

DENMARK

European inventory on NQF 2018

Introduction and context

Denmark is situated well above EU averages on all key education and training indicators and has exceeded EU 2020 targets for adult participation in lifelong learning, participation in early childhood education and care, percentage of early leavers from education and training, and tertiary educational attainment. Denmark continues to belong to the group of countries with the highest investment in education in the EU, despite recent falls, and generally has good education outcomes. However young people from a weak socio-economic and, particularly from an immigrant background lag seriously behind. Although vocational education and training (VET) graduates have a rate of employment above the EU average (81.7% in 2017), relatively few students see this pathway as their first choice. A tripartite agreement aiming to attract young people into VET and to increase completion rates was concluded in August 2017. Under this agreement, employers committed to offering at least 8 000 to 10 000 additional apprenticeship places by 2025. Initiatives to secure a sufficient and qualified workforce in the long run include strengthening financial incentives for companies that offer apprenticeships and the creation of subsidy programmes providing internships. In 2017, VET centres of excellence were launched. These centres have a close and formalised cooperation with other actors relevant for regional growth (European Commission, 2018).

Denmark has developed a comprehensive national qualifications framework (DK NQF) covering all types and levels of qualification awarded and quality assured by public authorities. The work on the framework started in 2006 and builds directly on the qualifications framework for higher education (NQF-HE) ⁽¹⁾ established in 2006/07. Implementation of the eight-level framework has been a gradual process, starting in June 2009 when it was adopted via an administrative decision by the Ministry for Education, the Ministry for Science, Technology and Innovation (which is now the Ministry of Higher Education and Science), the Ministry for Culture and the Ministry for Economic and Business Affairs. The national qualifications framework for higher education was self-certified to the

⁽¹⁾ The first version of the Danish NQF-HE was developed between 2001 and 2003. Following a process of external consultation, the current NQF-HE was approved by ministers and on 1 July 2008 it came into force.

EHEA framework in 2010. The NQF was referenced to the European qualifications framework (EQF) in May 2011.

Policy objectives

The Danish NQF provides a comprehensive, systematic overview of public qualifications ⁽²⁾ that can be acquired within the Danish education and training system.

The overall objective of the NQF, as expressed in the referencing report, is to support transparency in the Danish qualifications system and to further the opportunities for mobility and lifelong learning by:

- (a) providing a comprehensive overview of qualifications approved by national authorities, while simultaneously making routes through the education system visible; thus making it easier for students and pupils to find out how to build upon the qualifications they already have;
- (b) aiding mutual recognition between Danish and non-Danish qualifications.

The NQF has no regulatory functions in terms of the development and quality assurance of qualifications. Inclusion of Danish qualifications in the NQF and the quality assurance of qualifications are linked to acts and executive orders within existing legal frameworks for publicly recognised qualifications.

The framework supports development of a transparent education for the purpose of mobility and recognition, training and learning system without dead ends; it supports learner progression irrespective of prior learning, age or employment situation. The purpose is also to consolidate the learning-outcome-based foundation of Danish qualifications.

The NQF adopted in 2009 is considered to be a first step in a long-term development process. Currently, the framework includes nationally regulated and quality assured qualifications from formal education and training. A process for including qualifications awarded outside formal education and training in the Danish NQF has now been initiated, with an expected outcome in summer 2019.

⁽²⁾ The Danish Evaluation Institute specifies this as '...all qualifications that have been awarded pursuant to an act or executive order and that have been quality assured by a public authority in the Danish education system' (Danish Evaluation Institute, 2011, pp. 13-14).

Levels and use of learning outcomes

The Danish qualifications framework draws a clear distinction between levels 1 to 5 and levels 6 to 8. The latter are identical with the levels descriptors in the Danish qualifications framework for higher education at bachelor, master and doctoral levels, and contain explicit references to research related outcomes. A broader descriptor has been drawn up for level 5 in the NQF than for the corresponding level descriptor in the national NQF-HE for short cycle degrees; this makes it possible to include qualifications at level 5 acquired through certain vocational education and training or certain maritime vocational education and training programmes.

Qualifications have been assigned to NQF levels using two different principles. A qualification at levels 1 to 5 is assigned according to a ‘best fit’ principle where the final decision is based on overall judgement of the knowledge, skills and competences of a particular qualification (type). A principle of ‘full fit’ is used for levels 6 to 8, as is the case for the Danish qualifications framework for higher education; this means that qualifications at this level have to be accredited ⁽³⁾ as meeting the legal requirements set by national authorities and according to the qualifications framework for higher education for qualifications at these levels.

