The New Educational Review

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Turkey

Field Qualifications: A Framework Suggestion

Abstract

Within the last decade the most significant development of the European Union in the education field has been the Bologna Process. The reference point of the Process is the European Qualifications Framework at the international level, and national qualifications framework at the national level. The Bologna term of "sector qualifications" is dealt with in two different meanings. The first is related to the hierarchy of the field of education from programme to broad field in the UNESCO approach. The second is sector standards determined according to the needs of economic sectors. This paper is devoted to developing the field architecture of the scientific family of program qualifications.

In this work, while the field qualifications have been developed in Turkey, international standard classifications of education, occupations and industries were taken into account; and moreover, qualifications were developed from the vertically and horizontally hierarchical point of view, and chronological perspective. In this work, it is suggested that EQF-LLL and NQF can also be applied to all types of field qualifications.

Keywords: *Bologna Process, narrow field qualifications, field qualifications, sector qualifications, knowledge, skills, competences*

Introduction

Since 2001 Turkey has participated in the Bologna Process, which is aimed at increasing quality, transparency and recognition by establishing the European Higher Education Area. Turkey follows the coordinated action lines between the European Higher Education Area (AHEA) and European Research Area (ERA),

puts intensive efforts for its graduates to be able to work in Europe (or elsewhere) by organizing meetings to raise awareness, and by making secondary regulations in parallel with the ones made by the EU bodies (CEC, 2007; CEUR, 1999). Besides, new programs to train teaching and research faculty members nationally and internationally are being developed, and they should be seen as positive and important steps to reach this goal (Colardyn & Bjornavold, 2004).

In addition to 47 member countries in the Bologna Process, any other developed and developing countries outside the European Higher Education Area have developed a new form called "Bologna Policy Forum" to show their interest in the Bologna Process. For this reason we expect that this study will contribute to the literature as a new reference following the Turkish experience. The field framework developed here has two dimensions: (i) a methodology indicating how to develop field qualifications framework, and (ii) a framework which can be applied directly to any basic education field.

Method

There are two different overarching frameworks in terms of qualifications (Bjørnåvold & Coles, 2008). The overarching framework of qualifications of the European Higher Education Area (EHEA Framework or QF-EHEA) was adopted by the Ministers in May 2005. This framework for qualifications is adopted in the EHEA. This overarching framework comprises three cycles, generic descriptors for each cycle based on learning outcomes and competences, and credit ranges in the first and second cycles (Adam, 2006; Bergan, 2007). The European Qualifications Framework for Lifelong Learning (EQF-LLL) was developed by the European Commission in 2008 and is therefore formally adopted by the European Union procedures (EC, 2008). All references to vertical and hierarchical structures made here refer directly to these overarching frameworks. Validation of non-formal and informal education is beyond this paper. Only formal education learning and procedures are used as criteria. However, the omission of informal and non-formal learning does not make a deficiency in terms of developing a framework structure. The processes of the alternative learning to the structured (formal) one make room for the dynamics of procedures and systems. Many examples could be seen on this track. For instance, the problem of ageing population has created many innovative mechanisms to cope with shortfalls of and outdated qualifications. Adult education is one of the most popular programs in terms of lifelong learning (Bilir, 2004).

Nevertheless, not only Turkey, but the EU countries also have no sector frameworks. Neither EQF nor EHEA have developed a sector or field qualifications framework yet. Therefore we consider the International Standard Classification of Education (ISCED) as an education classification reference. ISCED is the only classification of education programs across the world. The counterpart of ISCED is FOET in the EU. Actually, FOET is an adaptation of ISCED for the needs and relatively different education structures of the EU member countries. 22 two digit ISCED narrow fields have been studied by the committees established at the Council of Turkish Higher Education.

In this work, while the field qualifications have been developed for Turkey, besides ISCED, International Standard Classification of Occupations (ISCO) (ILO, 2010; TSI, 2008b) and International Standard Industrial Classification (ISIC) (TSI, 2008a; UN, 2008) have been taken into account as well; and moreover, by taking the eight-level descriptors of the European Qualifications Framework for Lifelong Learning (EU, 2008; EU, 2009), qualifications have been developed from the vertically and horizontally hierarchical point of view, and chronological perspective.

