

CHEA International Seminar

Washington DC

21/22 Jan 2009

Qualification Frameworks

Richard Lewis

Qualification Frameworks

There is a lot of it about

SAQA Survey Sept 2008 - 1

Surveyed 201 countries of which only 68 (34%) did not have a Qualifications Framework in place (national or regional).

Survey not confined to Higher Education

(SAQA 2008)

SAQA Survey Sept 2008 - 2

National QFs – developed on a national basis by governments (sic)	107 (53%)
Regional QFs developed by regional bodies comprised of member states	80 (40%)
Transnational QFs developed by groupings of countries not necessarily located in same region	34 (17%)

But early days

	NQF	RQF	TQF
Starting Out	83	68	34
Established	16	12	0
Advanced	8	0	0
Total	107	80	34

But what is meant by Qualification Frameworks?

Some definitions and descriptions

Virtual University for Small States of the Commonwealth (VUSSC)

A qualifications framework is an instrument for the classification of qualifications according to a set of criteria for specified levels of learning achieved, which aims to integrate and coordinate qualifications subsystems and improve the transparency, access, progression, comparability and quality of qualifications in relation to the labour market and civil society.

Described as a broad “working definition” of a qualifications framework, based on a range of existing definitions.

(COL 2008)

Bologna Definition

National framework of qualifications (higher education):

the single description, at national level or level of an education system, which is internationally understood and through which all qualifications and other learning achievements in higher education may be described and related to each other in a coherent way and which defines the relationship between higher education qualifications.

(Bologna)

QAA Description

The fundamental premise of the Framework for Higher Education Qualifications is that qualifications should be awarded on the basis of achievements of outcomes and attainment rather than years of study. Qualification descriptors are key to this premise. Qualification descriptors set out the generic outcomes and attributes expected for the award of individual qualifications.

(QAA 2008A)

QF - Purposes

Report of The OECD Thematic Group on the Development and Use of Qualifications Frameworks

- to create a better match of qualifications with knowledge, skills and competencies and a better linking of qualifications to occupational (and broader labour market) needs, present and future.
- to bring coherence to subsystems of qualifications, e.g. higher education, adult learning, school awards and in particular vocational education and training qualifications, by creating an overarching framework for them.
- to support lifelong learning (by opening up access, targeting investments and recognising non-formal and informal learning).
- to facilitate the involvement of political actors and stakeholders, especially in vocational education and training.

(OECD 2007)

Different Types of QFs -1

A distinction is commonly made between two broad types of qualifications frameworks:

Enabling frameworks (or frameworks of communication), which are rarely comprehensive; have communicative purposes; rely on agreement and trust; and are thus able to forge links between diverse sectors.

Regulatory frameworks, which are often comprehensive in intent and highly prescriptive, with strong central control.

(COL 2008A)

Different Types of QFs -2

Qualification Type – Academic or Vocational or Both

Qualification Level – Comprehensive or Excludes HE or is
Confined to HE

Sector – May be confined to one occupational sector e.g.
engineering.

(COL 2008)

Qualification Frameworks

Some examples

Many countries, and regions, have established “National Qualification Frameworks” setting out the attributes required to be demonstrated in order to be granted a degree at the various levels. Since 2002, a multinational initiative, known as the Dublin descriptors, has been developed by quality assurance and accreditation agencies from a number of European countries. The Dublin descriptors set out the generic attributes that should be demonstrated in order to be granted a degree at one of three levels; bachelors, masters or doctoral.

Dublin Descriptors

- **Qualifications that signify completion of the first cycle are awarded to students who**
 - have demonstrated knowledge and understanding in a field of study that builds upon and their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study;
 - can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study;
 - have the ability to gather and interpret relevant data (usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues;
 - can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences;
 - have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.