All current publicly recognised qualifications in the Danish education system at level 6 to 8 are included in the qualifications framework for higher education.

The eight-level structure adopted for the Danish NQF is defined by knowledge (*Viden*), skills (*Færdigheder*) and competences (*Kompetencer*). Danish level descriptors have been based on a number of different sources, including existing descriptions of learning outcomes in curricula and programmes, the EQF descriptors, and the Bologna descriptors. They have been designed to be relevant to different types of qualification, theoretically as well as practically oriented. Knowledge (*Viden*) descriptors emphasise the following:

- (a) the type of knowledge involved; knowledge about theory or knowledge about practice; knowledge of a subject or a field within a profession;
- (b) the complexity of knowledge; the degree of complexity and how predictable or unpredictable the situation in which the knowledge is mastered;

⁽³⁾ The process of accreditation in Danish HE, and how this links to the learning outcomes principle, is well documented in the 2013 report:
https://www.nokut.no/contentassets/a4895de04f3744f0ab9f31330ad12cd8/learning_outcomes_in_external_quality_assurance_approaches_noqa_report_-220413_250613.pdf

- (c) understanding; the ability to place one's knowledge in a context. For example, understanding is expressed when explaining something to others.

Skills descriptors refer to what a person can do or accomplish and reflect the following aspects:

- (a) the type of skill involved; practical, cognitive, creative or communicative;
- (b) the complexity of the problem-solving; the problem-solving these skills can be applied to, and the complexity of the task;
- (c) communication; the communication that is required; the complexity of the message; to which target groups and with which instruments?

Competence descriptors refer to responsibility and autonomy and cover the following aspects:

- (a) space for action; the type of work/study related context in which knowledge and skills are brought to play, and the degree of unpredictability and changeability in these contexts;
- (b) cooperation and responsibility; the ability to take responsibility for one's own work and the work of others, and the complexity of the cooperative situations in which one engages;
- (c) learning;
- (d) the ability to take responsibility for one's own learning and that of others ⁽⁴⁾.

Level descriptor in the Danish NQF for lifelong learning

Knowledge/ <i>Viden</i>	Skills/ <i>Faerdigheder</i>	Competences/ <i>Kompetencer</i>
Type and complexity	Type	Space for action
	Problem solving	Cooperation and responsibility
Understanding	Communication	Learning

Source: The Danish Evaluation Institute et al. (2011), p. 17.

These descriptors are used to address both full and supplementary qualifications ⁽⁵⁾.

The role of supplementary qualifications is particularly important for adult education and for continuing vocational education and training. A supplementary qualification can be a supplement (addition) to a qualification, a part (module) or an independent entity not related to any other qualification.

⁽⁴⁾ The Danish Evaluation Institute (2011), pp 17-18.

⁽⁵⁾ The Danish qualifications framework for lifelong learning encompass all officially accredited degrees and certificates in the Danish education system and certificates for supplementary qualifications acquired in the adult education system.

The learning outcomes approach is widely accepted in all segments of education and training and is increasingly being used to define and describe curricula and programmes. However, the descriptions are often divided according to subject, meaning that there is not always a comprehensive presentation of the overall learning outcome for the entire qualification. In vocational education and training, for example, the student must comply with both defined learning outcomes and competence objectives to gain admission to the main course after the basic course, as well as to be awarded certificates for VET programmes. In higher education all qualifications are clearly described using a learning outcome based terminology. This shift from input- to output-based steering is supported by the Danish quality assurance approach of accreditation; learning outcome is an important reference point for accreditation of new and existing programmes.

Stakeholder involvement and institutional arrangements

A broad range of stakeholders has been involved throughout the development and implementation period. The social partners have been systematically consulted and involved; their role is being described as constructive and as a precondition for the implementation of the framework. Some social partner representatives, notably employers, have pointed out the need to move to a second and more inclusive development stage.

The Danish NQF implementation is steered by the inter-departmental National Coordination Committee for the Danish Qualifications Framework established in 2006 with representatives from the four ministries with responsibility for lifelong learning in Denmark: the Ministry of Education, the Ministry of Higher Education and Science, the Ministry of Culture and the Ministry of Economic and Business Affairs. Stakeholders are consulted through the committee for all developments regarding the framework implementation and regular update. All stakeholders have been consulted on the principles and procedures for the inclusion of non-formal qualifications in the Danish NQF.

