

The German Qualifications Framework for Lifelong Learning

adopted by the "German Qualifications Framework Working Group" $(AK\ DQR)$

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I. Introduction

The German Qualifications Framework for Lifelong Learning (known by its German abbreviation of DQR) provides for the first time a framework which encompasses all qualifications within the German educational system across every field of education. In its capacity as a national implementation of the European Qualifications Framework (EQF), the DQR accords due consideration to the specific characteristics of the German educational system and assists in achieving appropriate evaluation and comparability for German qualifications in Europe. The objective is to make equivalences and differences between qualifications more transparent and to use this as a vehicle for supporting permeability. The important aspect here is to achieve reliability via quality assurance and development and to promote the idea that qualifications processes should be based on learning outcomes ("outcome orientation"). This means that the DQR will act in the interests of affording the best possible level of opportunity by helping promote the mobility of learners and employees between Germany and other European countries. The objective is to foster and enhance access to and participation in lifelong learning and use of qualifications for everyone, including those who are disadvantaged or affected by unemployment.

The DQR has undergone a somewhat lengthy process of development. In October 2006, the Federal Ministry of Education and Research (BMBF) and the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK) agreed to work together on the development of a German Qualifications Framework for Lifelong Learning (known by its German abbreviation of DQR).

The starting point for the present decision is the Recommendation of the European Parliament and of the Council on the Establishment of the European Qualifications Framework (EQF), which entered into force on 23 April 2008. This Recommendation encourages the member states to:

Recommendation of the European Parliament and the Council

- "1. use the European Qualifications Framework as a reference tool to compare the qualification levels of the different qualifications systems and to promote both lifelong learning and equal opportunities in the knowledge-based society, as well as the further integration of the European labour market, while respecting the rich diversity of national education systems;
- 2. relate their national qualifications systems to the European Qualifications Framework by 2010, in particular by referencing, in a

transparent manner, their qualification levels to the levels set out in Annex II, and, where appropriate, by developing national qualifications frameworks in accordance with national legislation and practice;

- 3. adopt measures, as appropriate, so that, by 2012, all new qualification certificates, diplomas and 'Europass' documents issued by the competent authorities contain a clear reference, by way of national qualifications systems, to the appropriate European Qualifications Framework level;
- 4. use an approach based on learning outcomes when defining and describing qualifications, and promote the validation of non-formal and informal learning in accordance with the common European principles agreed in the Council conclusions of 28 May 2004, paying particular attention to those citizens most likely to be subject to unemployment or insecure forms of employment, for whom such an approach could help increase participation in lifelong learning and access to the labour market;
- 5. promote and apply the principles of quality assurance in education and training set out in Annex III when relating higher education and vocational education and training qualifications within national qualifications systems to the European Qualifications Framework;"¹

In embracing this recommendation, the primary objective of the BMBF and the KMK is to achieve appropriate alignment of qualifications acquired in Germany and to use this as a vehicle for enhancing the opportunities for our citizens on the European labour market. The BMBF and the KMK have established a joint "Federal Government/Federal States Coordination Group" for the German Qualifications Framework" (known by its German abbreviation of B-L-KG DQR), which has been commissioned with the task of managing the process of drawing up a proposal. This process involves stakeholders from general education, higher education and initial and continuing vocational education and training, the social partners and other experts from research and practice. This has essentially taken place within the "German Qualifications Framework Working Group" (known by its German abbreviation of AK DQR), the members of which have facilitated feedback on results to delegates' home institutions and committees. Further Federal Government and federal state ministers with special responsibility and expertise within this area have been involved in the process along the way.

Development process

¹ Recommendation of the European Parliament and of the Council on the Establishment of the European Qualifications Framework for Lifelong Learning, Strasbourg 23 April 2008

In February 2009, the AK DQR presented a DQR draft (comprising an introduction, matrix and glossary) to act as a discussion proposal for the second phase of development of the DQR². This draft was piloted from May 2009. The results of the pilot phase were evaluated and proposed changes made to the matrix and glossary.

