



Exegesis of the European Qualifications Framework

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Abstract

The European Qualifications Framework (EQF) is to become the most dominant instrument of European educational policy. During consultation and debates as it developed, substantial criticism emerged about its severe lack of empirical evidence and theoretical foundation. Despite the fact that the table of reference level descriptors of the EQF is by far the most commented and reviewed table in Europe, the criticism towards it has had little impact on the core structure of the table. Why has this been the case?

Critics tend to misinterpret the EQF by looking at the EQF from only one, or at best two, specific angles. This paper seeks to demonstrate that the EQF can only be understood by considering at least three dimensions (once referred to ironically as the 'Holy Trinity') and by highlighting the three different taxonomies underlying the EQF table, namely,

- ___ a hierarchy of the acquisition of skills,
- ___ a hierarchy of educational systems, and
- ___ a hierarchy of occupational tasks and functions.

In addition to this synchronic view of the descriptors, the development of the descriptors will be analysed in detail from their beginning and in their different stages, explaining the backgrounds and the reasons for changes. Both approaches – the synchronic and diachronic – provide evidence that a theoretical foundation of the EQF does not seem to be possible and we do not claim to give such a foundation. We do offer a hermeneutical approach giving a better insight to the meaning of the EQF table.

¹ Presented at the ECER 2007.

1. Introduction

Exegesis refers to an extensive and critical interpretation of a significant text, in particular a holy scripture; for example, the Old and New Testaments of the Bible, the Koran, the Midrasch or the Talmud. In this case, the significant text is the proposal of the European Commission (from 5 September 2006) for the recommendation of the European Parliament and the Council to establish the European Qualifications Framework (EQF) for lifelong learning, or rather its principle item – a table with descriptors for eight reference levels. The EQF should represent a kind of ‘common language’ to describe levels of qualifications systems of the different education and continuing education systems within the EU. –Thus, one can rightly assume that this text is significant for education in Europe and some developments in the last several years show traits of a ‘religion-like’ movement. Nevertheless, we do not want to overstrain this comparison and will clarify the reason for this title further on in the text.

This article is a critical interpretation which primarily uses a historical-analytical approach. We want to examine the text both synchronically as well as diachronically. With regard to the diachronic view, we will draw on discussions and documents produced in the expert group and Technical Working Group on the reference level descriptors of the EQF (2006) and on ongoing consultancy for the European Commission on the further development of the EQF. With regard to the synchronic view, we will draw on studies and practical work about the classifications of skills and competences.

2. A short history of the EQF₂

The development and implementation of EQF must be closely examined in connection with the realization of the EU’s Lisbon Strategy, which intends to strengthen Europe’s common political and economical positions and to thus become more capable of competing, while still guaranteeing social cohesion. In this strategy, education and training play a central role. According to the Lisbon European Council (2000), improving the transparency of qualifications and lifelong learning are two fundamental components in the efforts to adjust the education and further education systems within the EU. These adjustments must be in accordance with the needs of the modern knowledge-based society with the need for more and better employment. The European Council of Barcelona (2002) affirmed this resolution and demanded the implementation of instruments to guarantee the transparency of qualifications. Also, the Bologna Process within higher education should be utilized for this and in vocational education similar processes should be started (Copenhagen Process). The Maastricht Communiqué (2004) finally announced the decision to develop an EQF, which should encompass general and vocational education and foster the transparency and mobility within and among national education and employment systems.³

² See also European Commission 2006a

³ Maastricht Communiqué 2004

The EQF developed with advice from numerous experts on qualifications, systems of qualifications and qualifications frameworks. In July 2005, the blueprint for an EQF was presented and the European Commission initiated an extensive EU-wide consultation process on the proposal.⁴ During the Austrian Council Presidency, the results of this consultation were presented and discussed at a conference in Budapest in February 2006. A small team of experts was then commissioned to adapt the descriptors of the reference levels. This adaptation was finalized in the summer of 2006 by a Technical Working Group, which consisted of representatives from the member states and the European social partner organizations. The revised version of the proposal for a recommendation of the European Parliament and Council to implement the European Qualifications Framework for lifelong learning was finally put forward in September 2006.

In the Helsinki Communiqué (December 2006), the EU ministries of education once again emphatically stressed their intention to set up the EQF in the coming years.⁵ The EQF recommendation will probably be adopted by the European Parliament in the fall of 2007. No changes are expected to be made to the descriptors and reference levels. A 'launching conference' for the EQF is planned in the spring of 2008. By 2009, the member states should display their national qualifications levels on the eight levels of the EQF. By 2011, all new qualifications should show a reference to the EQF.

The EQF's core element is the previously mentioned description of the eight reference levels, which generally convey what people with specific qualifications on a specific level should know and be capable of doing. This should be independent of where or how this knowledge and capability were acquired. The EQF enables a comparison of learning outcomes, rather than a comparison of learning paths and learning content. Thus, a few of the big challenges within the Europe's education politics are at least theoretically addressed. The eight levels cover the entire spectrum of possible qualifications from the end of compulsory schooling up to the highest level of academic and vocational education. The focus on the learning outcomes, which are considered independently of learning paths, makes it possible to integrate non-formal and informal learning. Finally, the EQF supports the transfer of qualifications among the European countries and thus supports the mobility of learners and workers.⁶

3. The development of EQF-descriptors – diachronic view

The first EQF proposal issued for consultation will be briefly examined in this chapter. The more detailed analysis concentrates on the period between the first proposal in July 2005 and the final version in September 2006.