The Danish EQF national coordination point (NCP) has taken on an active role in the day-to-day coordination of the framework. The NCP is located in the Danish Agency for Science and Higher Education within the Danish Ministry of Higher Education and Science, which also hosts the DK national academic recognition information centre (NARIC). The NCP informs stakeholders of the results of the national referencing process and correlation between the national qualifications framework and the EQF. It provides information about the background and purpose of establishing the EQF, administers and develops the website on the national qualifications framework and its referencing to the EQF,

and participates in dialogue with other countries about the mutual recognition of qualifications (Danish Evaluation Institute et al., 2011, p. 29). Responsibility for other areas, such as quality assurance of qualifications in the national qualification framework and their levelling, lies with the ministries responsible for education and training. The NCP appointed by the three ministries represents the Danish Ministry of Higher Education and Science in the coordination committee.

A main task for the NCP has been to coordinate stakeholders involved in framework implementation, as well as disseminating information to a wider public.

Recognising and validating non-formal and informal learning and learning pathways ⁽⁶⁾

Validation of non-formal and informal learning has been on the policy agenda in Denmark for about 20 years and is seen as a key element in promoting lifelong learning. Competence assessment, and the possible outcomes in terms of access, exemption or acquisition of certificates, varies among the education and training sectors (VET, higher education and adult education sectors). A legal framework for validation of prior learning (VPL), based on common principles in adult education and training, has been in place since 2007.

It is acknowledged that there is a need to link VPL activity for individuals more to the development of job profiles. This means giving employers at workplace level greater responsibility in showing job perspectives to employees potentially having a VPL.

More commitment is called for from stakeholders, including employers at company level, social partners and key actors in education. This is especially the case at VET and CVET schools where the social partners are occupying all seats on the boards and where they are able to be more strategic, giving greater priority to VPL activity. Official statistics should be more comprehensive and systematic, covering all VPL activity, and should be presented in an updated version.

Since the 2016 inventory update, the main changes for VPL in Denmark are identified in relation to adult education: general adult education (AVU) and adult vocational education and training (AMU), vocational education and training (VET)

⁽⁶⁾ This section draws mainly on input from the 2018 update to the *European inventory on validation of non-formal and informal learning* (European Commission et al., forthcoming).

and continuing vocational education and training (CVET). VET reform in 2015 included a separate programme for adults (vocational upper secondary education and training for persons over the age of 25 years, EUV). This required mandatory VPL for the candidate prior to education being carried out, leading to individual shortening of the VET period. An evaluation of the EUV carried out by the Danish Evaluation Institute (EVA) in 2017 showed that shortening is not a primary motivation for adult learners. Based on this, the criteria were revised and VPL no longer leads to compulsory shortening of the EUV; instead, this is optional to the individual learner.

Adult learners who do not opt for VET shortening must be offered teaching at a higher level or other relevant vocational teaching. This adjustment came into effect by 1 January 2018.

The use of VPL for adult education and CVET is prioritised by various means and incentives. For the AMU there will be a higher taximeter ⁽⁷⁾ to the VET providers, including also for the VPL. Wage compensation is also raised from, 80 % to 100 % of unemployment benefit. The financial incentives aim to motivate employers and education institutions to provide more vocational education courses for adults as well as increasing recognition of prior learning. A project aiming at developing both common guidelines and digital tools for HE-institution use of VPL was launched in December 2018, scheduled to finish in 2021. A working group with labour market and HE-institutional representation has also been set up. The working group has been tasked with developing recommendations by the end of 2019 to promote the use of VPL. Though not directly addressed as 'upskilling pathways', the legal framework for validation of prior learning serves as a key instrument for upskilling pathways for adults. Validation of non-formal and informal learning has been on the policy agenda for about 20 years and is regarded as a key element in promoting lifelong learning in Denmark. In practice, validation of non-formal and informal learning in Denmark generally provides individuals with the following opportunities:

- (a) to be granted access to formal education and training programmes if they do not meet formal entry requirements;
- (b) to get exemptions for parts of a formal education and training programme and/ or to have an individual tailored education and training programme;
- (c) to acquire a 'certificate of competence' leading to access/exemptions in adult education and training programmes;

⁽⁷⁾ <http://eng.uvm.dk/-/media/filer/enguvvm/enguvvm/pdf/fact-sheets/101221-the-taximeter-system.pdf?la=en>

- (d) to obtain 'education certificates' for parts of/or a whole education programme on the basis of validation of prior learning.