The DQR represents the first comprehensive use of matrix for the alignment of qualifications. It extends *across educational areas* and acts as a considerable aid to navigation within the German educational system. For this purpose the DQR describes on eight reference levels professional and personal competences which direct the alignment of qualifications obtained in general education, higher education and vocational education and training.

Structure of the DQR

The eight reference levels contained within the DQR each describe the competences required to obtain a qualification. They do not, however, map individual learning and occupational biographies. The term competence, constituting the heart of the DQR, depicts the ability and readiness of the individual to use knowledge, skills and personal, social and methodological competences and conduct himself or herself in a considered and individually and socially responsible manner. Competence is understood to refer to comprehensive action skills within this context.

This means that, in line with the German understanding of education, the DQR is subject to a further educational concept even if the DQR, like the EQF, is expressly only focused on selected characteristics. Notwithstanding this, aspects such as reliability, precision, stamina and attentiveness, intercultural and interreligious competence, active tolerance and democratic patterns of behaviour and normative, ethical and religious reflectiveness act as constitutive elements for the development of action skills.

Underlying educational concept

The DQR differentiates between two categories of competence. These are "Professional competence", subdivided into "Knowledge" and "Skills" and "Personal competence", subdivided into "Social competence" and "Autonomy" ("four-column structure"). These analytical differentiations have been actioned in the full knowledge of the interdependence which exists between the various aspects of competence. Given the fact that the DQR consistently makes mention of competence, any use of the modal verb "can" has been avoided throughout the DQR matrix.

Underlying categories

² Discussion Proposal for the Development of a German Qualifications Framework for Lifelong Learning – drawn up by the "German Qualifications Framework Working Group", February 2009

Methodological competence is understood as a transversal competence and for this reason is not separately stated within the DQR matrix.

A standardised structure has been stipulated for the description of the eight reference levels within the DQR.

Level indicator				
Structure of requirements				
Professional	competence	Personal competence		
Knowledge	Skills	Social competence	Autonomy	
			Autonomous	
	Instrumental and	Team/leadership	responsibility/	
Depth and breadth	systemic skills,	skills, involvement	responsibility,	
	judgement	and communication	reflectiveness and	
			learning competence	

The attached glossary contains explanatory definitions of the key terms used.

When using the DQR matrix, consideration needs to be accorded to the fact that each reference level maps *equivalent* qualifications rather than *homogeneous* qualifications. Formulations are in strict accordance with the principle of inclusion. This means that characteristics already described at a lower level are not mentioned again at the subsequent higher levels unless enhancement takes place. Notwithstanding this, the knowledge and skills contained within the description of professional competence at each higher reference level do not necessarily in every case include the knowledge and skills encompassed within the respective level below.

Equivalence of qualifications rather than homogeneity

All *formal* qualifications within the German educational system, including general, and higher education and vocational education and training – encompassing continuing training in each case – are to be included in the alignment of qualifications to the DQR. In addition to this, a further aim is to promote the validation of non-formal and informal learning.

All stakeholders and responsible parties involved are in agreement that the alignment of the qualifications within the German educational system to the reference levels of the DQR should *not* replace the existing system of access qualifications. Achieving a certain reference level of the DQR does not provide automatic entitlement to access the next level. The achievement of a reference level has also not been considered in conjunction with the implications for collective wage agreements and laws relating to remuneration.

No effect on access entitlements

Alignment takes place in accordance with the principle that each qualifications level should always be accessible via various educational pathways. The DQR is compatible with the Qualifications Framework for German Higher Education Qualifications (HQR). With regard to the requirements and competences described, levels 6, 7 and 8 of the German Qualifications Framework correspond to levels 1 (Bachelor level), 2 (Master level) and 3 (Doctorate level) of the Qualifications Framework for German Higher Education Qualifications (cf. Annex).

