

Guide to National Qualifications Frameworks

What is a National Qualifications Framework?

A qualification is a certificate recognising the achievement of significant learning by a person. Sometimes, it means that the person is qualified to do a particular job, e.g. a certificate in electrical engineering. Other qualifications may recognise significant achievement in general education, e.g. a Bachelors degree in Business Studies.

A national qualification is one which is based on clearly defined national standards¹ and where there are nationally recognised systems for ensuring quality.

A national qualifications framework (NQF) is simply a way of classifying a country's qualifications in a series of levels. An NQF will normally cover all kinds of qualifications: general education; vocational education; and higher education.

NQFs in different countries have different numbers of levels. However, almost all have the eight levels shown below. Some countries divide some of the levels below to create 9, 10 or even 12-level frameworks.

The table below gives examples of the kinds of qualifications that will tend to be placed at each of the eight levels.

Level	Examples of Qualifications
8	PhD
7	Masters degree. Specialist professional qualifications
6	Bachelors degree. Professional qualifications
5	Sub-degree qualifications Specialist or advanced vocational qualifications
4	Upper secondary certificate. Qualifications for supervisors and fully skilled workers
3	Qualifications for skilled workers
2	Lower secondary certificate. Basic vocational qualifications. Qualifications for semi-skilled workers
1	Pre-vocational qualifications

Why do many countries want to develop an NQF?

Introducing an NQF is seen as a way of helping to make a range of improvements in education and training, especially in technical and vocational education and training (TVET). We say 'helping to make' because the development of an NQF alone cannot achieve these improvements.

¹ These standards take different forms in the different education sectors and in different countries. In technical and vocational education, they may take the form of national competency standards, the development of which for all occupations is a major task.

The main problems which an NQF can help to address are:

The content of education/training programmes is out-of-date and unrelated to the needs of the labour market or society

It is common for employers to believe that vocational training programmes do not take proper account of the needs of the labour market or that higher education programmes are too theoretical. Students may not be taught the skills that are really needed in the workplace or may be trained using obsolete equipment. Courses may concentrate on theory and not enough on practical skills. The range of education and training programmes on offer may not include newly emerging jobs.

While these problems can be addressed without an NQF, it can be helpful to have a national framework which requires that all national qualifications must:

- be designed through a process including effective consultation with stakeholders
- be based on learning outcomes that reflect actual employment needs

People do not understand what the qualifications mean

Often, a country will have a very wide range of certificates issued by a number of agencies and institutions. People do not know what knowledge or competences the holders of these certificates have. The learning outcomes of the programme may not be at all clear. Two certificates with the same title might have quite different content or duration. The certificate may really just be a ‘certificate of attendance’ and have been awarded without any assessment of the student.

An NQF can help address these problems by requiring that all national qualifications:

- use approved titles (based on a common national system of certificate titles)
- have specifications which clearly state the learning outcomes that the student must achieve to gain the qualification
- are awarded on the basis of the assessment of these learning outcomes and this assessment is subject to external quality control

People do not trust that certificates are genuine

People may obtain certificates which are entirely fraudulent. The ‘student’ may not have attended any course or demonstrated any of the competences that the holder of such a certificate might be expected to have.

An NQF can help address this problem by:

- introducing a system of national certification, based on good security measures, so that people know that any certificate with the NQF logo is genuine

The standards applied by different education institutions for the 'same' qualification vary significantly

This problem can be found in all sectors of education – general, vocational and higher – if the individual education and training institutions are solely responsible for the assessment of students. This situation also leads to lack of public understanding of, or trust in, the qualifications system

An NQF can help address this problem by requiring that:

- programmes leading to national qualifications can be offered only by institutions that have been approved (or audited or inspected) by some external process

It is not easy for people to progress through the education system

In almost all education systems, progression from upper secondary education into higher education is straightforward and well-understood. However, vocational education is often a completely separate system or set of systems.

It may be difficult to progress into university on the basis of having obtained a vocational qualification.