NQF implementation

The Danish NQF has reached an advanced operational stage and is well embedded in the national education, training and qualification structure. All qualifications from VET, higher education, general education and adult education have been assigned to the NQF levels and included in the database. The regulation on opening up the framework has been in force since January 2018 and criteria and procedures for inclusion of non-formal qualifications are expected to be adopted in summer 2019.

There is no specific legal act on the Danish national qualifications framework for lifelong learning (NQF). In higher education, it is implemented via the accreditation act ⁽⁹⁾. On all other levels, it is integrated in educational orders. The description of Danish qualifications in learning outcomes forms the basis for recognition of prior learning (RPL) as well as credit transfer decisions. NQF and EQF levels are indicated in qualifications and qualification supplements being issued.

An evaluation was carried out in 2013 by the Danish Evaluation Institute ⁽¹⁰⁾ to assess the speed and quality of the formal implementation process, to check how the framework is judged by potential users, and to provide a basis for future improvements. The evaluation shows there is good awareness and understanding of, and overall satisfaction with, the Danish NQF for lifelong learning. It was seen as a necessary and valid tool for developing qualifications and programmes at all levels. However, the survey also revealed that there is a need to disseminate further the potential of the NQF to employers and for more assistance to institutions in describing programmes in learning outcomes.

The NQF is visible to the general public through two (interconnected) websites. The ufm.dk ⁽¹¹⁾ provides information for an international target group, presenting the NQF and the qualifications it covers. The ug.dk website ⁽¹²⁾

⁽⁸⁾ <https://www.retsinformation.dk/Forms/r0710.aspx?id=198244>

⁽⁹⁾ <https://www.retsinformation.dk/Forms/R0710.aspx?id=198244>

⁽¹⁰⁾ <https://www.eva.dk/ungdomsuddannelse/evaluering-danske-kvalifikationsramme-livslang-laering>

⁽¹¹⁾ https://ufm.dk/en/education/recognition-and-transparency/transparency-tools/qualifications-frameworks?set_language=en&cl=en

⁽¹²⁾ <https://www.ug.dk/> [assessed 30.10.2018].

addresses a national target group and provides comprehensive information on qualifications, programmes, and access. This website also provides comprehensive information on the NQF and the qualifications levels, and explains the concept of learning-outcomes-based levels and how these can be used by learners.

Referencing to the EQF

The DK NQF was referenced to the EQF in May 2011 (Danish Evaluation Institute et al., 2011). The result shows strong convergence between the Danish framework and the EQF with a linking of Danish level 1 and 2 to EQF level 2. A particular challenge was linked to referencing qualifications at NQF/EQF levels 5, which include short cycle qualifications, and some upper secondary vocation qualifications sitting next to each other.

Important lessons and the way forward

The Danish NQF is well known by main stakeholders, with more mixed results for employers and employment services.

It has influenced many areas. First, it has had high impact on promotion and use of learning outcomes, permeability of the education and training system and review, renewal and quality assurance of qualifications. The impact on validation of non-formal and informal learning has been good in the VET sector and growing in higher education.

It has been supportive to recognition of foreign qualifications, used in decisions as one important transparency tool, but also partly jeopardised by uneven international referencing of similar qualifications, most notably short-cycle. These qualifications raise specific challenges in terms of levelling, not in the national context but the fact that some countries have referenced short-cycle qualifications to level 6 in the EQF.

The NQF has also had some impact on dialogue and cooperation between stakeholders in education and training and between education and training and labour market stakeholders, but this has not been extensive (European Commission and Cedefop, 2018).

Denmark has now started on the task of including qualifications awarded outside formal education and training in the national qualifications framework. This will strengthen the relevance of the framework for the labour market and the social partners. The Parliament passed new legislation on accreditation in

2017 ⁽¹³⁾ mandating the Danish Accreditation Agency, in cooperation with relevant ministries, to develop principles and procedures for the inclusion of qualifications awarded outside formal education and training in the Danish NQF.

The aim is to establish a more open and comprehensive framework and create more transparency in line with the emphasis on lifelong learning. It also aims to create a better foundation for HE institutions to admit students and give credits for qualifications and learning outcomes achieved outside formal education, opening up new pathways into formal education and training. Increasing the employability of holders of qualifications awarded outside formal education and training by describing them in learning outcomes is also important, as it will help employers understand and value the content and profile of a qualification. Criteria and procedures are being developed. Implementation and dissemination of procedures and criteria is foreseen in spring 2019 ⁽¹⁴⁾.

