

An Introductory Guide to National Qualifications Frameworks:

Conceptual and Practical Issues
for Policy Makers

Ron Tuck

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Preface

The development of National Qualifications Frameworks (NQFs) has been a major international trend in reforming national education and training systems since the late 1990s. The initiative first started, and was diffused mostly, among English-speaking developed countries. However, since the late 1990s such frameworks have also been adopted by non-English-speaking and developing countries.

A number of studies and policy documents on NQFs have been produced, most of which have focused on the potential benefits of such frameworks. The uniqueness of this Guide is that it brings a more balanced perspective to this subject. While there are a number of potential benefits, the international experience suggests that the development of an NQF can also be technically, institutionally and financially demanding, in particular for developing countries. The ILO's Working Paper on this subject titled "*National Qualifications Frameworks: Their feasibility for effective implementation in developing countries*", published in 2005, examined both the potential benefits and challenges of NQF implementation in depth, prior to the Guide. Setting up an NQF, in a mechanical sense, may be a relatively quick exercise. However, it takes time to achieve results in terms of more people participating in training or improving the quality of training provision, for example. There are surprisingly few documents which spell out, in a practical way, what an NQF can achieve realistically, what are the preconditions and potential pitfalls and how it can be developed. NQFs have been much discussed and with much enthusiasm, but it may be questioned whether their technical and institutional complexity are well understood.

This Guide attempts to respond to these concerns, and by doing so, to assist policy makers in making informed judgments as to whether and how they can pursue the development of an NQF in meeting the specific needs of their training systems. The Guide highlights that while an NQF can be a useful tool in addressing a number of the skills challenges, there is no single or universal form of NQF which can solve all skills problems. Its implementation needs to be fit-for-purpose with clear objectives in mind. An NQF can assist but is not a quick solution to the many skills challenges that a country faces. Without clear objectives and an understanding of how an NQF can best be developed, NQF implementation can be a lengthy and costly investment, which many developing countries may not be able to afford.

I would like to thank Mr. Ron Tuck, the principal author of the report for taking on this challenging task. He has worked in a number of countries, advising and assisting in the development of NQFs. The Guide reflects his rich experience in diverse countries. To ensure its general applicability, an earlier draft of the Guide also benefited from valuable comments received from a panel of experts and policy makers in five countries that have developed an NQF, namely Ghana, Ireland, New Zealand, South Africa and the United Kingdom. Specialists in the Skills and Employability Department, ILO, also provided valuable comments. Finally, I would like to thank Ms. Akiko Sakamoto, Skills and Training Policy Specialist, for initiating and managing the project, as well as contributing to and finalizing the text. In addition, Ms. Jane Auvre provided invaluable assistance in administration and in formatting and publishing the Guide.

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Executive summary

1. A Qualifications Framework is an instrument for the development, classification and recognition of skills, knowledge and competencies along a continuum of agreed levels. It is a way of structuring existing and new qualifications, which are defined by learning outcomes, i.e. clear statements of what the learner must know or be able to do whether learned in a classroom, on-the-job, or less formally. The Qualifications Framework indicates the comparability of different qualifications and how one can progress from one level to another, within and across occupations or industrial sectors (and even across vocational and academic fields if the NQF is designed to include both vocational and academic qualifications in a single framework).
2. 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, provide a basis for improving the quality, accessibility, linkages and public or labour market recognition of qualifications within a country and internationally.
3. In the case of NQFs developed in some Anglophone countries, the NQF has led to the development of distinctive features that are not normally found in traditional qualifications systems. The most important and distinctive characteristic of these NQFs is that the qualifications they contain are viewed as independent of institutions that offered the programmes leading to the qualifications. Other distinctive features include: modular/unitised qualifications which allow the accreditation or certification of a component part of the larger qualification; and assessment based on explicit demonstrative criteria. In these countries, NQFs have come to mean not only the framework itself but also the associated distinctive features. The variation in the definition of NQF is often a source of confusion. However, the important point is that the nature and design of the NQF should be based on the goals that policy makers seek to achieve by introducing an NQF.
4. The distinction between a qualifications 'framework' and a qualifications 'system' is important. Where it exists, the NQF is normally one component of the overall qualifications system. A qualifications 'system' is broader, including all activities that result in the recognition of learning, such as the means of developing and operationalizing policy on qualifications, along with institutional arrangements, quality assurance processes, assessment and awarding processes, etc.
5. The value of an NQF lies in its potential to contribute to policy goals such as lifelong learning, recognition of skills, or improving the quality of education and training. Therefore its design should relate to the goals which it is intended to support and to the context in which it will operate. It is unhelpful to think of the NQF as an entity with fixed or universal characteristics – other than the need to establish a set of levels and criteria for registering and allocating qualifications to these levels. The most effective approach to

building an NQF is to start with clear policy aims, rather than with a set idea about the particular characteristics it should have.

6. The reasons why a country might adopt an NQF are varied. Many of the countries that have adopted an NQF were concerned with the poor articulation between qualifications and actual skills needs in the workplace. Some countries needed to rectify the poor credibility and quality of existing qualifications and training programmes (Jamaica, Trinidad and Tobago, Ghana, South Africa). Other countries were more concerned with a lack of coherence and the rather fragmented nature of the qualifications system (e.g. England). Where a large part of the population had been excluded from the formal education system or where there was a high number of school dropouts, recognition of their non-formally acquired skills and facilitating their integration into the formal system were major concerns (South Africa, Slovenia). A move towards the creation of a regional common labour market also created an impetus for concerned countries to create or modify their national qualification systems by taking account of regional comparability and compatibility (e.g. EU, CARICOM, SADC). It should also be noted that while NQF development is of growing international interest, NQFs have not been adopted by a number of countries notably in continental Europe, North America and East Asia.
7. An NQF can help to address a number of the skills challenges; however, an NQF is not a quick solution to the many skills challenges faced by a country. Without clear objectives and an understanding of how an NQF can best be developed, implementation can be a lengthy and costly endeavour.
8. Conducting a preliminary analysis to be clear about rationales for the development of an NQF is vital. It should enable policy makers to get beyond general NQF rhetoric and focus on the specific needs of the country and lay the foundation for a needs-led approach to NQF design and implementation. It is important to be sure that there is a real problem or need to be addressed. Obviously, it is highly counter-productive to impose 'solutions' where a problem does not exist. It is also important to be clear about priorities, especially where there are significant resource constraints. For example, revising all VET qualifications to create a fully outcome-based modular system is an expensive undertaking and the benefits may not immediately justify the investment. It may suggest focusing efforts on one sector of education and training rather than a comprehensive NQF which includes all sectors of education and training. The final goal may be to build a comprehensive NQF, but it does not need to be a one-stage process.
9. The approach to NQF construction should also be decided on the basis of fit-for-purpose. This is especially true regarding the extent to which all parts of the framework should be unified by bringing all provision of education and training within a single system, and how centrally it should be managed. The experience of first generation NQFs suggests that there is practical value in allowing for sector differences within an overall framework. It may be that larger countries with very large numbers of institutions and learners would find linked systems easier to manage than unified systems, which are more complex to manage. Conversely, small countries may prefer a unified-loose solution with a simpler national governance and management structure. The important point is to use a model that allows for sector differences within the single framework in a way which suits the national circumstances.

10. A National Qualifications Framework is only a framework. It can play a vital role in supporting reforms but if it is not part of a wider strategy, it may achieve very little. There can be exaggerated and unrealistic impressions of what the building of an NQF can achieve in isolation from other developments. The key to successful NQF implementation is to develop a broad strategy that takes account of all factors influencing success. These include: policy coherence across different ministries; an enabling funding regime; support to education and training institutions including the development of learning materials and professional development. The most important thing is to develop genuine support and trust for the NQF among stakeholders. Employers' and workers' organizations have a key role to play in this process.
11. The key issue for policy makers in relation to the development of new qualifications is the *pace* and *scale* of development. Some NQF development programmes have been based on a grand design which required that all the qualifications that *could* be developed *should* be developed. While the exact costing of NQF development is extremely difficult, a large-scale NQF can be expensive (e.g. nearly €14 million over eight years in South Africa). Developing the framework itself may be a relatively quick exercise. However, it can take a substantially longer time to build other supporting elements including trust and credibility and for an NQF to take root in society and achieve intended objectives (e.g. 15-20 years in Scotland and in New Zealand and 10 years in Australia).
12. As for the governance and management of the NQF, it is normal international practice for the management of the NQF to be assigned to an apex body, such as a national qualifications authority, that is independent of the government but accountable to it. Two key issues of governance are: co-ordination of policy across government ministries and ensuring adequate involvement of stakeholders. At least the ministries which are responsible for education and labour will need to have a strong interest in the NQF. It is recommended, however, that one ministry be chosen to take the lead role so as to create an effective internal policy coordination mechanism.
13. The first essential element of NQF development is to develop a set of 'levels' of learning to be achieved (i.e. learning outcomes, competencies) and assign qualifications to the levels. The starting point in deciding on the number of levels is the current understanding among stakeholders about key qualifications and their relationship to each other. An NQF is unlikely to be accepted or even understood by citizens if it does not correspond to 'common sense', certainly in respect of the most significant qualifications. The number of levels in an NQF varies; however, most frameworks today seem to have approximately eight or ten levels.
14. The second essential element of an NQF is quality assurance. This is vital if stakeholders within the country and the international community are to have confidence in the NQF. Three important measures of quality assurance are: validation of qualifications and/or standards; accreditation and audit of education and training institutions; and quality assurance of assessment leading to the award of qualifications. There is a great deal of evidence to suggest that systems which over-emphasise central control tend to produce bureaucratic compliance and cynicism. A culture of quality improvement is only created when there is a sense of responsibility for quality at the grassroots level. The aim of policy makers should be to encourage institutions to take responsibility for quality in collaboration with stakeholders.

15. The process of developing a framework of qualifications must take into account the need to foster trust among the various stakeholders so that they can have confidence in the integrity of the resultant framework. It is vital to identify the stakeholders and advance consensus-building mechanisms in framework development through dialogue. An important way to build trust and acceptance is to ensure that any top-down approach is fused with a bottom-up process. It is possible to design different ways to consult but, in general, the approach should be as transparent as possible.

1. Introduction

1.1 A Practical Guide to National Qualifications Frameworks

Many countries have introduced – or are considering the introduction of – a National Qualifications Framework (NQF). These countries believe that NQFs can help to ensure that qualifications meet the country's economic and social needs, are of good quality, provide flexibility and progression for learners, and enjoy international recognition.

The pace of NQF introduction internationally is such that it is difficult to be sure that any list of developments is completely up-to-date. However, the table below gives some indication of the extent of NQF introduction across the world.

Table 1: Extent of NQFs worldwide

1 st Generation (implementation started between the late 1980s and the mid-1990s)	2 nd Generation (implementation and development started in the late 1990s or early 2000s)	3 rd Generation (currently under consideration)
Australia; New Zealand; Scotland; South Africa; UK ¹ (excl. Scotland)	Ireland; Malaysia; Maldives; Mauritius; Mexico; Namibia; the Philippines; Singapore; Trinidad and Tobago; Wales	Albania; Angola; Barbados; Bosnia and Herzegovina; Botswana; Brazil; Chile; China; Colombia; Democratic Republic of Congo; Jamaica; Lesotho; Macedonia; Malawi; Mozambique; Romania; Serbia; Slovenia; Uzbekistan; Tanzania; Turkey; Uganda; Zambia; Zimbabwe

In addition, Regional Qualifications Frameworks (RQFs) are under development in the Caribbean, European Union (EU), Pacific Islands, and the Southern African Development Community (SADC). These are potentially very significant developments and are also dealt with in this Guide (see Section 1.3 below).

There is now a considerable body of experience in the design and implementation of NQFs. This experience, drawn from countries throughout the world, can help us to identify approaches to implementation which seem to be effective and also some pitfalls to be avoided.

¹ The situation in the United Kingdom is complex. Scotland has separate arrangements from the rest of the UK. Wales now has a Credit and Qualifications Framework (CQFW) that has some relationship with the NQF for England and Northern Ireland. Northern Ireland has its own credit accumulation and transfer system (NICATS). There are also common frameworks for some vocational qualifications and for higher education qualifications in the UK. More recently, there has been consultation on a Framework for Achievement.

While every country has its own unique features and traditions, there is much to be gained from looking at the practical lessons from international experience. This practical Guide draws on a survey of practice to date in the design and implementation of NQFs – highlighting both successful features of design and implementation and aspects which may now be considered mistakes. It does not advocate a ‘single best way’ for all countries because there is no approach which is universally applicable. Rather, it sets out key principles, explains the main issues that policy makers will need to consider, and reviews the advantages and disadvantages of the various ways of addressing these issues.

The Guide draws mainly on the experience of the first generation NQFs because these NQFs are sufficiently developed for their key characteristics to be clearly understood, and for lessons to be learned from the history. NQFs developed in more recent times are less fully formed, information about them is more likely to become quickly out-of-date and the lessons they appear to offer are likely to be less well-founded. Equally importantly, while there is a substantial volume of government-generated information on NQFs, there is a relative dearth of independent literature on the topic and what there is focuses mainly on the first generation NQFs.



It is important to learn from well-founded lessons drawn from international practice.

1.2 What is a National Qualifications Framework?

It is important to be clear about the meaning of three terms as they are used in this Guide:

- Qualification
- Qualifications framework
- Qualifications system

By a ‘qualification’ we mean:

A package of standards² or units³ judged to be worthy of formal recognition in a certificate.

This means that a qualification may be a single module or unit, if that is deemed to be worthy of formal recognition. However, it should be noted that sometimes the term ‘qualification’ is used to refer only to substantial programmes leading to a well-recognised and historically grounded form of certification – such as a degree – or to a form of certification associated with the capacity to undertake a defined occupational role, in some cases associated with regulations for entry to employment – i.e. a qualification to practice / meeting the requirements for practice.

This Guide uses the definition of ‘qualifications framework’ proposed by OECD.⁴

A qualifications framework is an instrument for the development and classification of qualifications according to a set of criteria for levels of learning achieved. This set of criteria may be implicit in the qualifications descriptors themselves or made explicit in the form of a set of

² A set of information about outcomes of learning against which learners’ performance can be judged in an assessment process. For discussion on ‘outcomes of learning’ see Sections 4.1 and 5.1.

³ A coherent set of standards which form a short, unified programme of learning.

⁴ *Moving Mountains – the role of National Qualifications Systems in Promoting Lifelong Learning*, OECD, 2006.

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 labour market recognition of qualifications within a country and internationally.

Individual countries may choose to define 'qualifications framework' in a more specific way. In Lesotho, for example, the NQF is defined as:

A structure of defined and nationally accredited qualifications, which are awarded at defined levels. It indicates the interrelationships of the qualifications and how one can progress from one level to another. NQF, therefore, is the route through which the country brings education and training together in a single unified system. A qualifications framework is designed to provide: (a) quality assured, nationally recognised and consistent training standards; (b) recognition and credit for all acquisition of knowledge and skills. It is a way of structuring existing and new qualifications.

The table below (from Scotland) provides an example of a national qualifications framework. It should be noted however that the structure of such frameworks varies considerably from one country to another (see Appendix).

Table 2: Example of an NQF

SCQF level	SQA National Units, Courses and Group Awards	Higher Education	Scottish Vocational Qualifications	SCQF level
12		Doctorates		12
11		Masters	SVQ 5	11
10		Honours degree Graduate diploma		10
9		Ordinary degree Graduate certificate		9
8		Higher National Diploma Diploma in Higher Education	SVQ 4	8
7	Advanced Higher	Higher National Certificate Certificate in Higher Education		7
6	Higher		SVQ 3	6
5	Intermediate 2 Credit Standard Grade		SVQ 2	5
4	Intermediate 1 Credit Standard Grade		SVQ 1	4
3	Access 3 Foundation Standard Grade			3
2	Access 2			2
1	Access 1			1

Other definitions are, of course, possible. Two points about both of the above definitions are worth emphasising. First, that an NQF must have levels based on some kind of criteria and, second, that it must employ some means of ensuring that qualifications registered on the framework meet criteria related to matters such as quality and accessibility.

The OECD report also draws a helpful distinction between a qualifications “framework” and a qualifications “system”.

Qualifications systems include all aspects of a country's activity that result in the recognition of learning. These systems include the means of developing and operationalising national or regional policy on qualifications, institutional arrangements, quality assurance processes, assessment and awarding processes, skills recognition and other mechanisms that link education and training to the labour market and civil society...

... One feature of a qualifications system may be an explicit framework of qualifications.

The distinction is important because, as will be explained below, the goals that countries sometimes seek to achieve through the introduction of an NQF often require complementary and supportive reforms in the qualifications system.

It should be noted that some qualifications systems (e.g. France and Russia) currently have some framework-like tendencies but these characteristics aren't strongly developed and there is no conscious adoption or recognition of the idea of a framework. On the whole, however, the definition we are using is open and wide-ranging, allowing a variety of approaches to design and implementation.

Others may use the term 'National Qualifications Framework' in a more restrictive sense. The term has sometimes tended to be associated with the frameworks introduced in Anglophone countries (Scotland, England, New Zealand, Australia, South Africa and Ireland) from the 1980s onwards. These NQFs have features not normally found in traditional qualifications systems.⁵ The most important and distinctive characteristic of these NQFs is that the qualifications they contain are viewed as being *independent of the institutions that offered the programmes leading to the qualifications*. In simple terms this means that educational and training qualifications become 'national property' rather than being owned by the education and training institutions themselves.

Other distinctive features that tend to be present in these NQFs are:

- a single system of levels for all qualifications
- qualifications based on standards or outcomes
- modular/unitised qualifications
- assessment based on explicit criteria
- a national system of credit accumulation and transfer
- a common approach to describing qualifications
- a common classification system for subjects and occupational sectors

⁵ *National Qualifications Frameworks: their feasibility and effective implementation in developing countries*. A Report prepared for the International Labour Office, by Michael Young, Professor of Education, Institute of Education, University of London, 2005.

