attained regardless of where they were achieved. The first ROL was issued in August 1993. In the first quarter of 2004, the number of learners registered on the NZQF exceeded one million for the first time.

In 1996, the New Zealand Vice-Chancellors' Committee (NZVCC) withdrew the university sector from the NZQF before its development was complete. Degrees provided by universities are described in terms of course objectives and learning profiles, but are not defined by NZQF standards. University qualifications are, however, included in the Register along with other local qualifications.

² Public discussion documents included: *Towards a national qualifications framework: general principles and directions*, October 1990, and *Designing the framework*, March, 1991. Feedback from consultation is summarised in *Developing the National Qualifications Framework: A Report to the Board*, 24 September, 1991.

In 2002, the multiplicity of existing nomenclature was replaced by qualification names and definitions that applied to the Register. No national degrees have been registered at this stage, but the NZQF does include a National Postgraduate Certificate at Level 8.³ Although the NZQF was envisaged as encompassing all qualifications available in New Zealand, there are local qualifications that are not registered on the NZQF. These include university qualifications and local qualifications in polytechnics, colleges of education, wānanga, and private training establishments (PTEs).

2 STRUCTURE AND DESIGN OF THE NZQF

Structure

The NZQF was established to have the parameters for nationally recognised qualifications. It aimed to be simple and easily understood. Systems were designed to ensure quality operated throughout the development of qualifications and their approval; the accreditation of providers; and the verification of assessment of standards. Quality management has been devolved progressively to providers or provider consortia.

Learning and Assessment

The primary focus of the framework has been on the requirements of the learner. The basic component is on a *unit of learning*, defined in terms of learning outcomes, focussing on skills as well as knowledge. Units, available from a variety of providers, have been assigned to the broad levels within the framework. Assessment focuses on the measurement of learner performance against published standards. How something is taught or learned is not be prescribed by the framework.

Certification

A logical sequence of names for nationally recognised qualifications was developed. Assessment and certification for on-job learning was introduced progressively, to complement that which occurred in off-job education and training.

Goals and Objectives

The NZQF was designed to achieve a range of inter-linked objectives:

- to create a single, coordinated framework of qualifications;
- to provide a consistent basis for the recognition of educational achievement wherever that achievement occurs;
- to extend recognition to a wide range of achievements;
- to encourage the integration of ‘academic skills’ with applied skills, and to bring together theory and practice;
- to enable and encourage diversity among providers of education and training, and to recognise academic freedom;

³ National Postgraduate Certificate in Professional Practice in Design and Construction Consultancy (International Consultancy) [Ref: 0795]

- to reform assessment practices in education and training;
- to raise progressively the standards of educational achievement;
- to shift the practice of teaching to student-centred learning;
- to provide quality assurance for qualifications;
- to enable qualifications to evolve and develop;
- to recognise the principles of the Treaty of Waitangi;
- to provide a rational system of nomenclature for qualifications;
- to provide a system of credit accumulation and transfer;
- to enable qualifications that are flexible;
- to encourage a wider range of educational settings; and
- to provide incentives to increase individual and collective investment in education and training.⁴

THE CURRENT NATIONAL QUALIFICATIONS FRAMEWORK

In 2002 the Government launched the New Zealand Register of Quality Assured Qualifications (the Register). There are two types of qualifications in New Zealand that are included:

- Those that are built from a selection of unit standards and are called a national qualification [NZQF]
- Those that are built from non-unit standards and are called a New Zealand (or local) qualification.

There are at present 5,114 local and 1,009 NQF qualifications. The following information is held in the database supporting the Register and is publicly available (www.kiwiquals.govt.nz):

- the title of the qualification;
- the level at which the qualification is registered;
- the outcome statement attached to the qualification;
- the credit requirements of the qualification;
- the subject classification; and
- qualification developer and provider details (where available).

Ten levels

Qualifications can be registered at one of ten levels on the Register. Levels depend on the complexity of the skills and knowledge that are being recognised - 1 is the least complex and 10 the most. They do not equate to 'years spent learning' but reflect the content of the qualification. Levels 1-3 are equivalent to Forms 5-7 (years 11-13) foundation skills and introductory trades training, although Level 1 is open-ended downward in order to capture all learning. Initial trade certificates are at Level 4, advanced trades, technical and business qualifications are at Levels 5-7, and graduate and post-graduate qualifications are at Levels 7 and above.

⁴ Sir Neil Waters (Board Chair), *The Vision for the National Qualifications Framework*, July 1996, pp.2-4.

NZQF qualifications consist of:

- National Certificates – at levels 1-7, but normally registered at levels 1-4;
- National Diplomas – at levels 5-7; and
- National Degrees and Postgraduate qualifications – at levels 7-10.

Qualification Titles and Levels

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

Fields

There are 17 Fields on the NZQF each with Subfields (see Appendix 3).

Agriculture, Forestry and Fisheries	Health
Arts and Crafts	Humanities
Business	Law and Security
Community and Social Services	Manufacturing
Computing and Information Technology	Māori
Core Generic	Planning and Construction
Education	Sciences
Engineering and Technology	Service Sector
	Social Sciences

Māori experts in partnership with the Qualifications Authority have developed an entire field on the NZQF that recognises Māori skills and knowledge. There are now more than a dozen qualifications and over 600 unit standards in Field Māori.

The NZQF in Secondary Schools

New technology and changes in employment conditions require people who are more highly skilled and better qualified. Schools in New Zealand have moved to equip students to meet these challenges. Some schools began offering unit standards in the early 1990s. The National Certificate of Educational Achievement (NCEA) was introduced in 2002. Specifically, the new NCEA was introduced because of:

- the need for young New Zealanders to be able to gain a qualification that recognises and reports on the full range of their learning, and in a level of detail that is meaningful to users;
- long standing dissatisfaction with School Certificate based on ranking; and
- the incompatibility of the traditional secondary awards and the standards-based NZQF.⁵

The first stage of the senior secondary assessment including NCEA, was implemented in 2002, followed by level 2 in 2003 and level 3 in 2004. The NCEA has full integration with the standards based NZQF, using ‘achievement standards’ developed for the school curriculum and unit standards already registered on the NZQF.

Reporting provides greater detail of the learning achieved within a curriculum area. For example, a learner studying Mathematics might gain results of achieved at using ‘geometric reasoning to solve problems’, and merit at using ‘straightforward statistical methods to explore data’ - compared to ‘53%’ for Mathematics, in the previous system. Such skills as laboratory work, oral, and communication skills can also be reported through internally assessed achievement or unit standards. Reporting recognises actual achievement rather than rank order only.

3. PROBLEMS AND SUCCESSES

The development of the NZQF over the past decade has been an iterative process, which has resulted in significant benefits for learners and New Zealand as a whole. The Qualifications Framework has provided the New Zealand education system with the flexibility needed to respond to the rapidly changing requirements from society as a whole.

There were a number of issues that needed to be resolved. Initially, there was a requirement to have buy-in from a considerable number of stakeholders who had direct or indirect responsibility for oversight of qualifications. This largely tended to be in the vocational and training area. New Zealand adopted a fairly bold and zealous approach to shifting this sector on to a framework of unit standards. Stakeholders were kept involved in the process of developing unit standards, and their continued involvement was necessary if the unit standards were to remain on the framework.