Main sources of information:

- The Danish Agency for Science and Higher Education; acts as EQF national coordination point: <http://ufm.dk/en/the-minister-and-the-ministry/organisation/danish-agency-for-science-and-higher-education> [assessed 2.11.2018]
- The Danish NQF website: <http://ufm.dk/en/education-and-institutions/recognition-and-transparency/transparency-tools/qualifications-frameworks> [assessed 2.11.2018]
- Register of qualifications and programmes included in the NQF: <https://www.ug.dk/>
- The Danish Evaluation Institute (et al.) 2011: Referencing the Danish qualifications framework for lifelong learning to the European qualifications framework:
- https://ec.europa.eu/ploteus/sites/eac-eqf/files/DK_Qualifications_Framework_Referencing_Report_and_Self-certification_Report.pdf

⁽¹³⁾ <https://www.retsinformation.dk/Forms/r0710.aspx?id=198244>

⁽¹⁴⁾ Interview with Allan Bruun Pedersen from the Danish Agency for Science and Higher Education in the Cedefop magazine *Skillset and match*, Vol. 15, January 2019: A Nordic network of aspiration for qualifications.
<http://www.cedefop.europa.eu/en/news-and-press/magazines>

Danish national qualifications framework (DK NQF)

NQF levels	Certificates and degrees	Certificates for supplementary qualifications (*)	EQF levels
8	PhD degree (<i>Ph.d. grad</i>)		8
7	Master degree – Candidatus (<i>Kandidat og masteruddannelser</i>) Master degree in arts/fine arts Master degree		7
6	Bachelor degree (<i>Bachelor og diplomuddannelser</i>) Bachelor degree in arts Professional bachelor degree (<i>Professionsbacheloruddannelser</i>) Diploma degree		6
5	VET certificate Academy profession degrees (<i>Erhvervsakademi uddannelser</i>)		5
4	General upper secondary school certificate (<i>Gymnasiale uddannelser</i>) Certificate for two-year general upper secondary programme (higher preparatory examination) VET certificate	Certificate for supplementary single subject courses at upper secondary level Adult VET certificate Certificate for single subject VET	4
3	VET certificate	Basic programme VET Certificates for supplementary, single subject VET courses Higher preparatory courses, single course subjects General adult education level D Adult VET certificate Certificates for single subject courses in VET	3
2	Leaving certificate for primary and lower secondary school - 10th grade (<i>10. klasse afgangsprøve</i>)	Basic VET certificates General adult education (levels E and F, approximates 10th grade) Adult VET certificate	2
1	Leaving certificate for primary and lower secondary school (ninth grade) (<i>Folkeskolens afgangsprøve</i>)	Certificate for preparatory adult education Certificate for general adult education (level G, approximates ninth grade)	2

(*) Acquired in adult education and training.

Source: Adapted from Danish Ministry of Higher education and Science, 2017. <https://ufm.dk/en/education-and-institutions/recognition-and-transparency/transparency-tools/qualifications-frameworks/types-of-certificates-and-degrees/hardtbleview>

Abbreviations

DK NQF	Danish national qualifications framework
EQF	European qualifications framework
EUV	VET for adults
NCP	national coordination point
NQF	national qualifications framework
VET	vocational education and training
VPL	validation of prior learning
AVU	general adult education

References

[URLs accessed 4.2.2019]

- European Commission (2018). *Education and training monitor 2018: Denmark*.
http://ec.europa.eu/education/resources-and-tools/document-library/education-and-training-monitor-country-analysis-volume-2-2018_en
- European Commission; Cedefop (2018). *Survey on implementation, communication and use of NQF/EQF [unpublished]*.
- European Commission; Cedefop; ICF International (forthcoming). *European inventory on validation of non-formal and informal learning 2018: country report: Denmark*.
- Danish Evaluation Institute et al. (2011). *Referencing the Danish qualifications framework for lifelong learning to the European qualifications framework*.
https://ec.europa.eu/ploteus/sites/eac-eqf/files/DK_Qualifications_Framework_Referencing_Report_and_Self-certification_Report.pdf
- Danish Evaluation Institute (2013). *Evaluering af den danske kvalifikationsramme for livslang læring-status for implementering og anvendelse af kvalifikationsrammen [The Danish qualifications framework for lifelong learning: status for implementation and use of the qualifications framework]*.
<https://www.eva.dk/ungdomsuddannelse/evaluering-danske-kvalifikationsramme-livslang-laering>
- Hansen, J.B. et al. (2013). *Learning outcomes in external quality assurance approaches: investigating and discussing Nordic practices and developments*.