(Joint Quality Network)

Example UK Bachelors (Honours) -1

Honours degrees are awarded to students who have demonstrated:

- i a systematic understanding of key aspects of their field of study, including acquisition of coherent and detailed knowledge, at least some of which is at or informed by, the forefront of defined aspects of a discipline;
- ii an ability to deploy accurately established techniques of analysis and enquiry within a discipline;
- iii conceptual understanding that enables the student:
 - to devise and sustain arguments, and/or to solve problems, using ideas and techniques, some of which are at the forefront of a discipline; and
 - to describe and comment upon particular aspects of current research, or equivalent advanced scholarship, in the discipline;
- iv an appreciation of the uncertainty, ambiguity and limits of knowledge;
- v the ability to manage their own learning, and to make use of scholarly reviews and primary sources (e.g. refereed research articles and/or original materials appropriate to the discipline).

Example UK Bachelors (Honours) -2

Typically, holders of the qualification will be able to:

- a apply the methods and techniques that they have learned to review, consolidate, extend and apply their knowledge and understanding, and to initiate and carry out projects;
- b critically evaluate arguments, assumptions, abstract concepts and data (that may be incomplete), to make judgements, and to frame appropriate questions to achieve a solution - or identify a range of solutions - to a problem;
- c communicate information, ideas, problems, and solutions to both specialist and non-specialist audiences;

and will have:

d qualities and transferable skills necessary for employment requiring:

- the exercise of initiative and personal responsibility;
- decision-making in complex and unpredictable contexts; and
- the learning ability needed to undertake appropriate further training of a professional or equivalent nature.

(QAA 2008A)

Related Developments

Qualification Frameworks (Levels of learning) may be supplemented by

- Credit Frameworks (How much learning)
- Disciplinary expectations – The Tuning Process (Europe), Subject Benchmarks (UK) (What needs to be learnt)

Credit Frameworks - 1

UK HEIs that use credit have agreed that one credit represents 10 notional hours of learning. HEIs use this estimate to set the credit value of a module, unit or qualification.

One year of full time study carries 120 credits.
The European Credit Transfer Scheme is very similar but one year is equivalent to 60 points

Credit Frameworks - 2

Eight credit levels are used in England, Wales and Northern Ireland; of these levels 4 to 8 represent the types of work undertaken in HE.

Credit level is typical of the learning expected of

- 8 a doctorate
- 7 a masters degree
- 6 the last part of a bachelors degree
- 5 the last part of a Foundation Degree; middle part of a bachelors degree
- 4 the first part of HE study

Typical minimum credit values of Bachelors degree

- total of 360 credits with a minimum with honours of 100 at level 6 (many honours degrees include more than 360 credits)

(Source Academic Credit in HE in England, QAA, 2008)

Disciplinary specific “expectations” – the Tuning Process -1

- In 2000 a group of universities started a pilot project called “Tuning educational structures in Europe”. Subsequently in co-operation with the European University Association (EUA) the group has widened.
- The project aims at identifying points of reference for generic and subject-specific competences of first and second cycle graduates in a series of subject areas: Business Administration, Education Sciences, Geology, History, Mathematics, Physics and Chemistry. Competences are based on learning outcomes: what a learner knows or is able to demonstrate after the completion of a learning process. This covers both discipline-specific competences and generic competences like communication skills and leadership.

Disciplinary specific “expectations” – the Tuning Process - 2

The name Tuning is chosen for the ***Process*** to reflect the idea that universities do not and should not look for uniformity in their degree programmes or any sort of unified, prescriptive or definitive European curricula but simply look for points of reference, convergence and common understanding.

(Tuning)

Tuning 1st cycle – Business- Discipline Specific Competences

Students should be able to:

- Use and evaluate tools for analysing a company in its environment
- Work in a subject specific field of a company, and be a specialist to some extent
- Interface with other functions
- Have self-awareness
- Be able to argue for the principles to be used in finding a solution to a problem mainly at an operational or tactical level.
- Defend the proposed solution
- Prepare for decision making at mainly operational and tactical levels

(Tuning)

Tuning 1st cycle – Business- Generic Competences

Students should possess

- Basic knowledge of the profession
- Basic knowledge of the study field
- Ability to work in interdisciplinary teams
- Capacity to apply knowledge in practice
- Ability to adopt to new situations
- Elementary computer skills
- Capacity to learn
- Capacity to do oral and written presentation in native language

(Tuning)

UK - Subject Benchmarks

- The subject benchmarks have been produced by the QAA in close cooperation with the higher education sector. The groups who have drafted the benchmarks were made up almost entirely of institutional based practicing academics.
- Honours degree benchmarks have been produced for 46 subjects and Master's level statements in three subject areas