One of the most significant problems that occurred in 1995, was the withdrawal of the university sector from the NZQF. Essentially, the NZQF from 1995 through to 2002 became largely a qualifications framework that specifically targeted the vocational and training area.

The establishment of the New Zealand Register of Quality Assured Qualifications, however, finally achieved the Government’s objective of establishing a complete

⁵ Ministry of Education, *Archived National Certificate of Educational Achievement: Frequently Asked Questions*, December 2001.

framework for all quality assured qualifications. The Register now combines all qualifications for senior secondary, vocational, training and academic/higher education.

There are still issues yet to be resolved, which are around the proliferation of small professional courses and qualifications which are not yet included on the Register. These include for example professional registration courses for lawyers, accountants etc.

There may also be issues around the definition and distinction within qualification levels. For example, there are increasing differences both within New Zealand and internationally between a Master's level course which is largely taught and a Master's degree that is by thesis. There is a similar issue arising in level 10 in the Doctorate qualifications with a similar issue developing for example the Doctor of Education and the Doctor of Business Administration.

The other increasing difficulty is around recognising qualifications that are developed and quality assured in other countries for delivery and recognition within New Zealand. At present there is no category on the Register for qualifications developed and quality assured off-shore.

Another issue yet to be resolved is around the issue of establishing a central database of all learner qualifications/record of learning. At present each university and institute of technology and polytechnic keep individual learner records of qualifications gained. There is, however, a Record of Learning for credits and qualifications gained on the NZQF, but no centralised database of all learner qualifications

The next decade of continued development is an exciting challenge for the New Zealand Qualifications Authority, as it moves into a period of ensuring that the National Qualifications Framework is aligned to the focus of the Tertiary Education Strategy and that there is enhanced quality assurance mechanisms for New Zealand qualifications.

Level Descriptors for Qualifications

Level	Process	Learning Demand	Responsibility
1	<p>Carry out processes that: are moderate in range are established and familiar offer a clear choice of routine responses</p>	<p>Employing: basic operational knowledge readily available information known solutions to familiar problems - little generation of new ideas</p>	<p>Applied: in directed activity under general supervision and quality control with some responsibility for quantity and quality with possible responsibility for guiding others</p>
2	<p>Carry out processes that: are limited in range are repetitive and familiar are employed within closely defined contexts</p>	<p>Employing: recall a narrow range of knowledge and cognitive skills - no generation of new ideas</p>	<p>Applied: in directed activity under close supervision - with no responsibility for the work or learning of others</p>
3	<p>Carry out processes that: require a range of well developed skills offer a significant choice of procedures - are employed within a range of familiar contexts</p>	<p>Employing: some relevant theoretical knowledge interpretation of available information discretion and judgement - a range of known responses to familiar problems</p>	<p>Applied: in directed activity with some autonomy under general supervision and quality checking with significant responsibility for the quantity and quality of output - with possible responsibility for the output of others</p>
4	<p>Carry out processes that: 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>	<p>Employing: a broad knowledge base incorporating some theoretical concepts analytical interpretation of information informed judgement - a range of sometimes innovative responses to concrete but often unfamiliar problems</p>	<p>Applied: 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</p>
5	<p>Carry out processes that: 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>	<p>Employing: 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>	<p>Applied: 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</p>

Level	Process	Learning Demand	Responsibility
6	<p>Carry out processes that: 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>	<p>Employing: 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>	<p>Applied: in managing processes within broad parameters for defined activities with complete accountability for determining and achieving personal and/or group outcomes</p>
7	<p>Carry out processes that: 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>	<p>Requiring: 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>	<p>Applied: in planning, resourcing and managing processes within broad parameters and functions - with complete accountability for determining, achieving and evaluating personal and/or group outcomes</p>
8	<p>Involves skills and knowledge that enable a learner to: 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.</p>		
9	<p>Involves knowledge and skills that enable a learner to: demonstrate mastery of a subject area; and plan and carry out - to internationally recognised standards - an original scholarship or research project. Demonstrated by: - The completion of a substantial research paper, dissertation or in some cases a series of papers.</p>		
10	<p>Involves knowledge and skill that enable a learner to: - Provide an original contribution to knowledge through research or scholarship, as judged by independent experts applying international standards.</p>		

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New Zealand

The Philippine Qualifications Framework A Country Case Study

By:

Dr Miriam S. Cervantes*
AACCUP, Philippines

History

The Philippine National Qualifications Framework (PNQF) started as a nationally promulgated framework of competency classification and recognition for middle level skilled workers. This evolved from the Philippine TVET (*Technical Vocational Education and Training*) Qualifications Framework (PTQF) which was officially adopted in March, 2003. This initiative was built on the development of Technical Occupation Qualification and Certification System (TOQCS) that progressed since the establishment of Technical Education and Skills Development Authority (TESDA) in 1994. TOQCS is the main contributing factor for promoting competency-based learning in the Philippines. The development of TOQCS is one of TESDA's tasks to execute the policy enunciated in Republic Act 7796, which attempts to "provide relevant, accessible, high quality and efficient technical education and skills development in support of high quality Philippine middle-level manpower responsive to and in accordance with the Philippine development goals and priorities."

The Philippines has a unique trifocalized education system: basic education, technical-vocational education and higher education. This scenario of the Philippine educational system lead to the eventual inclusion of the participation of the Department of Education (DepEd) for basic education and Commission on Higher Education (CHED) for higher education.

These three sectors contributed to the formulation of the present Philippine National Qualifications Framework working separately. This framework was scheduled to be completed in July 2005.

On September 15, 2004, the President issued Executive Order No. 358 for the purpose of institutionalizing a ladderized interface between TVET and higher education (HE). The TESDA and the CHED were assigned, under this law, to "develop and implement a unified national qualifications framework."

*The author is a Senior Accreditor of the Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACCUP) and Associate Professor of the Don Mariano Marcos Memorial State University, Philippines.

The PNQF was adopted in 2006 by the National Coordination Council on Education composed of the three trifocalized sectors of education, namely: the Department of Education (DepEd) for basic education, the Technical Education and Skills Development Authority (TESDA) for technical-vocational education; and the Commission on Higher Education (CHED) for higher education.

What is it?

The PNQF has been developed to establish a coherent national and internationally benchmarked structure for all qualifications awarded in the Philippines. The PNQF covers all levels of formal education from certificates for initial entry to the workplace through doctoral degrees. All qualifications listed on the PNQF are quality assured so that there may be confidence not only in their academic standards and vocational relevance but also in the quality of teaching, assessment and the awarding of the final certificate.

The officially defined purposes of the Philippine National Qualifications Framework are to:

1. establish a coherent, high quality, internationally benchmarked national credentialing system in the Philippines;
2. clearly identify all quality assured qualifications in the Philippines;
3. ensure that all qualifications have a purpose and relation to one another that students and the public can understand;
4. maintain and enhance learner's ability and mobility in acquiring and transferring credits; and
5. enhance and build on the international recognition of Philippine qualifications.

Different countries adopt similar purposes of qualifications framework indicating strong global pressure or influence rather than it being internally initiated. The purposes are usually addressed to benefit defined sectors, such as: the learners, the education and training providers, industry, employers, or society, in general.