Relationship to Higher Education Qualifications Framework

The implementation of the DQR provides Germany with an opportunity to further embrace the principle that the important thing is what someone can do, not where he or she has learned to do it. The overall effect of the DQR will be to strengthen lifelong learning.

The rules for the alignment of qualifications acquired in Germany to the levels of the DQR will be specifically developed and stipulated in a handbook.

II. DQR matrix

Level 1

Be in possession of competences for the fulfilment of simple requirements within a clear and stably structured field of study or work. Fulfilment of tasks takes place under supervision.

Professional competence		Personal competence	
Knowledge	Skills	Social competence	Autonomy
Be in possession of elementary general knowledge. Have an initial insight into a field of study or work.	Be in possession of cognitive and practical skills required to carry out simple tasks in accordance with pre-stipulated rules and to evaluate the results of such tasks. Establish elementary correlations.	Learn or work together with others, obtain and exchange information verbally and in writing.	Learn or work under supervision. Appraise own actions and the actions of others and accept learning guidance.

Be in possession of competences for the professional fulfilment of basic requirements within a clear and stably structured field of study or work. Fulfilment of tasks takes place largely under supervision.

Professional competence		Personal competence	
Knowledge	Skills	Social competence	Autonomy
knowledge and basic professional knowledge with a field of study or work.	practical skills required to carry out tasks within a field of study or work, evaluate the results of such tasks in accordance with pre-	Work within a group. Accept and express general feedback and criticism. Act and react in accordance with the given situation with regard to verbal and written communication.	Learn or work in a responsible manner and largely under supervision within familiar and stable contexts. Appraise own actions and the actions of others. Use pre-stipulated learning guides and request learning guidance.

Be in possession of competences for the autonomous fulfilment of technical requirements within a field of study or field of occupational activity which remains clear whilst being openly structured in some areas.

Professional competence		Personal competence	
Knowledge	Skills	Social competence	Autonomy
Be in possession of extended general knowledge or extended professional knowledge within a field of study or field of occupational activity.	Be in possession of a spectrum of cognitive and practical skills for the planning and processing of technical tasks within a field of study or field of occupational activity. Evaluate results in accordance with criteria which are largely pre-stipulated, provide simple transfers of methods and results.	Work within a group and occasionally offer support. Help shape the learning or working environment, present processes and results to the appropriate recipients of such information.	Learn or work autonomously and responsibly including within contexts which are less familiar. Appraise own actions and the actions of others. Request learning guidance and select various learning aids.

Be in possession of competences for the autonomous planning and processing of technical tasks assigned within a comprehensive field of study or field of occupational activity subject to change.

Professional competence		Personal competence	
Knowledge	Skills	Social competence	Autonomy
Be in possession of deeper general knowledge or theoretical professional knowledge within a field of study or field of occupational activity.	Be in possession of a broad spectrum of cognitive and practical skills which facilitate autonomous preparation of tasks and problem solving and the evaluation of work results and processes according consideration to alternative courses of action and reciprocal effects with neighbouring areas. Provide transfers of methods and solutions.	Help shape the work within a group and the learning or working environment of such a group and offer ongoing support. Justify processes and results. Provide comprehensive communication on facts and circumstances.	,

Be in possession of competences for the autonomous planning and processing of comprehensive technical tasks assigned within a complex and specialised field of study or field of occupational activity subject to change.

Professional competence		Personal competence	
Knowledge	Skills	Social competence	Autonomy
Be in possession of integrated professional knowledge within a field of study or integrated occupational knowledge within a field of activity. This also includes deeper, theoretical professional knowledge. Be familiar with the scope and limitations of the field of study or field of occupational activity.	Be in possession of an extremely broad spectrum of specialised, cognitive and practical skills. Plan work processes across work areas and evaluate such processes according comprehensive consideration to alternative courses of action and reciprocal effects with neighbouring areas. Provide comprehensive transfers of methods and solutions.	Plan and structure work processes in a cooperative manner, including within heterogeneous groups, instruct others and provide well-founded learning guidance. Present complex facts and circumstances extending across professional areas in a targeted manner to the appropriate recipients of such information. Act in an anticipatory manner in considering the interests and requirements of recipients.	Reflect on and assess own learning objectives and learning objectives set externally, undertake self-directed pursuit of and assume responsibility for such objectives, draw consequences for work processes within the team.