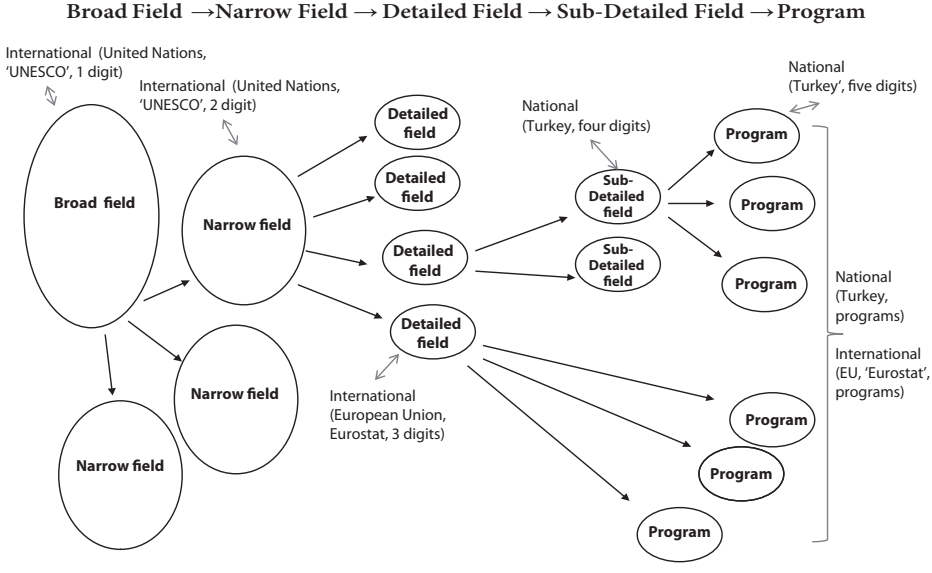
In the Bologna conceptualization there is a hierarchy starting with course learning outcomes, continuing with program learning outcomes and sector qualifications framework, and ending with national qualifications framework and European qualifications framework. In addition, there is another hierarchy in terms of a family of fields of education based on the UNESCO classification. The starting point launches with broad fields and continues with narrow fields, detailed fields and programs respectively. Number indicators for broad fields are one-digit, for narrow fields two-digit and for detailed fields three-digit. This hierarchy is developed by Eurostat. There is a need to add another field situated between a detailed field and program and indicated by a four-digit number. We call it a "sub-detailed field". At the bottom of the hierarchy, the fields of education programs are located and indicated with five-digit numbers. However, the category of a "sub-detailed field" is not as common as others, so only the remaining four categories have been considered while developing horizontal and vertical relationships. Transparency and comparison of reporting via this classification would be easier and more efficient in both national and international contexts.

We handle the Bologna term of "sector qualifications" in two different contexts. The first standards of qualifications come from specific economic sectors and are mostly defined by public, private or mixed associations. In the daily-life sector related qualifications are vitally important. The second standards of qualifications should be related to the hierarchy of the program and the vertical and horizontal relationships with the sub-detailed, detailed, narrow and broad fields respectively.

In this paper we develop the second context of sector qualifications, i.e. field qualifications.

Following the UNESCO and Eurostat, we categorize educational fields into five hierarchical structures: (i) broad field, (ii) narrow field, (iii) detailed field, (iv) sub-detailed field and (v) program. From top to bottom, every level encompasses and covers the lower level which is in its domain; from bottom to top every level is in the domain of an upper level (Figure 1).

Figure1. Hierarchy of Fields of Education



With the starting of the year 2011, all higher education institutions were asked to adopt both national qualifications and sectoral qualifications frameworks (IHEA, 2010; TCHE, 2010). The deadline for this action was the end of 2012. As we observed, professors and other administrative staff are reluctant to adopt the framework because of new duties of establishing mechanisms. Transparency, accountability, efficiency and effectiveness are the challenges at Turkish universities.