Some people would argue that by definition an NQF must display certain characteristics e.g. being standards-based. A little background explanation is necessary here. In some countries, the terms 'outcome-based' and 'standards-based' have the same meaning, i.e. a system in which there is clear information about the outcomes of learning against which learners' performance can be judged in an assessment process. However, 'outcome-based' tends to be interpreted broadly (i.e. encompassing a variety of different ways of specifying outcomes and assessing them) while 'standards-based' is often associated with a particular approach used in New Zealand, UK National Vocational Qualifications, and many qualifications in South Africa.

Adopting the position that all qualifications must be standards-based in the above sense can lead either to the view that university (and perhaps, school) qualifications should not be part of the NQF, or to the view that the nature of these qualifications and their assessment processes should be fundamentally altered.

However, it is a mistake for policy makers to assume that they are faced with a choice between adopting this particular model of an NQF or adopting/retaining aspects of a more traditional 'institution-based' approach.

The value of an NQF lies in its potential to contribute⁶ to policy goals such as lifelong learning or improving the quality of education. Therefore its design should relate to the goals which it is intended to support and to the context in which it will operate. It is unhelpful to think of the NQF as an entity with fixed or universal characteristics – other than the need to establish a set of levels and criteria for registering and allocating qualifications to these levels – and the most effective approach to building an NQF is to start with *clear policy aims*, rather than with a set idea about the particular characteristics it should have. The characteristics of the NQF should be selected because they are deemed to be the most effective way of achieving the policy goals and could be drawn from traditional qualifications systems as much as from the early NQFs outlined above.



Be open minded about the nature of NQFs, because it is your policy goal that determines the nature and design of NQFs, not the other way around.

1.3 What is a Regional Qualifications Framework ?

A more recent development has been the emergence of regional qualifications frameworks (RQFs), i.e. frameworks covering qualifications in a number of countries in a particular geographical region. Given that RQFs are such recent phenomena, it is not possible to draw definitive conclusions about their design or impact. However, they appear to be significant initiatives that may influence the development of NQFs internationally. This section provides a brief introduction to RQFs, based on developments in the EU and the Southern Africa Development Community (SADC),⁷ although a similar regional framework has also been developed in the Caribbean region.

⁶ Note that we say 'contribute to...'. See Section 3.1 for discussion of role of NQF in wider education and training strategy.

⁷ This section is based on a paper currently being developed by Tuck, Hart, Keevy and Samuels.

The SADC Integrated Council of Ministers approved the development of the SADC Qualifications Framework (SADCQF) in June 2005. In the SADC region, qualifications frameworks are seen as part of the process of education and training reform, especially the strengthening of VET. The experience of the South African National Qualifications Framework offers an exemplar on which to build. The other SADC countries are at an earlier stage of NQF construction and the SADCQF is intended to promote NQF development as well as building on existing NQFs.

The SADCQF Concept Document⁸ defines the SADCQF as:

... a regional framework that consists of a set of agreed principles, practices, procedures and standardised terminology intended to ensure effective comparability of qualifications and credits across borders in the SADC region, to facilitate mutual recognition of qualifications among member States, to harmonise qualifications wherever possible, and create acceptable regional standards where appropriate.

The Concept Document adds⁹ that the purpose of the SADCQF is also to be a regional mechanism for:

- comparability of qualifications;
- mutual recognition of qualifications;
- credit transfer;
- development of regional standards;
- reviewing and strengthening national assessment and accreditation systems; and
- facilitating agreement on entrance requirements to higher education and training.

The governance of the SADCQF will entail the establishment of a SADC Qualifications Agency (SADCQA) which will consist of two sub-structures: a Regional Steering Committee that will oversee the development of the SADCQF and an Implementation Unit.

In March 2005, following work undertaken by the European Commission, the EU Heads of Government requested the development of a European Qualifications Framework (EQF). The EQF was envisaged as a framework that would bring together three significant areas of policy development: the Copenhagen process, the Lisbon strategy and the Bologna process, initiated in 2002, 2000 and 1999 respectively.

In Europe, the importance of mutual recognition of qualifications had been recognised from the early 1990s; the current proposals for an EQF are an outcome of a series of attempts to deal with this issue in different ways. Many member countries have long-established qualification systems (not necessarily frameworks), while others are engaged in a process of reform of education and training following the collapse of the communist bloc. There is, therefore, a need to find a solution which respects well-established national traditions while simultaneously providing a clear basis for mutual recognition and mobility of labour across the enlarged EU.

⁸ Technical Committee on Certification and Accreditation (TCCA) 2005: *Towards a Southern African Development Community Qualifications Framework Concept Paper and Guidelines*. Unpublished document presented to the SADC Council of Ministers, June 2005, p 23.

⁹ *Ibid*, p 23.

A consultation paper on the proposed EQF was published in July 2005. It claims that, like the other processes, the EQF will strengthen mutual trust and co-operation between the different stakeholders involved in lifelong learning; reduce barriers to recognition of learning and enable learners to make better use of available knowledge, skills and competences; and enable and promote mobility of learners and labour across borders.¹⁰

The EQF will be a meta-framework, or “multipurpose” framework, which the consultation paper defines as “a means of enabling one framework of qualifications to relate to others and subsequently for one qualification to relate to others that are normally located in another framework”.¹¹ This represents a crucial difference in intent between the SADCQF and the EQF. The design of the EQF is intended to allow comparisons to be made between national qualification systems or frameworks, but does not propose the development of any transnational standards in the way that the SADCQF proposes. The EQF is seen essentially as a means of making comparisons, not an agent for harmonisation, although it seems almost inevitable that it will highlight the need for some forms of commonality.

Reflecting the need to reassure stakeholders in member States on this aspect, the EQF consultation paper is as concerned to make clear what the EQF will not be, as to say what it is. For example, the EQF will not be (cannot be) regulatory: it will have no legal force and will be implemented on a voluntary basis. An EQF, the consultation paper makes clear, will not replace national and/or sectoral frameworks; contain detailed descriptions of particular qualifications, learning pathways or access conditions; regulate the processes for defining new qualifications; have any direct role in regulatory, legal, wage bargaining and quality assurance functions associated with qualifications; or be the source of final decisions on the recognition of qualifications.

Another important difference between the SADCQF and the EQF lies in the recognition given by the EQF to sectoral frameworks. The EQF is intended not just to recognise, but also to encourage the development of frameworks restricted to one educational or occupational sector.¹² Such comparisons will be the basis for improved recognition and transfer of the learning outcomes (in the form of qualifications) acquired by individual citizens in order to ease mobility of learners and workers. It already appears that some occupational sectors which depend on transnational co-operation are taking advantage of this opportunity.

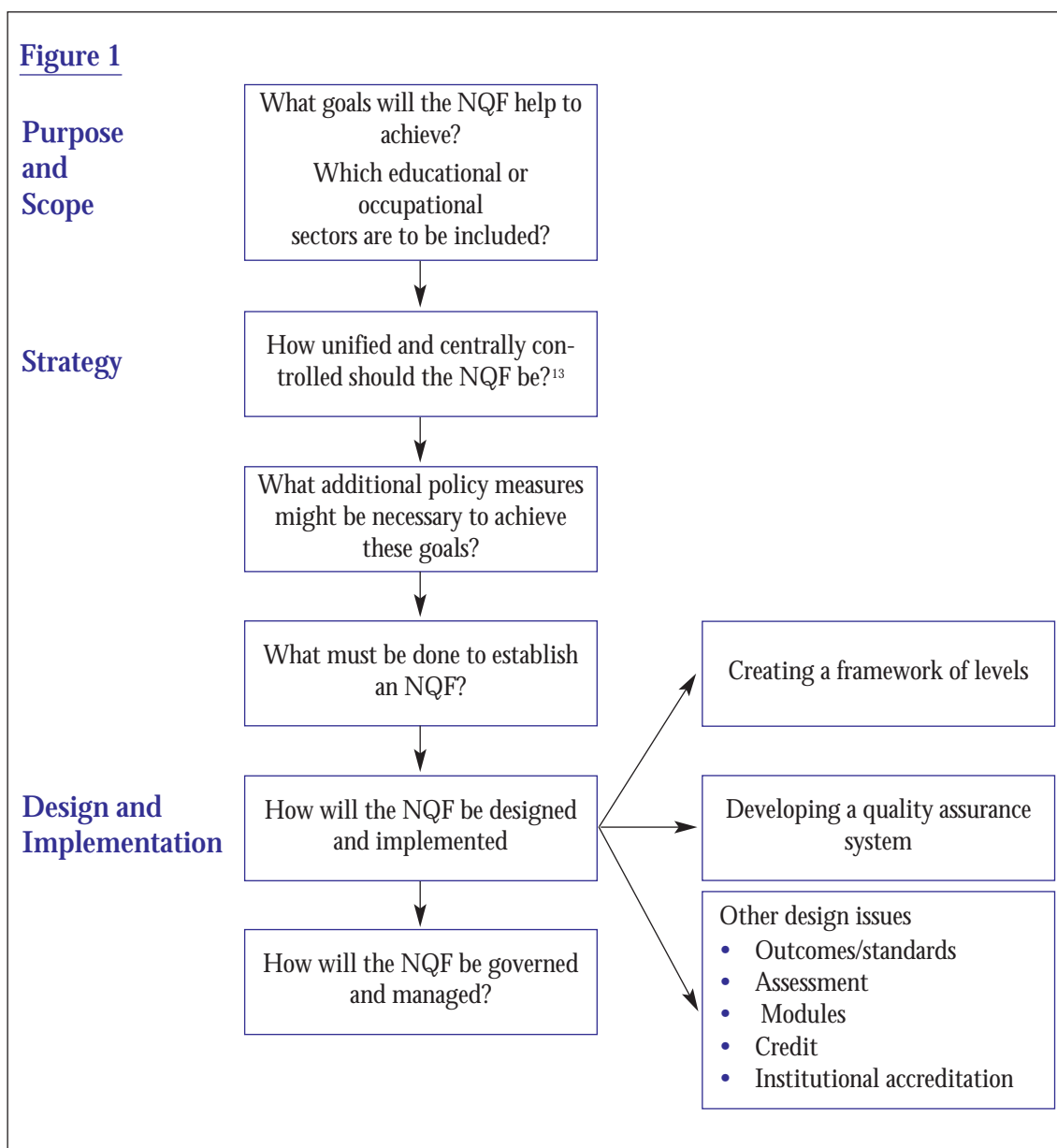
¹⁰Commission of European Communities 2005. Commission Staff Document: Towards a European Qualifications Framework for Lifelong Learning, p 7.

¹¹Ibid, p 13.

¹²Ibid, p4 and passim.

1.4 What overall approach should policy makers take to the development of an NQF policy?

There is no single best approach to NQF development. However, the flowchart below presents one way of conceptualising and implementing an NQF which policy makers should find helpful.



¹³A unified framework does not have separate qualifications tracks but brings all provision within a single system.

These stages are used as section headings in the Guide. It is presented as a linear process to help policy makers think through the issues in a structured way. In reality, of course, the process is not a simple linear one. NQF development tends to be *iterative*, i.e. decisions made or problems arising at particular stages can necessitate reviewing decisions or views reached at an earlier stage.

The following section – on purposes and scope – should be read first, as it should help to establish broad parameters for thinking about NQF development in your country. Thereafter, you may proceed to Section 3 – Strategy, which deals with a set of important strategic issues. Alternatively, however, you could read Section 4 - Design and Implementation before Section 3, if you would prefer to think about the practical issues of NQF design and implementation first. Both routes are equally valid.

2. Purposes and scope

2.1 What are the goals you want to achieve through developing an NQF?

The crucial first step in NQF policy formation is being clear about the purposes and goals that the NQF is expected to contribute to achieving. These vary across different countries. There are two main sets of reasons for developing an NQF: promoting lifelong learning; and quality assurance and recognition. In some countries, notably South Africa, the introduction of an NQF was part of a much wider agenda of promoting social justice and redress.

Promoting Lifelong Learning including objectives such as:

- improving understanding of learning routes and qualifications and how they relate to each other
- improving access to education and training opportunities
- creating incentives for participation in education and training
- making progression routes easier and clearer/ improving learner and career mobility
- increasing and improving credit transfer between qualifications
- increasing the scope for recognition of prior learning (RPL)¹⁴

Virtually all countries now recognise the importance of lifelong learning, which is crucial in enhancing an individual's employability in an increasingly uncertain world of work. The initial education of young people in schools, colleges and universities remains vitally important. However, it is now seen as essential that adults should have better access to education and training, to meet needs arising from technological and economic development and changing career paths. This may be seen as necessary both by employers who need skilled and qualified employees, and by individual citizens to protect their own economic interests. It is also important that the system facilitates the entry or re-entry of those young people who did not get access to, or dropped out of, initial education.

There is a requirement, therefore, for a wider range of education and training programmes to meet these new and developing needs. Programmes and the qualifications associated with them may need to be developed in a way that makes access easier, for example through modularisation.¹⁵ Modular structures mean that learning for a qualification is organized by

¹⁴The process of recognising previous learning (often experiential and non-formal) towards gaining a qualification.

¹⁵Modularisation may apply to qualifications or programmes of learning or both. In a modular qualifications system, a whole qualification will consist of a number of components called modules. For further explanation, see Section 5.3.

smaller units so that learners can have a choice of learning towards an entire qualification, or only a few components of it. The modular structure also allows individuals to accumulate units over a long period of time, so in principle it allows individuals to enter and exit the programmes whenever it suits them without being constrained by the timeframe of education or training programme courses, or 'wasting' the learning they gained. Governments may also take the view that to make these opportunities more accessible, it is necessary to increase the number and range of institutions providing qualifications, including workplaces and informal training providers. A National Qualifications Framework can offer governments an instrument for promoting the development of new qualifications, making delivery more flexible, and widening the range of providers. In so doing, of course, they may be challenging the traditional role and status of education and training providers, especially universities which traditionally have had ownership of their 'own' qualifications. We return to this issue below.

How students progress from secondary school to academic university education (regardless of whether this progression is open to many or only a few) is clear in all countries. Problems of progression are more likely to occur between secondary education and post-secondary vocational education and training (VET) and between VET and academic higher education. One common problem is that the learning achieved in one education/training sector or one institution is not recognised in another. As a result, learners have to 'start again' – 're-learning' what they already know. This problem is likely to be more acute where learning has been achieved informally, for example in the workplace.

The solutions which NQFs offer to these problems are various. First, NQFs create 'progression routes' based on levels (i.e. clear pathways that take the learner from his/her starting point to the desired qualification goal). The process of designing these progression routes is often referred to as *articulation of qualifications*. This means ensuring that the qualifications in a particular field or progression route are designed to fit well with each other, e.g. by including knowledge and/or skills that are a prerequisite for embarking on a subsequent qualification.

NQFs often also introduce procedures for facilitating learner progression, such as exemptions, recognition of prior learning, fast-tracking and credit accumulation and transfer (CAT). These are discussed in Sections 5.2 and 5.4 below.

Quality Assurance and Recognition including objectives such as:

- ensuring that qualifications are relevant to perceived social and economic needs
- ensuring that education and training standards are defined by agreed learning outcomes and applied consistently
- ensuring that education and training providers meet certain quality standards
- securing international recognition for national qualifications

One of the most common reasons for governments to consider introducing an NQF is where qualifications are seen by users as being out-of-date and lacking relevance to social and economic needs. NQFs have tended to be instrumental in promoting the use of national occupational standards¹⁶ and introducing generic and transferable skills (sometimes referred to as core or key skills).¹⁷ More generally, NQFs are used to increase the influence of stakeholders in the development of qualifications so that the system is more responsive to the needs of the labour market. Employers' and workers' organizations have an important role to play especially in developing agreed learning outcomes (or competency standards) for qualifications in this regard.

Some of the early rhetoric in the development of the Anglophone NQFs, saw the influence of providers as negative and argued for a system that was wholly user-led. In fact, the contributions of providers and users are both necessary. It was a curious irony that in the name of 'market forces' it was argued that providers should always be directed by users. Private sector entrepreneurs often *anticipate* the needs of their customers.

Many people now believe that the provider/user distinction is divisive and unhelpful. It is now more common to use a definition of 'stakeholders' that includes the providers of education and training as well as the various users. For further discussion of the role of stakeholders, see Section 4.3 below. Suffice at this stage to say that it is important to have a balanced representation of stakeholder interests and to avoid a situation where key groups are excluded.

Another problem is that the standards required to gain a qualification may differ from one institution to another, resulting in a lack of confidence that the holder of a particular qualification will possess certain knowledge and skills. The introduction of an NQF usually requires standards to be more clearly defined in some way and leads to the adoption of some kind of national quality assurance system.

The following elements may be included in the quality assurance arrangements for an NQF:

- Validation of qualifications
 - ensuring that the qualification is designed so as to meet certain agreed criteria
- Accreditation¹⁸ and audit of education and training providers
 - ensuring that education and training providers have the resources and arrangements to deliver programmes leading to NQF qualifications to an acceptable quality or standard
- Quality assurance of assessment leading to award of qualifications
 - may include both direct approaches, such as national testing or examinations, and indirect approaches such as monitoring and moderation of the work of providers

However, practice varies internationally (see Sections 4.2 and 5.2 below). Some people would see one or more of the above elements as being separate from the NQF itself.

The development of an NQF, placing qualifications on a set of clearly defined levels together with the introduction of a national system of quality assurance is often seen to be the key to international recognition of a country's qualifications.

¹⁶A system of defining the standards of performance required for competence in an occupation.

¹⁷The generic skills required in a range of occupations and life contexts, including typically communication skills, numeracy, IT, problem solving, and working with others.

¹⁸In some systems 'accreditation' refers to the initial approval of the provider. Subsequent checks on the quality of provision are referred to as 'audit' or 'quality audit'. In other systems, these subsequent audits are referred to as 're-accreditation'.

Is there a problem or need?