The purposes of PNQF are broadly defined, and they tend to attend to all these sectors. The rationale of putting out the qualifications framework, i.e., defining quality of education in terms of competency; and the assignment of the implementation of EO 358 to the education agencies clearly show that qualifications framework is primarily addressed to the learners and the education and training providers.

What are the Problems

A number of assumptions can be discerned in the adoption of the qualifications framework:

1. that there is a need of redefining quality education in terms of inputs and processes shifting to outcomes. The most appropriate tool to achieve this is a qualifications framework which sets the competencies (outcomes) of education and training at all levels;

2. that it is possible to describe these competencies in the form of qualifications in terms of a single set of criteria that would be applicable to all forms of education and training; and
3. that it is possible to have a two-track (but equipped with provision to relate purposes, transfer credits and promote mutual recognition between academic and technical education) set of levels with distinct level descriptors.

The introduction of the PNQF is a major step forward for the Philippines. It will provide a comprehensive list of all quality assured qualifications in the Philippines and will enhance the Philippine capacity to benchmark qualifications internationally. This will benefit employees, students, OFWs and the community in general. As to how the PNQF requirements, qualification definitions and the quality assurance requirements will progressively underpin all qualifications in the Philippines, still has to be implemented and eventually be adopted by all sectors.

Plotted below is the structure of the PNQF (Figure 1).

The structure:

1. unifies basic education, technical-vocational education and training and higher education qualification into a single system;
2. is intended to be national in character to be applied throughout the country;
3. will establish a coherent set of qualifications so that pathways for learners are clear, from certificate to diploma, and to degree study;
4. will be consistent nationally through the coordination efforts of the central agencies; and
the new integrated set of certificates, diploma and degree will be internationally benchmarked to ensure confidence from national and international stakeholders.

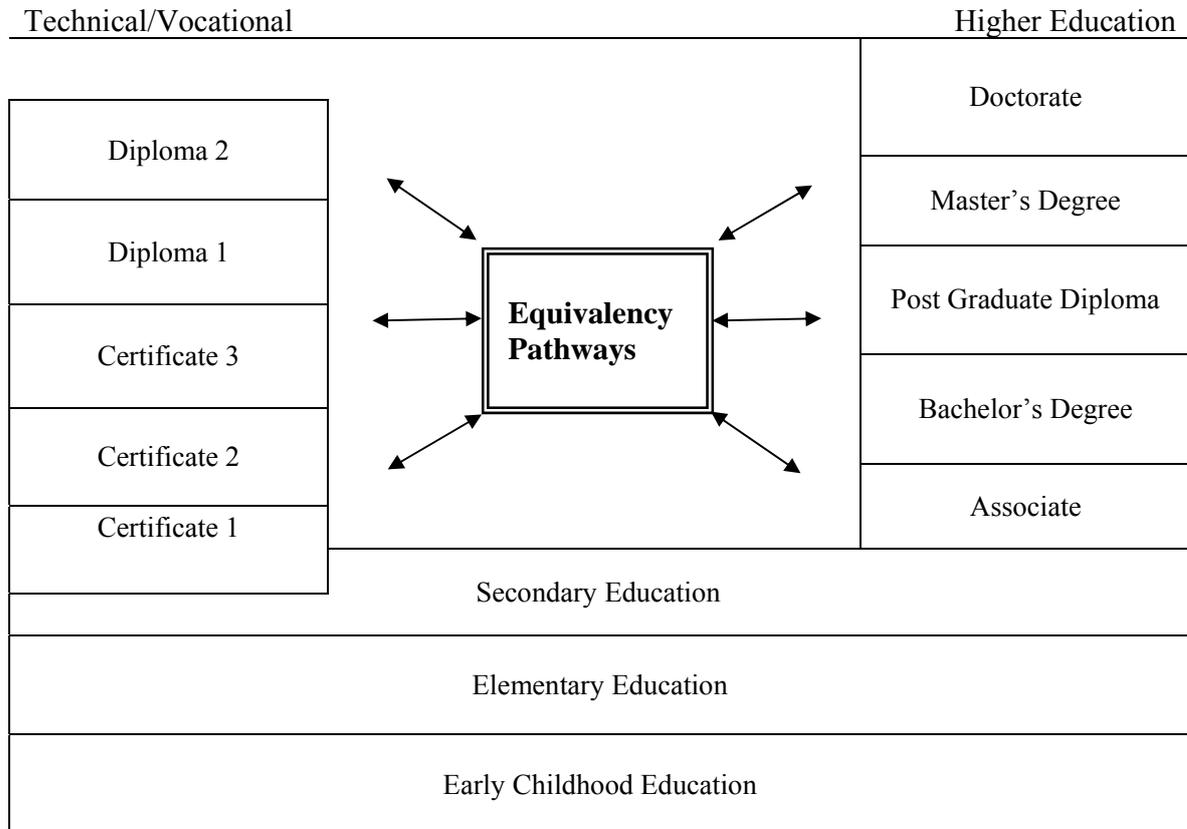


Figure 1. The PNQF Structure.

It will be noted that:

1. The structure is a two-track hierarchy of qualifications, with each track not necessarily equivalent in the ladder of qualifications. The two separate tracks show the difficulty of relating vocational education to academic education.
2. While there are three education sectors in the structure, the basic education component only serves as the base for both technical/vocational education and higher education.
3. The two tracks are not equivalent. The structure serves the purpose of providing a flexible pathway between higher education and technical/vocational education for transfer of credits and mutual recognition between the two sectors.

The structure provides a well-defined set of descriptors for each level.

Observations on the PNQF

1. The PNQF, although called National Framework, really has two (2) frameworks; (a) vocational and (b) academic rather than a single national framework.
2. The formulation of the PNQF was left to the charge of three (3) agencies working separately which prepared the PNQF in spite of involvement of other sectors particularly private industries through consultations.
3. The PNQF is quite limited and it should profit from the best practices of other countries – that QF is related to other educational and administrative reforms.
4. The Philippine QF is considered to be “weak,” not in the sense of judging its value, but by the fact that it is only voluntary.

What are the successes

1. One strong point of the PNQF is that there is provision for minimizing barriers to progression, both vertical and horizontal, through the equivalency pathways.
2. For the QF to be successful, it should be realized that experiences show that implementation is slow but should be pursued with continuity.

What’s Next . . .

The PNQF suggests the shift of determining quality in terms of inputs to outputs. This is obviously accepted. However if we learn from the experiences of countries with longer experience like U.K., the barriers to this change are overwhelming. The shift from systems based on shared practices to one based on criteria have political as well as educational reasons.

Regional QF in Practice

There is an important educational movement in progressive educational systems in different parts of the world. This movement involves redefining quality education in terms of learning outcomes or in terms of specific knowledge and skills that learners can demonstrate. This movement that emphasizes learning outcomes involves a shift from defining quality in terms of inputs (e.g., faculty credentials, number of reference materials, facilities and equipment, etc.) and processes (e.g., teacher-student ratio, contact hours, types of learning activities, methodologies, etc.) to defining quality in terms of outputs (i.e., what the students have learned). In concrete terms, student learning is described in terms of actual demonstrated knowledge and skills, which is characterized in terms of the types of tasks students are qualified to perform on their own.

