Competences as the core element of the European Qualifications Framework

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SUMMARY

The development and implementation of the EQF, as a meta-framework for the promotion of transparency, quality assurance, mobility and mutual recognition of qualifications, has given rise to some difficulties. These are due partly to different definitions of competences, skills and knowledge. Taking the German-speaking countries as an example, the author outlines the difficulties presented by the development of a common terminology as a basis for the common reference levels and discusses some possible consequential problems of implementing the EQF in these countries.

Qualifications frameworks as engines of innovation

Countries that introduce a qualifications framework are thereby seeking to make their national educational systems more transparent, more innovative and more competitive. They also aim to improve the match between the educational system and the labour market. Thus, qualifications frameworks are seen as engines of innovation: the point of introducing them is to promote a number of fundamental, long-term reforms. These include, for example, wider access to opportunities for education, more ways of acquiring qualifications (other than solely by participation in institutionalised courses), the certification of non-formal and informal learning; and encouraging students to acquire competences that are relevant to the labour market while getting employed people involved in describing and assessing such competences.

These aims are also relevant to the development of the European Qualifications Framework. However, the fact that a number of similar difficulties have emerged in the introduction of national qualifications frameworks suggests that these might also arise in the development and implementation of the European Qualifications Framework (EQF) (Raffe, 2003; Young 2004; 2005). These difficulties include the following:

- The credit systems introduced or further developed for the purposes of qualifications frameworks are based on units and modules, which *may* be inconsistent with the all-round character of learning processes and the knowledge thereby acquired;
- The certification of knowledge, skills and competences (KSC) is inconsistent with the established concept of learning as an open-ended, lifelong, natural process if certification is seen as the documentation of self-contained *learning outcomes in the form of qualifications*;
- The requirement of competence-oriented recognition may conflict with that of all-round education and its certification if competences are seen solely as knowledge, skills and abilities relating to *a specific* field of tasks;
- The development of common descriptors for general and vocational education can easily fall between the two stools of arbitrariness and specialisation: if the descriptors are to be applicable to both general and vocational education, they run the risk of being too general to be meaningful, but if they are sufficiently specific they will presumably be applicable to only one of these two fields.

These difficulties are particularly evident in the development of the common reference levels for KSC that form the basis of the EQF's emphasis on learning outcomes. For this reason, this paper begins by outlining the development and structure of the EQF in the context of the common reference levels. A brief description of the conception of competence based on the principal documents underlying the EQF follows. Finally, on the basis of the prevailing conception of competence in the German-speaking countries, the difficulties in the way of developing a common terminology for KSC at European or international level are discussed and possible consequences are identified.

Development and structure of the EQF

The basis of development of the EQF is voluntary. For this reason, unlike national qualifications frameworks it addresses priorities of the European Union (not of individual Member States) and does not include binding mechanisms of recognition addressed to individuals. Its development is based primarily on mutual trust between the relevant actors and on their willingness to cooperate, and is much more complex than that of a national qualifications framework. The Commission describes the EQF as follows: *'A meta-framework can be understood as a means of enabling one framework of qualifications to relate to others and subsequently for one qualification to relate to others that are normally located in another framework. The meta-framework aims to create confidence and trust in relating qualifications across countries and sectors by defining principles for the ways quality assurance processes, guidance and information and mechanisms for credit transfer and accumulation can operate so that the transparency necessary at national and sectoral levels can also be available internationally'* (European Commission, 2005, p. 13).

Development of the EQF began at the end of 2002. Its foundations included the recommendations of the ECVET Technical Working Group and a proposal drawn up on behalf of Cedefop by members of the England and Wales Qualifications and Curriculum Authority (QCA) (Cedefop; Coles and Oates, 2005).

The core of the EQF comprises learning outcomes, which are seen as a bundle of KSC and can be grouped together to form qualifications. The EQF's structure is characterised by eight reference levels (for all formal qualifications) and by competence levels obtained by informal, non-formal and formal learning. These reference levels are supported by various principles, directives and instruments, including information portals, the Europass and elements of quality assurance.