⁴ European Commission 2005

⁵ Helsinki Communiqué 2006

⁶ Markowitsch 2007

The development of the EQF proposal for the consultation process

The Cedefop (European Centre for the Development of Vocational Training) and the Bologna-Follow-up-Group (BFUG) commissioned studies that considerably contributed to developing the first EQF proposal.

The study on ‘European reference levels for education and training’ (Cedefop 2004⁷), presented a first draft of a framework that encompasses all qualifications levels. This draft builds on the analysis of experiences from countries that already developed a National Qualifications Framework (NQF) or are generating one. Furthermore, international research papers on the different levels of competence development were included, e.g. the work of Dreyfus and Dreyfus (1986).⁸

In March 2004, the BFUG arranged a working group responsible for coordinating the development of a qualifications framework for the European Higher Education Area (EHEA). The report of this working group (Bologna Working Group on Qualifications Frameworks 2004) contributed to qualifying the function of the future EQF, especially in referencing to the relationship between the European and national levels.

A group of experts presented the first draft of the EQF in July 2005.⁹ In this group, experts in all areas of education (general education, adult education, vocational education, higher education) were represented as well as experts from different sectors and social partner organisations.¹⁰ The goals and functions of the EQF as well as a proposal for the reference levels of the EQF based on learning outcomes were devised in seven meetings between the fall of 2004 and the spring of 2005. This proposal already included a table of descriptors with eight levels, but six dimensions: three main dimensions ‘knowledge, skills and personal and professional competence’ and the dimension ‘personal and professional competence’ was partitioned into four sub-dimensions: (i) autonomy and responsibility, (ii) learning competence, (iii) communication and social competence, and (iv) professional and vocational competence.

The paper presented by the working group built the basis for a Europeanwide consultation process initiated by the European Commission and carried out from July to December 2005. All 32 countries participating in the ‘Education & Training 2010 Work Programme’ were involved in the consultation process as well as European social partner organisations, relevant European organisations, NGOs and networks as well as European coalitions within different industrial sectors (e.g. information and communication technology, construction, marketing). In September 2005, a first international discussion on a larger scale took place at a conference in Glasgow¹¹ and

⁷ The research team of the Qualifications and Curriculum Authority (QCA) in England (in particular Mike Coles and Tim Oats) conducted this study for Cedefop. The Cedefop originally commissioned this study for the Technical Working Group on Credit Transfer, which was deployed by the European Commission in November 2002.

⁸ We will come back to the work of Dreyfus and Dreyfus again in Section 4.

⁹ European Commission 2005

¹⁰ Cedefop and the European Training Foundation (ETF) further supported this group.

¹¹ The main results can be read in the conference report (Raffe 2005).

stipulated the need for a simple model of a European qualifications framework. This model should be general enough so that all member states could refer their systems and NQFs to it. In addition, the model should encompass all forms of learning (formal, non-formal and informal). It was further stressed that a pragmatic approach to developing the EQF was needed: the EQF does not have to be perfect to be able to fulfil its purpose!

The completion of the consultation process - The Budapest Conference

On the one hand, the European consultation process, which evaluated the EQF proposal very positively, brought an array of unanswered questions, criticism and ideas for improvement. On the other hand, very few of these comments referred to the specific formulation of the descriptors.¹² The essence lay in simplifying the description of the reference levels (also called table of descriptors or simply table). Particularly there seemed to be too many dimensions (columns) and the boundaries between the dimensions or their descriptions consistently caused misunderstandings. The third main dimension and its four sub-dimensions were identified as particularly problematic. During ‘The European Qualifications Framework: Consultation to Recommendation Conference’, the final conference of the consultation process in Budapest on 27 and 28 February 2006,¹³ a ‘workshop’ (with around 100 participants) particularly dealt with this assignment. The discussion within this workshop brought only a few non-contradictory results. Instead, further changes were requested:

- ___ The EQF table must be newly drafted, for example, by reorganising or tightening the columns and changing the naming of the columns. Only those descriptors necessary for allocating national qualifications or national qualifications frameworks should be found within this table.
- ___ The learning outcomes should be defined as competences in terms of capability to act within vocational and social contexts. The phrase ‘competences = learning outcomes within contexts’ was used as a helpful definition. Finally, the previous definitions were to be corrected.
- ___ The equality between vocational and academic competences should be better preserved. The descriptors on levels 6 through 8, which were perceived as primarily academic, should be revised without losing the correlation to the Bologna Cycles.

Possible solutions were already discussed concerning the simplification of the table. One suggestion was to depict the descriptors as a list in one central column under the title ‘competence’ and to simply identify the sub-dimensions within the text. The second suggestion arranged for only the three main dimensions to be identified and to cancel the sub-dimensions of the third main dimension. In both proposals the term ‘competence’ was accentuated more than in the original version. For example, the first proposal wanted to subsume all descriptors under one general competence-term, while the second proposal also stipulated the renaming of the dimensions as ‘cognitive

¹² Detailed information on the feedback can be read here:

http://ec.europa.eu/education/policies/educ/eqf/resultsconsult_en.html.

¹³ A summary of the results of the conference can be seen here:

http://ec.europa.eu/education/policies/educ/eqf/back_en.html

competence’, ‘functional competence’ and ‘professional and vocational competence’(see Figure 1). Incidentally, this discussion would accompany further developments up to the final version.