The Chemistry Example 1

The benchmarks covers the following areas

- Main aims of degree programmes in chemistry
- Subject knowledge
- Abilities and skills
 - a. Chemistry-related cognitive abilities and skills
 - b. Chemistry-related practical skills
 - c. Transferable skills

<http://www.qaa.ac.uk/academicinfrastructure/benchmark/honours/chemistry.asp>

The Chemistry Example 2 – Subject Knowledge

Each institution providing bachelors honours degree programmes in chemistry is free to decide on the content, nature and organisation of its courses or modules. Therefore, chemistry degree programmes offered by individual institutions will have their own particular characteristics. While it is acknowledged that the depth in which individual aspects are treated may vary with the nature of specific chemistry programmes, it is expected that all programmes will ensure that students become conversant with the following main aspects of chemistry.

- Major aspects of chemical terminology, nomenclature, conventions and units.
- The major types of chemical reaction and the main characteristics associated with them.
- The principles and procedures used in chemical analysis and the characterisation of chemical compounds.
- The characteristics of the different states of matter and the theories used to describe them.
- The principles of quantum mechanics and their application to the description of the structure and properties of atoms and molecules.
- The principles of thermodynamics and their applications to chemistry.

The Chemistry Example 3 – Subject Knowledge

- The kinetics of chemical change, including catalysis; the mechanistic interpretation of chemical reactions.
- The principal techniques of structural investigations, including spectroscopy.
- The characteristic properties of elements and their compounds, including group relationships and trends within the Periodic Table.
- The properties of aliphatic, aromatic, heterocyclic and organometallic compounds.
- The nature and behaviour of functional groups in organic molecules.
- The structural features of chemical elements and their compounds, including stereochemistry.
- Major synthetic pathways in organic chemistry, involving functional group interconversions and carbon-carbon and carbon-heteroatom bond formation.
- The relation between bulk properties and the properties of individual atoms and molecules, including macromolecules.
- Awareness of major issues currently at the frontiers of chemical research and development.

Benchmarks not Binding Regulations

To avoid this risk the QAA has done two things

- Benchmarks defined as authoritative reference points not definitive regulatory criteria
- Initiated in 2004 a new process for the production of new subject benchmarks and the revision of existing benchmarks. Wider academic community is invited to take the initiative.

How have QFs impacted on HE?

Problem areas appear to be where

- There are comprehensive systems including both academic and vocational qualification.
- Where there is too much governmental control

Fewer problems when reflective of current and emerging practice in the higher education sector.

Seem to be few studies of the impact.

Issues – is the language too generalised? Can adherence to the guidelines be demonstrated through student assessment?

The (near) future

All countries of the European Higher Education Area have committed to developing national qualifications frameworks compatible with the overarching framework of the European Higher Education Area by 2010.

(Bologna web site <http://www.ond.vlaanderen.be/hogeronderwijs/bologna/>)

The USA

One of the 68.

But there are generally held expectations of degree requirements etc

Does that mean that the US has an “informal” Qualifications Framework?

Do informal systems work better than formal ones?

References and web sites

- Bologna www.ond.vlaanderen.be/hogeronderwijs/bologna/
- COL (2008) “Transnational Qualifications Framework for Virtual University for Small States of the Commonwealth”, Commonwealth of Learning and South African Qualifications Authority
- Joint Quality Network www.jointquality.nl/ge_descriptors.html
- OECD (2007) “Report of The OECD Thematic Group on the Development and Use of Qualifications Frameworks”, OECD
- QAA 2008 A “The framework for higher education qualifications in England, Wales and Northern Ireland, Quality Assurance Agency
- QAA 2008 B “Academic Credit in HE in England”, QAA
- QAA Chemistry
<http://www.qaa.ac.uk/academicinfrastructure/benchmark/honours/chemistry.asp>
- SAQA (2008) “Global distribution of qualification frameworks”, South African Qualifications Authority
- Tuning <http://www.unideusto.org/tuningeu/>

My thanks for your attention.

rl@lewisuk.co.uk