If a person moves from secondary education into vocational education or from one branch of vocational education to another, he/she might have to start at the very beginning. There may be no recognition that the student has already acquired some knowledge or skills that are relevant to the new qualification.

If adults without formal qualifications want to achieve a higher education or professional qualification, there may be no obvious 'ladder' taking them from where they are to where they want to be.

An NQF can help address these problems by:

- encouraging or requiring qualifications to be designed in ways that allow individuals to 'transfer credit' e.g. to identify that the mathematics they learned in school is the same as is required in the new qualification and give credit for this previous learning
- encouraging the creation of 'progression routes' that make it easier for individuals to progress from one education sector to another or from one level to another or to other qualifications at the same level

It is not easy for adults to have the opportunity to gain qualifications

Traditional education systems focus heavily on initial education and training for young people. However, it is now generally recognised that to ensure a country's social and economic well-being, there should be 'lifelong learning'. Adults will need to develop new skills or knowledge throughout their lives either because they need to change jobs or to remain competent in the same occupational sector.

However, the way in which education and training programmes are organised in traditional education and training systems can make it difficult for adults to access them. They are often full time; adults may not be able to afford to give up their jobs to attend a full time course. The location of the education/training institution may not be convenient. The content will often have been designed with the needs of young students in mind. For example, there may be general education components that are not so relevant for mature students. Adults, because of their greater life experience and maturity, can often learn faster than younger students.

An NQF can help address these problems by:

- encouraging national qualifications to be modular, thus making it possible to gain a qualification on the basis of part-time study
- encouraging the development of qualifications designed specifically for the needs of adult learners
- ensuring that there is fair and open access to qualifications (learning and assessment) for all citizens, including those with particular needs

The country's qualifications are not recognised in other countries

An NQF can help address this problem by:

- placing all the country's main qualifications in a framework of levels benchmarked to internationally recognised levels of education and training
- introducing systems for quality assurance of student assessment that engender international confidence in the quality of the qualifications

Will simply introducing an NQF solve all these problems?

The simple answer to this question is 'no'. To adequately address almost any of the problems outlined above, it will be necessary also to take some other actions.

For example:

The content of education/training programmes is out-of-date and unrelated to the needs of the labour market or society

The introduction of an NQF can ensure that qualifications better reflect economic and social needs. However, it is also essential to provide training for teachers so that they have the competence to deliver the new programmes effectively and that the institutions have up-to-date materials and equipment.

It is not easy for people to progress through the education system or for adults to gain access to qualifications

Having an NQF with procedures for credit transfer, recognised progression routes and modular qualifications creates the foundation for a more flexible system. However, making this a reality requires significant changes in the ‘mindset’ of education and training providers. There are also significant organisational challenges in making the provision flexible enough to cater for the needs of individuals. Education and training providers will need training, support and additional resources to make the transition to a more customer-oriented service.

The general point to be emphasised is that an NQF is essentially a classification system backed by quality assurance principles and processes to improve the way qualifications are designed and encourage education and training institutions to improve both quality and flexibility. However, to ensure real change ‘on the ground’ it is essential also to support institutions, particularly in the form of training and resources.

How should an NQF be developed?

It is important to distinguish between developing the framework itself and having a fully developed NQF with a comprehensive range of qualifications at all levels. The first is a *relatively* simple task. The second is a very long-term goal (and one which in a sense is never finally completed).

Making this distinction is important. Countries have to establish priorities for public expenditure in a context in which resources are constrained. It is not advisable for a country to seek to populate its NQF with a large number of new or revised qualifications in a short period of time; it is simply too expensive. The focus should be on development of qualifications which are most essential for meeting the country’s economic and social goals.