Figure 1

An overview of the proposed solutions for simplifying the table of descriptors in the Budapest conference on 28 February 2006

1. Re-design the EQF Table

Current Approach 6 Columns	„Integrated“ Approach 1 Column + Dimensions	„Final“ Approach 3 Columns + Dimensions
1. Knowledge	1. Competence	1. Cognitive C.
2. Skills		2. Functional C.
3. Personal and Professional C. (wider C.)	<ul style="list-style-type: none"> • Cognitive C. • Functional C. • Autonomy & Resp. • Personal c. (incl. Learning) 	3. Professional and vocational Competence*
3.1 Autonomy & Resp.	<ul style="list-style-type: none"> • social C. 	<ul style="list-style-type: none"> • Personal c. (incl. Learning)
3.2 Learning C.	<ul style="list-style-type: none"> • Methodological C. 	<ul style="list-style-type: none"> • social C.
3.3 Comm. & social C.	<ul style="list-style-type: none"> • Etc. 	<ul style="list-style-type: none"> • Methodological C.
3.4 Prof. & voc. C.		<ul style="list-style-type: none"> • Creativity/innovation C.

*Transversal, Operational, Professional, Personal, Social,...

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Source: Markowitsch 2006, 4

The group of experts

Following the Budapest conference, the European Commission invited a small group of experts to discuss and implement the required changes to the descriptors. In addition to the responsible members within the Commission and Jens Bjornavold of Cedefop, other participants included experts from the ‘big countries’, Mike Coles (UK), Richard Maniak (FR), Georg Hanf (DE); the co-designer of a national qualifications framework, Edwin Mernagh (IRL), and the previous workshop’s rapporteur, Jörg Markowitsch (AT). During three sessions from March through May 2006, the group compiled a new proposal for the table of descriptors and the respective definitions of the main terms. Fundamental questions, such as the meaning of ‘competence’, were discussed anew. Only the question concerning the number of levels was not brought up again, even though this was challenged during the consultation process and during the Budapest conference. However, apparently this was not done with enough persuasion or persistence.

The general questions were discussed at the meetings, while the actual work of rephrasing took place independently and column by column. In each case, two experts took responsibility for rewriting a column. In order to ensure coherence, general rules of operation were defined for the revision of the EQF table. The descriptors should have been written¹⁴

¹⁴ See also Explanatory note 2007

- ___ to cover the full range of learning outcomes, irrespective of the learning or institutional context from basic education, through school and unskilled worker levels up to doctoral or senior professional levels;
- ___ to sufficiently distinguish between descriptors from the level below or the level above and to show, from the previous level, distinct progress in dimensions of change;
- ___ to avoid repetitions, i.e. each level builds on and subsumes the levels beneath;
- ___ to use only positive statements and avoid statements about what is not admissible in qualifications at the level;
- ___ to avoid jargon and to be comprehensible for the non-expert reader;
- ___ to apply definite and concrete statements (e.g. avoid terms like ‘appropriate’, ‘narrow’, ‘good’ or cross-references such as ‘narrower’ or ‘broader’) and at the same time to be as simple and generic as possible.

The selected examples in Table 1 clarify how these principles were applied in rewriting the descriptors.

Table 1

Examples for applying the principles for rewriting the descriptors

<i>Examples for the column ‘knowledge’ (the number refers to the respective level)</i>	<i>Reason for the change</i>
2. Recall general knowledge and comprehend basic knowledge of a field, the range of knowledge involved is limited to acts and main ideas	Deleted because of negative statement; later the differentiation between ‘recall’ and ‘comprehend’ was also deleted
3. Apply knowledge of a field that includes processes, techniques, materials, instruments, equipment, terminology and some theoretical ideas	Deleted because of technical terms; finally replaced by ‘knowledge of facts, principles, processes and general concepts’
4. Use a wide range of field-specific practical and theoretical knowledge	Deleted because the statement was too general and would fit too all levels; no clear delimitation to lower or higher levels

Source: Internal protocol and E-mail correspondence among the above mentioned experts

At the same time, a special challenge existed in the need to articulate the dimensions of progress on the one hand, as well as clearly show the gradation between the levels on the other. Where these ‘dimensions of progress’ existed, they stayed largely implicit during the revision of the descriptors. At least the following dimensions could be identified:¹⁵

- ___ the complexity and depth of knowledge and understanding;
- ___ the degree of necessary support or instruction;
- ___ the degree of integration, independence and creativity required;
- ___ the range and complexity of application/practice;
- ___ the degree of transparency and dynamics of situations.

¹⁵ See also Explanatory note 2007 and Luomi-Messerer & Markowitsch 2006

To achieve discreteness, key words have been used to characterize levels (e.g. ‘factual and theoretical knowledge’, in contrast to ‘basic knowledge’ on the lower levels or ‘specialised knowledge’ on the higher levels; or ‘supervision’ of the work/study activities of others which come in at levels 4 and 5, but are not relevant at levels below). These key words can also be understood as indicators of threshold levels. While these forms of simplification and clarification took place, the fundamental changes were mainly focused on completely dissolving the original sub-dimensions ‘learning competence’ and ‘communication and social competence’. In addition, the sub-dimension of ‘professional and vocational competence’ was widely integrated into the dimension of ‘skills’. This can be shown by comparing the versions from 8 July 2005 and from 25 April 2006 (see Tables 2 and 3).

The general discussion centred on the following main questions: Is competence the fitting umbrella term? What is our definition of competence? How should the columns be named?