The reference levels can be distinguished by the relevant competences according to the degree of complexity of the action situations concerned (vertical structure of the EQF) and are supplemented by a horizontal structure of three types of learning outcome (KSC). This yields a 3x8 matrix of 24 cells, in the descriptor-based portrayal of which the following question arises: *'How big is this qualification? To reference this, we need a measurement, and "credit" is the means of measuring volume of learning. EQR therefore needs a credit metric. This is quite separate from the use of a credit system for accumulation and transfer'* (Raffe et al., 2005, p. 14).

The common reference levels not only call for credits as an aid to translation, but also allow for 'vacant' cells within the matrix. Where a cell is 'va-

cant', this means that the option exists, depending on the relevant qualification, for the cell description to be omitted or for only a partial description to be given. For this reason, uniform qualifications for all Member States in terms of standards, learning pathways, learning content or access are not necessary, whereas the development of common descriptors based on a common terminology is.

Competences as the core concept of the reference levels

KSC constitute the core elements of the reference levels. In the Commission's Proposal for a Recommendation of the European Parliament and the Council, *competence* is defined as 'the proven ability to use knowledge [and] skills'. It is also described 'in terms of responsibility and autonomy' (European Commission, 2006, p. 16).

Skills 'means the ability to apply knowledge and use know-how to complete tasks and solve problems' (ibid.). A distinction is made between cognitive and practical skills.

Knowledge 'means the outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of study or work' (ibid.). In the EQF, knowledge is described as theoretical and/or factual.

The concentration on a competence-based approach to the development of the EQF is based on increased attention being paid to concepts of adaptive and workplace-oriented learning processes, of lifelong learning, of informal and non-formal learning and of the abilities and knowledge necessary for employability in a rapidly changing society (López Baigorri et al., 2006; Rigby and Sanchis, 2006; Schneeberger, 2006). Fundamental importance is attached in this connection to the consideration and accreditation of learning outcomes achieved other than on a formal basis and of implicit knowledge. Hence the underlying principle of the terminology to be developed for vocational KSC in the EQF was *'to establish a typology of qualitative outcomes of VET in terms of knowledge, skills and competences (KSC) that will serve as conceptual underpinning for the horizontal dimension in developing a European Credit System for VET'* (Cedefop; Winterton and Delamare-Le Deist, 2004, p. 1). This concept, originally devised for the ECVET system, was later also used by the Expert Group as the basis for the definition of KSC in the EQF.

In their outline of a typology for KSC, Winterton and Delamare-Le Deist (Cedefop, 2004) and Winterton et al. (Cedefop, 2005) invoke three lines of development that stem from different cultures (including the United States, the United Kingdom, Germany and France) and from different fields of practice and scientific disciplines.

The sources on which these authors draw highlight the problems of the debate about competence and demonstrate the difficulty of arriving at a systematisation of approaches and of achieving compatibility between them. At the same time, the simultaneous evolution of further approaches to the development and definition of competence on behalf of Cedefop (e.g. Rychen, 2004; Straka, 2004) clearly show the complexity of the subject, even if relatively little attention has been paid to the notions dating from the same period put forward in these documents.

The documents in question seek to deduce the concept of KSC from the arguments identified by the authors as prevailing in the various nations. Since the relevant concepts are not employed in a uniform sense, a stringent basis for the use of the terms concerned cannot be discerned. An example is the mixing-up of *competences* and *competencies* together with an attempt to apply an unequivocal conceptual distinction between the two terms. In this connection, the analysis is based on the notions of KSC applied mainly in four countries (the United States, the United Kingdom, Germany and France) (Cedefop; Winterton et al., 2005, p. 28ff.). With reference to the debate on competence in the United States, for instance, the principal sources cited are in the field of management training, with a concentration on approaches to the development of general abilities, forms of behaviour and activity-related skills. The development of the KSC typology is based mainly on approaches that emphasise the workplace-related component of skills, while other concepts from these countries tend to be disregarded.