At this stage, the aim is to identify policy goals which an NQF might help to achieve. It is not necessarily being suggested that the introduction of an NQF will easily achieve these goals. One of the great pitfalls to be avoided is having or creating unrealistic expectations. We return to these issues in Section 3.2.

The table below offers a tool to develop a preliminary analysis of the purposes that might be met by introducing an NQF. The list of possible problems and needs is not exhaustive, merely typical. The important thing is the general approach to the analysis.

It is important to be sure that there is a real problem or need to be addressed and to be clear whether the problem affects all sectors of education and training or just one. Obviously, it is highly counter-productive to impose 'solutions' where a problem does not exist.

It is also important to be clear about priorities, especially where there are significant resource constraints, which is frequently the case. For example, revising all VET qualifications to create a fully outcome-based modular system is an expensive undertaking and the benefits may not immediately justify the investment. There may be more urgent tasks to undertake. This may also mean that, in some countries, the NQF development initially focuses on a limited number of occupational sectors. It is impossible to over-emphasise the point that an NQF exists to serve the needs of the VET system and its stakeholders – not vice-versa.

Then – what seem to be the main causes of the problem? If this isn't clear, it will be difficult to know how it is to be solved and whether an NQF has any role in the process.

Finally – what particular feature might help to address the problem or need? It doesn't have to represent a total solution. However, it should on the face of things seem to represent a feasible contribution to addressing the problem or need. It is important that any NQF feature is rooted in some real need and that this rationale is kept in mind and continually tested throughout the design and implementation of the NQF.

Table 3: Preliminary analysis when implementing an NQF

Is there a problem or need?	What exactly is the problem or need?	How might an NQF help to address the problem or need?
Are learners having difficulty in accessing education and training programmes (and hence qualifications) suited to their needs?	<p>If yes, in which sectors of education and training?</p> <p>Is the problem greater for some qualification areas than others?</p> <p>Do any problems seem to lie mainly in the need to develop new qualifications (e.g. as a foundation for entry to more advanced qualifications)?</p> <p>Or in the way the qualifications are designed? Or in the practices of education and training institutions?</p>	<p>For example:</p> <p>Using the implementation of the NQF as a vehicle for expanding the range of qualifications (e.g. for new occupations, core work and basic skills) to meet identified needs of learners</p> <p>Requiring qualifications to be designed in ways that maximise flexibility (e.g. through modularisation and recognition of prior learning)¹⁹</p> <p>Using a system of institutional accreditation and quality audit to encourage institutions to adopt more flexible practices, e.g. assessment on demand, making modules available at convenient times, and offering individualised learning packages</p>
Are learners having difficulty in progressing through the education and training system?	<p>If yes, within or between which sectors of education and training?</p> <p>To create clear progression pathways, do new qualifications need to be developed to fill identified gaps? Or is there a need to amend existing qualifications so that they fit together better? Or is it simply a matter of explaining the system more clearly to stakeholders?</p>	<p>For example:</p> <p>Using the implementation of the NQF as a vehicle for introducing new qualifications to fill gaps in progression routes</p> <p>Establishing collaborative arrangements to improve articulation and comparability between qualifications and to improve information and guidance to learners</p> <p>Producing clear information for stakeholders</p>
Do stakeholders believe that qualifications are not sufficiently relevant to current social and/or economic needs?	<p>If yes, in which sectors of education and training?</p> <p>Is the problem greater for some qualification areas than others?</p> <p>Does the problem seem to lie in the slowness of procedures for revising qualifications? Or in a lack of involvement by stakeholders in the setting of standards or the design of qualification? Or is there some other reason?</p>	<p>For example:</p> <p>Creating systematic processes for pre-delivery development and post-delivery review of qualifications (e.g. development and review of outcome-based qualifications through a systematic stakeholder consultation)</p> <p>Creating structures and processes for the appropriate involvement of stakeholders</p>

¹⁹See the glossary for definitions.

2. Purposes and scope

Preliminary analysis when implementing an NQF

Is there a problem or need?	What exactly is the problem or need?	How might an NQF help to address the problem or need?
Is there a lack of consistency in the application of standards in assessment leading to qualifications?	<p>If yes, in which sectors of education and training?</p> <p>Is the problem greater for some qualification areas than others?</p> <p>Is the problem that standards are poorly defined? Or that there are no procedures for ensuring consistency across institutions? Or some other reason?</p>	<p>For example:</p> <p>Requiring that all NQF qualifications specify the required standards as clearly as possible</p> <p>Introducing a system of external moderation or examinations</p>
Are there significant variations in the quality of education and training provided by different institutions?	<p>If yes, in which sectors of education and training?</p> <p>Is the problem greater for some qualification areas than others?</p>	<p>For example:</p> <p>Requiring that all institutions offering NQF qualifications be nationally accredited</p>
Are there difficulties getting the country's qualifications recognised by other countries?	<p>If yes, in which sectors of education and training?</p> <p>Does the problem seem to be that the level of qualifications is unclear? Or are there doubts internationally about the content of the programmes or about the country's quality assurance system?</p>	<p>For example:</p> <p>Having developed NQF levels, benchmark these against the levels of other national systems</p> <p>Build international standards into qualifications development</p> <p>Work with neighbouring countries to develop a Regional Qualifications Framework</p>

Conducting a preliminary analysis along the lines suggested above will create a *working rationale* for the development of an NQF. It should enable policy makers to get beyond general NQF rhetoric and focus on the specific needs of their country. It may lead to the identification of the need for further research. It may lead to concentration on one or two objectives that are of paramount importance. It may suggest focussing efforts on one sector of education and training rather than another (see next section). Above all, it should lay the foundation for a needs-led approach to NQF design and implementation.



Clear analysis is vital – empty rhetoric is the enemy of good policy making.

2.2 What sectors of education and training do you want to include in the NQF?

There are three main sectors of education and training with interests in an NQF: secondary schools; vocational education and training (VET) including work-based learning; and higher education. (Earlier stages of school education are not normally included because, while pupil attainment is assessed, this does not normally lead to the award of qualifications). The boundaries between these sectors vary across countries and the place of VET, in particular, is difficult to define. In some countries, the secondary school sector includes vocational schools; in others, VET is delivered almost entirely through post-secondary institutions. Some countries regard aspects of VET, e.g. higher technician level qualifications, as part of the higher education sector; others would not. Some countries make a clear distinction between formal and informal VET; others regard these types of VET as a single sector.

A key decision for policy makers is whether the NQF should include all sectors of education and training. It is likely that most countries will wish to achieve a comprehensive NQF at some stage. However, some countries will elect to begin by building a framework in one sector of education and training.

Most commonly, this has been the VET sector. This is because VET systems across the world have tended to display certain endemic weaknesses, and the development of a vocational qualifications framework is seen as a way of addressing many or all of these issues. It is a major policy task to keep VET under review and make sure institutional arrangements, funding and qualifications are responsive to the needs of the economy, enterprises and individual learners/employees. Typical problems are:

- out-of-date content;
- qualifications not being developed to meet emerging social and economic needs;
- lack of involvement of social partners, particularly in the development of standards;
- lack of flexibility in delivery systems;
- inconsistent application of standards;
- poor linkages with academic qualifications;
- low public esteem.

However, some framework developments have had their origins in higher education (e.g. one of the foundations of the Scottish Credit and Qualifications Framework (SCQF) was SCOTCAT, a system of credit accumulation and transfer developed within the Scottish university system). Here, the aims are usually associated with the development of credit accumulation and transfer or international recognition.

Both strategies – building a comprehensive NQF from the outset or starting in one sector and building the NQF in stages – are feasible, but they have different advantages and disadvantages. The advantages of the comprehensive approach (adopted, for example, in New Zealand initially and South Africa) are that a clear strategic vision for the NQF can be established and the building of the NQF can become a vehicle for cross-sector dialogue and partnership. The disadvantages lie in the fact that the various sectors have different traditions, interests and requirements. Trying to reconcile these differences within a comprehensive NQF in one stage can be very

challenging and can lead to considerable conflict and controversy, as was the case in New Zealand.²⁰

Case study: New Zealand

The functions of the New Zealand Qualifications Authority (NZQA), a state agency, include developing "a framework for national qualifications in secondary schools and in post-school education and training in which

- all qualifications .. including pre-vocational courses have a purpose and a relationship to each other that students and the public can understand
- there is a flexible system for the gaining of qualifications with recognition of competency already achieved (Education Act 1989, s253(1)(c)).

NZQA (established in 1990) devised an NQF based on 'unit standards' that could be combined as national qualifications. The universities strongly resisted what they perceived as the 'atomisation' of 'coherent' university degrees. The Ministry of Education had concerns about the role of unit standards in the school curriculum and in response to NZQA developed its own 'achievement standards' that could be combined as a National Certificate of Educational Attainment (NCEA). Unit standards and achievement standards are awarded on the basis of standards-based assessment (i.e. defined standards are either 'achieved' or 'not achieved'). The universities have largely retained their own norm-referenced degrees with ad hoc systems of cross-crediting of component units, and NCEA is being progressively introduced albeit with some controversy over its lack of ability to meaningfully rank students.

The resolution of a decade of animosity between NZQA, the Ministry, and the universities has been the New Zealand Register of Quality Assured Qualifications comprising provider qualifications (university degrees, polytechnic degrees, diplomas, and certificates) which are norm-referenced and national qualifications based on unit standards, largely delivered by private training establishments and through work-based training. The NQF is a register of quality assured unit standards and national qualifications, and is a subset of the New Zealand Register.

Nevertheless, on the basis of the experience of the pioneering NQFs, it is now easier to identify effective strategies for building a comprehensive NQF in one stage. This is explored further in Section 3.3 below.

The alternative approach is to develop the NQF in stages. The Scottish Credit and Qualifications Framework was created as a culmination of successive reforms and initiatives in the VET, higher education and secondary school sectors. Other countries have chosen to start with a vocational qualifications framework but with the aim of eventually creating a comprehensive NQF. The advantages of this approach are that it allows a government to focus on the specific problems it wishes to address and avoids involving general secondary schools and universities in issues they see as irrelevant to their needs and circumstances. The disadvantages are that building the NQF

²⁰See also the analysis of the implementation of the South African NQF in the *Report of the Study Team on the implementation of the National Qualifications Framework*. (South Africa. Departments of Education and Labour 2002).

will probably take longer (e.g. 20 years in Scotland) and that it may be seen as a VET initiative which other sectors have played no part in shaping at its formative stages.

The key to this decision, again, lies in the analysis of needs. Does the *working rationale* suggest the need to develop a comprehensive NQF? Or are most of the problems and needs within a single sector?

There is no one right answer to this question. However, the decision to build a comprehensive NQF increases the importance of identifying objectives and developing a clear and effective strategy.



The final goal may be to build a comprehensive NQF – but it doesn't need to be a one-stage process.

3. Strategy

3.1 How unified and centrally controlled should the NQF be?

This section looks at the overall approach to NQF construction, especially the extent to which all parts of the framework should be unified, defined below, and how centrally controlled it should be. Views reached on these matters will have implications for the structures of governance and management to be established.

Qualifications systems can be *tracked, linked, or unified*.

In a tracked system vocational and general education are organised in separate and distinctive tracks. A linked system has different tracks but emphasises their similarities and equivalence, with common structures and elements, and opportunities to mix or transfer between the tracks. A unified system does not use tracks to organise provision but brings all provision within a single system. The three types represent points on a continuum with tracked systems at one end and unified systems at the other.²¹

This is illustrated in the table below.

Table 4: Qualifications systems – tracked, linked or unified

Tracked	Linked	Unified
Vocational and general education organised in separate and distinctive tracks	Different tracks exist with emphasis on similarities and equivalence, e.g. certain common structures or credit transfer between tracks	No tracks Single system

Traditionally, most countries favoured tracked systems because school education, university education, vocational education and vocational training were seen as distinct and largely unrelated. It is doubtful whether a qualifications framework in a pure tracked system could be regarded as an NQF. However, the expansion of education and training opportunities and the espousing of a lifelong learning agenda have led most countries in the direction of linkages or unification or a combination of the two. Australia and the UK (excluding Scotland) have linked systems. South Africa has been the strongest example of a unified system (although a more linked system has recently been proposed), New Zealand should probably now be regarded as a hybrid of linked and tracked because the NQF embraces VET and school qualifications, although with clear differences between the two while university qualifications are outside the NQF.²² In Scotland, school and VET provision is unified, while the relationship with higher education is linked.

²¹Howieson, C. and Raffae, D. 1999. *The 'unification' of post-16 education and training*. CES Briefing, University of Edinburgh.

²²The New Zealand Register of Quality Assured Qualifications comprises quality assured provider qualifications that use norm-referenced assessment and the National Qualifications Framework of unit standards and achievement standards (used in secondary schools) and national qualifications based on these standards.

The choice between linked or unified approaches should not be an abstract one but should be related to the *purposes* of the NQF. If the aim is solely or mainly to create reasonable articulation of qualifications across the various tracks and hence improve progression, a linked approach may be adequate. If the purpose is to achieve certain aims across all types of qualifications (such as making them outcome-based, or modular or introducing certain approaches to assessment) then a unified system may be preferred.

A second distinction is between *tight* and *loose* frameworks.²³ *Tight* frameworks exert a strong control over the way qualifications are designed and quality assured and insist on common rules and procedures for all qualifications. *Loose* frameworks are more likely to be based on general principles, to accept that there are valid differences between types of learning or education/training sectors, and to work with the grain of the education and training institution practice which preceded the introduction of the framework. Again, this should be understood as a continuum rather than an absolute distinction. Most NQFs will have both tight and loose characteristics.

The conceptual distinction between tight and loose frameworks is summarised in the table below.

Table 5: Conceptual distinction between tight and loose frameworks

Tight	Loose
Prescriptive about qualification design and quality assurance	Based on general principles
Regulatory purpose	Communicating and enabling role
Aim to achieve wider social goals	Regulate to some extent
Tend to apply common rules and procedures across all qualifications	Accept differences in approach where thought necessary

Tight approaches are more appropriate where the aim is to *regulate* more closely or to achieve a consistent pattern of change. Loose approaches may be preferred where the aim is mainly to *communicate* information about qualifications. Again, the approach should fit the *purposes* to be served by the NQF.

The important question thrown up by these concepts is the degree of central control which should be exerted in designing and implementing an NQF. Too little central direction may result in little change and a lack of challenge to established practice; too much may generate high levels of controversy and conflict which can also limit or delay change. Too much centralisation can also lead to a situation where aspects of the system, such as qualifications design or quality assurance practice, are driven by considerations which are bureaucratic or doctrinaire rather than practical or derived from the needs of users.

Linked systems work on the basis that the main sectors of education and training have distinctive characteristics and needs. These systems allow the sectors a fair degree of autonomy but try

²³This distinction has its origin in Michael Young's categorisation of *strong* and *weak* frameworks. The terms *tight* and *loose* are preferred because of the possibly derogatory connotations of 'weak'. It is also connected to Boudier's distinction between frameworks as instruments of *regulation* and *communication*. Tight frameworks emphasise the regulatory or controlling function, while loose frameworks have a more communicative and enabling purpose.

to build bridges between them to allow learners to progress from one sector to another without unjustifiable barriers. A linked system can use quite tight approaches within each sector without significant risk of dissent on the one hand or the distortion of qualifications on the other.

A unified system is based on the belief that there are common principles that apply across all types of qualifications, that the distinctions between tracks are far from absolute and that the range of qualifications should be seen as a continuum rather than a set of tracks. For example, can professional qualifications be dealt with in a way which allows them to be part of VET as well as part of higher education rather than associated exclusively with only one sector? A similar question can be asked of vocational qualifications within secondary education.

There is evidence to support the proposition that NQFs can be unified (at least in part) but not if a tight approach is used. The implementation of unified/tight frameworks has generally been associated with controversy and conflict, largely arising from resistance in the university and school sectors to what may be perceived as the imposition of alien and inappropriate ideas and processes imported from VET. This has been evident both in South Africa and New Zealand, and also in Scotland where one part of the reforms leading to the establishment of the SCQF²⁴ had tight features related to assessment that provoked some opposition in the school sector.

The New Zealand framework remains tight; all NQF qualifications must be based on unit or achievement standards and employ standards-based assessment. Therefore, all qualifications which do not meet these criteria are by definition excluded from the NQF (although included in the Register). In looser frameworks, such as in Scotland, all qualifications must be outcome-based, but there is greater flexibility in what this means for different types of qualifications and a greater diversity of assessment practice is permitted. However, there is, as yet, no registration process to allow this flexibility to be implemented beyond the qualifications of certain national bodies.

The experience of first generation NQFs suggests that there is practical value in allowing for sector differences within an overall framework. There are two ways in which this can be achieved: by creating either a unified-loose or a linked-tight framework.

- A unified-loose framework is administered as a single entity, with one body responsible for governance and management. It will have common principles and procedures for all sectors, accepting that these principles and procedures can, where this is practicable and appropriate be interpreted in ways that suit the needs of different sectors.
- A linked-tight framework will have separate bodies responsible for the qualifications offered in schools, VET and higher education.²⁵ An overarching council or committee might then be established to agree common principles to be applied across all sectors where this is practicable and appropriate and to create arrangements for credit transfer or articulation agreements.

While these are conceptually distinct, they are quite similar in effect. The key aspect of both is that they allow for some differences in interpretation and implementation across sectors within the context of a single framework.

²⁴The *Higher Still* reform which unified secondary school and further education college qualifications.

²⁵Possibly other sectors too, such as education which is part of community development or informal adult or continuing education.

It may be that larger countries would find linked-tight systems easier to manage, because of the complexities of managing a unified system with very large numbers of institutions and learners. Conversely, small countries may prefer a unified-loose solution because it could have a simpler national governance and management structure.



Use a model that allows for sector differences within the single framework in a way which suits the national circumstances.