The Budapest Conference results clearly indicated that ‘competence’ or rather ‘competences’ should be the central term. Therefore the different competence definitions and typologies were introduced back into the field, especially attractive was a three-part division; for example, the typology introduced by Katz (1974), ‘technical, human and conceptual skills’ or the French distinctions between *savoir*, *savoir-faire* and *savoir-être*.¹⁶ The German expert argued for the differentiation common in Germany: Fachkompetenz, Methodenkompetenz, Personalkompetenz and Sozialkompetenz. In addition, the representatives from the English-speaking countries recommended the categorization common for their language-context: ‘cognitive competence, functional competence and social competence’.¹⁷

During the discussions, this strong focus on competence(s) ended up being discarded again and the term ‘learning outcomes’ was found to be much more comprehensive. This practically reversed the conclusions drawn from the Budapest Conference, but made it possible to finally put an end to the debate about the definition or typology of competences. Learning outcomes are consequently always more comprehensive than competences and not the reverse. Hence, competences would not be the adequate umbrella term for the table. Learning outcomes can, for example, also be knowledge without any corresponding competences or skills. For example, inert knowledge does not result in active skills or abilities (Handlungskompetenz). The discussion of whether the qualifications framework should have a learning-outcomes-basis or a competence-basis could thus be interpreted as a discussion about the significance of inert knowledge.

However, the relationship of ‘learning outcomes’ and ‘competence(s)’ was not the decisive argument but rather that the EQF is not intended to be used for the classification of individual competences. In this sense, the EQF is not a competences framework, because it enables the classification of qualifications levels and systems. It is a learning outcomes orientated framework, in which the descriptors cover all forms of learning outcomes. The EQF was misunderstood as a competences framework

¹⁶ Winterton et al. 2006

¹⁷ See also EQF Explanatory note 2007

because learning outcomes are – beside others – formulated as statements about what the learners can do after the completion of a learning phase and so provide a certain ‘competence orientation’.

This perspective opened the way towards a less technical labelling of the columns or rather an approach towards the original categorisation. Finally, it was decided, that the columns should be designated, ‘Knowledge, Skills, and Autonomy and Responsibility’. No longer using the original main term ‘competence(s)’ would have serious consequences. During further discussions, this term was again demanded as a label for the third column and thus led to misunderstandings and contradictions.

The Technical Working Group

Next, this new proposal was brought into a newly founded technical working group (TWG), consisting of representatives from the various member states. This group held meetings in May and June 2006 in Brussels, welcomed the new proposal, and made the following comments related to the new descriptor-table:¹⁸

- ___ There is still a general concern about the balance between vocational and academic qualifications; terms such as ‘research’ and ‘scholarly’, generally attributed towards the academic qualifications, should be avoided.
- ___ The descriptors should clarify that an advanced level does not necessarily go hand in hand with a specialisation. Thus, reaching a higher level does not necessarily imply that the required skills and knowledge will be more specialised, although this might be the case in many academic and research contexts. Moving from a lower to a higher level, in some study or work contexts, can also mean becoming more of a generalist.
- ___ The labels for the columns should be rethought. While the labels of the two columns ‘knowledge’ and ‘skills’ was generally accepted, some representatives did not agree with ‘autonomy’ and ‘responsibility’.

Suggestions that went beyond the descriptors were related to the advice to clarify the reference to the key competences¹⁹, the reference to the ISCED (International Standard Classification of Education)²⁰ and ISCO (International Standard Classification of Occupations)²¹, as well as to a revision of the definitions. This phase did not result in any further structural changes and the first two requirements were fulfilled with only minor changes. The expression ‘research’ on levels 7 and 8 was supplemented by ‘and/or innovation’ for instance, and the expression ‘specialist research and problem solving skills, including analysis and synthesis’ was changed to ‘specialised problem-solving skills required in research and/or innovation’. The comparison of the versions from 25 April 2006 (proposal by the group of experts for the technical working group) and the versions from 5 September 2006 in Tables 2 and 3 clearly show that there were only minor textual changes.

¹⁸ Cedefop 2006

¹⁹ European Commission 2005b

²⁰ UNESCO 1997

²¹ ILO 1988

The discussions on naming of the third column caused the debate on competence to flare up again. To follow up on the existing Commission documents and to ensure their general use of language and anchor the central term of ‘competence(s)’, it was agreed to use the term ‘competence’ (singular) instead of ‘autonomy and responsibility’. Until then, the Commission documents referred to ‘knowledge, skills and competences’ (plural) or ‘KSC’ because no agreement was possible on an umbrella term. Thus this combination of terms, which spans all forms of knowledge and experience acquisition, was used to define a new term.²² In this context, the competences were always plural and understood in terms of ability. Within the EQF-recommendation, the term competence (singular) was finally used for a dimension, which only indirectly pertains to knowledge and skills and, in the narrower sense, related to responsibility and autonomy. Thus, the term competence acquired a particular definition different from the previous definitions and that actually does not fit the term ‘KSC’. This contradiction, which has not been solved yet and which continues to cause misunderstandings, is inherent within the chosen definition of the term ‘competence’: ‘the proven ability to use knowledge, skills and personal social and/or methodology abilities, in work or study situations and in professional and/or personal development.’ In the EQF, competence is described in terms of responsibility and autonomy.²³ That is, competence is defined as capability in the first sentence and as responsibility and autonomy in the second. One could say that the ‘circle was squared’ by equating the two classic definitions of competence, namely capability and responsibility. That this is not a simple solution can be seen by the obvious ongoing misunderstandings in the use of the singular and plural and even found in the proposal for the recommendation on the European Commission’s implementation of the EQF (2006a). In different parts in the text (e.g. pages 2, 3 and 11), ‘knowledge, skills and competences’ are addressed and, on the following pages, ‘competence’ is used in the singular. There are also different versions in German: For example, the plural (Kompetenzen) is used in the text when all three dimensions of the learning outcomes are named (e.g. page 6), while the singular (Kompetenz) is used for the definitions (see page 17).²⁴