The PNQF can provide a new structure within which the quality of Philippine educational institutions can be developed.

Appendix 1. Level Descriptors for Qualifications

Basic Education Sector

Descriptor of Pre-School:

Primary-Foundational

General Qualification Guideline. An individual who attains the primary-foundational level qualification is able to use the local language, Filipino, and English for basic level communication purposes, understand basic quantitative concepts and execute operations and understands basic scientific and social concepts.

Descriptor: The detailed descriptors for the primary-foundational level are derived mainly from the Philippine Elementary Learning Competencies with inclusions from foreign national basic educations listed below:

The individual should demonstrate the ability to:

- listen and respond to spoken vernacular, Filipino, and English language oral communication involving simple declarative statements, questions, narratives, and instructions;
- speak basic information about known facts, feelings, and opinions on topics familiar to the person using the vernacular Filipino and English;
- read and comprehend short texts with simple language patterns on familiar topics in vernacular Filipino and English;
- read and correctly respond to common signs and symbols;
- write short texts to express simple ideas, feelings, and questions about topics, using the vernacular Filipino and English;
- understand and explain basic concepts related to whole numbers, fractions, and measurement;
- execute four fundamental operations using simple strategies;
- use basic number concepts and fundamental operations to solve simple problems in familiar domains;
- understand and explain basic scientific concepts related to personal health, biological functioning, matter, energy, weather, and the environment; and
- understand and explain basic social concepts related to familiar social units and organizations, nationhood, and familiar elements of Philippine culture.

Primary-Intermediate

General Qualification Guideline: An individual who attains the primary-foundational level qualification is able to use Filipino and English for intermediate level communication purposes, understand a wide range of basic quantitative concepts, execute basic operations using the most efficient strategies, and use basic scientific and social concepts to explain a wide range of physical and social phenomenon.

Descriptors: The detailed descriptors for the primary-elementary level are also derived mainly from the Philippine Elementary Learning Competencies, with some inclusions from foreign basic education qualifications listed below:

The individual should demonstrate the ability to:

- listen critically, respond to, and evaluate spoken vernacular, Filipino, and English language oral communication involving a variety declarative statements, questions, narratives, and instructions with complex language patterns;
- speak about known facts, issues, feelings, and opinions on a wide range of topics familiar to people in the larger community, using the conventionally accepted forms of oral communication in Filipino and English;
- discuss with other people ideas, feelings, and opinions about a wide range of topics using conventionally accepted forms of oral communication in Filipino and English, and understand and evaluate the views of other people on the same topics;
- read and comprehend printed and electronically-produced texts with complex language patterns on a wide range of topics written in Filipino an English;
- write texts to express ideas, feelings, questions, opinions, critical thoughts, and inferences, about a wide range of topics familiar to people in the larger community, using conventionally accepted written forms in Filipino and English;
- use listening, speaking, reading, and writing skills to gain information and understanding about a wide range of topics not within the immediate experience of the individual, to interpret, evaluate, apply, and present the information they acquired to other people;
- understand and explain a wide range of concepts related to whole numbers, fractions, and measurement;
- execute four fundamental operations on a wide range of quantitative units using simple and complex strategies;
- use one understanding of these quantitative concepts and fundamental operations to analyze, pose problems or questions, develop solutions to find answers on domains familiar to people in the larger community;

- understand, explain, and apply a wider range of basic scientific concepts related to personal health, biological functioning, matter, energy, weather, and the environment;
- recognize and understand the historical development of science in relation to present day experiences;
- understand and explain the diverse experiences among different sectors of Philippine society in terms of historical and cultural concepts, principles, and frameworks;
- understand and explain the various aspects of Philippine nationhood, particularly in relation to current social events and phenomena; and
- express ideas, feelings, and opinions related to various social events and phenomenon in current and recent Philippine history, using basic social concepts, principles, and frameworks.

Evaluation: To qualify for the primary-intermediate level, the individual must pass an appropriate national qualification exams at mastery level.

Secondary

Access/Entry: Entry into the secondary level requires the primary-intermediate level qualification, with the possible additional requirements of a bridging program.

General Qualification Guideline: An individual who attains the secondary level qualification is able to use Filipino and English for proficient level communication purposes, understand a wide range of basic quantitative concepts and procedures, execute a wide range of mathematical procedures in the context of meaningful problems, and use a wide range of scientific and social concepts from the different natural, physical, and social sciences to explain a wide range of physical and social phenomenon.

Descriptors: The detailed descriptors for the secondary level are also derived mainly from the Philippine Secondary Learning Competencies, with some inclusions from foreign basic education qualifications listed below:

The individual should demonstrate the ability to:

- assess, evaluate and use relevant information to meet various purposes;
- listen, speak, read and write using different text types, using Filipino and English in ways that reflect deep understanding of abstract ideas, experience and cultures of other people, customs and traditions, and values;
- appreciate literature in Filipino and English, in its various forms, and articulate their critical stance about various works and forms of literature;

- use a variety of strategies to measure accurately, interpret quantitative data, visualize abstract mathematical concepts/ideas, present alternative solutions to quantitative problems, particularly, as applied to real-life situations;
- apply a wide range of biological, chemical, and physical concepts, skills and values in identifying, posing, and solving problems in the environment, its conservation, and in evolving better ways and means of doing things in daily living;
- demonstrate an informed and discriminating appreciation of technology as it relates to daily life;
- discuss current national and global events in ways that are informed by history and social, political, cultural, and economic frameworks;
- actively and responsibly participate in the various forms of citizenship, in ways that are informed by social, political, cultural and economic frameworks and values.

Technical–Vocational Sector

The TVET sector has its own qualifications structure which gives recognition to the attainment of knowledge, skills, attitudes and values in the middle–level skilled occupations. The Philippine TVET Qualifications Framework (PTQF) provides the parameters for the integration of learning and assessment in middle level skills development. Through the (PTQF national qualifications issued in the TVET sector are based on achieving the competency standards defined by the industry.

The use of the terms “National Certificate/Diploma” and “Certificate/Diploma” are restricted to the following criteria:

1. The use of terms *National Certificate/Diploma* is restricted to TESDA–promulgated qualifications developed by a TESDA–recognized national industry body. They are attained after undergoing a national assessment for full qualification defined under the promulgated Training Regulations.
2. The terms *Certificate 1, 2 or 3* and *Diploma 1, 2* are restricted to qualifications achieved after completing a TESDA–registered course or program.
3. The term *Certificate of Competency* is restricted to the attainment of a unit or units of competency that can lead to full employment and that comprise a portion of a national qualification defined under the promulgated Training Regulations.

The qualifications framework for the TVET sector is underpinned by the following general principles:

- Qualifications correspond to meaning broad-based employment and are based on and packaged from industry–verified competencies.
- It promotes life-long learning and provides for recognition of current competencies and prior learning (RCC/RPL) where workers/learners can have their present skills and

knowledge given toward a qualification at any level regardless of how or where such competencies are acquired.

- It provides for accumulation of units of competency towards a national qualification. Workers can have their specific competencies assessed and certificated. Completion of all required competencies within a national qualification will entitle the worker to a National Certificate or National Diploma.