Be in possession of competences for the planning, the processing and the evaluating of comprehensive technical tasks and problems set and be in possession of competences for autonomous management of processes within subareas of a scientific subject or within a field of occupational activity. The structure of requirements is characterised by complexity and frequent changes.

Professional competence		Personal competence	
Knowledge	Skills	Social competence	Autonomy

Be in possession of broad and integrated knowledge including knowledge of basic scientific principles and the practical application of a scientific subject as well as a critical understanding of the most important theories and methods (corresponding to level 1 – Bachelor level – of the Qualifications Framework for German Higher Education Qualifications)

or

be in possession of broad and integrated occupational knowledge including current technical developments.

Be in possession of knowledge for the further development of a scientific subject

or

of a field of occupational activity.

Be in possession of relevant knowledge at interfaces to other areas.

Be in possession of an extremely broad spectrum of methods for the processing of complex problems

within a scientific subject (corresponding to level 1 – Bachelor level – of the Qualifications Framework for German Higher Education Qualifications), further fields of study

or

field of occupational activity.

Draw up new solutions and evaluate such solutions including according consideration to various criteria even in circumstances where requirements are subject to frequent change. Assume responsibility in working within expert teams

or

show responsibility in leading³ groups or organisations.

Instruct the technical development of others and act in an anticipatory manner in dealing with problems within the team.

Present experts with arguments for and solutions to complex professionally related problems and work in conjunction with such experts on further development.

Define, reflect on and assess objectives for learning and work processes and structure learning and work processes autonomously and sustainably.

³ This encompasses companies, government authorities or non-profit making organisations.

Be in possession of competences for the processing of new and complex professional tasks and problems set and be in possession of competences for autonomous management of processes within a scientific subject or within a strategically oriented field of occupational activity. The structure of requirements is characterised by frequent and unpredictable changes.

Professional competence		Personal competence	
Knowledge	Skills	Social competence	Autonomy
Be in possession of comprehensive, detailed, specialist and state-of-the art knowledge in a scientific subject (corresponding to level 2 – Master level – of the Qualifications Framework for German Higher Education Qualifications) or be in possession of comprehensive occupational knowledge in a strategically oriented field of occupational activity. Be in possession of extended knowledge in adjoining areas.	Be in possession of specialised technical or design concept skills relating to the solution of strategic problems in a scientific subject (corresponding to level 2 – Master level – of the Qualifications Framework for German Higher Education Qualifications) or in a field of occupational activity. Consider alternatives even in circumstances where information is incomplete. Develop and use new ideas or procedures and assess such ideas and procedures according consideration to various evaluation criteria.	Assume responsibility for leading groups or organisations within the scope of complex tasks set and present the results of the work of such groups or organisations. Promote the technical development of others in a targeted manner. Lead divisionally specific and cross-divisional debates.	Define objectives for new applications or research oriented tasks reflecting on possible societal, economic and cultural implications, deploy appropriate means and tap autonomously into own knowledge for the purpose.

Be in possession of competences for the obtaining of research findings in a scientific subject or for the development of innovative solutions and procedures within a field of occupational activity. The structure of requirements is characterised by novel and unclear problem situations.