3.2 What additional policy measures might be necessary to achieve the goals of the NQF?

A national qualifications framework is only a framework. It can play a vital role in supporting reforms but if it is not part of a wider strategy, it may achieve very little. For an NQF to be an effective instrument of reform, there has to be *policy breadth*, which has been defined as:

the extent to which the establishment of the framework is directly and explicitly linked with other measures to influence how the framework is used.²⁶

This is an important issue. There can be exaggerated and unrealistic impressions of what the building of an NQF can achieve in isolation from other developments. This occurred, for example, in South Africa where the NQF was conceived of as a central element in post-apartheid transformation and social redress.

Case study: South Africa

The objectives of the NQF as set out in the Act establishing the South African Qualifications Authority were to:

- Create an integrated national framework for learning achievements;
- Facilitate access to, and mobility and progression within, education, training and career paths;
- Enhance the quality of education and training;
- Accelerate the redress of past unfair discrimination in education, training and employment opportunities; and thereby:
- Contribute to the full personal development of each learner and the social and economic development of the nation at large.

However, as was noted by a Ministerial Study Team²⁷ set up to investigate how NQF implementation could be streamlined, the first objective was the only one which could be achieved by building a framework alone. The other four objectives were ones to which the NQF only contributed.

Achieving the objectives required a range of other actions, including:

- appropriate laws and policies
- appropriate institutions
- budgetary allocations
- infrastructure development
- professional development for teachers and trainers
- provision of learning resource materials

²⁶*Simplicity Itself: the Creation of the Scottish Credit and Qualifications Framework*. Journal of Education and Work, Vol 16 (3) (Raffe, 2003).

²⁷*Report of the Study Team on the implementation of the National Qualifications Framework*. (South Africa. Departments of Education and Labour).

The achievement of education and training policy goals usually requires changes in the practices of education and training institutions or the quality of learning. It is not enough just to design the framework and demand that it be implemented.²⁸ It is necessary also to:

- ensure that the laws and regulations applying to education and training are consistent with NQF goals;
- create and maintain policy coherence across different Ministries (especially Education and Labour);
- provide adequate funding for the NQF development process at both national and institutional level;
- ensure that the funding regime encourages institutions to act in ways that support the policy goals (e.g. incentives to widen access to disadvantaged groups);
- implement the NQF in ways that are consistent with current good practice in institutions as well as the policy goals;
- take account of the logistical (e.g. timetabling) and resource constraints facing institutions;
- provide support for institutions such as provision of learning materials and professional development;
- support learners to pursue learning over time in ways which take account of real financial, social and domestic circumstances which act as constraints on participation in learning.

For an NQF to be really effective, hearts and minds – genuine and active support – have to be won. Otherwise, there is a danger that education and training institutions and social partners will simply pay lip-service to the framework. It is increasingly accepted that successful implementation depends on *communities of trust*.²⁹

This refers to the trust established over time within professional and other occupational communities as well as between educational institutions and employers. In traditional systems, which usually rely on communities of trust, qualifications are seen as an organic part of the whole education and training system. Trust in qualifications derives in large measure from trust in institutions and on shared practice, traditions and experience.

However, as we have already noted (Section 1.2 above) a distinctive characteristic of many NQFs is that qualifications are viewed as being independent of the institutions that offered the programmes leading to the qualifications.³⁰ The introduction of NQFs has therefore cut across these traditional communities of trust. The expectation of policy makers introducing the first

²⁸A very useful distinction has been drawn (Raffe, 1988, Raffe et al, 1994) between the *intrinsic logic* of a system and the *institutional logic* in which it is embedded. The intrinsic logic of an NQF arises from its design features, such as its flexible pathways and the establishment of equivalences between different qualifications. The institutional logic comprises the opportunities, incentives and constraints arising from such factors as the policies of educational institutions (in their roles as providers and selectors), funding and regulatory requirements, timetabling and resource constraints, the relative status of different fields of study and the influence of the labour market and the social structure. *A qualifications framework may be ineffective if it is not complemented by measures to reform the surrounding institutional logic, for example local institutional agreements to promote credit transfer, or encouragement to employers to reflect credit values in their selection processes* (emphasis added) (Raffe, 2003: 242).

²⁹Young (2002) has distinguished outcome-based and institution-based approaches to qualifications reforms and suggested that the former are unlikely to be successful unless they are 'based in the shared values and practices of ... *communities of trust*'.

³⁰This is not always the case. The New Zealand NQF for example, distinguishes between 'national qualifications' which are on the NQF and 'provider qualifications' which are not.

NQFs was that trust in qualifications would derive from the explicit and transparent nature of the learning outcomes of qualifications. However, experience has shown that transparency of qualifications design is not enough. It is also necessary to build trust and confidence in the new system (see Section 4.3).

This creates a dilemma for NQF strategy. On the one hand, NQF implementation is unlikely to be entirely successful unless it becomes embedded in communities of trust, which in turn implies the need to accommodate the values and traditions of institutions and professional communities. On the other hand, the origins of the NQF concept are based to a considerable extent on the need to *challenge* the perceived hegemony of these communities because of the belief that their practices were 'provider-led' and (to some degree) self-serving.³¹ It was argued that opening up access to education and training to previously excluded sections of society could be achieved only if the qualifications system became more transparent. However, as we noted in Section 2.1 above, many systems now focus on involvement of all stakeholders rather than over-emphasising the distinction between providers and users.

In solving this dilemma, it is essential to foster the development of communities of trust associated with the framework which include all stakeholders and interest groups. As key informants of labour market information, employers' and workers' organizations need to play an active and supporting role in developing an NQF. This is vital to ensuring that the framework is responsive to labour market needs and facilitates better recognition of individuals' skills. The development of such trust cannot be achieved simply by stating government policy and expecting compliance. It requires means listening to stakeholders, seeking genuine consensus and – where necessary – accepting compromise.



The key to successful NQF implementation – develop a broad strategy that takes account of all factors influencing success. Above all – develop communities of trust by listening to people.

3.3 What needs to be done to establish an NQF?

At this stage in the policy formation process, there should be clarity about the proposed purposes and scope of the NQF, the range of complementary policy measures required, and the nature of the proposed framework.

There will now be a need to estimate and budget for the costs of implementing the NQF. However, there is a crucial distinction to be made between *designing* an NQF and *implementing* it. Designing an NQF means creating the framework into which existing or new qualifications will be placed.

³¹ As was noted above, the setting up of opposition between 'providers' and 'users' is probably unhelpful. It is preferable to consider providers as important stakeholders alongside other stakeholders.

The design of an NQF requires the development of:

- a framework of levels with descriptors for each level
- procedures and criteria for accrediting and registering qualifications on the NQF, accrediting education and training providers, and ensuring that assessment leading to the award of NQF qualifications conforms to national standards³²

The design of an NQF should be a relatively inexpensive undertaking which most countries should be able to accomplish within a year. The tasks involved are explained in Section 4.

It should be emphasised that the first generation NQFs were not generally developed in this way. The frameworks were designed in association with (or in some cases at the end of) large scale programmes of qualifications development. These development programmes were expensive (e.g. in South Africa, more than 100 million rand - approximately 16.3 million US dollars or 13.7 million Euro - over 8 years).

However, now that the processes of NQF construction are better understood, it should be possible for countries to create the framework itself and then undertake programmes of qualifications development as priorities dictate and resources allow. The development of regional qualifications frameworks may allow some sharing of development tasks and costs.

Implementation – in the sense of populating the NQF with all the qualifications that it may be deemed necessary to offer – is a long term and continuing process. Plans for implementation should be based on a clear prioritisation that reflects the social and economic needs of the country.

There is a need to decide which qualifications are to be considered as ‘national qualifications’. Clearly, all qualifications that have been designed and validated through a central national development process will be eligible for registration on the NQF. Most frameworks³³ will also include qualifications developed and validated through well understood mechanisms, such as university degrees, secondary school and occupational/professional qualifications. An NQF may also include qualifications developed by providers in response to specific needs, provided they meet certain national criteria.³⁴

In implementing an NQF, different approaches are necessary in respect of:

- existing qualifications
- new qualifications
- international qualifications

Should existing national qualifications be automatically registered on the NQF? Different countries have taken different approaches. In some countries, where the aim has been to promote outcome-based education or participative learning approaches or more practical assessment methodology, there has been a requirement to change the design of existing qualifications to

³²For further discussion on assessment, see Section 5.2.

³³Though not all – in New Zealand, for example, qualifications offered by polytechnics and universities are considered to be ‘provider qualifications’ and are not part of the NQF, although they are included in the Register.

³⁴The SCQF, for example, can admit qualifications developed by education and training providers.

reflect these aims, as a prerequisite of full registration on the NQF. This has been the approach in Ghana, for example, where a key aim has been to redesign vocational qualifications to reflect current industrial, social and economic needs.

However, in some cases, such requirements have merely produced bureaucratic compliance and absorbed a lot of energy that might have been used more productively in other ways. An alternative strategy is to register on the NQF all currently recognised qualifications, but to agree on a rolling cycle of qualifications review.

The position with new qualifications is different. All new qualifications should meet whatever quality criteria are established for NQF qualifications. The key issue for policy makers in relation to the development of new qualifications is the *pace* and *scale* of development. Some NQF development programmes have been based on a grand design which required that all the qualifications that *could* be developed *should* be developed.

One example of this approach was the UK's National Vocational Qualifications (NVQ)³⁵ programme. It was determined that there should be a new VQ for each of some 800 identified occupations and the Government set a target of developing all these qualifications within a given (relatively short) timescale. Today, while some NVQs have been very successful, two thirds of them have very limited uptake (i.e. number of people obtaining the qualifications). Ways are having to be found to give recognition (with or without a review) to the alternative qualifications which are favoured by the industry in the sectors which have not adopted the new VQs.

The mistake was to see the framework as an end in itself and to focus on whole-framework design rather than the needs of stakeholders for particular qualifications. The focus was on developing a comprehensive set of qualifications to a common template rather than focussing on needs and taking account of different needs in different economic sectors.

One of the key tasks for the body responsible for managing the NQF is to develop an implementation plan that is affordable and based on the social and economic priorities of the country.

In terms of NQFs, international qualifications fall into two categories. Some clearly have a 'parent' NQF, i.e. they have been registered at a particular level in the NQF of the country of origin, while others, such as vendor qualifications,³⁶ have no such link. Both kinds can be linked to NQFs as is discussed below. However, there may be other important considerations to be taken into account in considering the recognition of qualifications, such as the link between qualifications and legislation, particularly where the holding of a qualification gives the right to practice. These issues are sometimes addressed through legal conventions.³⁷

In cases where there are no legislative or other difficulties, the most straightforward approach is to accept the judgement of the parent NQF and to accept the qualification as being on the corresponding level of your NQF. Once a system of levels has been developed (see Section 4.1), it becomes possible to establish the bases on which Level X in Country A can be treated as equating to Level Y in Country B.

³⁵In Scotland, these were known as Scottish Vocational Qualifications (SVQs). However, the comments offered here are equally applicable to NVQs and SVQs.

³⁶Microsoft and Cisco, for example.

³⁷See, for example, Directive 2005/36/EC of the European Parliament and of the Council on the Recognition of Professional Qualifications.

However, there are some qualifications, particularly in the field of IT (e.g. Microsoft and Cisco) which are genuinely transnational and some sectors, for example sport and recreation and food and drink which are already working to produce agreements across countries about the levels of competences and/or qualifications. It would be desirable to establish international agreement on the level of all such qualifications. Even without such an agreement, however, it should be possible to place these qualifications within an NQF on the basis of a comparison with comparable indigenous qualifications. This may be desirable, for example in terms of recognition for admissions, recruitment or funding.

Ideally recognition should be mutual and this will best be achieved by establishing zones or communities of mutual trust³⁸ which take in all the users, and possibly potential users, of the qualification(s) in question. The basis of such zones will inevitably be related to mutual agreement about quality assurance.

⇒ **To achieve a cost-effective approach: design the basic framework quickly – then take a pragmatic approach to implementation based on national priorities.**

3.4 How should the NQF be governed and managed?

At this stage in policy formation, it is important to consider how the NQF will be *governed* and *managed*. The governance role is the setting of strategic direction and determination of policy. This will normally be carried out by a Board, although the nature of the arrangements for governance will depend on the organisational structure of the NQF. The management role is the implementation of agreed policy, carried out by executive officers in the main organisations with responsibilities for the NQF. The officers will be accountable to the governing Board.

It is necessary to estimate the cost of managing the NQF and much of this cost will be the setting up and running costs of the body or bodies responsible for this role. Also, it will facilitate smoother implementation if the body that is to be responsible for NQF implementation is also involved in the design.

It is normal international practice for the management of the NQF to be assigned to an apex body, such as a national qualifications authority, that is independent of the government but accountable to it. There are at least three reasons why this model is to be recommended.

First the interests of government in an NQF are *strategic*. They lie in ensuring that certain broad policy goals are achieved. The process of building an NQF may involve disagreements among social partners in which the government may not wish to get directly involved.

Second, an NQF will be more successful if it generates a sense of ownership among the social partners and education and training providers. This is easier to achieve if the government is not seen to be directly managing the process.

³⁸The two terms 'zones' and 'communities' of mutual trust are used by different authorities in this field but are virtually synonymous. See also Section 3.2 above.

Third, from a purely practical point of view, NQF management is an ongoing operational responsibility that government may prefer to allocate to a separate body.

Governance

There are two key issues of governance:

- co-ordination of policy across government ministries
- ensuring adequate involvement of stakeholders

At least two ministries – those responsible for Education and Labour – will have a strong interest in the NQF. (There may be other ministries involved, for example if there is a separate Ministry for Higher Education, and there can be advantages in securing the interest of the ministry responsible for economic development since this will relate to manpower issues, and therefore to training and accreditation). It may seem that the NQF belongs naturally within the sphere of the Ministry of Education and thus it is normal for education to have the lead role. However, all or part of the VET reform agenda may be a key responsibility of the Ministry of Labour – and the NQF should be a central plank of VET reform.

It is not recommended, however, that the national agency responsible for the NQF be directly accountable to two ministries; that would be a recipe for confusion and non-accountability. It will be necessary for the government to decide which ministry has the lead role, but also to create *an effective internal policy co-ordination mechanism*. This could take the form of a joint departmental committee, for example. It must be admitted, however, that this is a problem for which few countries have established stable solutions.

Involvement of the stakeholders is vital to ensure that the agency responsible for the framework maintains its flexibility and responsiveness, avoids becoming overly bureaucratic and works with the grain of existing good practice (see also Section 4.3). Adequate involvement of stakeholders may be achieved in three main ways, all of which are important.

The first is representation of all categories of stakeholder on the governing board of the agency. This will enable the stakeholders to have a say in the overall direction of NQF implementation. It is a common approach but not to be adopted without consideration. It is based on a representational view of governance. An alternative (managerial) approach is where board members are appointed for their skills rather than to represent particular constituencies. As the key informants of labour market information and as facilitators of the better recognition of workers' skills, employers' and workers' organizations can play an active role in both approaches.

The second is to establish a series of sector councils or committees, each representing a broad occupational or subject area. Particularly in respect of vocational qualifications, the stakeholders will want to be able to influence the pattern of developments. In some countries, industry-based training organizations have also played a major role in developing skills/competency standards (e.g. U.K.).

Finally, agreed consultation procedures should be established, to ensure that employers, trade unions, community and civil organisations, and education and training providers have the opportunity to express their views directly and not just through their representatives on the governing board or sector councils. This is an area which can usefully be dealt with through the formal or

legislative instruments which establish the agency, by giving it a duty to take account of the views of stakeholders.

For further discussion of the role of stakeholders, see Section 4.3.

NQF management functions

This sub-section is written on the assumption that the aim is to create a comprehensive NQF. Where this is not the case, some of the advice offered is inapplicable.

For an NQF to operate effectively, four sets of functions must be carried out:

- management of the framework
- standards and qualifications development³⁹
- quality assurance of education and training providers
- assessment and certification

The national agency responsible for the NQF will always have the first set of functions. This typically comprises:

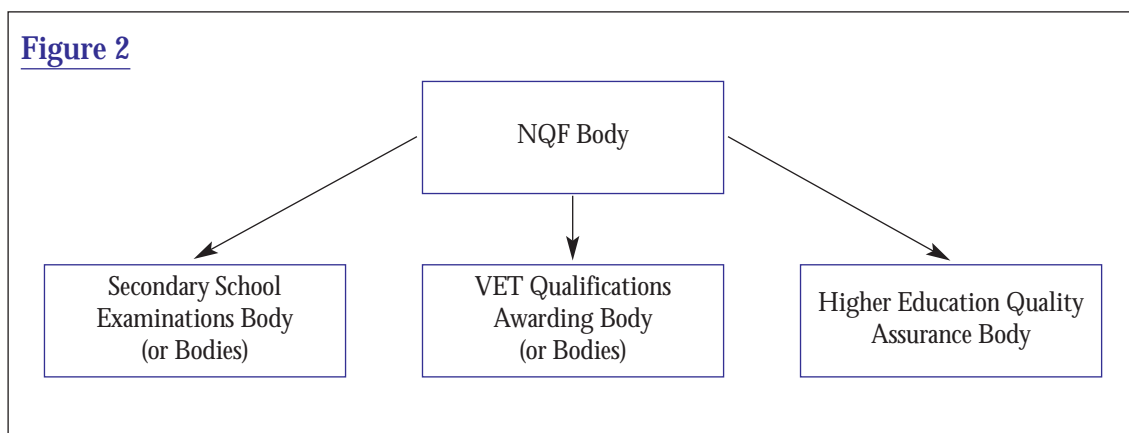
- developing, implementing and reviewing NQF procedures
- consulting with stakeholders on NQF development and implementation
- registering qualifications on the NQF
- disseminating public information and advice on the NQF
- advising the Ministry on policy and resource implications

The staffing and resource requirements for an agency with the above responsibilities (i.e. with no responsibilities for developing standards or qualifications or conducting assessment processes) would be relatively light.