Text from TESDA on Qualifications Issues

Certificate 1

Descriptor: An individual who attains the Certificate 1 qualification is able to:

- perform routine and predictable tasks involving little latitude for judgment;
- perform work usually involving adherence to appropriate standards and specifications;
- work in an environment where assignments are usually made by a supervisor or a worker at a higher level who gives simple instructions and makes clarifications or suggestions when necessary.

Certificate 2

Descriptor: An individual who attains the Certificate 2 qualification is able to:

- perform a prescribed range of functions involving known routines and procedures where clearly identified choices and limited complexities apply;
- perform work involving some accountability for the quality of the outputs;
- perform assignments that may involve individual responsibility or autonomy or working with others as part of a team or a group.

Certificate 3

Descriptor: An individual who attains the Certificate 3 qualification is able to:

- perform a wide range of skilled operations at a high level of competence involving known routing and procedures in a work context that involves some complexity in the extent and choice of options available;
- perform work involving understanding of the work process, contributing to problem-solving, and making decisions to determine the process, equipment and materials to be used ;
- perform assignments involving individual responsibility for others and participation in teams including team or group coordination.

Diploma 1

Descriptor: An individual who attains the Diploma 1 qualification is able to:

- perform a broad range of applications in a variety of contexts most of which are complex and non-routine;
- undertake work involving some leadership and guidance when organizing activities of self and others and contributing to technical solutions of a non-routine or contingency nature;
- perform work involving evaluation and analysis of current practices and development of new criteria and procedures;
- perform applications involving responsibility for the organization and performance of others;
- apply in a self-directed manner the knowledge and skills in chosen field, with substantial depth in some areas where judgment is required in planning and selecting appropriate equipment, services and techniques for self and others;
- perform assignments involving recognition of others.

Diploma 2

Descriptor: An individual who attains the Diploma 2 qualification is able to:

- demonstrate sound understanding of principles and methods of study in research and how these are used to create and interpret knowledge;
- apply fundamental techniques across a wide variety of context in relation to either varied or highly specific functions and in solving problems;
- perform effectively in the development of strategic initiative as well as personal responsibility and autonomy in performing complex and technical operations;
- undertake planning and initiation of alternative approaches to skills and knowledge applications across a broad range of technical and management requirements, evaluation and coordination.

The degree of emphasis on breadth as against depth of knowledge and skills may vary between qualifications granted at this level.

CHED to Add Details of Qualification Requirements

Higher Education Sector

The Higher Education Sector has qualifications developed from the national curriculum prepared by CHED as well as qualifications with a curriculum developed by higher education institutions themselves. Many qualifications reflect the requirements of professional bodies.

Associate

Descriptor: A graduate of an Associate programme is able to:

- demonstrate sound understanding of principles and methods of study in research and how these are used to create and interpret knowledge;
- apply fundamental techniques across a wide variety of context in relation to either varied or highly specific functions and in solving problems;
- perform effectively in the development of strategic initiative as well as personal responsibility and autonomy in performing complex and technical operations;
- undertake planning and initiation of alternative approaches to skills and knowledge applications across a broad range of technical and management requirements, evaluation; and
- undertake a route of progression to the later stages of study for a Bachelor's degree.

Bachelor's Degree

Descriptor: A graduate of a Bachelor's degree is able to:

- demonstrate knowledge and skills related to the ideas, principles, concepts, chief research methods and problem solving techniques of a recognized major subject (or subjects, in the case of a double degree or a double major);
- demonstrate the skills needed to acquire, understand and assess information from a range of sources;
- demonstrate intellectual independence, critical thinking and analytic rigour;
- engage in self-directed learning; and
- demonstrate communication and collaborative skills.

Post Graduate Diploma

Descriptor: A graduate of a Post Graduate Diploma program is able to:

- engage in self-directed learning and advanced study;
- demonstrate intellectual independence, analytic rigor, and the ability to understand and evaluate new knowledge and ideas; and
- demonstrate the ability to identify topics for original research, plan and conduct research, analyze results and communicate the findings to the satisfaction of subject experts.

Master's Degree

Descriptor: A graduate of a Master's degree program is able to:

- provide appropriate evidence;
- demonstrate the skills needed to acquire, understand and assess information from a range of sources; of advance knowledge about a specialist body of theoretical and applied topics relevant to the degree programme;
- demonstrate the capacity to self-directed study and the ability to work independently;
- plan and carry out, to internationally recognized standards, a piece of original research or scholarship which demonstrates a high order of skill in analysis and critical evaluation; and
- demonstrate effective oral and written communication skills.

Doctorate Degree

Descriptor: A graduate of a Doctorate degree is able to:

- contribute to knowledge in the form of new knowledge or significant original adaptation, application and interpretation of existing review experimentation, creative work with exegesis or other systematic approach or an advanced searching and expensive critical reflection on professional theory and practice;
- undertake an original research project, or a project(s) addressing a matter of substance concerning practice in a profession at a high level of originality and quality; and
- present a substantial and well-ordered dissertation, non-print thesis or portfolio, for submission to external examination against international standards.

The Sri Lankan Credit and Qualifications Framework

By

Kapugamage Tillekeratne

SLCQF, Sri Lanka

The Sri Lankan Credit and Qualification Framework (SLCQF) is complementary to the Quality Assurance Handbook and the Academic Procedures Handbook published by the CVCD and UGC in July 2002 and November 2003, respectively.

These Handbooks, together with the Sri Lankan Credit and Qualification Framework and the Subject Benchmark Statements; are the result of collaborative work undertaken between the CVCD/UGC, Universities and Professional bodies during the period 2002-2004.

The SLCQF and Subject Benchmark Statements are both part of the overall quality assurance framework, that supports academic standards and the development and dissemination of good practice in universities in Sri Lanka. A diagrammatic illustration of the quality assurance framework is given in the back cover.

Subject Benchmark Statements and the Credit & Qualification Framework serve as two useful building blocks in support of quality and academic standards: the Credit and Qualifications Framework shows how a particular University's award/qualification and the level and volume of credits relate to a national qualification and credit 'standard', whilst the coverage and content of a particular programme of study leading to that qualification can be matched with the relevant subject benchmark statement.

One of the objectives of the UGC and CVCD in supporting the Quality Assurance (QA) Project has been to enable universities to respond more quickly to the demand of university education and to the changing needs of the employment market. This has necessitated the focussing of attention on the consistency and comparability of University level qualifications and on promoting student mobility by creating more flexible arrangements for student learning and by enabling students to combine employment with study.

The SLCQF has been designed to support and facilitate:

- student mobility, through lateral entry and exit for students between courses within universities, and student mobility between universities;
- recognition of pre-university learning, including work-based learning and work experience, for entry to higher education or to count towards an academic qualification;
- enabling students to complete a four-year Bachelor degree by transferring to another institution, where the relevant subject expertise and resources are available;

- enabling students to leave or interrupt university study with recognition of successful learning (e.g. by recognising a Certificate for successful completion of the first year of university study or by means of an intermediate award towards a higher qualification).

The SLCQF combines descriptors of qualifications at each level with credit measures that indicate the levels and volume of learning that a student is expected to achieve for each type of qualification.

The SLCQF is capable of accommodating diversity and innovation in programme development and has sufficient flexibility to enable institutions to develop programmes that are responsive to changing needs of students and graduates, universities and employers. It provides paths for progression to facilitate lifelong learning, and maximises opportunities for credit transfer, thereby minimizing duplication of learning.