Again, the conception of competence in French-speaking countries is characterised chiefly by an all-round approach: the simultaneous emphasis on *savoir*, *savoir-faire* and *savoir-être* seeks to achieve a comprehensive understanding of competence, which, however, is exhibited not in integrated form but in a juxtaposition of categories (Cedefop; Winterton et al., 2005, p. 32ff.). At the same time, it is pointed out that a consideration of further national proposals for classification could lead to modifications of the KSC typology, which the authors cross-reference with the level classification used in the English-speaking countries in the form of a matrix: *'Knowledge (and understanding) is captured by cognitive competence; skills are captured by functional competence and "competence" (behavioural and attitudinal, including meta-competencies)*

is captured by social competence' (Cedefop; Winterton and Delamare-Le Deist, 2004, p. 19).

Coles and Oates (Cedefop, 2005), who also drew up one of the principal documents used to develop the matrix, adopt a different approach. Substantially dispensing with a scientific discourse about KSC, these authors instead – precisely because of the lack of clarity and unanimity concerning the relevant terminology – opt for a further 'concept': that of *zones of mutual trust* (ZMT). The underlying idea here is that the entire EQF, and hence also the cells of the matrix, constitute *'an agreement between individuals, enterprises and other organisations concerning the delivery, recognition and evaluation of vocational learning outcomes (knowledge, skills and competences)'* (Cedefop; Coles and Oates, 2005, p. 12).

Such an approach substantially dispenses with the need for detailed analysis and definition of the three core concepts of KSC, whose detailed formulation and understanding are left to the individual States; these then ensure recognition and transparency by means of mutual trust.

The concrete form assumed by the detailed formulation and understanding of the KSC concept can be illustrated by the example of the German-speaking countries, which I shall adduce below. Here too, neither uniform terminology nor an independent theoretical tradition exists (Arnold, 1997, p. 256). Nevertheless, some fundamental trends relevant to our subject can be discerned, even if no claim to completeness can be made.

The concept of competence in German-speaking countries

The concept of competence is used in relation to, on the one hand, abilities and activities and, on the other, to matters of juridical competence and of rights and entitlements (Vonken, 2005, p. 16). The latter seem less significant in the debate about competence and in the context of the EQF, as they are after all based not on a given qualification or certification grid but on learning outcomes; in other words, it is concerned more with outcomes than with inputs.

Ability- and activity-related approaches can be divided into the following groups:

- Approaches in which competence is described as the ability to cope with situations. They stem from the field of psychological theory and are used mainly in the development of action-related competence. Here competence is seen partly as an aspect of personality and partly as an action-relat-

ed ability that is supposed to be generated by processes of training and education;

•   Approaches that also take account of the generation of situations or of the creation of the conditions for situations to arise. The principal applicable theories in this case are those of social criticism, in which competence is regarded as a means of enabling individuals to cope with social change.

The origins of the education-related concept of competence lie in Chomsky's theory of competence in the sphere of linguistics and the philosophy of language. Chomsky distinguishes between linguistic *competence*, as the speaker-hearer's knowledge of his language, and *performance*, as 'the actual use of language in concrete situations' (Chomsky, 1964, p. 14). The distinction between competence and performance is that performance is a result of competence and a competent speaker has the ability to generate a linguistic utterance. The competent speaker also possesses the creativity needed not only to apply the rules of speech (structure, grammar, vocabulary, etc.) but also to express thoughts with them. This ability at the same time includes the meaningful connection of contents with linguistic rules, understanding of other speakers and reacting to other linguistic utterances. Linguistic competence thereby takes on an interactional and social dimension because its development acquires meaning only in relation to the need to communicate with others. From this point of view, competence must fundamentally be seen as a 'part of the basic genetic endowment of man as a species' (Heydrich, 1995, p. 231), which need not be generated a priori but can be developed.

Invoking speech act theory and the debate on intentionality after Searle (1991; 1996, p. 198ff.), Habermas (1990) develops Chomsky's theory further and supplements the concept with the generation of communication situations themselves; that is to say, Habermas holds that linguistically competent speakers can form and rearrange sentences. The core of this new theory is the question of *how* the construction of a sentence is linked to the element of communication.