Professional competence		Personal competence	
Knowledge	Skills	Social competence	Autonomy
Be in possession of comprehensive, specialised, systematic state-of-the art knowledge in a research discipline and contribute towards the expansion of knowledge within the specialist discipline (corresponding to level 3 – Doctorate level – of the Qualifications Framework for German Higher Education Qualifications) or be in possession of comprehensive occupational knowledge in a strategically and innovation oriented field of occupational activity.	Be in possession of comprehensively developed skills relating to the identification and solution of novel problems set in the areas of research, development or innovation within a specialised scientific subject (corresponding to level 3 – Doctorate level – of the Qualifications Framework for German Higher Education Qualifications) or in a field of occupational activity. Also design, implement, manage, reflect on and evaluate innovative processes including in cross-activity areas.	Lead groups or organisations from a position of responsibility in complex or interdisciplinary tasks whilst activating the areas of potential within such groups or organisations. Promote the professional development of others in a targeted and sustained manner. Lead cross-specialist debates and introduce innovative contributions to specialist professional discussions including in international contexts.	Define objectives for new complex applications or research oriented tasks reflecting on possible societal, economic and cultural implications, select appropriate means and develop new ideas and processes.
Be in possession of appropriate knowledge at the interfaces to adjoining areas.	Evaluate new ideas and procedures.		

III. DQR glossary

The main terms used in the DQR are explained below.

- The **structure of requirements** within a > *Field of work or study* contains essential information for the alignment of a > *Qualification* to a reference level. This is described in terms of the characteristics of complexity, dynamics, necessary > *Autonomy* and ability to innovate.
- A **work area** is a field of practical application of > *Competences* and is defined in terms of a characteristic > *Structure of requirements*.
- **Task, fulfilment of,** is the achievement of a defined and desired target status using familiar and stipulated methods. This is delineated from the *Solution to a > Problem*.
- **Field of occupational activity** describes a > *Work area* in which a person is in gainful employment.
- Occupational knowledge is a combination of knowledge of facts, basic
 principles and theories and practical knowledge within a field of activity of
 relevance to the labour market and particularly refers to knowledge of
 possible procedures and approaches to be adopted.
- **Judgement** is the ability to compare learning or work processes and their results against relevant yardsticks and carry out an evaluation on this basis.
- **Breadth** refers to the number of areas contained within general, occupational or technical knowledge associated with a > *Qualification*.
- Autonomy designates the ability and endeavour to make appropriate decisions in various situations and to act without outside assistance.
- Professional competence encompasses > Knowledge and > Skills. It constitutes
 the ability and readiness to process tasks and problems in an autonomous,
 professionally appropriate and methodical manner and to evaluate the
 result.
- **Theoretical professional knowledge** describes > *Professional knowledge* including knowledge of the main theories of a subject.
- **Professional knowledge** describes knowledge of facts, rules and/or justifications.
- **Skills** describe the ability to apply > *Knowledge* and use know-how to complete tasks and solve problems. As in the European Qualifications Framework, skills are described as cognitive (use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments).

- Leadership skills designate the ability to act in a targeted and constructive manner within a group or organisation to steer and guide others and exert an influence on their behaviour.
- **Innovation** is understood to mean the practical implementation of ideas into new products, services, processes, systems and social interactions.
- **Instrumental skills** are applied skills deployed in respect of ideas, theories, methods, tools, technologies and devices.
- **Communication** designates the exchange of information aimed at conveying understanding between persons, in groups and in organisations.
- Competence within the DQR describes the ability and readiness of the individual to use knowledge, > *Skills* and personal, social and methodological competences and to behave in a considered, individual and socially responsible manner. Competence is understood in this sense as comprehensive action skills.
 - The DQR presents competence within the dimensions of > Professional competence and > Personal competence. > Methodological competence is understood as a cross-sectional competence and for this reason is not separately stated within the DQR matrix. (By way of contrast, the EQF describes competence only in terms of the assumption of responsibility and autonomy.)
- Complexity designates the property of a > Requirements structure in which consideration needs to be accorded to a multitude of factors exerting a reciprocal effect and in which the *Solution of > Problems* demands the matching of individual partial aspects and of the overall context within an iterative process.
- **Learning guidance** designates the support of learning processes via the illustration of targets and learning tools. The ability and readiness both to use learning guidance offered and to offer learning guidance oneself are important aspects of > *Personal competence*.
- A **field of study** is an area in which > *Competences* are acquired or developed further and which is defined in terms of a characteristic > *Requirements* structure, e.g. a > *Scientific subject*.
- **Learning outcomes** describe what learners know, understand and are able and ready to do on completion of a learning process. The DQR describes learning outcomes which have been bundled to form > *Competences*.
- **Learning competence** is the ability to obtain a realistic picture of one's own competence development and to take appropriate steps to progress competence development further.
- **Methodological competence** describes the ability to be guided by rules when acting. This may also include the considered selection and