Individual universities will be expected to take cognisance of the guidelines contained in the SLCQF when revising existing programmes of study and also in designing new of programmes.

Subject benchmarking statements

Subject Benchmark Statements (SBSs) have already been developed in respect of Botany, Civil Engineering, Economics, Geography, Mathematics & Statistics, Medicine, Physics and Zoology. These are published in a separate volume. The SBSs in Accountancy, Agriculture, Chemistry, Dental Science, Electrical Electronic Engineering, English, History, Mechanical Engineering, Sinhala, Sociology, Tamil, and Veterinary Medicine & Animal Science are currently under preparation. It is intended to finalise the SBSs in respect of the remaining major disciplines taught in the Sri Lankan Universities by May 2005.

Ms Carole Webb (University of the West of England, Bristol, U.K.) and Ms Gill Clarke (University of Bristol, U.K.) served as Consultants to the Quality Assurance Project. Professor K Tillekeratne served as the Chairman of the Committee on Quality Assurance which spearheads the Quality Assurance Project in the Universities.

An introduction to the Framework

The Sri Lankan Qualifications Framework is designed to fulfil several purposes, as set out below. It provides a structure within which institutions can place their awards, with the understanding that all national qualifications will, over time, fit into the framework at an appropriate level.

Purposes

The purposes of the Framework are:

- to maintain international comparability of standards, ensure international competitiveness and facilitate student and graduate mobility;
- to provide a structure that facilitates consistent use of qualification titles and levels;

- to help higher education institutions to agree on points of reference for setting and assessing standards of programmes;
- to enable employers, schools, prospective students, parents and others to understand the achievements represented by different qualifications;
- to help students to identify routes for progression, within qualifications and from one qualification to another.

The Framework should be able to accommodate diversity and innovation in programme development. It should have sufficient flexibility to enable institutions to develop programmes that are responsive to the changing needs of students and graduates, universities, and employers.

Levels of qualifications

The framework has three qualification bands:

- Undergraduate {three year (General) four year (Special) and four year professional degrees}
- Master's (3 types: taught, taught + research, research) and Postgraduate Diplomas and Certificates
- Doctoral

All qualifications at a specific level should place similar demands on students and have consistent expectations of the level of knowledge and skills to be achieved on successful completion of the programme.

Qualification descriptors

Descriptors summarise the student learning outcomes / objectives of the qualification at each level. They enable a distinction to be made between the attributes and achievements of graduates from programmes at different levels. Undergraduate and postgraduate qualification descriptors are cumulative: each descriptor builds upon the qualification descriptor(s) at lower level(s).

Outline qualification descriptors for Undergraduate, Postgraduate Certificate and Diploma, Master's, and Doctoral levels are attached at Annex 1

Each descriptor is in two parts: the first states generic learning outcomes / objectives of a graduate from a programme at the level being described; the second summarises the wider attributes and abilities that could / should be expected of a graduate of such a programme.

The first part of each descriptor should be helpful in the design, approval and review of academic programmes. It should prompt staff to check that, in any new or existing programme, the curriculum, teaching and learning methods and assessments provide all students with the opportunities to achieve and demonstrate achievement of the learning outcomes / objectives.

The second part of the descriptor is helpful to teachers, students, graduates and employers in summarising the broader abilities possessed by a graduate of a programme. It should help students know what to aspire to in studying for the qualification and should also provide employers and professional bodies with a summary of the general capabilities of those holding the qualification.

Each descriptor sets out the outcomes for the qualification at each level (Undergraduate Honours, Postgraduate Certificate, Postgraduate Diploma, Master's and Doctoral). At some levels there might be more than one type of qualification

Relationship between qualification descriptors and subject benchmarks

The Sri Lankan Credit and Qualifications Framework and Subject Benchmarks are both part of the overall quality assurance framework under development.

The qualification descriptors at Annex 1 are generic statements about the learning outcomes / objectives of programmes of study. Subject benchmark statements provide the necessary additional information on the expectations of students' and graduates' achievements and attributes in their academic subject.

Where more than one subject benchmark is relevant to a student's programme of study, the generic learning outcomes / objectives provided in the relevant qualification descriptor give a useful reference point for academic standards.

Specific student / graduate skills are not addressed directly in qualification descriptors. They are fully covered in relevant subject benchmarks, where their importance and weighting will vary depending on the context of the subject of study. For example, subject benchmarks for vocational and / or professional programmes will cover practical and professional skills that would not sit appropriately in the qualification descriptors.

Relationship between qualifications and credit frameworks

Qualifications frameworks, as stated above, are designed to provide a common structure within which degrees and other awards can be located at different academic levels. They are often used in conjunction with credit frameworks but the two are not interdependent.

The main purpose of combining credit and qualifications frameworks is to enable institutions to show how students progress within a programme and between programmes and qualifications.

It is possible to design a framework showing the minimum amount and levels of credit a student is required to have completed successfully before achieving a qualification. Credit frameworks can also be used to define the minimum amount of learning at various levels that students need to achieve the intended programme learning outcomes / objectives. This is often, but not necessarily, linked to periods of time, e.g. the number of years' study at different levels.

Qualifications frameworks alone, therefore, do not themselves specify minimum or typical volumes of credit that are required for different awards.

Assessment

The introduction of qualifications frameworks has implications for assessment methods and procedures.

Qualifications frameworks help academic staff and students to relate learning outcomes / objectives to assessment practices and to review whether existing assessment methods test the intended learning outcomes for a programme.

Reviewing marking criteria and assessment opportunities against qualification descriptors often shows that there is an element of mismatch between the two, and may lead to a change in the approach to assessment within a programme.

For example, one of the learning outcomes for a programme might be that graduates should be able to communicate the results of their research effectively, to peers and others. This might also be one of the 'typical' attributes outlined in the relevant qualification descriptor. The programme providers might then discover that the assessment practices relating to that programme are not testing the student's ability to communicate effectively in this way and consequently, they might be changed. The programme providers might introduce a form of either formative or summative assessment to test this skill in future.

See also the Code of Practice on the Assessment of Students, which is relevant to this topic.

Use of qualifications frameworks in institutional and subject review

The reference points provided by qualifications frameworks are helpful to reviewers in evaluating the academic standards of programmes. They may use them to determine whether the intended programme learning outcomes / objectives are a) appropriate to the level of qualification awarded and b) whether student achievement indicates the outcomes / objectives are being met.

The Sri Lankan Credit and Qualifications Framework is one of a number of such reference points that make up the Quality Assurance Framework.

Institutions should be able to satisfy reviewers that the amount and nature of learning is adequate to enable students to achieve stated learning outcomes / objectives and that the qualifications they are awarding meet the required standards of the relevant qualification descriptors.