If there are existing agencies responsible for curriculum and qualifications development and for assessment and certification, the role of the NQF body can be confined to the core functions outlined above. This would create the preconditions for a *linked* framework, with the NQF agency responsible for the overall development and maintenance of the framework, and other national agencies, or the education and training institutions themselves, responsible for managing curriculum and qualifications development, assessment and certification in line with NQF policies.

³⁹Work will also be required on curriculum and materials development, but this can be thought of as ancillary to the main functions and is not dealt with here.

Figure 2



Structures akin to the model shown above have been adopted in England, Australia and Ireland and have been proposed in South Africa and Turkey.

New Zealand offers a different model in that one body is responsible for managing the NQF, development of standards for qualifications and assessment/quality assurance of assessment for these qualifications, except in the university sector.

Scotland lies somewhere between these two models. The role of the Scottish Qualifications Authority is akin to that of the New Zealand Qualifications Authority, covering all school and VET qualifications. Since the SCQF includes higher education, which has its own representative and quality assurance bodies, a stakeholder committee has been established to co-ordinate the work of SQA and these higher education bodies in developing the SCQF. However, it seems likely that, as the SCQF takes in the qualifications of other awarding bodies, such as professional bodies, Scotland will evolve towards a model like that above.

Two general issues are worth highlighting. One is the extent to which the 'NQF body' has a strong regulatory function. In most countries, this is the case. In Australia and Scotland, however, the NQF body has an advisory or co-ordinating function; decision-making powers rest with bodies responsible for component parts of the framework.

The second issue is whether the NQF body is responsible only for management of the framework or whether it also has responsibilities for standards and qualifications development and assessment and certification (as in New Zealand and Scotland).

Where there are already agencies with responsibilities for standards/qualifications development and assessment, the most obvious strategy may be to build on these arrangements. If such a structure of agencies does not exist, the government may need to consider the creation of more than one new agency, devolving some of these functions to institutions or expanding the role of the NQF body to take on some of these functions.

Patterns of responsibilities across education and training sectors

Patterns of responsibilities for curriculum and qualifications development, quality assurance of education and training providers, and assessment and certification will vary across education and training sectors. In the university sector, curriculum and qualifications development is an

integrated process and each university takes responsibility for the development and validation of its own programmes and qualifications. Quality assurance of providers is normally achieved by a system of institutional audit based on peer review. Each university also conducts all assessments (although involving external examiners from other universities) and issues its own degree and diploma certificates. However, there may also be a higher education body that attempts to ensure some kind of comparability across degrees in the same discipline (although this is a controversial issue in some countries).

It would be unusual for the NQF agency to have any direct responsibilities in respect of qualifications development, quality assurance of providers or assessment in the higher education sector. However, if there is a body with overarching responsibility for quality in higher education, the NQF agency should have a relationship with this body to enable agreement to be reached on how NQF policies should be implemented in the higher education sector. If no such body exists and there is no intention to create one, the NQF agency would need to establish a dialogue with the universities themselves to agree how best to ensure that curriculum and qualifications development in universities should reflect NQF principles and support policy goals such as increased flexibility and access.

There are also particular issues that may arise in respect of vocational or professional qualifications in the higher education sector. These are considered below.

In the secondary school sector, it is normal for the Ministry of Education to wish to maintain fairly close control over the curriculum, given its political significance. Where there is a national school examinations system, ministries of education traditionally administered these examinations directly. The growing trend, however, particularly given the expansion in the numbers of candidates and subjects being examined, is to create an independent examinations body. This body, financed by and accountable to the Ministry of Education, may also have responsibility for the secondary curriculum and the examination syllabuses based on this curriculum. Alternatively, there may be a national curriculum body or the Ministry of Education may specify the curriculum, leaving the examinations body to run an examination system based on this curriculum and to issue certificates to successful candidates. Most countries would not have a system for accrediting or approving schools as institutions, although it is common for there to be approval processes which are used when a school wishes to expand its programmes beyond general education into vocational education. Quality of school provision is often monitored and evaluated through a system of national inspection.

In the VET sector, the growing trend is for qualifications to be based on *occupational standards*. In some countries, this has meant the establishment of formal structures for the development of national occupational standards, with representatives of the employment sector(s) in question playing the leading role. In other countries, there has simply been a more sustained effort to involve stakeholders in the design of vocational qualifications to ensure that the standards match current employment needs. There is no strong evidence to suggest that either approach has particular advantages over the other.⁴⁰

⁴⁰It should be noted, however, that national occupational standards serve wider functions aside from their role in NQF development.

Most VET systems have procedures for accreditation of providers, particularly as the VET sector is very dynamic and new providers are constantly emerging. These procedures normally include arrangements for re-accreditation or quality audit at periodic intervals. This form of accreditation is frequently the responsibility of the national qualifications authority. VET providers may also be subject to a system of national inspection in the same way as secondary schools. This function would be the responsibility of a national or local inspectorate, not the NQF agency.

There are also differing approaches to assessment and certification. In some countries, assessment is carried out by training institutions with involvement of social partners through examination commissions. Other countries have a national body or bodies responsible for the assessment and certification of VET programmes. Assessment will still be mainly internal (i.e. conducted by the training institutions themselves), but with national quality assurance in the form of external checks on the accuracy and consistency of this assessment (a process known as 'moderation' or 'verification').

An important consideration at this stage concerns the extent to which the framework should be the subject of legislation. There are significant variations across the world in this respect. Most (although not all) countries will pass an Act establishing the NQF. However, this may be a piece of enabling legislation or a detailed set of provisions. In the former case, the details will be established through regulations and/or guidance documents issued by the governing agency. It is important to ensure that any legislative instrument used to establish the framework is sufficient to give force to its main purposes but avoids the kind of detail which will remove flexibility and restrict the use of the framework.

It is difficult to generalise about legislation, since what is included will depend on the overall structure being implemented. The following Acts provide useful exemplars:

New Zealand: Education Act (1989) and Industry Training Act (1992) – www.nzqa.govt.nz

South Africa: South African Qualifications Authority Act (1995) – www.saqa.org.za

Ireland: Qualifications (Education and Training) Act (1999) – www.nqai.ie

Mauritius: Mauritius Qualifications Authority Act (2001) – www.mqa.mu

The review of options above is intended to provide an indication of the range of possible management structures. However – more than any other aspect of NQF strategy – there will be significant variations between countries.



Each country should work out a solution that suits its size, traditions and existing structures and which is as cost-effective as possible.

4. Designing and implementing the NQF: the essential elements

4.1 How should a system of levels be developed?

In respect of many aspects of NQF design and implementation, policy makers do not require a detailed grasp of the technicalities involved; it is sufficient to be clear about the principles. The development of the NQF levels may be something of an exception to this rule, because of the importance and sensitivity of some of the issues at stake.

Assigning qualifications to levels involves judgements about the relative 'worth' or 'value' of different qualifications. It is quite normal for the representatives of academic and vocational education to hold different views on these matters and to defend such views vigorously. The process leading to agreement on levels may therefore need to be managed skilfully.

Where qualification levels are associated with national regulations or agreements on pay and promotion, the definition of these levels will be particularly sensitive.

In addition, the levels system adopted is a key aspect of defining the relationships and equivalences between the qualifications of one country and those in the rest of the world. It may therefore assume a high political significance.

It is important that stakeholders understand that qualifications at the same level are deemed to be *equivalent* in certain respects, and not the *same*. Qualifications at the same level may be quite different in size and scope and have quite different *purposes*. One may prepare learners for study of an academic subject at a higher level; another may indicate competence in an occupation. *Equivalence* means that the qualifications concerned match certain criteria for a particular level as set out in level descriptors. However, as you will see below, level descriptors may consist of a number of types of outcome, such as knowledge, skills, communicative competence etc. Different types of qualification do not necessarily place an equal emphasis on each of the outcomes. For example, one may be relatively knowledge-oriented and another relatively skills-oriented. Nevertheless, looking at the level descriptor overall, it may be deemed to be broadly equivalent in terms of progression – i.e. requiring a similar level of capability for entry and offering similar capabilities for progression to employment or for further education and training. Specific judgments about entry or progression will, of course, also have to take account of the nature of the areas of skill and knowledge acquired by the learner.

A second point to note is that, where it is normal to proceed from Qualification A to Qualification B, this does not necessarily mean that Qualification B is at a higher level than Qualification A. Sometimes, progression is *horizontal*. For example, it may be common for learners who have completed a lower secondary qualification to proceed to take an intermediate craft qualification. This does not mean that the intermediate craft qualification is necessarily at a higher level. It may represent a different type of learning at the same level.⁴¹

⁴¹Progression can also be down a level. For example individuals with general degrees may be required to take practical or professional courses at a sub-degree level to gain initial entry to an occupation.

Returning to the notion of *size*, it should be noted that qualifications at the same level may require quite different periods of learning. Measuring and recognising the size or weight of learning is generally achieved through credit systems (see Section 5.4 below).

The stages in developing the system of levels⁴² are normally as follows:

- decide on the scope of the framework
- determine the number of levels
- develop level descriptors (see Table 6)
- develop practical guidance on any processes in which the descriptors are central

In what follows, it is assumed that the scope of the framework is comprehensive, i.e. including all sectors of education and training. Where a partial framework is being developed, the process is similar but simpler.

Determining the number of levels

The starting point in deciding on the number of levels is the *current understanding among stakeholders about key qualifications and their relationship to each other* – what might be called “the relativities” in the national system.

An NQF is unlikely to be accepted or even understood by citizens if it does not correspond to ‘common sense’, certainly in respect of the most significant qualifications (although it must also be forward looking and reflect new labour market needs and international benchmarks). In almost all countries, there will be a clear progression route from lower secondary qualifications (typically at the end of compulsory schooling) to upper secondary school qualifications and on to higher education qualifications. It may also be clear how a learner progresses from lower secondary qualifications into the VET qualifications structure.

These key qualifications and the relationship between them are important benchmarks that will help stakeholders to relate to and understand the system of levels being proposed.

The number of levels in an NQF varies. Over the last two decades there have been examples of frameworks with as many as twelve or as few as five levels, but most frameworks today seem to have around eight or ten levels. The table below shows the eight levels that are common to most NQFs. It also takes account of the eight levels adopted by the European Commission in their proposals for a European Qualifications Framework.

⁴²This section draws extensively on unpublished papers by John Hart, developed in the course of advising the Ministry of Education in Turkey on the development of its NQF. The Consultation Document on a European Qualifications Framework (Commission of European Communities, 2005) has been another very useful source.

Table 6: Eight most common level descriptors

Level	Examples of qualifications and related competences
8	Doctoral degree; Senior Manager VQ - jobs requiring the knowledge, creativity and leadership skills to deal with complex and unpredictable situations
7	Masters degree; Specialist Professional Qualifications; Senior Manager VQ - specialist knowledge-based professional work; high-level management responsibilities
6	Bachelors degree/ Honours degree; Professional Qualifications; Middle Manager VQ - knowledge-based professional work; management responsibilities
5	Higher Education Certificate and Diploma; Technician/Specialist VQ; Para-professional Qualification; Advanced Vocational Qualification - highly skilled employment; management training
4	Senior School Exit Qualification; Advanced Craft VQ; Supervisory VQ - fully skilled employment; independent operative; supervisory responsibilities
3	Junior School Exit Qualification; Intermediate VQ - skilled/semi-skilled employment
2	Basic VQ - skills required to function in the workplace
1	Literacy and Numeracy Qualification - skills required to enter the workplace and undertake vocational training

Some differences of interpretation of the gradations in academic and vocational progression are evident. For example, the interpretation of the progression from unskilled to fully skilled seems to vary between frameworks, as it is known to vary between employment sectors, which require different levels of knowledge and practice to be “skilled”. Thus at level 3 different levels of skills appear to be represented in different frameworks. This could be related in part to the different fields of employment being predominant in different countries leading to different employment sectors having an influence on the national frameworks.

Also an individual NQF may have two levels where there is one in the diagram or may combine two into one, reflecting national traditions, perceptions or needs. The most common variations are:

- combining Doctorate and Master levels (although controversial and increasingly rare);
- having separate levels for Honours and Bachelors degrees;
- having separate levels for Higher Education Certificate and Higher Education Diplomas (and their vocational counterparts);
- dividing Level 1 into further levels or creating a pre-NQF ‘Entry Level’ to include all very basic learning including that associated with learning difficulties.

The Appendix provides examples of the levels structures of a number of NQFs.

In most NQFs, a line may be drawn to indicate progression from secondary to tertiary or higher education or between craft and technician qualifications. This is illustrated by the thicker line in the table above.

However, this line is drawn differently in different countries. In a number of developing countries, learners may enter higher education with qualifications that are regarded as 'Junior School Exit' in other countries (e.g. O Levels or GCSEs). Even in countries which require senior school qualifications for entry to higher education, these qualifications may be gained after one year of study (e.g. South Africa and Scotland) or two or more (England and many European countries). These differences have to be taken into account when making international comparisons.

Each country should adopt the number of levels that makes most sense in relation to its own education and training system and policy goals. Provided the number and nature of levels bear a recognisable relationship to the 8 levels in the table above, there will be little difficulty in establishing comparisons with qualifications in other NQFs. This is the principle underpinning new 'meta-frameworks' such as the European Qualifications Framework. The draft EQF is based on eight reference levels. Member countries may have varying numbers of levels but will use the reference levels as a common point of comparison.

Developing level descriptors

The question is sometimes asked: must NQFs be based on outcomes? The answer is that it depends what you mean by 'outcomes'. In the consultation paper on an EQF,⁴³ the European Commission defines learning outcomes as:

The set of knowledge, skills and/or competences an individual has acquired and/or is able to demonstrate after completion of a learning process. Learning outcomes are statements of what a learner is expected to know, understand and/or be able to do at the end of a period of learning.

The consultation document goes on:

Learning outcomes can be formulated for a number of purposes; in relation to individual courses, units, modules and programmes. They may furthermore be used by national authorities to define entire qualifications – sometimes structured within or linked to qualifications frameworks and systems. International bodies may, finally, use learning outcomes for the purposes of transparency, comparability, credit transfer and recognition.

Following these definitions, it would be very difficult, if not impossible, to have an NQF that was not outcome-based. Without some explicit statements about the general outcomes of qualifications, it would be hard to compare different types of qualifications or to decide how to place new qualifications on the NQF.

It is not absolutely essential for the qualifications themselves to be defined in terms of learning outcomes. However, as will be argued below (Section 5.1), there are many reasons why it is valuable to have the contents of the framework described in at least broad outcome terms. Nevertheless, it is not necessary to convert all qualifications to a detailed and standardised outcome-based format before establishing an NQF. This is a complex and demanding task and it simply does not make sense to make NQF implementation conditional on completing this transformation.

⁴³Commission of the European Communities, Brussels, 8.7.2005 – Sec (2005) 957: Commission staff working document, Towards a European qualifications framework for lifelong learning (p 10).

Outcomes are generally classified under the following headings:⁴⁴

- knowledge (and understanding);
- skills;
- wider personal and professional competences.

This classification may then be used as the basis for developing *level descriptors* expressed as broad general outcomes.

The following extract from the draft EQF level descriptors⁴⁵ illustrates how this might be done:

Table 7: EQF level descriptors

Level	Knowledge	Skills	Personal and professional competence			
			(i) <i>Autonomy and responsibility</i>	(ii) <i>Learning competence</i>	(iii) <i>Communication and social competence</i>	(iv) <i>Professional and vocational competence</i>
2	Recall and comprehend basic knowledge of a field, the range of knowledge involved is limited to facts and main ideas	Use skills and key competences to carry out tasks where action is governed by rules defining routines and strategies. Select and apply basic methods, tools and materials	Take limited responsibility for improvement in performance in work or study in simple and stable contexts and within familiar, homogeneous groups	Seek guidance on learning. Respond to simple but detailed written and oral communication	Adjust role to different social settings	Solve problems using information provided
3	Apply knowledge of a field that includes processes, techniques, materials, instruments, equipment, terminology and some theoretical ideas	Use a range of field-specific skills to carry out tasks and show personal interpretation through selection & adjustment of methods, tools and materials. Evaluate different approaches to tasks	Take responsibility for completion of tasks and demonstrate some independence in role in work or study where contexts are generally stable but where some factors change	Take responsibility for own learning	Produce (and respond to) detailed written and oral communication Take responsibility for self-understanding and behaviour	Solve problems using well known information sources taking account of some social issues

⁴⁴ Alternatively, 'competence' may be used as the overarching concept. Outcomes are then classified under cognitive competence, functional competence, personal competence and ethical competence. The meaning is broadly the same.

⁴⁵ Commission of European Communities, 2005, p 19.

This shows how NQF levels can be described in terms of knowledge, skills and wider competences. The extract also illustrates how differences between levels can be described.

The competency levels designed by CONOCER in Mexico (Table 8) and the UK Framework (Table 9) provide examples of a simpler approach to level descriptors.

Table 8: Competency levels designed by CONOCER, Mexico

Level	Description
1	Perform a small group of varied work activities that are mainly routine and predictable
2	Perform a considerable group of varied work activities carried out in different contexts. Some of the activities are complex and not routine, they involve responsibility and autonomy, and often require cooperation with others or working in a team
3	A wide range of varied work activities performed in different contexts. These are frequently complex and not routine, there is a high degree of responsibility and autonomy, and often controlling and supervising other workers is involved
4	A wide range of complex work activities (technical or professional) performed in a wide variety of contexts. There is a high degree of responsibility, autonomy, responsibility for the work of others, and occasionally for allocating resources
5	This involves the application of a considerable range of fundamental principles and complex techniques in a wide variety of contexts which are often unpredictable. There is a high degree of personal autonomy, and frequently responsibility for allocating resources and for analysis, diagnosis, design, planning, execution and evaluation

Source: CONOCER.