It is important to emphasise that the task of creating a fully developed NQF is both complex and expensive. It requires a culture change which may well meet resistance in some quarters. It depends on a significant capacity building exercise for those who manage the NQF and develop qualifications, but most of all for the many staff who will be involved in delivery in education and training institutions. The costs of developing a full range of qualifications for all occupational sectors are very significant. This is why it is essential to have a realistic implementation plan that focuses on clear priorities and is affordable within available resources

The minimum steps that must be taken to establish an NQF are:

- develop arrangements for management of the NQF
- agree on the number of levels and their definition
- agree on procedures for quality assurance of qualifications and providers

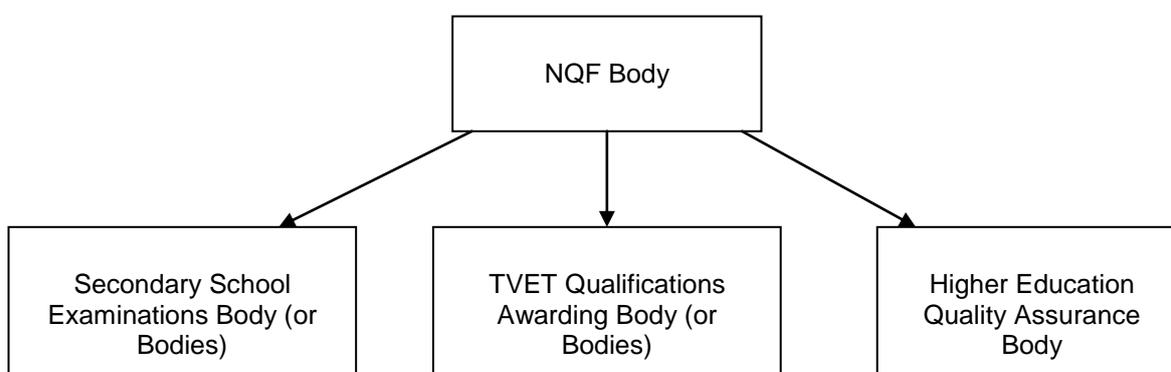
The first two steps can be relatively straightforward and inexpensive. In the initial development stages, elaborate management arrangements are unnecessary. All that may be required is a council or committee to plan and co-ordinate NQF development activities. Agreeing levels should also not be difficult as the levels structure should be based on current arrangements in the country.

The scale of the work involved in developing quality assurance procedures will depend on what kind of systems are already in place. Where a country is building from a low base, there will be significant capacity building implications.

How should the NQF be managed?

The NQF will normally cover three different education sectors: general, vocational and higher. These sectors have different practices in the way they design and deliver qualifications. Methods (of student assessment, for example) used in one sector will not necessarily be appropriate in another sector. It therefore makes sense to adopt a ‘federal’ approach in which each of the three sectors develops and implements its part of the framework but within a coherent policy and set of principles for the NQF as a whole.

A typical structure for management of an NQF is as shown below.



Very often, there will be existing agencies (or Ministry departments) which already exercise some of the functions of the second tier bodies. It is normally sensible and most cost-effective to build on current arrangements and to extend and define the functions of these existing bodies to take on NQF responsibilities for their sectors.

In due course, it is preferable that each of these bodies become semi-autonomous agencies, outside of government but accountable to it.

The ‘NQF Body’ may be a new organisation – a National Qualifications Authority – and in the long term, this may be the most appropriate option. In the short term,

however, some countries have decided that a Council with a small secretariat is sufficient for the initial development of the NQF.

The functions required for management of the NQF are:

- i) Quality assurance of qualifications development
- ii) Quality assurance of education and training providers
- iii) Quality assurance of student assessment
- iv) Certification of successful candidates
- v) Overall management of the NQF, including overarching policies and principles, strategic planning, registration of qualifications, and information and publicity,

In the suggested model, the first four functions are exercised by the three education sector bodies; the fifth by the NQF Body.

Having determined the allocation of responsibilities, the next step is to draft a Law establishing the NQF and setting out the legal responsibilities of the various agencies.

How are decisions made about the number of levels in the NQF?