- development of methods. > *Professional competence* and > *Personal competence* each incorporate methodological competence.
- The ability of involvement makes it possible to engage constructively in the further development of environmental conditions within a > Field of study or work.
- Personal Competence is also referred to as human competence and encompasses > Social competence and > Autonomy. It describes a person's ability and readiness to develop further and to shape his or her own life in an autonomous and responsible manner within the respective social, cultural or occupational context.
- **Problem solving** is the achievement of a desired target status. Problem solving (in contrast to *Fulfilment of a > Task*) requires the autonomous specification of the starting situation needing to be overcome (problem definition) and demands the identification and in certain circumstances also the development of methods suitable for the achievement of the goal.
- **Qualification** describes 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.
- **Reflectiveness** includes the ability to deal with changes, to learn from experiences and to think and act critically.
- Autonomy describes a person's ability and readiness to act in an independent and responsible manner, reflect on the own actions and on the actions of others and to develop his or her own action skills further.
- Social competence describes a person's ability and readiness to work together with others in a target oriented manner, understand the interests and social situations of others, deal with and communicate with others in a rational and responsible way and be involved in shaping the world of work and the lifeworld.
- Specialisation designates the development of a deeper expertise in subareas
 of a > Field of study or work where a certain breadth of control or mastery has
 already been achieved.
- Strategy orientation characterises fields of occupational activity in which a
 crucial role is played by the target definition of processes and organisational
 units.
- **Systemic skills** are targeted at generating something new. They are conditional on > *Instrumental skills* and require an ability to assess complex correlations and deal with these adequately.
- The ability to act as part of a team is the ability to cooperate on the achievement of goals within a group.

- **Depth** of knowledge designates the degree of penetration of an area of general, occupational or technical knowledge.
- Responsibility designates the ability and readiness to contribute in a selfdirected manner towards the structuring of processes whilst considering the possible consequences.
- **Knowledge** describes the body of facts, principles, theories and practice within a > Field of study or work as the result of learning and understanding.
- **Scientific subject** indicates a professional specialisation rather than a subject of study and also encompasses creative and artistic areas.

The following terminology is used to describe the DQR.

- **Descriptors** are the texts contained within the individual matrix fields of the DQR. They describe the characteristics of competences at a certain level (e.g. "Skills at level 5").
- The **competence categories** used in the DQR are > *Professional competence* sub-divided into > *Knowledge* and > *Skills*, and > *Personal competences*, sub-divided into > *Social competence* and > *Autonomy*. Reference is made to various sub-categories for alignment to the levels. In the case of knowledge, these sub-categories are > *Depth* and > *Breadth*, in the case of skills > *Instrumental skills*, > *Systemic skill* and > *Judgement*, in the case of social competence > *Team/leadership skills*, > *Involvement* and > *Communication* and in the case of autonomy > *Autonomous responsibility*, > *Responsibility*, > *Reflectiveness* and > *Learning competence*.
- The **level indicator** provides a summary of the characteristics of the requirements structure within a field of study or work, within a scientific subject or within a field of occupational activity.
- The **levels** align competences in accordance with complexity and the dynamics of the respective fields of study and work. The DQR is not an ordinal scale with steps of the same scope. Arithmetic operations such as the calculation of averages are not possible.