Table 9: United Kingdom Qualifications Framework

Framework level	Level indicators
Entry	Entry level qualifications recognise basic knowledge and skills and the ability to apply learning in everyday situations under direct guidance or supervision. Learning at this level involves building basic knowledge and skills and is not geared towards specific occupations
1	Level 1 qualifications recognise basic knowledge and skills and the ability to apply learning with guidance or supervision. Learning at this level is about activities which mostly relate to everyday situations and may be linked to job competence
2	Level 2 qualifications recognise the ability to gain a good knowledge and understanding of a subject area of work or study, and to perform varied tasks with some guidance or supervision. Learning at this level involves building knowledge and/or skills in relation to an area of work or a subject area and is appropriate for many job roles
3	Level 3 qualifications recognise the ability to gain, and where relevant apply a range of knowledge, skills and understanding. Learning at this level involves obtaining detailed knowledge and skills. It is appropriate for people wishing to go to university, people working independently, or in some areas supervising and training others in their field of work
4	Level 4 qualifications recognise specialist learning and involve detailed analysis of a high level of information and knowledge in an area of work or study. Learning at this level is appropriate for people working in technical and professional jobs, and/or managing and developing others. Level 4 qualifications are at a level equivalent to Certificates of Higher Education
5	Level 5 qualifications recognise the ability to increase the depth of knowledge and understanding of an area of work or study to enable the formulation of solutions and responses to complex problems and situations. Learning at this level involves the demonstration of high levels of knowledge, a high level of work expertise in job roles and competence in managing and training others. Qualifications at this level are appropriate for people working as higher grade technicians, professionals or managers. Level 5 qualifications are at a level equivalent to intermediate higher education qualifications such as Diplomas of Higher Education, Foundation and other degrees that do not typically provide access to postgraduate programmes
6	Level 6 qualifications recognise a specialist high level knowledge of an area of work or study to enable the use of an individual's own ideas and research in response to complex problems and situations. Learning at this level involves the achievement of a high level of professional knowledge and is appropriate for people working as knowledge-based professionals or in professional management positions. Level 6 qualifications are at a level equivalent to Bachelors degrees with honours, graduate certificates and graduate diplomas
7	Level 7 qualifications recognise highly developed and complex levels of knowledge which enable the development of in-depth and original responses to complicated and unpredictable problems and situations. Learning at this level involves the demonstration of high level specialist professional knowledge and is appropriate for senior professionals and managers. Level 7 qualifications are at a level equivalent to Masters degrees, postgraduate certificates and postgraduate diplomas
8	Level 8 qualifications recognise leading experts or practitioners in a particular field. Learning at this level involves the development of new and creative approaches that extend or redefine existing knowledge or professional practice

It is important to be aware of the *purposes* of level descriptors and their *limitations*. Level descriptors have two main purposes. They:

- (1) make *explicit the tacit understandings* of providers and stakeholders about the nature of qualification levels and educational progression

The process of developing level descriptors compels those engaged in it to make clear statements about the characteristics and outcomes of qualifications and how qualifications at adjacent levels differ from each other. This can often highlight ambiguities and inconsistencies and lead to clearer and better-grounded understandings.

- (2) provide a means of making *comparisons across different types of qualification*

This is important in the development of progression routes and vital in the implementation of credit transfer systems.

There is more than one dimension of 'level'. Some qualifications are more concerned with development of knowledge; others with skills or personal and professional competences. The use of broadly defined level descriptors provides the basis for agreeing that qualifications belong at the same level notwithstanding different relative emphases on knowledge, skills etc. (Note: it is generally the case in existing frameworks that qualifications do not have to meet all aspects of a level descriptor to be deemed to meet the level requirements).

However, there are two important situations in which the use of descriptors is not appropriate. They are not designed to:

- (1) provide the sole and infallible means of determining the level of qualifications

Inevitably, given the wide range of learning outcomes which they must apply to, level descriptors can never be sufficiently detailed or precise to serve without fail as the sole means by which qualifications can be allocated to levels. They must be used as the final grounds for making such a judgement, but other evidence will be important as part of the process. The descriptors provide the *basis for more detailed technical specifications* to guide decisions on placing qualifications at particular levels.

- (2) offer the best means of explaining NQF levels to social partners and citizens

Level descriptors are by their nature rather abstract and technical. NQF levels are best explained by using points of reference that are familiar to people. The following table⁴⁶ exemplifies how reference points such as 'typical qualifications' and information on inputs can help to clarify the meaning of levels.

⁴⁶This table draws on Annex 2 and Table 2 of the EQF Consultation Paper.

Table 10: EQF proposed level descriptor and indicators

	Typical qualification	Level descriptor	Level indicators (input & structural information)
1	Literacy and numeracy qualifications	Ability to deploy the general and basic skills required to undertake initial vocational education and/or workplace training	Learning normally acquired during compulsory education and considered as contributing to a general knowledge and development of basic skills Learning is not usually contextualised in work situations
2	Any certification which is linked to basic workplace routines	Ability to perform basic tasks and exercise repetitive skills in a controlled environment Ability to deploy general and basic (limited) workplace knowledge and skills Ability to work satisfactorily where actions are governed by rules defining allowable routines and strategies	Completion of compulsory education which includes an induction to work. Basic knowledge of work can be acquired at an educational establishment, in an out-of-school training programme, or in an enterprise Generally it is not occupation specific
3	Completion of basic vocational training introducing the idea of job competence	Ability to deploy basic skills suitable for many job functions Ability to carry out tasks under direction Ability to apply knowledge and skills on repetitive tasks	Normally considered part of upper secondary education
4	Top-level craft qualification	Ability to deploy knowledge linked to a specific occupational sector Ability to work independently on tasks and apply specialist knowledge, skills and competences to these tasks Ability to solve problems independently using experience	Qualification at this level normally includes upper secondary education and a work based training programme in an alternance or apprenticeship scheme Awarded on the basis of extensive experience and practice in both common and exceptional situations

4. Designing and implementing the NQF: the essential elements

EQF proposed level descriptor and indicators

	Typical qualification	Level descriptor	Level indicators (input & structural information)
5	Technical certificates and diplomas Workplace qualifications for technicians	Ability to carry out technical work that can be performed independently Ability to deploy significant theoretical knowledge Ability to undertake supervisory and coordination duties Ability to deal with complex situations and to provide a benchmark for others	Awarded on completion of a main vocational training qualification such as apprenticeship or higher education training Based on considerable experience and practice across a wide range of work situations This qualification level often bridges secondary and tertiary education and training
6	First cycle degree: undergraduate honours degrees Workplace qualifications for senior managers	Ability to deploy a high level of theoretical and practical knowledge, skill and competence, entailing a mastery of the scientific basis of an occupation Ability to deal comfortably with complex situations, to operate autonomously in most situations and to assume design, management and administrative responsibilities	Study for these qualifications outside work takes place mostly in higher education institutions
7	Taught or researched second cycle degree: Masters Workplace qualifications for very senior managers	Ability to work as a (senior) professional or manager using specialist theoretical and practical learning Ability to deploy a wide breadth and depth of knowledge and demonstrate high levels of specialist competence in an area Ability to operate independently and supervise and train others where they can be inspiring	Study for these qualifications outside work takes place in specialist Higher Education institutions
8	Top research degree: Doctorate	Ability to operate as a leading expert in a highly specialised field dealing with complex situations and having the capacity for long-range strategic and scientific thinking and action Ability to develop new and creative approaches that extend or redefine existing knowledge or professional practice	Study for these qualifications outside work takes place mostly in specialist higher education institutions Individuals working at this level will often teach others to be experts and masters



Level descriptors are an essential aspect of the design of the NQF – be clear about their purposes and limitations.

4.2 How should the NQF be quality assured?

Elements and principles of quality assurance

The second essential element of an NQF is quality assurance. If stakeholders within the country and the international community are to have confidence in the NQF, there needs to be some appropriate procedures for ensuring that NQF qualifications are fit for purpose and well-designed, that programmes leading to these qualifications are being delivered by competent providers and that assessment leading to the award of the qualifications can be trusted.

Thus, as noted above in Section 2.1, there are three important elements of quality assurance: validation of qualifications and/or standards; accreditation and audit of education and training institutions; and quality assurance of assessment leading to the award of qualifications.

All NQFs have procedures for the first element, i.e. they specify criteria that qualifications must meet before they can be registered on the framework. All frameworks also require providers to be recognised in some way, although the extent to which there are formal processes varies. In some NQFs (principally those where the institutions themselves, rather than national awarding bodies, conduct assessment of students) the third element may be combined with processes of institutional audit (as well as being partially covered in the first element).

The first two quality assurance elements are dealt with in this section; the third in Section 5.2.

What should be the general approach towards quality assurance in an NQF?

Quality assurance systems are set up to ensure improvement and accountability of education and training. They aim at increasing the effectiveness and transparency of provision at all levels and thereby promoting mutual trust, recognition and mobility, within and across countries...⁴⁷

The aim should be to complete the initial design of the NQF in a straightforward and cost-effective way. Creating a complex and detailed quality assurance system can be a time-consuming and controversial process that can delay the building of the framework itself.

Effective quality assurance systems will have some elements of central control, i.e. requiring compliance with national rules and regulations. Central regulation is necessary to ensure that minimum standards are met and that learners and other stakeholders are appropriately protected. However, there is a great deal of evidence to suggest that systems that over-emphasise central control tend to produce bureaucratic compliance and cynicism. A culture of quality improvement is only created when there is a sense of responsibility for quality at grass roots level. The aim of policy makers should be to encourage institutions to take responsibility for quality in collaboration with the stakeholders.

⁴⁷Commission of European Communities, 2005, p 27.

Finally, the different sectors of education and training have traditionally adopted different approaches to quality assurance. Attempts in some countries⁴⁸ to create a *tightly unified* approach to quality assurance has provoked resistance from university and school sectors and met with mixed success.

It is recommended therefore that the approach should be to agree the general principles of quality assurance, then allow each sector to develop quality assurance procedures based on these principles but reflecting the needs and traditions of the sector. The body managing the NQF should avoid creating elaborate and bureaucratic quality assurance machinery.



NQF quality assurance should focus on the essentials – sometimes ‘less is more’.

Validation of qualifications

It is possible to adopt quite a simple approach to the validation of qualifications. To be registered on an NQF, a qualification should meet the following criteria:

- There is a need for the qualification

Are the purposes of the qualification clear? Has there been consultation with stakeholders (e.g. the learners and the users of the qualification)? Or is there other evidence that stakeholders believe there is a need for the qualification?

- The qualification has been designed so as to be fit for purpose

Do the content and outcomes of the qualification match its purposes? Is the content up-to-date? Do the outcomes or standards reflect the identified needs?⁴⁹ Is there evidence that those who gain the qualification achieve the purposes, e.g. entry to a particular field of employment or to a higher level of education?

- The required standards of attainment are appropriate and are consistently applied

Are the standards required for the award of the qualification appropriate to its purposes and the expectations of stakeholders? Are there systems to ensure that these standards are applied in a reasonably consistent manner?

Accreditation and Audit of Education and Training Institutions

Institutional accreditation procedures serve two principal purposes:

- to ensure that the programmes leading to the award of NQF qualifications are delivered to an acceptable level of quality;
- to assist the institution to develop and mature by encouraging it to focus on quality improvement.

⁴⁸Notably in New Zealand and South Africa.

⁴⁹For vocational qualifications, this may mean that they must be based on nationally agreed occupational standards.

The term 'institutional accreditation' normally applies to the process of recognising or approving a new institution. For this reason, it is more common in VET and non-university tertiary sectors – where new institutions emerge more frequently, especially in the private education sector than in secondary and university sectors, which are generally more stable.

However, it is common in university sectors to have a system of *institutional audit*. Institutional audits tend to use similar criteria to those used in institutional accreditation, although they are applied in the context of a sector where *institutional autonomy* is more strongly recognised.

In the secondary school sector, the general trend is towards introducing systems of *school self-evaluation* complemented by a system of *external inspection or review*.

While these processes in secondary school and university sectors can serve the purpose of ensuring that the institutions are capable of delivering NQF qualifications to an acceptable level of quality, they also have other broader purposes. For this reason, they are rarely part of the NQF system itself and are not considered further here. Accreditation of VET providers, on the other hand, is frequently the responsibility of the NQF agency, who will approve the accreditation criteria and manage the accreditation process, including determining the schedule of accreditation visits and selection of the accreditation team.

Accreditation criteria normally include:

- the adequacy of resources and equipment;
- the qualifications and experience of staff;
- arrangements for staff development;
- quality of programme design;
- effectiveness of liaison with employers;
- guidance and support for students;
- arrangements for students with special needs;
- effectiveness of recording and administration systems;
- quality of institutional management.

While serious deficiencies in resources or staffing might lead to accreditation being withheld, the identification of other weaknesses might result in recommendations being made to the institution that specific improvements be put in place. This is the link to the second purpose of accreditation. There is evidence to show that institutional accreditation and audit procedures applied consistently over a number of years can lead to sustained improvement in the quality of vocational education and training.

The task of accrediting all institutions offering NQF qualifications is an onerous one. There is a danger of significant delays to NQF implementation if accreditation becomes a pre-requisite for offering any NQF qualifications. Some countries have therefore adopted the position that all institutions which have been recognised for many years as part of the national education system (such as secondary schools, universities and colleges) be granted automatic recognition and allowed to offer NQF qualifications from the outset. All would, however, be subject to the ongoing processes of audit.

For institutional accreditation procedures to be effective, they should have certain characteristics:

- Accreditation should be based on a visit to the institution by an accreditation team

While useful information can be provided by paper submissions from the institution, it is essential – particularly in the first round of accreditation visits – that a visit is made to the institution, so that the accreditation team can see the physical resources, hold discussions with teachers and managers, and meet the students.

- The accreditation criteria and procedures should be clear and transparent

Institutions should know the basis on which they are to be evaluated. If not, the process will be resented and mistrusted and will fail to effect quality improvements. A document should be produced and published setting out the criteria to be applied, preferably supported by reference to expected good practice. The procedures to be followed by the accreditation team should also be made clear.

- The members of the accreditation team should be respected experts in the appropriate vocational field(s)

It is important that the judgements made by the accreditation team should be respected and therefore that the team contains people with authoritative levels of experience and expertise. However, the opportunity to participate as a member of an accreditation team should be open to a wide range of teachers/trainers, as it provides a very valuable form of professional development.

- The ethos of the accreditation process should be supportive and developmental

While accreditation has the primary purpose of establishing that an institution is fit to offer national qualifications and is therefore in that sense judgemental, it is important that the institution perceives the process as one that will help it to develop and improve. The accreditation team should be able to offer helpful comments and advice, including reference to good practice in other training institutions.

- Accreditation should be an ongoing process

Accreditation is not a single event. Institutions should be revisited on a regular basis to ensure that satisfactory standards are being maintained and that recommendations from earlier visits are being maintained. On the other hand, it can be counter-productive to make accreditation visits too frequently. A four or five-year interval could be considered for high-performing institutions; those with significant problems to address may need to be monitored more closely.

4.3 How should consultation processes be conducted?

The process of developing a framework of qualifications must take into account the need to foster trust among the various stakeholders so that they can have confidence in the integrity of the resultant framework. It is vital to identify the stakeholders and advance consensus-building mechanisms in framework development. An important way to build trust and acceptance is to ensure that any top-down approach is fused with a bottom-up process. It is possible to design different ways to consult but in general, the approach should be as transparent as possible. As well as positively targeting some more obvious stakeholders to request their participation, it is

also useful to invite open public participation. Even if most of the effective contributions come from core stakeholders, the legitimacy is enhanced by public processes. One can also find helpful ideas from unexpected places.

The stakeholders may include:

- learners/students;
- government departments;
- appropriate government agencies including those responsible for employment, economic development, competition and immigration;
- providers of education and training;
- awarding bodies and quality assurance agencies;
- teachers and trainers staff associations;
- employers' and workers' organizations, or more broadly representatives of employers and workers;
- community and voluntary organisations;
- representatives of migrants;
- professional bodies;
- academic researchers working on education and labour force policy questions;
- educators of teachers and trainers;
- career guidance professionals.

Any person or organisation who contributes via the open consultation process should be considered to have self-identified as a stakeholder. Some stakeholders are more difficult to access than others. They may not have a representative organisation or there may be more than one such organisation, perhaps in competition with each other. Those who do have representative structures may need appropriate time to consult in turn with their membership. The value of the views of stakeholder organisations to consensus development depends on the extent to which they are indeed representative. It also depends on how much they are aware about how their members perceive the usefulness of the framework.

Consensus-building mechanisms in the development of NQFs may include a number of measures such as:

- broad composition of any formal body and its executive staff;
- a publicly advertised consultation phase;
- publication of papers and submissions on the internet;
- international research and consultation;
- formal survey work with learners and employers;
- a broadly-based consultative group that meets regularly to produce extensive, supporting documentation;
- an open approach by all to questioning the purposes of qualifications and standards;
- sector meetings (e.g., to consider employment, community, and voluntary sector perspectives);
- bilateral meetings with stakeholder organisations;
- the securing of ongoing political support for the initiative;
- consultation outside the country, particularly with jurisdictions where there is high labour and/or learner mobility;
- participation in international organisations and meetings.

While it is useful to have an indicative timeline and work-plan, it is also important to be flexible. If consultation reveals profound tensions, it is important to attempt to resolve these as they arise, rather than bury them to re-emerge later. If necessary the time for consultation should be extended. The lead body should take the role of facilitating direct dialogue among stakeholders rather than mediating stakeholders' views to each other. Let each group hear or read each other's hopes and fears and respond to these directly rather than project them all onto some framework development expert group.

At the same time it is important that consultation should not be allowed to become a delaying mechanism. One tactic to avoid this is to differentiate stages of the development and "bank" consensus as it is achieved. These stages might include initial agreement on broad principles and responsibilities, followed by policies and criteria for the framework, followed by technical details, followed by an implementation plan, followed by a communications plan. When agreement has been reached on a stage, publish the outcome and refer to it explicitly in the work that follows. Some stakeholders will find it difficult to engage with all stages; this is only to be expected. Some may have broad policy interest and little concern for details. Some others may be less interested in the abstract principles or technical details but participate more enthusiastically when they see the prospect of implementation. Information should be provided in a way that stakeholders can identify whether the particular stage is one on which they have a contribution to make.