The starting point should be the ways that people understand the existing qualifications system. Developing a table like Table 1 on page 1 of this Guide and attempting to insert all the main types of qualification will provide an indication as to whether an 8-level framework makes sense in the country or whether more (or fewer) levels are required.

Developing this grid with the names of familiar qualifications will help people to understand the meaning of the levels. However, as people may be unaccustomed to looking at vocational qualifications in the same framework as general and higher education qualifications, there may be surprise or disagreement about the proposed equivalencies.

It is important to understand that qualifications at the same level are not the *same*, but *equivalent*. They could be quite different in size and purpose and require quite different balances of knowledge and skills but they can be shown to be comparable.

The next step is to develop level descriptors. They will provide the basis for deciding the level of new qualifications. However, prior to the decision about level, the descriptors should be used by those designing qualifications, to ensure that its content and outcomes of the new qualification are sufficiently demanding to justify its intended level.

Level descriptors define the general level of knowledge, skills and competence, as exemplified below.

Level	Knowledge <i>may be theoretical or factual</i>	Skills <i>may be cognitive, creative or practical</i>	Competence <i>is about responsibility and autonomy</i>
1 The learning outcomes are:	basic general knowledge	basic skills to required to carry out simple tasks	work or study under direct supervision in a structured context
2 The learning outcomes are:	basic factual knowledge of a field of work or study	basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools	work or study under supervision with some autonomy
3 The learning outcomes are:	knowledge of facts, principles, processes and general concepts in a field of work or study	a range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	take responsibility for completion of tasks in work or study adapt own behaviour to circumstances in solving problems
4 The learning outcomes are:	factual and theoretical knowledge in broad contexts within a field of work or study	a range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	exercise self-management within the guidelines of work or study contexts that are usually predictable but are subject to change supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study

How does a country ensure that all NQF qualifications are of good quality?

There are three processes that should be undertaken:

- Validation of qualifications
- Assessment of students and quality assurance of assessment
- Accreditation of education and training institutions

Validation of qualifications

A range of organisations may have responsibility for *developing* qualifications. These include the Ministry of Education, occupational sector bodies and universities. It is important that there is some kind of external check on these qualifications to ensure that they have been well designed to meet the purpose for which they are intended and that the relevant stakeholders have been consulted and support the new qualification. This process is known as *validation*. It tends to be conducted in slightly different ways in the three education sectors. However, the common principle is that validation is conducted by a team of people with appropriate expertise who have not been at all involved in the development of the qualification and are therefore independent. Validation should be based on transparent criteria and procedures.

Assessment of students

Assessment of students should be based on the outcomes and criteria set out in the specification for the qualification and not on purely subjective judgement. It is also important to try to ensure that assessment for the same qualification is conducted in a *consistent* manner by all assessors. National qualifications are based on *national standards* which learners have to achieve and demonstrate for assessment and people should have confidence that all those who gain the qualification have met the national standards. This can be achieved by having *national examinations* (so that all students are assessed in the same way as part of a single, quality-assured process). It can also be achieved by *external moderation* of assessment, a process in which an external body checks a sample of assessments in each institution to ensure that national standards are being consistently applied.

Accreditation of education and training institutions

It is important for the reputation of the NQF that any education and training institution offering programmes leading to national qualifications is of appropriate quality. For example, it should have teaching staff with the right qualifications and experience and it should have the necessary resources and equipment. Therefore, there should be a process to ensure that education and training institutions at least meet minimum standards and to encourage them to try to improve quality further. One way of doing this is for an external body to be given the responsibility for *accrediting* institutions. This process should be based on transparent criteria and procedures. It normally involves an expert team appointed by the external body visiting the institution, evaluating it against the criteria and making recommendations on accreditation.

Bodies accredited in this way are normally subject to periodic audits leading to re-accreditation. One approach to auditing used commonly in the secondary school sector is *school inspection*. This involves regular visits to the school by inspectors (who may be part of the Ministry of Education or an agency accountable to the Ministry) to evaluate the performance of the school.