²² e.g. European Commission 2005c

²³ European Commission 2006a, 17

²⁴ Europäische Kommission 2006

Table 2

Overview of the three versions for the EQF descriptors on Level 1

Level 1	Version from 8 July 2005 (first proposal) ¹	Version from 4 April 2006 (proposal for the TWG) ²	Version from 5 September 2006 (final version) ³
Knowledge	Recall basic general knowledge	Basic general knowledge	Basic general knowledge
Skills	Use basic skills to carry out simple tasks	Basic skills to carry out simple tasks	Basic skills required to carry out simple tasks
Personal and professional competence			
(i) Autonomy and responsibility	Complete work or study tasks under direct supervision and demonstrate personal effectiveness in simple and stable contexts	Work and study under direct supervision in a familiar and managed context	Work or study under direct supervision in a structured context
(ii) Learning competence	Accept guidance on learning		
(iii) Communication and social competence	Respond to simple written and oral communication Demonstrate social role for self		
(iv) Professional and vocational competence	Demonstrate awareness of procedures for solving problems		

Sources: ¹European Commission 2005a; ²European Commission 2006b; ³European Commission 2006a

Table 3

Overview of the three versions for the EQF descriptors on level 5

Level 5	Version from 8 July 2005 (first proposal) ¹	Version from 4 April 2006 (proposal for the TWG) ²	Version from 5 September 2006 (final version) ³
Knowledge	Use broad theoretical and practical knowledge that is often specialised within a field and show awareness of limits to knowledge base	Comprehensive practical and theoretical knowledge within a specialised field of work or study and an awareness of limits to knowledge base	Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge
Skills	Develop strategic and creative responses in researching solutions to well defined concrete and abstract problems Demonstrate transfer of theoretical and practical knowledge in creating solutions to problems	A comprehensive range of specialised cognitive and practical skills to develop creative solutions to concrete and abstract problems	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems
Personal and professional competence			
(i) Autonomy and responsibility	Manage projects independently that require problem solving where there are many factors some of which interact and lead to unpredictable change; Show creativity in developing projects; Manage people and review performance of self and others; Train others and develop team performance;	Manage and supervise work and study activities in situations where there is unpredictable change; Review and develop performance of self and others;	Exercise management and supervision in contexts of work or study activities where there is unpredictable change;
(ii) Learning competence	Evaluate own learning and identify needs necessary to undertake further learning;		Review and develop performance of self and others;
(iii) Communication and social competence	Convey ideas in a well structured and coherent way to peers, supervisors and clients using qualitative and quantitative information; Express a comprehensive internalised personal world view reflecting engagement with others;		
(iv) Professional and vocational competence	Formulate responses to abstract and concrete problems; Demonstrate experiences of operational interaction within a field; Make judgements based on knowledge of relevant social and ethical issues;		

Sources: ¹European Commission 2005a; ²European Commission 2006b; ³European Commission 2006a

4. The dimensions of the EQF descriptors – a synchronic view

If you do not look at the EQF descriptor-table during its formation, but instead look at the final version, three implicit hierarchies can be seen:

1. A hierarchy of educational programmes or offers;
2. A hierarchy of vocational or organisation-oriented tasks, responsibilities and functions; as well as
3. A hierarchy of individual acquisition of skills or competence development.

These hierarchies play an ambivalent role: on one hand, they were implicitly incorporated here and there, and, on the other hand, for certain reasons, there was an explicit distancing from them time and again. These hierarchies generally correspond with the three dimensions of the EQF (knowledge, skills and competence), even if they cannot be exactly associated to these dimensions. At least for the first two hierarchies with ISCO and ISCED internationally accepted and binding classifications are available. In the following section, we want to discuss the means by which these implicit hierarchies and the reference to the existing classifications can be recognised.

Educational hierarchy

The final version of the EQF proposal eliminates all possible references to any form of hierarchy in educational programmes. In the document's original version, a supplementary table²⁵ was added to illustrate the descriptors. This table included specific references to well-known educational levels and programmes. For example, level 2 included the following comment: 'Learning at this level is formally acquired during compulsory education' or level 6: 'Learning for level 6 qualifications usually takes place in higher education institutions'.²⁶ This supplementary table and this form of comments was criticised during the consultation process and finally eliminated without much discussion. However, this hierarchy becomes obvious also without this supplementary table because of the explicit reference of the levels 5, 6, 7 and 8 to the levels of the Bologna cycles (Short-Cycle, Bachelor, Master, PhD).²⁷ There is an evident educational hierarchy for these levels at least, which can thus be supposed for the other levels as well.

Within the descriptors themselves, such coherence can be retraced. The first column, for example, refers to knowledge, which is not described in the way learning outcomes are usually described (e.g. no 'can do' - statements) and furthermore reminds us strongly of educational goals of various education or training programmes (educational levels). For example, the reference to 'basic general education' on level 1 can often be read in elementary school educational goals or rather basis education. Another example is the formulation 'highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study', on level 7, which are often

²⁵ European Commission 2005a

²⁶ *ibid.*, 22

²⁷ European Commission 2006a,20

legally defined requirements for Graduate Diploma or Masters Degrees in form of 'independent academic work'.