As a principle, any framework will have to be subject to possible review and revision and stakeholders will want reassurance that this is the case. At the same time, it needs to be acknowledged that a change can be expensive and should not be undertaken lightly. Some features of frameworks are more difficult to change than others. A change which has a knock-on effect on all qualifications in the framework such as changing levels or level descriptors, will have implications right down to curricular development and assessment. There is also an issue of public understanding and "buy-in" in respect of the change. If stakeholders have become used to using a certain language to describe qualifications or levels, it can be very confusing if changes are made (e.g. changing what used to be level N to level N+1 or N-1). Other types of change, such as procedures for validation of qualifications or accreditation of institutions will have fewer implications across the system. The point here is that any change is possible but that it is essential to understand the implications of future change. Therefore, certain key decisions such as on levels should be made carefully, in the knowledge that subsequent change could be difficult and expensive.

5. Other issues

For some policy makers, Section 5 is optional reading and may be treated as a set of appendices to this Guide. It deals with some issues that *may* need to be addressed in the course of designing an NQF. However, they may not all be immediately relevant. For example, it is certainly not essential for an NQF to have a credit framework or to require particular assessment approaches.

Also, they are essentially technical issues on which policy makers do not require an in-depth grasp, as they would be advised by professional experts. However, they are all areas where problems can arise so it may be useful to be aware of the possible risks.

Over the last twenty years or so, reforms in VET and (to a more variable extent) higher education have been based on the concepts of outcomes, criterion-based assessment, modules and credit. While these reforms have in general been beneficial, difficulties have arisen when they have been applied in a rigid or doctrinaire way. The key message in this section is that policy makers should seek to ensure that the implementation of the approaches under discussion is pragmatic and balanced.

5.1 Should qualifications be outcome-based?

This question was introduced and partially answered in Section 4.1 in the discussion of levels. Qualifications must be expressed at least in terms of broad outcomes if they are to be placed on a framework. However, it is not absolutely essential for qualifications in an NQF to express these outcomes in the same way and it could be an unproductive use of scarce resources to attempt to convert all qualifications to a particular outcome-based format within a short period of time.

Nevertheless, there are good reasons why qualifications should be outcome-based. The use of outcomes:

- makes the purposes and objectives of learning clear to the learner;
- provides a clear basis for planning learning programmes leading to the qualification;
- creates a sound basis for an effective and transparent assessment system;
- informs users of qualifications about the knowledge, skills and competences which successful learners are likely to have.

However, this is an area where a *tightly unified* approach can cause problems. The use of outcomes in VET is almost always uncontroversial and indeed generally welcomed by teachers and learners. In secondary school and university sectors, on the other hand, many teachers oppose outcome-based approaches.

This may be because of the assessment procedures sometimes associated with outcome-based education - these issues are considered in Section 5.2 below. Or it may stem from the belief that the specification and assessment of outcomes unduly constrains or trivialises the learning process and makes it 'mechanistic'.

If the learning outcome is concerned with routine tasks or the application of skills in predictable circumstances (e.g. building a brick wall or creating a standard spreadsheet), it is both possible and desirable to specify what is to be learned in a precise manner. However, where the learning requires adaptability, originality, or the exercise of initiative (e.g. using theoretical knowledge to solve problems or exercising creative and aesthetic skills), writing outcomes in a similarly precise manner is likely to restrict and distort the learning process. Writing overly specific or detailed outcomes for these kinds of learning is likely to provoke the reaction that learning is being trivialised or made mechanistic.

This does not mean that it is impossible to write outcomes for social subjects or art and design, only that they may need to be expressed in a more general or indirect way. It could be argued that it is not possible to teach anything unless the teacher knows what he/she wants the learner to learn. Often, these goals may be implicit. Outcome-based education simply suggests that these goals be made explicit – recognising that the level of specificity that is possible or desirable will vary.



Outcomes are helpful – if implemented flexibly.

5.2 What kind of assessment systems should be used for NQF qualifications?

It is probably safe to say that assessment systems (i.e. systems for assessing student performance) have caused more controversy than any other single aspect of NQF implementation. However, this has occurred where attempts have been made to change traditional assessment approaches. It is not an essential feature of NQFs that they influence the assessment systems of individual qualifications types.

Assessment is a specialised and technical subject, but it may be useful for policy makers to understand the key principles and to be aware of potential problems in implementation of any assessment reforms.

The methods used to assess students should be:

- valid

The assessment should measure what it is supposed to measure. For example, an essay is a valid assessment method of the ability to undertake literary criticism but not of the competence to install electrical wiring.

- reliable

Assessment should be carried out consistently. In principle, a particular performance by a student should lead to the same assessment result regardless of who conducts the assessment and where or when it is conducted. One hundred percent reliability is very hard to achieve.

- practicable and cost-effective

The assessment methods should be feasible to apply in the normal setting (e.g. school or workplace), should not place an unreasonable work load on teachers/trainers or students and should not be more expensive than is justified.

There should be a balanced approach across these principles such as to secure the support of stakeholders. In other words the assessment system must be credible to learners, teachers, employers and others. For example, achieving very high levels of reliability is expensive because it can only be assured by an increased number of checks. In many cases, the benefits of higher reliability would not justify the cost. However, where there are safety implications, such as assessing competence in flying an aircraft, the cost in achieving high reliability is justifiable. Similarly, the need for reliability must not undermine the validity of assessment, particularly in the case of practical competences where assessed workplace performance may give high credibility but be hard to make reliable.

Traditional systems undoubtedly relied too heavily on written examinations to the exclusion of other forms of assessment. Written examinations have their place and for certain types of qualification (particularly those concerned with demonstrating knowledge and understanding) offer a very reliable form of assessment. However, it is now recognised that it is beneficial to employ a broader range of assessment methods, including more practical forms of assessment.

Where countries have moved to outcome-based systems there have been associated changes in the way students are assessed.

Previously, the most common approach had been to rank students in order of merit and to allow a certain percentage of students to pass. Those above the cut-off line passed; those below failed. Essentially, students were not being compared against criteria but against *each other*. This form of assessment was called *norm-referenced*. Written examinations are the most usual form of assessment in a norm-referenced system. However, examinations are not inherently norm-referenced. They can also be based on the achievement of pre-determined outcomes or criteria.

Students are now assessed against explicit written standards and assessment has become increasingly based on detailed criteria. This *criterion-based* assessment is thought to be fairer because all students who meet the requirements gain the qualification, regardless of how well or badly other students perform. There is also the advantage that criterion-based assessment, unlike norm-referenced assessment, can be used to show whether educational standards are rising or falling over time. With norm-referenced assessment (by definition) the same percentage of students will always pass, whether overall student performance is improving or worsening,⁵⁰ whereas if the criteria for assessment are held steady over time, analyses can be carried out to show how progressive cohorts of learners perform against these criteria.

Criterion-based assessment makes it easier to introduce procedures for the recognition of prior learning (RPL). This usually refers to a system where learners can submit evidence of their experiential learning and where this evidence matches the module outcomes, they may be awarded the module. In practice, RPL procedures tend to be complex and time-consuming and there is little evidence of RPL in this sense fulfilling the expectations placed on it. On the other hand, the practice of 'assessment on demand' – whereby learners who believe they already possess the required knowledge and/or skills – proceed straight to the assessment without undertaking a learning programme – has become a normal part of many modular systems.

⁵⁰It is worth noting, however, that the distinction between norm- and criterion – referenced assessment is not absolute. For example, if a large number of candidates are undertaking a national examination, there is no reason to expect a significant change from the previous year in the percentage of students who pass. For this reason, public examination bodies generally use such norms (although only as one element) in establishing cut-off lines.

The implementation of criterion-based assessment can be problematic. The most common problem is that assessment procedures become too detailed and cumbersome. The understandable desire to create rigorous standards can lead those who design qualifications to over-assess. This can occur where there are too many criteria or the criteria are too detailed, with the result that the amount of evidence of competence required for assessment (e.g. through coursework or workplace activities) imposes heavy burdens on learners to produce and teachers to assess. Learning programmes can then become dominated by assessment to the detriment of the quality of teaching and learning.

It is advisable to guard against zealotry with regard to criterion-based assessment. The belief that it is totally objective is not well-founded. Most assessment is subjective to some extent; some types of outcome are easier to assess with relative objectivity than others. The aim should be to reduce subjectivity and variability of assessment as much as possible. In general, the best approach is to specify outcomes as clearly and as simply as possible. The temptation to write more and more detailed performance criteria should be resisted. The important thing is that the standards should be clear in the minds of the assessors. This is often best achieved first by the provision of examples of the assessed work of learners (both successful and unsuccessful), by holding standardisation meetings at which assessors can discuss and 'internalise' the standards, and through systems of external moderation or verification where assessments are reviewed by an external expert.

In the (again, understandable) desire to tackle the shortcomings of traditional assessment systems, the temptation to dismiss everything associated with these systems should be rejected. One such example is the belief that awarding 'marks' to students is incompatible with the principles of criterion-based assessment. It was sometimes argued that criterion-based assessment simply meant answering the question 'Can the learner do x or not?' In some cases, this is true. A driving test, for example, relies on the direct application of criteria; marks serve no useful purpose. However, if one is assessing mastery of a body of knowledge, the judgement has to be based on the *extent* of the learner's knowledge, since total mastery is not realistic. In these situations, it is perfectly reasonable to use a marking system as a way of determining whether students have fulfilled the criteria and there is no reason why both assessments based on marks and assessments based directly on criteria should not coexist within a framework.

A final example is the view that outcome-based and criterion-based systems should be strictly 'pass/fail' and should not award grades to students. However, it is possible to develop grading systems based on explicit criteria. Also, there is some evidence to suggest that assessment systems that are simply 'pass/fail' encourage an attitude among students of 'just doing the minimum necessary to pass.' Again it may be appropriate for both pass/fail and graded outcomes or qualifications to coexist within a framework.

In summary, it is important to challenge the weaknesses in traditional assessment systems. However, it is also necessary to recognise strengths in the existing system and to focus energies on changes in areas where there are demonstrable weaknesses to be addressed or new benefits to be gained. The principles of criterion-based assessment offer a sound basis for reform and the enthusiasm of reformers will help create the momentum to achieve it.

Also, wherever possible, new arrangements should be piloted. Having decided on change, ministers will usually be keen to implement it as quickly as possible. Policy advisers should often counsel caution. It is better to make mistakes first on a small scale and to learn from them.

Whatever assessment approaches are used, it is important that assessment leading to the award of NQF qualifications is *quality assured*. The quality assurance methods used will depend on whether (or to what extent) assessment is *internal* or *external*. Internal assessment is that which is carried out by the staff in the training institution itself. A variation on this is when social partners are involved in the assessment process through examination commissions (a common approach in many parts of Europe) – and this may be regarded as a hybrid of internal and external assessment. Assessment is external where it is conducted directly by people from outside the training institution, typically a national awarding body. Written examinations are a common form of external assessment but not the only one. Where assessment is external, the awarding body will devise internal procedures for ensuring that assessment is valid and reliable (e.g. through quality checks on examination papers and checks on markers). Where assessment is internal, it is normal to have systems of moderation or verification, where the NQF body or a national awarding body looks at a sample of internally assessed student work to ensure that national standards are being applied.

⇒ Assessment should be fit for purpose – be wary of the ‘one size fits all’ approach.

5.3 Should qualifications be modular?

Modularisation has its origins in the USA and is a generally accepted approach in all sectors of education in training there. In other countries, particularly those introducing the first NQFs, it has been associated both with VET reform and with the development of credit systems in universities.

A module is simply a component part of a programme of learning and assessment.⁵¹ In a general sense, therefore, almost all learning programmes are modular since they will comprise a number of separate subjects. The distinctive feature of modern modularisation, however, is that the module is *ascribed its own value independently of the larger qualification of which it is a part*.

Modularisation has often been a central component of a reform package that includes outcome-based qualifications, criterion-based assessment and (sometimes) credit systems.

The benefits of modularisation⁵² are said to be:

- enhancing access, flexibility and responsiveness

Modularisation allows for the accreditation or certification of small chunks of learning. Sometimes a small chunk of learning (e.g. health and safety) can be significant in itself. A modular system performs a useful function in providing national recognition for such learning.

⁵¹Sometimes the term 'module' is used where it is a *teaching* component and the term 'unit' when the component is one of *assessment and certification*.

⁵²The analysis draws on an unpublished paper on modularisation by John Hart.

The facility to access small chunks of learning, gain credit for this learning, and perhaps to build towards a larger qualification over time meets the needs of many adult learners. Adults who wish to return to education or training often have to cope with multiple commitments such as work and family. Modular systems seem to be effective in opening up part time routes to qualifications.

On the other hand, the extent to which programmes benefit from modularisation may vary. There are two key questions to be answered:

- Will users or learners ascribe an independent value to the individual module?

Sometimes, individual modules, such as in IT or basic skills, may have a market value in the eyes of employers or be seen by learners as significant pieces of attainment in their own right. In such cases, it is important to ensure that these chunks of learning can be separately certificated. If on the other hand, the modules primarily represent partial attainment towards a larger qualification, then the approach to modularization should be tailored to the nature of the learning process, which brings us to the next question.

- What are the characteristics of the 'chunks of learning'?

All qualifications break down 'naturally' into components and therefore all can be modularized. However, the nature of these components varies. In some types of learning, the subject matter comprises chunks of learning that need to be mastered in a specific sequence. This typifies much of the learning in mathematics and the sciences. Modularization must be based on an understanding of the conceptual progression that learners must make. In other cases, the qualification will comprise a number of fields and topics where there is greater flexibility in sequencing, e.g. management theory, finance, and marketing within management qualifications. There is a third case where the elements of the qualification (or part of a qualification) consist of skills that are best developed concurrently rather than sequentially, e.g. writing, reading, speaking and listening in an adult literacy qualification.

Critics of modularization argue that it fragments learning and thereby trivializes it and it should be recognized that this is indeed a danger. However, if modularization is carried out in a way that respects the nature of the learning, this danger can be avoided.

It is also said that modular systems make it easier to respond quickly to emerging social and economic needs because new programmes can be developed more quickly. Modularisation may make the education and training system more market-orientated or more market-driven - making it easier to address skills shortages and gaps and for people to upskill and reskill.

- enhancing learner motivation

For many learners, having short-term targets to aim at is motivating and leads to increased effort. Success in the early modules in a programme can reinforce this sense of motivation.

- increasing the uptake of qualifications

Improvements in flexibility and access may in turn increase the uptake of qualifications, especially among adult learners.

- rationalising the qualifications system

It was believed that modularisation could rationalise the qualifications system by removing duplication of qualifications. For example, there might be a similar mathematics component in a range of programmes, which could be served by a common module.

While this can occur to some extent, there is always pressure from specialists (teachers and employers) to have modules tailored to their specific needs. Also, there is a tendency in modular systems towards growth and diversity. In practice, therefore, there will be a continuing tension between growth in the number of modules to meet the diverse needs of a modern economy and society and the desire to rationalise the system to make it simple and coherent.

Given the importance of modularisation and the claims made for it, there is a remarkable absence of systematic body of research and evidence on the impact of modularisation. However, some of the benefits claimed appear to be real, although they may be less pronounced than suggested by some of the rhetoric.⁵³

However, there are also potential problems with modular systems that need to be guarded against. The main problems are those of fragmentation and over-assessment. It was suggested above that modules could be motivating for learners because they offer short term targets to aim at. The reverse side of this coin is that they sometimes seem to provide a 'licence to forget'. Once learners have passed a module, they may move on to the next one forgetting what they have learned. This weakness may need to be addressed by supplementing module assessments with assessments that require the learner to synthesise learning across the programme as a whole.

Care also has to be taken to avoid the danger of 'over-assessment' in modular programmes. Where a programme comprises a large number of small modules, it can become dominated by the assessment regime.

In summary, modularisation can bring benefits, especially for adult learners, but some of the benefits may be less significant than sometimes supposed and there are potential drawbacks that should be guarded against.

 Use modularisation to achieve clearly defined aims.

5.4 Should a credit system be developed?

Some NQFs are also credit systems; others are not or not yet. This section is relevant, therefore, only if a credit system is being considered.

Putting a credit value on a programme of learning allows stakeholders to describe and compare the volume of learning undertaken in completing the programme. Credit systems depend on the assumption that it is possible - and relatively simple - to identify the outcomes of a programme of learning, to place these outcomes at a level, and to give them a weighting or numerical value which makes sense in terms of another programme.

Some NQFs include a credit system; some do not. Some of those that do, provide only for *credit accumulation*, others for *credit transfer*, and some for *credit accumulation and transfer (CAT)*.⁵⁴

⁵³Refer to John Hart's article in the SQA's Research Bulletin.

⁵⁴The analysis in this section draws extensively on *NQFs as Credit Accumulation and Transfer (CAT) Systems*, a paper presented by John Hart to a SADC Conference in June 2005.