Baacke (1980), too, bases his approach on Chomsky, to whose theory he adds a behavioural dimension: *'"Action" is here understood not only as behaviour within pre-existing behavioural patterns acquired in the process of socialisation [...]; the concept at the same time entails, if not arbitrary behaviour, certainly freedom of behaviour. It is asserted that man can also "generate" his behavioural schemata – and that he does so by the exercise in the present of a behavioural competence that is at the disposal of the individual's internal motivational strata'* (Baacke, 1980, p. 261f.).

Competence in this sense is an individual's ability to generate communicative situations (Habermas) and behaviour (Baacke) and hence to generate *interaction*.

In his theory of 'critical competence' for *vocational training* as the foundation of vocational activity, Geissler (1974, p. 34), who also draws on the work of Chomsky, links the ability to criticise, as an interactional element, with knowledge of the methods of criticism. He further distinguishes between the following:
- critical-reflexive competence,
- critical-social competence, and
- critical-instrumental competence.

In so doing, he takes account of knowledge, ability and interaction, while at the same time distinguishing between different types of competence. Other fundamental aspects of his approach are perception of a situation and possible ways of changing it by recognition and criticism of how the individual is anchored in society. This view, as it happens, is very close to the definition of KSC in the EQF – thus perhaps indicating the (indirect) influence of the national debates about competence on the development of the EQF.

Other approaches to the concept of competence invoke, for example, pedagogic or psychological parameters. In this case, competence is seen as an external attribution, a personality trait and an inner disposition associated with particular attitudes (Aebli, 1980; Wienskowski, 1980; Wollersheim, 1993). In the field of VET, a concentration on the relations between competence and qualifications is evident (Erpenbeck and Heyse, 1996; Faulstich, 1998).

More recent approaches also resort to definitions originating from non-German-speaking authors. For instance, the term *competency* is defined as *'a set of behaviour patterns that the incumbent needs to bring to a position in order to perform its tasks and functions with competence'* (Woodruffe, 1992, p. 17), while *competence* is described as the ability to execute or perform something and as the skill to carry out an activity or task; hence the term can equally well signify enabling, practical competence and ability. In the field of education, *competence* is understood primarily as enabling and as ability (Roth, 1971, p. 291; White, 1965). In this context, Arnold and Schüssler (2001, p. 61ff.) distinguish six connotations of the term:

Table 1: Connotations of competence (Arnold and Schüssler 2001).

Connotation	Competence as
Sociology	Juridical competence
Working life	Combination of 'being allowed to' and 'being able to'
Psychology	Combination of declarative and procedural knowledge, meta-knowledge, 'volition' and 'values'
Microeconomics	Behaviour-generating competences
Linguistics	Distinction between linguistic competence and linguistic performance
Education	Action-related vocational competence

In the majority of approaches, then, competence is seen as *action-related ability*, while most authors agree that whereas qualifications define position, competence is a matter of disposition (Arnold, 1997, p. 269ff.; Erpenbeck and Heyse, 1996, p. 36).

The main factor distinguishing qualifications from competence is that qualifications constitute knowledge and skills that can be objectively described, taught and learned, and are functional (Erpenbeck and Heyse, 1996, p. 36), while the concept of competence also embraces individual aspects of personality that are directed towards (vocational) utility. In this connection, the main aim of the development of competence is the 'formation of personality structures with a view to coping with the requirements of change within the process of transformation and the further evolution of economic and social life' (Vonken, 2005, p. 50). Different kinds of competence, such as competence in a specific field or methodological or social competence, are thus seen as a combination of characteristics, knowledge and skills deployed by an individual for the successful solution of a problem involving specific activities or requirements, leading to a specific action-related ability and, in broader terms, to a personality capable of action, as measured by economic criteria, against a background of social, economic and political change.

However, the difficulty of apprehending competence (its definition, development, measurement and assessment) after all lies precisely in the fact that it is an entity that *cannot* necessarily be presented and/or expressed in terms of individual behaviour: 'There is an obvious difference between the demonstration of, say, team spirit in an examination situation and the personal attitudes that belong to such an ability, etc.' (Vonken, 2005, p. 68). Precise-

ly this difference is the second core problem arising in the determination of the content of the EQF (the first being that of the definition of KSC).