Discussion and Results

In this work, *sector (field-based) higher education qualifications framework* through *Managerial, Administrative and Law Sciences*, based on the current EQF-LLL and TYYÇ (Turkish Higher Education Qualifications Framework) has been developed. In order to define the field-based qualifications, the Council of Higher Education had set up sub-committees constituted by the related deans, and had appointed Bologna experts in each committee. In June 2010, all the field based qualifications committees had a workshop to share their frameworks, and an editorial committee to edit these works was formed mostly by the Bologna experts. The editorial committee, in coordination with the sub-committees, will finalize the field based qualifications framework. When developing the field-based qualifications framework in this work, the classifications by ISCED, ISCO and ISIC were taken into consideration; moreover, considering the eight-level descriptors in EQF-LLL, qualifications were arranged vertically and horizontally from the hierarchical and chronological perspectives (JQIIG, 2004; Keating 2008). On 7 December of 2010, all the field-based qualifications were submitted to the General Council of the Council of Higher Education. Turkish higher education authority approved and declared the field-based qualifications on 13 January 2011. Nevertheless, besides the complexity of the subject, the relatively low interest levels of some committees produced low level outputs. We think that our framework tabled below would be a reference method for developing and updating current field-based qualifications.

EQF-LLL describes qualifications at eight levels. While the first four of them are related to pre-higher education, the remaining ones are in higher education. In this respect, the Bologna Process and EQF have a strict relationship. EQF, firstly, defines qualifications in terms of knowledge, skills and competences, then grounds them on learning outcomes (Burke, 1995; Gagné, 1984; Gallavara at al., 2008).

While developing field-based qualifications we applied European dimensions in a strict manner. Therefore, to define some basic terms is a necessity. "Qualification" means a formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards.

"National qualifications framework" means 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 national qualifications subsystems and improve the transparency, access, progression and quality of qualifications in relation to the labor market and civil society.

"Sector" means a grouping of professional activities on the basis of their main economic function, product, service or technology. "International sector organiza-

tion" means an association of national organizations, including, e.g., employers and professional bodies, which represents the interests of national sectors (EC, 2010).

Field qualifications in terms of the Bologna Process or field-based qualifications in terms of the ISCED terminology are conceptualized hierarchically and chronologically. We argue that this approach is very practical to be used to develop or define not only narrow or detailed qualifications, but also program qualifications (Tables 1, 2, 3 &4).

Table 1. Narrow Field, Detailed Field and Program-Based Qualifications of the Short Cycle

Knowledge	Skills	Competences
1. Knowledge of facts principles, processes and general concepts related to *narrow field.* 2. Awareness of borders concerning the *detailed field.* 3. Basic general and factual knowledge of the *detailed field.* 4. Comprehensive, specialized, factual and theoretical knowledge within any field of work or study (*program*); and awareness of the boundaries of this knowledge.	1. Cognitive and practical skills required to fulfill tasks and to solve routine problems by selecting and applying basic tools, materials and information in the *narrow field.* 2. A range of cognitive and practical skills required to fulfill tasks, and to solve problems in the *detailed field* by selecting and applying the related basic methods, tools, materials and information. 3. A range of comprehensive cognitive and practical skills to produce creative solutions to specific or/and abstract problems in any work or study field (*program*).	1. To work or study in the *narrow field* in a formal structure having limited autonomy, under direct supervision and control. 2. To exercise self-management within the guidelines of work or study, to take responsibility in completing tasks, to adapt one's own behaviours to circumstances in solving problems, in the general frameworks concerning the *detailed field.* 3. To exercise management and supervision in contexts of work or study activities where there is unpredictable change, review and develop the performance of self and others in a work or study field (*program*).