The ISCED²⁸ offers an internationally useful classification of educational programmes covering six levels, starting with elementary school (level 1) all the way to a PhD or post-graduate programmes (level 6). Interestingly, the ISCED classification also tries to include learning in its entirety and refers to knowledge, skills and capabilities:

'The notion of 'levels' of education is taken to be broadly related to gradations of learning experiences and the competences which the contents of an educational programme require of participants if they are to have a reasonable expectation of acquiring the knowledge, skills and capabilities that the programme is designed to impart. Broadly speaking, the level is related to the degree of complexity of the content of the programme.'²⁹

'The notion of 'levels' of education, therefore, is essentially a construct based on the assumption that educational programmes can be grouped, both nationally and cross-nationally, into an ordered series of categories broadly corresponding to the overall knowledge, skills and capabilities required of participants if they are to have a reasonable expectation of successfully completing the programmes in these categories. These categories represent broad steps of educational progression from very elementary to more complex experiences with the more complex the programme, the higher the level of education.' (ibid.)

In relation to the objective, namely describing the learning experiences and acquisition of competences in hierarchical structures, ISCED and EQF are quite comparable. In addition, the use of ISCED for classifying educational programmes and EQF for classifying qualifications or rather qualifications systems does not make a large difference at first analysis. Invariably all programmes classified with ISCED standards also offer the corresponding qualifications. Moreover, ISCED references to learning within formal education programmes and EQF inclusion of other forms of learning does not prohibit comparing the two instruments. If you take the 'external examinations' (such as the vocational matriculation examination in Austria or making up for a final school diploma outside of the traditional education system); then, for example, the corresponding learning outcomes are largely not acquired in formal education (e.g. in facilities for adult education). However, when considering certificates, which are correspondent to the formal system, then they can also be classified within the ISCED system. The fundamental difference between ISCED and EQF is that the EQF has a wider range of goals, seeks to encompass the informal sector, and exclusively uses general learning outcome-oriented descriptors. ISCED, on the other hand, uses descriptors such as requirements for access, age of the students, qualification of the teachers, etc.

²⁸ UNESCO 1997

²⁹ UNESCO 2006, 17

Occupational hierarchy

The third column of the EQF table describes the extent of responsibility and autonomy on the different levels. Thus, functional or organisational contexts, such as those that can be identified in the professional world, are addressed. For example, the higher levels mention responsibility for team leadership. The lower levels identify the degree of autonomy to the extent that learning or working needs supervision. This form of descriptors is often used in classifications of occupations and groups in collective wage agreement are often based on it (cf. example in the attachment).

The ISCO³⁰ also uses the idea of ascending levels of demands:

The framework necessary for designing and constructing ISCO-88 has been based on two main concepts: the concept of the kind of work performed or job, and the concept of skill. [...] Skill – defined as the ability to carry out the tasks and duties of a given job – has, for the purposes of ISCO-88 the two following dimensions: (a) Skill level – which is a function of the complexity and range of the tasks and duties involved; and (b) Skill specialisation – defined by the field of knowledge required, the tools and machinery used, the materials worked on or with, as well as the kinds of goods and services produced.

Interestingly, ISCO does not use its own descriptions of skill levels, but instead refers to the primarily input-indicator-based ISCED descriptors (cf. Table 4). This means that the skill level within the ISCO is defined through vaguely attributed educational programmes. Vague in the sense that ISCO claims these programmes do not necessarily have to be attended in order to acquire skills. It also claims that the skills merely have to be equal in their level of requirements. In the process of transferring ISCED descriptors onto the professional world, ISCO includes informally acquired competences and thus dissolves the restrictions to educational programmes, without abandoning the requirement for comparability.

³⁰ ILO 1988

Table 4

Correlation between the seven ISCED levels and the four ISCO skill levels as well as the main occupational groups

ISCO ¹	ISCO Major Groups ¹	ISCED ²
First skill level	Elementary occupations (9)	1 ISCED Category 1, comprising primary education, which generally begins at ages 5-7 years and lasts about 5 years.
Second skill level	Clerks (4), Service workers and shop and market sales workers (5), Skill agricultural and fishery workers (6), Craft and related workers (7), Plant and machine operators and assemblers (8)	2 ISCED Categories 2 and 3, comprising the first and second stages of secondary education. The first stage begins at the age of 11 or 12 and lasts about three years, while the second stage begins at the age of 14 or 15 and lasts about three years. A period of on-the-job training or experience may be necessary, sometimes formalised in apprenticeships. This period may supplement the formal training or may replace it partly or, in some cases, wholly. 3
Third skill level	Technicians and associate professionals (3)	4 ISCED Category 5 (Category 4 has been deliberately left without content) comprising education which begins at the age of 17 or 18, last about four year, and leads to an award not equivalent to a first university degree. 5
Fourth skill level	Professionals (2)	6 ISCED Categories 6 and 7, comprising education which begins at the age of 17 or 18, lasts about three, four or more year, and lead to a university or postgraduate university degree or the equivalent. 7
	Legislators, senior officials and managers (1) ³	
	Armed forces (0) ³	

Source: ¹ILO 1988; ²UNESCO 1997; ³No skill levels are assigned to the occupational groups (0) and (1).