It is precisely because of the shortcomings of a notion of KSC involving only the mastery of a specific type of activity or requirement that a 'reduced' definition of competence of this kind was not adopted as the basis of the EQF. Instead, the EQF includes not only the ability to tackle particular tasks and requirements but also, and with equal emphasis, knowledge in both the general and vocationally specific senses.

Kompetenz versus competences?

The concept of competence is surely one of the most variegated notions in the fields of education and educational policy. The results of efforts by educational policymakers to define the term unequivocally have remained relatively unsuccessful even though, or precisely because, an almost infinite variety of topics are addressed under the heading of 'competence' or 'the development of competence' (Cedefop, Descy and Tessaring, 2001; 2005). Whereas this vagueness is only one aspect of the debate about competence, it is of paramount importance because it reflects the remoteness from theoretical considerations that has characterised this debate for decades (Vonken, 2005, p. 11). This is perhaps because the debate has hitherto seldom taken account of the results of research in the fields of the psychology of learning, the psychology of work and/or neurology.

The approaches to the development of competences discussed in the context of the EQF tend to be seen, in the German-speaking countries, mainly in terms of their compatibility with national VET systems. Besides the long tradition of craft training in these countries, the difficulties arising are due mainly to the substantially institutionalised structure of training with its fixed legal framework and to individuals' identification with their occupations (Harney, 1997; Kirpal, 2006; Lipsmeier, 1997). As a result, even if the implementability of a form of development, assessment and testing of competences based on learning outcomes is not rejected out of hand, it is nevertheless seen, as in the past, in a critical light (DGB, 2005; DHKT, 2006; KBW, 2005).

As I have attempted to show, one of the reasons for the critical attitude to an orientation towards competence and the associated notion of outcomes has to do with the specificity of the notion of *Kompetenz* that has come to be accepted in the German-speaking countries, which is (still) in some respects contrary to the connotations of the English term *competences*:

Table 2: Differences between Kompetenz and competences
(based on Clement, 2003)

Competences	*Kompetenz*
Object-related	Subject-related
Self-contained learning units for the purpose of certification	Category for broadly based potential freedom of disposition
Qualification-related	Content-related
Training standards based on vocational tasks and situations	Training standards based on specialised vocational knowledge, reflection and experience
Pathways to acquiring competences tend not to be formalised	Pathways to acquiring competences tend to be highly standardised and formalised
Basic idea: confirmation and certification of personal abilities and skills → orientation towards output	Basic idea: standardisation of a learning process with a view to broadening knowledge and freedom of disposition → orientation towards input

The main difference is that the English term 'competences' describes not the learning process but its outcome, whereas the German word is input-oriented. From the standpoint of the German speaking countries, therefore, although the competence development models of the English-speaking world offer indications as to the development of competences and hence also of curricula, they do not determine these, and this ultimately gives rise, in the world of training, to the forgoing of regulation of the process of learning and training proper and hence of the structure and organisation of training: 'Consideration of international experience shows that didactic reforms often accompany changes in control policy: the redefinition of content is paralleled by a decentralisation of powers for determining the training process; in other words, the question of content is separated from that of methods, and process from outcome' (Clement, 2003, p. 136).

Conversely, an exclusive focus on input may cause the imparting of action-related competence to be lost sight of if the training concentrates on or is confined solely to cognitive abilities and skills.

Precisely because of the high degree of institutionalisation, the solid legal foundations of the examination system and the formalisation of education in German-speaking countries, the matter of the outcomes of learning processes, especially in VET, has for a long time tended to be considered as of only secondary importance. These countries place their trust mainly in the assumption that the regulation of input will almost inevitably lead to the desired output. Accordingly, since the beginning of the Bruges-Copenhagen process and of the discussion of the aims of education and training, the debate on com-

petence – especially in the field of initial vocational training – has assumed vastly increased importance at both *European and international* level.