Table 2. Narrow Field, Detailed Field and Program-Based Qualifications of the First Cycle

Knowledge	Skills	Competences
1. Awareness of detailed fields, their borders in the *narrow field.* 2. Theoretical and factual knowledge of facts, principles, processes and general concepts of *detailed fields* under the narrow field. 3. Advanced knowledge of a field of work or study (*program*) from a critical understanding of theories and principles.	1. Ability to make evaluations and analyses at basic level, being aware of basic methods, tools and inputs concerning the *narrow field.* 2. Cognitive and practical skills required to generate solutions and solve problems concerning the basic methods, tools and inputs in the *detailed field* programs. 3. Advanced skills, demonstrating mastery and innovation to solve complicated and unpredictable problems in a specialized field of work or study (*program).*	1. To supervise and control the routine work, and to take limited responsibility for evaluation and improvement of work or study activities in the *narrow field.* 2. To manage complex technical or professional activities or projects in relation to *detailed field.* 3. To take responsibility for making decisions on a work or study (*program*) field for any unpredictable work or study context. 4. To take responsibility for managing professional development of individuals or groups concerning a work or study field (*program*).

Table 3. Narrow Field, Detailed Field and Program-Based Qualifications of the Second Cycle

Knowledge	Skills	Competences
1. Theoretical and factual knowledge on basic facts, principles, processes and general concepts (*at the interface*) for their interrelations and relative situations in the *detailed field* of work or studies (programs). 2. Highly specialized knowledge in a field of work or study (*program*) in the context of some original thinking and/or original research to be able to form the knowledge border of the program, and to show critical awareness on the issues of knowledge discussions at the interface of *detailed field programs*.	1. Cognitive and practical skills required to generate solutions and solve problems concerning the applied methods, tools and inputs in the *detailed field* programs in the general contexts, *taking their interrelations and relative situations* (*at the interface*) into consideration. 2. In a field of work or study (*program*) specialized problem-solving skills, required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields.	1. To take responsibility for managing routine work, and evaluation and improvement of work or study activities concerning the *narrow field*. 2. To take responsibility for designing and managing professional development of individuals and groups concerning the *detailed field*. 3. To manage and transform work and study environments that are complex, unpredictable and require new strategic approaches in a work or study field (*program*). 4. To take responsibility and/or to review the strategic performance of teams in order to contribute to professional knowledge and practices in a work or study field (*program*).

Table 4. Narrow Field, Detailed Field and Program-Based Qualifications of the Third Cycle

Knowledge	Skills	Competences
1. Knowledge at the most advanced level in a *subject specific* work or study field (*program*) to extend or develop the borders of knowledge produced, in this framework to make it possible for advanced analysis and evaluation of interdisciplinary facts, principles, processes and concepts in other relevant *detailed fields*. 2. Knowledge at the most advanced level in the borders of a work or study field (*program*) and advanced knowledge at the *interface between detailed fields*.	1. Skills to interrelate functional and relative positioning of production of *subject specific* original knowledge with other subjects of the program in a field of work or study (*program*). 2. The most advanced and specialized skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to define and extend existing knowledge or practices in *a subject specific* work or study field (*program*).	1. To take responsibility for designing, managing and developing work and study activities concerning the *detailed field*. 2. To manage and transform work and study environments that are complex, unpredictable and require new strategic approaches, in *the detailed field.* 3. To take responsibility and/or to review the strategic performance of teams in order to contribute to professional knowledge and practices in *the detailed field.* 4. To show skills and behaviors in order to develop and extend the borders of knowledge and practice (at the interface) concerning the other subjects in a work or study field (*program*). 5. To demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research in a work or study field (*program*).

Conclusion

While developing the field-based qualifications framework, the structures of all economic activities in education, which are specific to Turkey, were taken into account; and narrow field, detailed field and programs were defined. By doing this, we assumed that the creation of qualifications would be easier and more efficient. In the narrow field of *Managerial, Administrative and Law Sciences*, the sub-field was understood as Business Management and Public Administration Sciences, and the program as Management. One of the reasons for this is that the programs in management, administration and law education (and their employment sectors in daily life) are related to the management, operation and problem solving of human resources, capitals, and assets in the public, private and non-profit areas of society. The second reason is that in our country faculties of administration, management and law are closely related both in education and employment areas.

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