Hierarchy of skills acquisition or competence development

The preceding analysis of ISCED and ISCO has shown that even though the EQF is neither meant for the classification of educational programmes, nor for the classification of occupations, it bears many resemblances to these classification systems. So many, that the EQF could be used for this originally unintended use. ISCED and ISCO are classifications specifically designed to classify education and occupations. The EQF only partially implies a hierarchy of educational programmes (e.g. a qualification on a higher EQF level very likely corresponds to a higher ISCED level) and a hierarchy of occupations (e.g. a qualification on a lower EQF level very likely leads to an occupational activity ranked lower in the ISCO skill levels). However, the EQF focuses on learning outcomes in the form of knowledge, skills and competence; these are seen independently of education programmes or occupations. The EQF thus constitutes a new instrument, which offers the possibility to combine educational and occupational taxonomies and, in a way, bridges ISCED and ISCO.³¹

³¹ Also see: EQF Explanatory Note 2007

Similarly, the EQF could also be used to describe the individual acquisition of skills or competences, even though, as repeatedly noted, this is not its purpose. Nevertheless, one must acknowledge how close the EQF is to a hierarchy of the acquisition of skills or competences.

A skills classification, similar to an occupational classification (see above), shows evidence of two main dimensions – the competence level and the professional or content specifications of competences. In order to identify the competence, a hierarchy could be used such as Dreyfus & Dreyfus (1986) suggest: from novice to expert. Due to the breadth of the professional world, a specification – either professional or content-related – needs to use a more comprehensive system. For Europe, such a system is being developed with DISCO (Dictionary of Skills and Competences)³² that is a comprehensive collection of terms for vocational skills and competences. In the USA, the O*Net has been in use for a few years.³³ O*NET is an occupation information system that uses sound taxonomies and scalings of general competences or key competences. Unlike DISCO, it offers also levels of requirement for the skills and competences.

Until now, none of these approaches has led to a mandatory international classification. Considering the increasing importance of informal learning and general competence-orientation, on the one hand, and the inadequate occupational and educational classifications (a reason for the development of the EQF) on the other, the question arises, whether such an international standard classification of skills or competences has already become urgent.

The EQF in its entirety

The previous synchronic analysis has shown that the EQF contains three implicit hierarchies, namely an educational hierarchy, an occupational hierarchy and a hierarchy of skills acquisition. Even if this was not originally intended, the EQF could provide quite practical services for the classification of educational programmes, occupations and competences. With the use of Figure 2, which graphically demonstrates these references and attributes, one can further interpret certain points of critique towards the EQF and show why this critique usually fails to make an impact.

If you compare the implicit hierarchies of the EQF to one another, contradictions will appear. The criticism, very apparent before and during the consultation process, focuses on this issue. For example, many noted that people with different qualifications (in the sense of certificates), can have the same occupation and likewise the same certificate or degree does not necessarily qualify people for the same job. This means that there is no exact conformity on the axis of the educational system and occupation. Furthermore, it is conceivable, and this criticism is therefore also justified, that the same level of education (e.g. the apprenticeship and the general higher education, which are both at the ISCED level 3) can result in very different skills and there should not, in any case, be an equivalisation. Therefore, even between

³² DISCO nd

³³ O*Net nd

the educational system and the skills levels, no exact congruence exists. Finally, although much more rarely, there is no exact congruence between skills levels and occupation or rather responsibility and autonomy. It is conceivable that persons, whose skills and competences are lightly developed in certain areas, could be entrusted with higher vocational duties (such as filling a leadership position).

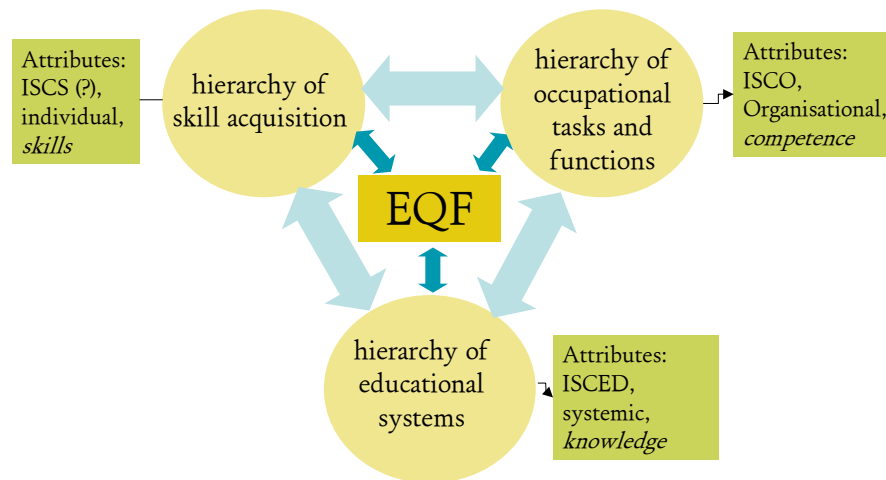
A specific example for this form of criticism illustrates the general point: the arguments and examples by Rauner (2006). Rauner (2006, 47) correctly observes that graduates from 'purely' academic educational paths have to acquire an array of vocational competences in the context of work practice. In the context of our model, this means that these graduates may be on a high level on the educational hierarchy but these same graduates would be on a lower level on the hierarchy of skills acquisition. Therefore, the dual vocational education and training, in particular 'in regard to the function within working-process', should be classified at a higher level than it actually is (due to the educational hierarchy). Thus, this addresses the lack of congruence between the educational and skills acquisition hierarchies. In other examples, Rauner (ibid.) points out that a master artisan has considerable working experience and could therefore take on the management of a modern car dealership without much on-the-job training. A graduate of a Bachelor programme would need at least two to three years of on-the-job training to be able to take on this position. Rauner thus addresses the lack of congruence between educational achievement (educational hierarchy) and the hierarchy of vocational duties and responsibilities (e.g. management).