ANNEX 1

QUALIFICATION DESCRIPTORS

Undergraduate⁶ Qualification Descriptors

Undergraduate Certificate

Students awarded an **undergraduate certificate** should have demonstrated:

- 1 Knowledge of the underlying concepts and principles associated with their area(s) of study
- 2 Literacy in IT and an ability to present, evaluate and interpret qualitative and quantitative data
- 3 An ability to develop lines of argument and make sound judgements in accordance with basic theories and concepts of their subject(s) of study

Typically, holders of this qualification will be able to:

- 4 Communicate the results of their study / work accurately and reliably, and with structured and coherent arguments
- 5 Undertake further training and develop new skills within a structured and managed environment
- 6 Display qualities and transferable skills necessary for employment requiring the exercise of some personal responsibility

Undergraduate Diploma

Students awarded an **undergraduate diploma** should have demonstrated:

- 1 Knowledge and understanding of the well-established principles of their area(s) of study
- 2 An ability to apply underlying concepts and principles and, where appropriate, the application of those principles in an employment context

⁶ Undergraduates can graduate with Honours in either a General or a Special undergraduate degree.

- 3 Literacy in IT, problem-solving skills, ability to gather, evaluate, analyse and present information, ideas, concepts and quantitative and/or qualitative data
- 4 An understanding of the limits of their knowledge, and how this influences analyses and interpretations based on that knowledge

Typically, holders of this qualification will be able to:

- 5 Use a range of established techniques to initiate and undertake analysis of information and to solve problems arising from that analysis
- 6 Effectively communicate information, arguments and analysis, in a variety of forms, to specialist and non-specialist audiences
- 7 Undertake further training, develop existing skills and acquire new competences that will enable them to assume significant responsibility within organisations
- 8 Display qualities and transferable skills necessary for employment

General Degree⁷

Students awarded an **undergraduate general degree** should have demonstrated:

- 1 Knowledge and understanding of the well-established principles of their areas of study.
- 2 Ability to apply underlying concepts and principles and, where appropriate, the application of those principles in an employment context.
- 3 Understanding of the essential theories, principles and concepts of the subjects and of the ways in which these are developed through the main methods of enquiry in the subject.
- 4 Literacy in IT, problem-solving skills, ability to gather, evaluate, analyse and present information, ideas, concepts and quantitative and/or qualitative data.
- 5 Ability to set up and conduct laboratory experiments where appropriate, and observe results.

Typically, holders of an undergraduate general degree will also be able to:

- 6 Use a range of established techniques to initiate and undertake analysis of information, and to propose solutions to problems arising from that analysis.

⁷ General degree – consists of three years of study in more than one subject

- 7 Effectively communicate information, arguments, and analysis, in a variety of forms, to specialist and non-specialist audiences; and deploy key techniques of the discipline effectively.
- 8 Undertake further training, develop existing skills, and acquire new competences that will enable them to assume significant responsibility within organizations.
- 9 Display qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and decision-making.

Special⁸ Degree

Students awarded an **undergraduate special degree** should have demonstrated:

- 1 A thorough and systematic understanding of the core aspects of their subject of study, including acquiring detailed knowledge.
- 2 An ability to use accurately established techniques of analysis and enquiry within a discipline.
- 3 Literacy in IT and facility in its application
- 4 Conceptual understanding that enables them to:
 - Construct and sustain arguments and to solve problems using ideas and techniques, some of which are at the forefront of development in the subject;
 - To be aware of current developments and scholarship in the subject.
- 5 An appreciation of the uncertainty, ambiguity and limits of knowledge.
- 6 The ability to manage their own learning, to make use of scholarly reviews and primary sources (e.g. refereed research articles and publications and other materials relevant to the subject).

Typically, holders of an undergraduate special degree will also be able to:

- 7 Apply the methods and techniques they have learned to review, consolidate, extend and apply their knowledge and understanding and to initiate and carry out projects;

⁸ Special degree – a four-year Bachelor's programme can be based on one of three different models: '4', '1+3', or '2+2' (see attached table at Annex 2)

- 8 Critically analyse arguments, assumptions, abstract concepts and data, to make judgements and to frame appropriate questions to identify solutions to problems;
- 9 Communicate information, ideas, issues, problems and solutions to specialist and non-specialist audiences;
- 10 Exercise initiative and personal responsibility;
- 11 Make decisions in complex and unpredictable contexts;
- 12 Identify when they need to seek support and help from others and / or to undertake further training, either professional or otherwise.

Special³ Degree – 4-year professional Honours degree

Students awarded a degree at this level should have demonstrated:

- 1 A thorough and systematic understanding of the core aspects of their subject of study, including acquiring in-depth knowledge, at least some of which should be informed by scholarly developments in the subject;
- 2 An ability to use accurately established techniques of analysis and enquiry within a discipline;
- 3 Conceptual understanding that enables them to construct and sustain arguments and to solve problems using ideas and techniques, some of which are at the forefront of development in the subject;
- 4 An appreciation of the uncertainty, ambiguity and limits of knowledge;
- 5 The ability to manage their own learning.

Typically, holders of a professional honours degree will also be able to:

- 6 Apply the methods and techniques they have learned, to review, consolidate, extend and apply their knowledge and understanding to their professional practice;
- 7 Critically analyse arguments, assumptions, concepts and data, to make judgements and to frame appropriate questions to identify solutions to problems;
- 8 Communicate information, ideas, issues, problems and solutions to specialist and non-specialist audiences;

³ Special degree – a four-year Bachelor's programme can be based on one of three different models: '4', '1+3', or '2+2' (see attached table at Annex 2)

- 9 Exercise initiative and personal responsibility;
- 10 Make decisions in complex and unpredictable contexts;
- 11 Identify when they need to seek support and help from others and / or to undertake further training.

Postgraduate Qualification Descriptors

There are programmes at five different levels within the Master's band of qualifications:

Postgraduate Certificate	Postgraduate Diploma	Master's (Taught)	Master's (Taught and Research)	Master's (Research)
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The concept of a postgraduate certificate and diploma within a Master's programme is a new development and therefore the descriptors below are likely to be refined in the light of experience.

Postgraduate certificates and diplomas can be stand-alone qualifications or intermediate qualifications leading to a Master's degree. There is therefore a degree of commonality in the qualification descriptors with the Master's degree. Postgraduate certificates and diplomas mainly involve study at levels P1 and P2, although some may include one or two undergraduate level modules.

Qualification descriptor for Postgraduate Certificate

Students awarded a qualification at this level should have demonstrated:

- 1 An understanding of knowledge in the given subject, together with an awareness of current issues, where appropriate informed by professional practice;
- 2 An understanding of methodology relevant to their subject and, where appropriate, professional practice.

Typically, holders of a qualification at this level will be able to:

- 3 Deal with issues systematically, and in collaboration with colleagues, make sound judgements on the basis of known data and communicate their conclusions clearly and confidently;
- 4 Demonstrate self-direction and self-confidence in problem solving and work with colleagues to plan and implement tasks at a professional or equivalent level;

- 5 Demonstrate the ability to advance their knowledge and understanding and to develop new skills;
- 6 Exercise initiative and personal responsibility;
- 7 Learn and work independently, when required for continuing professional development.

Qualification descriptor for Postgraduate Diploma

Students awarded a qualification at this level should have demonstrated:

- 1 A high level of understanding and knowledge in the given subject, together with an awareness of current subject developments, where appropriate informed by professional practice;
- 2 An understanding of subject methodology and the ability to use it in their studies and, where appropriate, in professional practice.