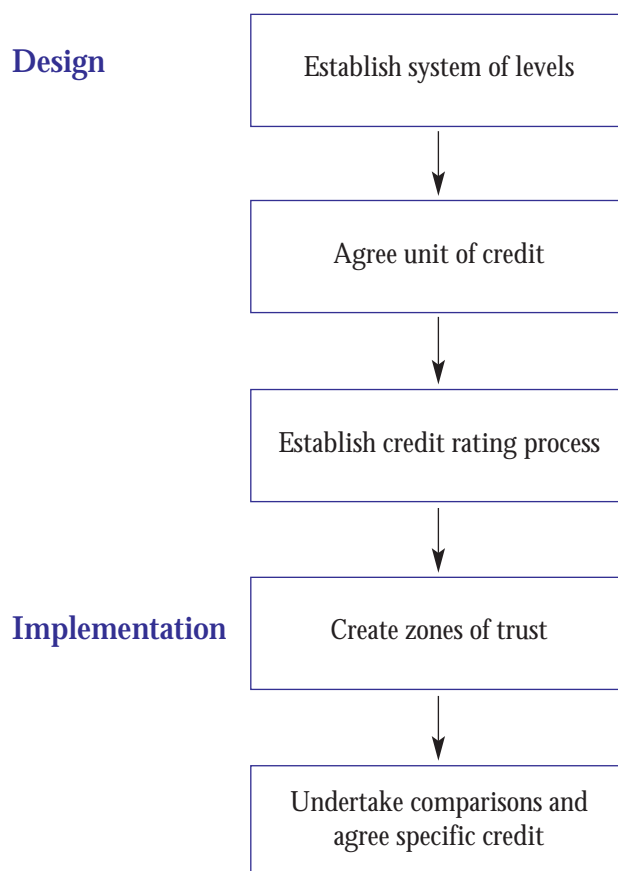
Credit accumulation takes place within an institution or a sub-system. Thus, there may be a system of credit accumulation within a university or one of its faculties or departments. This means that a credit gained within a particular programme is allowed to count towards a different programme within the university, faculty or department. It can also occur where there is a closed sub-system within an NQF. For example if there is a national body responsible for the award of, say, VET qualifications, then credits gained towards a particular qualification in one institution can be used towards the completion of a qualification in another institution. Credit accumulation is generally automatic. The rules are well established and known in advance.

Credit transfer takes place between institutions and sub-systems, for example from one university to another or between related professional qualifications. Credit transfer is normally less automatic; negotiation and agreement are required.

In a *CAT system*, these two processes are integrated, so that the credit which is accumulated within one sub-system may first have been transferred from another sub-system.

The overall process of designing and implementing a CAT system is summarised in the figure below.

Figure 3



The first of these stages (establishing a system of levels) has already been discussed in Section 4.1.

Agreeing the unit of credit

Credit is intended to give an indication of the *volume* of learning required by a programme. It is usually expressed as a numerical value linked to notional learning time, although the precise definition of notional learning time may vary from system to system. Many credit systems work on the basis that one credit point represents the outcomes of learning achieved through a notional 10 hours of learning.

In most systems, notional learning time will include all learning activities required for the achievement of the learning outcomes, including, for example:

- formal learning (classes, training sessions, structured coaching, seminars and tutorials, etc.);
- non-formal learning (community groups, community-based workshops, etc.);
- practical work and practice to gain and refine skills and knowledge (in the workplace, laboratories, workshops, etc; necessary private study, including information retrieval, preparation, revision, etc.);
- all forms of assessment.

It is important to remember that none of this relates to the time taken by any individual learner and that the credit value of a programme cannot be increased or decreased if a learner takes more or less time to achieve the outcomes. This is particularly important in the context of workplace learning.

Establishing the credit rating process

The issue here is how to agree what learning time is required to complete a programme of outcomes. In some cases, where the programme is well established, it will be possible to do this by reference to experience; in others it will be done by making comparisons with well-established and previously credit-rated programmes; but in some cases the process will have to be carried out from scratch. In this case, questions such as the following would be asked:

- When the programme/qualification was designed what was intended for it – what type of learner, with what kind of previous knowledge and experience and with a view to what kind of practice or progression?⁵⁵
- In the light of this, what effective content of learning was envisaged (e.g. what would the target learners be likely to know/be able to do already; what would be partly known; what would be new and require a lot of instruction/practice)?
- What kind of learning activities would be required, including the assessment itself (e.g. attending formal teaching/training, supervised and unsupervised practice work, private study and revision, remediation, being counselled or mentored, reflection)?

⁵⁵In this process, credit is defined with reference to a *typical* or *target* learner – i.e. the learner whom the programme designers had in mind.

A well developed CAT system will ensure that the general terms in which the framework is described are comprehensible to all framework stakeholders – and that the details of the framework are clear to all those we might call the credit agents, i.e. those bodies which will seek and give recognition for the outcomes of learning. It will have a common set of levels, with descriptors, so that all outcomes can be allocated to a level and these descriptors will be couched in outcome terms. And it will have an agreed basis for the allocation of credit to the outcomes of learning.

These might be thought of as the intrinsic conditions for the recognition of learning. *They do not guarantee that all learning will be fully recognised in all circumstances.* This is an important point to understand and communicate. Otherwise, learners and social partners may have serious misconceptions about the process.

There is an important distinction between *general credit* and *specific credit*. The credit value given to a module or programme on the basis of notional learning time is its general credit value. It might be thought of as the *credit accumulation value* because within the rules of the particular credit accumulation system, any recognition of credit would be *automatic*. This does not mean, of course, that the rules will allow any credit to be recognised towards gaining any other qualification. It generally depends on the *relevance* of the credit to the purposes of the programme in question. (For example, it is unlikely that a credit in mechanical engineering would be recognised as contributing to a degree in foreign languages).

Specific credit is the credit value of a unit or programme in relation to another programme outside the credit accumulation system. Specific credit needs to be planned for or negotiated. This is discussed below.

Creating zones of trust

A key issue affecting recognition of learning is the need to create zones of mutual trust⁵⁶ – sometimes called zones of confidence. These zones are agreements which allow specified areas and levels of learning from one institution or sector to be automatically accepted and credited by another institution or sector and the existence of an agreed credit system can make negotiations on such zones easier. At its simplest a zone of trust may exist between two institutions, working in partnership to allow students to transfer in one discipline; at its most complex, a zone might extend across a network and cover a range of programmes, disciplines and levels.

In a fully-developed NQF, with an ideal, fully-functioning CAT system, the zone of trust would cover all the outcomes in the framework and extend to all participants in the system. Creating such a zone of trust depends on a general acceptance of the credit rating processes that establish the general credit values (see above). It also requires confidence in the quality assurance systems of other institutions or sub-systems.

If both these conditions are in place, there is likely to be a sound basis for undertaking a comparison of outcomes and agreeing specific credit.

⁵⁶See Coles and Oates, 2004.

Comparing outcomes and agreeing specific credit

The distinction between general and specific credit was explained above. This stage is about agreeing specific credit.

When previously acquired learning (programme A) is being taken account of for credit transfer into a new programme (programme B), a comparison will have to be made between that learning and the requirements of the new programme. Sometimes this process is described in terms of establishing 'equivalence' between programmes, but more often what is sought is a less complete comparability than is implied by the word "equivalence". When two programmes are compared in terms of learning outcomes, there are three possible findings:

- the outcomes are identical;
- the outcomes are comparable – in which case they may be:
 - comparable enough to allow the full credit value of programme A to be counted in programme B;
 - sufficiently comparable to make programme A worth some credit in programme B.

The smaller amount of credit, given in the context of programme B, is specific credit. This might be thought of as the credit transfer value.

In summary, the usefulness of an NQF can be enhanced if it also incorporates a CAT system. Developing a CAT system is not conceptually difficult. It requires there to be a defined system of levels (which the NQF would already have created). It also requires there to be agreement on the unit of credit and the process of credit rating itself.



As with many aspects of NQF implementation, the challenge is dealing with the perceptions of stakeholders and generating confidence in, and acceptance of, the new system.

Glossary

Accreditation of institutions	The process of recognising that education and training institutions meet appropriate standards of quality
Assessment	The process of gathering evidence to determine whether a learner has met the required standards. Assessment is also used as part of the learning process to assist the learner in making progress
CAT	Credit accumulation and transfer
Community of trust	A network of people, including providers and users of qualifications, who have developed a sense of trust in the worth of qualifications and/or the institutions who deliver them. (Note also a similar concept – zone of trust)
Competence-based	Sometimes means the same as ‘outcome-based’, i.e. where qualifications are based on clear statements of what the learner must know or be able to do. Sometimes ‘competence’ refers to occupational competence, i.e. a specific type of outcome referring to what the learner must be able to do to perform a work role competently
Comprehensive framework	An NQF that includes all sectors of education and training in which qualifications are offered
Credit accumulation	The process of gaining credits towards a qualification within an institution (or closed system, e.g. all qualifications offered by a single awarding body)
Credit transfer	The process by which credits gained in one institution or system may be recognised in another institution or system
Governance	The governance role, exercised by a Board, is the setting of strategic direction and determination of policy - cf the management role, which is the implementation of agreed policy by executive officers who are accountable to the Governing Board for this function
Level	A stage in a hierarchical system used for grouping qualifications that are deemed to be broadly equivalent. Also sometimes called a ‘reference level’
Level descriptor	A definition of the characteristics of a qualification that would lead to it being assigned to a particular level
Linked framework	An NQF in which the different sectors (secondary schools, VET and higher education) are in distinct tracks but (as against a tracked system – see below) there is an emphasis on identifying similarities and equivalence and establishing credit transfer between tracks
Loose framework	An NQF based on general principles, with essentially a communicating and enabling role. In a loose framework differences in approach are accepted where thought necessary (as against a <i>tight framework</i> – see below)
Meta-framework	A means of enabling one framework of qualifications to relate to others and subsequently for one qualification to relate to others that are normally located in another framework

Modularisation	A system in which qualifications consist of a number of modules, each of which can be certificated independently. Sometimes, this is known as 'unitisation' and 'modularisation' is used to refer to a system in which learning programmes consist of a number of components
Module	A component of a larger qualification, which is certificated independently. (Sometimes, it means a component of learning and teaching within a programme, not independently certificated)
Outcome-based	Where qualifications are based on clear statements of what the learner must know or be able to do. Sometimes, the term 'competence-based' is used with the same meaning. However, sometimes 'competence-based' has a more specific meaning (see above)
Partial framework	An NQF that does not include all sectors of education and training in which qualifications are offered
Qualification	An official record (certificate, diploma) of achievement which recognises successful completion of education or training, or satisfactory performance in a test or examination; and/or the requirements for an individual to enter or progress within an occupation
Qualifications framework	A system for placing qualifications that meet certain standards of quality on one of a series of hierarchical levels
Qualifications system	All aspects of a country's activity that result in the recognition of learning
Quality assurance	Processes and procedures for ensuring that qualifications, assessment and programme delivery meet certain standards
Recognition of Prior Learning (RPL)	The process of recognising previous learning (often experiential) towards gaining a qualification
Regional Qualifications Framework	A framework that consists of a set of agreed principles, practices, procedures and standardised terminology intended to ensure effective comparability of qualifications and credits across countries in a region
Social partners	Primarily - employers' associations and trade unions forming the two sides of (bipartite) social dialogue. Now sometimes extended to include other sections of civil society
Standards-based	An alternative term for outcome-based (see above). May sometimes refer to a particular approach
Tight framework	An NQF that has detailed rules about qualification design and quality assurance and tends to apply common rules and procedures across all qualifications (as against a <i>loose framework</i> – see above)
Tracked system	A system in which vocational and general education are organised in separate and distinctive tracks. Where linkages are created between these tracks, it becomes a <i>linked framework</i> (see above)
Unified framework	An NQF which does not use tracks to organise provision but brings all provision within a single framework (as against a <i>linked framework</i> –see above)
Unit	An alternative term for a 'module'. Sometimes the term 'module' is used for a component of learning and teaching and 'unit' for a component of a qualification
Unitisation	A system in which qualifications consist of a number of units, each of which can be certificated independently. See also 'modularisation'
VET	Vocational education and training - sometimes referred to as TVET

Bibliography

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Australia:	www.aqf.edu.au
England:	www.qca.org.uk
Ireland:	www.nqai.ie and www.nqf.ie
New Zealand:	www.nzqa.govt.nz
Northern Ireland:	www.nicats.ac.uk
Mauritius:	www.mqa.mu
Maldives:	www.moe.gov.mv
Scotland:	www.scqf.org.uk
South Africa:	www.saqa.org.za
Wales:	www.elwa.ac.uk

NQFs in range of countries, including Malaysia, Mexico, Mauritius, Namibia, Philippines, Slovenia, Singapore, Trinidad and Tobago:

www.ilo.org/public/english/employment/skills/hrdr/topic_i/t18_1.htm

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Appendix: Examples of NQF Levels

This appendix provides examples of the levels structures adopted in a number of NQFs. The appendix includes examples only where diagrams were available on the websites of the responsible authorities. The representations of the NQF have not been edited or altered in any way.

Australia

AQF Qualifications

The AQF comprises national qualifications issued in:

- the secondary schools sector;
- the vocational education and training sector (TAFE and registered private providers); and
- the higher education sector (mainly universities).

These qualifications are shown below, grouped according to the educational sector which is responsible for their accreditation.

AQF Qualification by Sector of Accreditation

Schools Sector Accreditation	Vocational Education and Training Sector Accreditation	High Education Sector Accreditation
<u>Senior Secondary Certificate of Education</u>	<u>Vocational Graduate Diploma</u> <u>Vocational Graduate Certificate</u> <u>Advanced Diploma</u> <u>Diploma</u> <u>Certificate IV</u> <u>Certificate III</u> <u>Certificate II</u> <u>Certificate I</u>	<u>Doctoral Degree</u> <u>Masters Degree</u> <u>Graduate Diploma</u> <u>Graduate Certificate</u> <u>Bachelor Degree</u> <u>Associate Degree, Advanced Diploma</u> <u>Diploma</u>

It should be noted that vocational education and training is increasingly provided in the schools sector (**VET in Schools**) which may be recognised at the appropriate **Certificate I - IV** level or as credit towards the **Senior Secondary Certificate of Education**. Some **Certificate I - IV** qualifications are also issued in the higher education sector and there is also a vocational education and training pathway to the **Graduate Certificate and Graduate Diploma**.

For further information, go to www.aqf.edu.au

South Africa

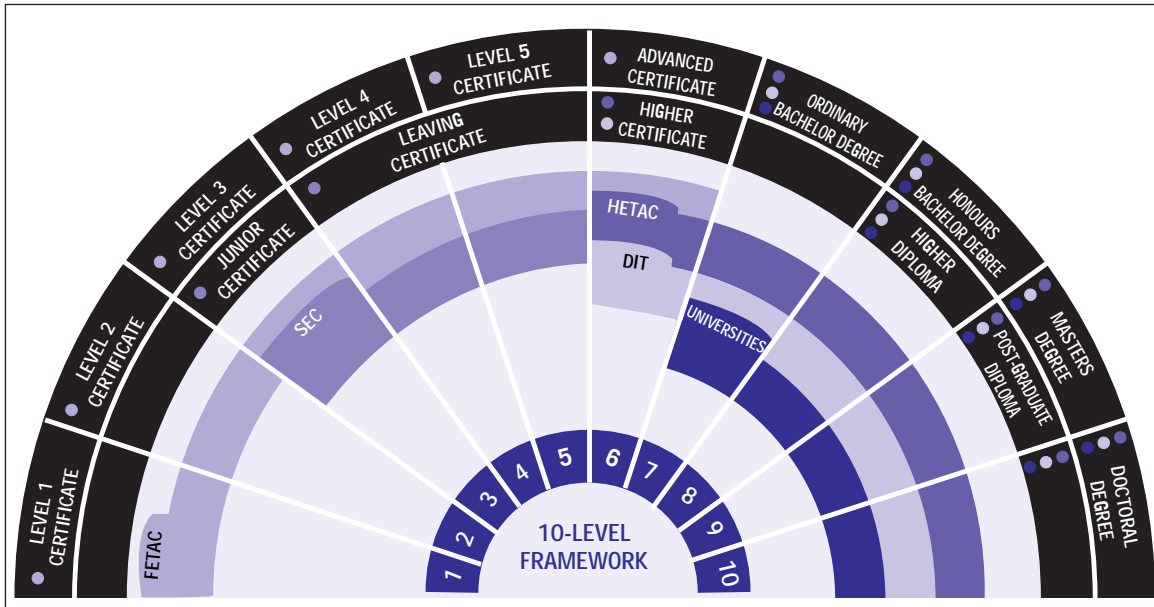
The National Qualifications Framework (NQF) is a framework on which standards and qualifications, agreed to by education and training stakeholders throughout the country, are registered. It came into being through the South African Qualifications Authority Act (No. 58 of 1995, Government Gazette No. 1521, 4 October, 1995), which provides for 'the development and implementation of a National Qualifications Framework'. The structure of the NQF is outlined below:

NQF LEVEL	BAND	QUALIFICATION TYPE	
8	HIGHER EDUCATION AND TRAINING	<ul style="list-style-type: none"> Post-doctoral research degrees 	
7		<ul style="list-style-type: none"> Doctorates 	
6		<ul style="list-style-type: none"> Masters degrees 	
5		<ul style="list-style-type: none"> Professional Qualifications Honours degrees National first degrees Higher diplomas National diplomas National certificates 	
FURTHER EDUCATION AND TRAINING CERTIFICATE			
4	FURTHER EDUCATION AND TRAINING	<ul style="list-style-type: none"> National certificates 	
3			
2			
GENERAL EDUCATION AND TRAINING CERTIFICATE			
1	GENERAL EDUCATION AND TRAINING	Grade 9	ABET Level 4
		<ul style="list-style-type: none"> National certificates 	

South African Qualifications Authority, 2003c.

For further information, go to www.saqa.org.za

Ireland



For further information, go to www.nqai.ie

Trinidad and Tobago

TTNVQs are based on national occupational standards. Industry experts come together to define the standards for top performance in their industries. These standards are then translated to the curriculum and assessment procedures developed to encompass the standards identified. All TTNVQs fit into a TTNVQ framework. There are five levels, of which Level 1 is the introductory level called Semi-Skilled and Level 5 the highest level, which is equivalent to the Chartered and Advanced Professional Level. For further information, go to: www.ntatt.org.

TTNVQs Framework	
Level 5	Chartered & Advanced Professional
Level 4	Professional
Level 3	Technician
Level 2	Craft
Level 1	Pre-Craft

New Zealand

Levels

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

The following qualifications are available on the NQF:

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	
1	

Qualification Level on NQF

National Certificates at Levels 1-7 (the majority registered at levels 1-4)

National Diplomas at Levels 5-7

National Degrees and Postgraduate qualifications at Levels 7-10

For further information, go to www.nzqa.govt.nz