These examples could be arbitrarily continued. These examples and the associated criticism of EQF practically incorporate only two dimensions. They do not capture the EQF in its entirety. Admittedly, graduates from a dual vocational education and training programme would be classified lower than graduates of academic programmes in reference to the educational hierarchy (e.g. ISCED) and higher in accordance to the hierarchy of skills acquisition, due to their different practical experiences. However, if one considers the third dimension, specifically a comparable vocational duty or responsibility, this example suddenly presents itself differently. The new dimension reduces the inconsistency; or, in other words, including the third dimension reduces the chances of contradictory classifications.

This critique does not get to the core of the EQF because it does not consider the complete EQF. The EQF is not based on one or two of these hierarchies, but instead encompasses all three. Therefore, we joke of the Holy Trinity of the EQF: God is not the Father, not the Son, not the Holy Spirit; but God exists simultaneously as a 'mutual indwelling' of these three entities. Against the background of this analysis, one could interpret the EQF as a classification of occupations and educational programmes with an additional skills dimension and thus as an extension or, rather, as a combination of ISCED and ISCO.

Figure 2

The Three Dimensions of the EQF and Possible Attributions ('The Holy Trinity')



Source: authors

6. Conclusions and open questions

As has been shown, an a-historical perspective on the descriptors illuminates the implicit hierarchies of the EQF, which also influenced its development, and its relation to classification systems that are being developed or should be developed. If one follows the thesis of the implicit hierarchies and considers the main function of the EQF, namely the classification of qualifications, the question occurs, whether the main elements of qualifications are actually addressed. Are qualifications sufficiently described by 'knowledge, skills and competence (autonomy and responsibility)'? Can using occupational, educational and skills or competence classifications describe qualifications best?

In fact, such a multi-perspective view of qualifications would be more appropriate than the frequently used one or two-dimensional perspective. At the same time, the concept of qualifications would not be replaced by the concept of competence or incorporated in this concept of competence. Competence(s) or skills are additional descriptions to the already existing dimensions for describing qualifications. In this sense, the concept of qualification would again be in the centre of discussions.

The historic analysis has shown where the attempt to clarify the concept of competence can lead. It has also shown that the EQF is very much a political-pragmatic instrument rather than a scientific-empirical instrument. Soon, actual practice will reveal how EQF's development from many political compromises instead of a scientific or, at least, systematic base actually shapes its usefulness. The practice will also show whether the general and simplified descriptors can relate the different qualifications systems to each other.

At the moment, the question also remains open how the general instrument for describing levels of qualifications systems, the EQF, is related to other more specific

instruments, such as the previously mentioned DISCO or the O*Net or tools developed in the context of the ECVET development process such as the VQTS model³⁴. Can the EQF be seen as the highest level of a system, in the context of a new classification system for qualifications? If this is the case, what do the next levels look like and how many are necessary?

In order to further address these issues, projects are necessary to test the possibilities of DISCO, O*Net or also VQTS for describing qualifications and to examine their relation to the EQF. If, at the end of the day, an international standardised classification for skills and competences has been developed, the scientific and political community would not only have gained wisdom, also the EQF would have become more effective and would be able to offer a model for explanation that could make any student of the Bible jealous.

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³⁴ The VQTS model is a model for a structured description of work related competences and their acquisition (Luomi-Messerer & Markowitsch 2006; Markowitsch J., Becker M. & Spöttl, G. 2006).

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Attachement

Tabelle 5

Extract from a collective agreement

Gr.	Job characteristics:	For example:
I	Employees who perform schematic or mechanical jobs that are assessed as simple auxiliary jobs.	Aids and assistants in the office, workshop, filing department, warehouse, stockroom,...
II	Employees who perform simple, non-schematic or mechanical jobs that follow given guidelines and exact work instructions, which normally require a short period of vocational adjustment. [...]	Typists, billing clerk with simple charging, operator with right to disclosure (Info-, Helpdesk), workshop-typists who do all-round work in larger departments, qualified aids and assistants at the registry, office, company, stockroom, dispatch ...
III	Employees who independently perform technical or commercial work, following general guidelines and instructions.	Translators, secretaries in terms of the above job characteristics, [...], operators with regular right to disclosure in at least one foreign language, [...], cashiers in businesses with a total of up to 50 employees [...]
IV	Employees who perform difficult tasks, which need specialised knowledge and practical experience, independently and responsibly. Furthermore, employees who are regularly commissioned with leading, briefing and supervising groups of employees (2 to 5 employees [...]).	Commercial and administrative employees: for example: translators with a use of more than one foreign language, secretaries who also independently perform difficult administrator's (consultant's) duties, freelance accountants up to rough balance(in businesses with a total of up to 50 employees including accountants, freelance cashiers in businesses with more than 50 employees[...]
V	Employees who perform jobs with a particularly high degree of responsibility, that must be carried out independently and require substantial and above-average vocational knowledge as well as perennial practical experience. Furthermore, employees who are regularly and constantly commissioned with leading, briefing and supervising larger groups of employees (more than 5 employees [...]).	Commercial and administrative employees. For example: Accountants, substitutes for the employees of the group VI, heads of the personnel office, buyers who are commissioned with independently buying the essential raw materials, if this job requires a qualification in terms of the above-mentioned job characteristics, employees in the sales department who are commissioned with the closure of business-transactions that require special qualifications in terms of the above job characteristics due to their level of difficulty and importance for the company [...]
VI	Employees with extensive knowledge and experience in leading positions, which decisively influence the business in its sphere of action. Furthermore, employees with responsible constructive work.	For example: proxy as far as they are classified, managers in large companies, chief engineers in large companies or firms, [...]