Typically, holders of a qualification at this level will be able to:

- 3 Deal with complex issues systematically, and in collaboration with colleagues, make sound judgements using incomplete data and communicate their conclusions clearly and confidently to a range of audiences;
- 4 Demonstrate self-direction and self-confidence in problem solving and the ability to plan and implement tasks at a professional or equivalent level;
- 5 Demonstrate the ability to advance their knowledge and understanding and to develop new skills;
- 6 Exercise initiative and personal responsibility;
- 7 Learn and work independently, when required for continuing professional development.

Qualification descriptor for Master's (Taught)

Note: 5-year professional undergraduate courses should also be at this level

Students awarded a degree at this level should have demonstrated:

- 1 A thorough and systematic understanding of knowledge, together with a critical awareness of current issues and new insights in their subject, informed by scholarly development in their academic subject / field or area of professional practice;
- 2 A comprehensive understanding of and ability to apply techniques relevant to their own research / scholarship / professional practice.

Typically, holders of a degree at this level will be able to:

- 3 Deal with complex issues systematically and creatively, make sound judgements in the absence of complete data and communicate their conclusions clearly to specialist and non-specialist audiences;
- 4 Demonstrate self-direction and originality in tackling and solving problems and act autonomously in planning and implementing tasks at a professional or equivalent level;
- 5 Continue to advance their knowledge and understanding and to develop new skills to a high level;
- 6 Exercise initiative and personal responsibility;
- 7 Learn and work independently, as required for continuing professional development.

Qualification descriptor for Master's (Taught and Research / Research)

Students awarded a degree at this level should have demonstrated:

- 1 A thorough and systematic understanding of knowledge, together with a critical awareness of current issues and new insights in their subject, informed by scholarly development in their academic subject / field or area of professional practice.
- 2 A comprehensive understanding of, and ability to apply, techniques relevant to their own research / scholarship / professional practice;
- 3 Originality in the application of knowledge and a practical understanding of how research techniques are used to create and interpret knowledge in the subject;
- 4 A range of conceptual understanding that enables them to:
 - a. Evaluate and analyse current research and advanced scholarship in the subject;
 - b. Constructively criticise and improve methodologies in the subject, and where appropriate, to propose new hypotheses.

Typically, holders of a degree at this level will be able to:

- 5 Deal with complex issues systematically and creatively, make sound judgements in the absence of complete data and communicate their conclusions clearly to specialist and non-specialist audiences;
- 6 Demonstrate self-direction and originality in tackling and solving problems and act autonomously in planning and implementing tasks at a professional or equivalent level;

- 7 Continue to advance their knowledge and understanding, and to develop new skills to a high level;
- 8 Exercise initiative and personal responsibility;
- 9 Make decisions in complex and unpredictable situations;
- 10 Learn independently, as required for continuing professional development.

Qualification descriptor for doctoral level

Students awarded a doctorate should have demonstrated:

- 1 The creation and interpretation of new knowledge, through original research or other advanced scholarship, of a quality to satisfy peer review, extend the discipline and merit publication.
- 2 A systematic acquisition and understanding of a substantial body of knowledge at the forefront of an academic discipline or area of professional practice.
- 3 The ability to conceptualise, design and implement a project so as to generate new knowledge, applications or understanding and to adjust the design of the project in response to developments, positive and negative.
- 4 A detailed understanding of applicable techniques for research and advanced academic enquiry.

Typically, holders of a doctorate will be able to:

- 5 make informed judgements on complex issues in specialist fields, often in the absence of complete data, and be able to communicate their ideas and conclusions clearly and effectively to specialist and non-specialist audiences;
- 6 continue to undertake pure and / or applied research and development at an appropriately advanced level, contributing substantially to the development of new techniques, ideas and approaches.

They will also possess:

- 7 the qualities and transferable skills necessary for employment, requiring the exercise of personal judgment, responsibility and largely autonomous initiative in complex and unpredictable situations, in professional or equivalent environments;
- 8 The self-knowledge required to know when to seek advice or support.

The diagrams that follow summarise Qualifications and Credit Framework and are intended to show the position in relation to currently available qualifications and their

interrelationships. It should be noted that the two diagrams contain some elements that already exist and some new aspects, in particular opportunities for students to use lower qualifications as building blocks to the next level.

CREDIT LEVEL DESCRIPTORS

Characteristics

Credit level descriptors:

- Are about generic learning expectations and transferable skills, not subject knowledge;
- Describe the intellectual level of the module;
- Will have a different emphasis, depending on the type of module, for example practical / applied, or conceptual / theoretical;
- Will indicate the scope for independent / student-centred learning.

Descriptors

Undergraduate

At level one (U1), modules will contain introductory material and the balance will probably be weighted towards acquiring knowledge and understanding. Also at this level, tutors will be encouraging students to take some responsibility for their learning. Students should be acquiring good study skills and have opportunities to begin to acquire personal / transferable skills as specified in the module.

At level two (U2), modules will provide opportunities for comparative, analytical, problem-based and other, similarly more demanding, approaches to the subject. At this level, students will be able to demonstrate examples of self-motivation in some areas of study, for example by undertaking tasks independently. They should be able to apply a wider range of personal / transferable skills than at level one, some of which will be developed through the subject.

At level three (U3), modules will provide more opportunities for analytical, problem-based and other approaches to the subject than at level two. Students will be expected to show confidence in a range of different forms of communication, appropriate to the subject(s) and will be self-motivating in their learning. Students' personal / transferable skills will be developed to a higher level than at level 2 and for General degree students will be appropriate for the next stage in their career.

At level four (U4), successful completion of modules will demand more specialised knowledge, requiring evidence of depth of understanding and analysis. Students will be expected to show confidence in a range of different forms of communication appropriate to the subject(s) and will be self-motivating in their learning. Some modules will consist entirely of independent study, for example a research / laboratory project or dissertation. Students' personal / transferable skills will be developed to a higher level than at level

three, appropriate for the next stage in their career. They will be able to apply their specialised knowledge in a range of situations.

Modules at level four (U4) contributing to a Special, professional degree will require students to apply diagnostic and decision-making skills and to exercise judgement in a range of real-life situations. Such modules will test students' ability to recognise the limitations of their knowledge and to deal with uncertainty, especially in relation to their professional situation.

Postgraduate

At level one (P1) modules will provide students with the ability to consolidate and extend their knowledge and understanding and expose them to new concepts and professional developments, where appropriate

At level two (P2) modules will provide students with the ability to acquire a systematic and coherent body of knowledge and a level of conceptual understanding that allows them to evaluate methodologies in a professional context, where appropriate

At level three (P3) modules will provide students with the ability to critically review, consolidate and extend a systematic and coherent body of knowledge. They will be able to critically evaluate new concepts and evidence from a range of sources and consider alternative approaches in a professional context, where appropriate

At level four (P4) modules will provide students with ability in critical analysis of an area of the subject using diagnostic and creative skills, and to exercise significant judgement in a range of situations, accepting accountability for determining and achieving outcomes.

At level five (P5) the programme will provide students with a mastery of a complex and specialized area of knowledge and skills to conduct research, accepting accountability for related decision-making, including use of supervision.

At doctoral level (D1) the student's programme will enable them to make a significant and original contribution to a specialized field of investigations, demonstrating a command of methodological issues and accepting personal responsibility for outcomes.