Notwithstanding this ambivalence and the contradictions of the conceptual and semantic debates on the concepts of competence and qualifications, as well as on the term 'vocation', it must be emphasised that the various concepts of competence featuring in the international discourse have drawn closer together and that a further approximation is likely, owing to increased contacts and cooperation between the actors in this field. There are indications that a common terminology is in the process of adoption. However, the question of the possible consequences for the German speaking countries of a system of recognition of learning outcomes and qualifications based essentially on mutual trust must be addressed first.

Provisional conclusions

In the development of the EQF, the debate about competence is found to be used in many quarters as an important body of scientific knowledge for social and economic policy purposes, the chosen approach being based on pragmatic rather than methodological considerations. This applies particularly to the definition of the KSC concept and hence of the descriptors of learning outcomes in the EQF. This way of seeking consensus attempts to take equal account of political and scientific interests from a variety of points of view and disciplines (including economics, pedagogy and sociology). As the concept is developed further and applied, certain descriptors will no doubt be given more concrete form or where appropriate reviewed. For instance, the application of this meta-framework to particular vocational fields or specific sectors is yet to be finalised.

This being the case, there are indications that, in the course of the development of the EQF and of the parallel development, or further development, and amalgamation of the ECVET and ECTS systems, countries that are not yet familiar with a logic of qualifications frameworks based on learning outcomes might experience difficulty with the application of the EQF and of the credit systems, as additional instruments for facilitating mutual trust and mutual recognition of qualifications, for solving existing fundamental problems. This is because mutual recognition is conditional on voluntary utilisation of the relevant instruments and on trust in the learning outcomes achieved in a foreign educational system and in their equivalence with their counterparts in the national system. Furthermore, regardless of the instrument used

to arrive at them, such correspondences can of course be no more than indicators of estimated equivalences, and do not permit the unequivocal transferability of learning outcomes and achievement – because, after all, mutual trust cannot be converted into transferable credits on a one-to-one basis. Although the EQF and ECVET simplify mutual recognition by purely quantitative measurement of learning outcomes, they do not imply the existence of qualitative equivalence between outcomes (Bohlinger, 2005). This raises the question of the extent to which national particularities are tolerated and of who is to decide and by what criteria, in order to avoid 'wording rigidity' (Le Mouillour et al., 2003, p. 8) – i.e. a recognition of competences (1) based on nothing more than similarities between two or more VET systems. Secondly, there is a risk of introducing too broad and generous a system of recognition, which would lack labour market credibility and fail to reflect the real value of the relevant learning outcomes. This risk is most likely to arise if economic policy objectives such as the promotion of mobility, competitiveness and employability take precedence over those of educational policy, although these aims need not be mutually exclusive. At the other extreme would be the highly complex and formalised scrutiny of learning outcomes, as is already becoming evident at tertiary level in some countries under the Bologna Process; however, this would call for appreciably increased resources in terms of personnel, time and funding.

Again, the debate about the certification and standardisation of competences, which presupposes that they are comparable, clearly demonstrates the heterogeneity of the current approaches (Clement et al., 2006) that are to be combined or made compatible with each other by means of the EQF and ECVET.

Notwithstanding the debate concerning all these difficulties, it may be hoped that action-related competence can be accepted as one of the target categories of the learning-outcome orientation of the EQF – if not by a Community-wide definition of terms and approaches, then by mutual trust among the various actors and their jointly elaborated objectives, having regard to the complexity of the issues and of the foundations in education law.

It is perfectly possible that the difficulties mentioned will diminish in the course of time, particularly as they will not necessarily arise. That will depend on the political will of the actors, on the further progress of European integration and on the degree of cooperation among the actors on social issues and employment policy.

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(1) and by extension also knowledge and skills.

It may therefore be concluded that the main requirement as regards the position to be assigned to competence, including action-related competence, in the EQF is time – the time needed to implement the principles of the EQF, to establish trust between the various actors and countries and to learn more about the approaches of the countries that already have many years of experience with qualifications frameworks and meta-frameworks.

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