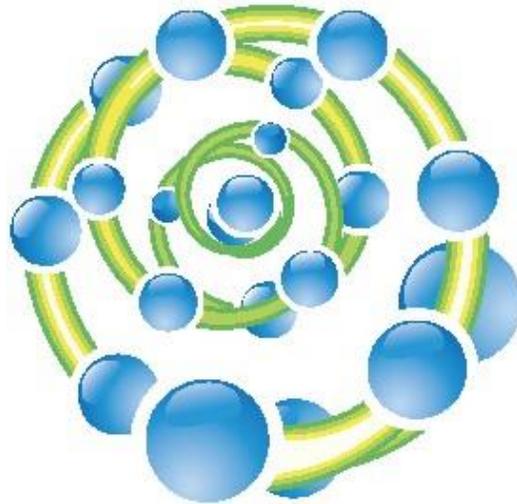


Apprenticeship-type schemes and structured work-based learning programmes

Denmark



METROPOL

This article on apprenticeship-type schemes and structured work-based learning programmes is part of a set of articles prepared within Cedefop's ReferNet network. It complements general information on VET systems available online at <http://www.cedefop.europa.eu/EN/Information-services/vet-in-europe-country-reports.aspx>.

ReferNet is a European network of national partner institutions providing information and analysis on national VET to Cedefop and disseminating information on European VET and Cedefop work to stakeholders in the EU Member States, Norway and Iceland.

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The article is based on a common template prepared by Cedefop for all ReferNet partners.

The preparation of this article has been co-financed by the European Union and The Danish Ministry of Education..

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A. Definitions and statistics

In Denmark, apprenticeship curriculum leads to a formally recognized qualification and it is included in the national qualifications framework. It provides a full set of knowledge, skills and competences to give access to a specific occupation that is recognized by employers.

This article will describe apprenticeship-type schemes and work-based structured programmes in the field of VET, regulated by the Act on Vocational Education and Training.

The vast majority of the Danish VET schemes are placed at EQF-level 3 and 4 and few are placed at EQF-level 5.

The Danish VET system is part of the overall youth education system and aims at developing the general, personal and vocational skills of young people. The system is based on three main principles:

- the dual training principle, i.e. periods in school alternating with periods of training in an enterprise. This principle ensures that the apprentice acquire theoretical, practical, general and personal skills which are in demand by the labour market;
- the principle of social partner involvement, whereby the social partners take part directly in the overall decision making and daily running of the VET system;
- the principle of lifelong learning, i.e. the system is highly flexible, offering learners the possibility of taking part of a qualification now and returning to the VET system at a later point in time to add to their VET qualifications in order to access further and higher education. Furthermore, VET and continuing VET (CVET) are integrated in order to ensure coherence between different
- qualifications and competence levels.

The Danish system of apprenticeship-type schemes / work-based programmes consists of 5 key elements, which all lead to a formally recognised qualification that gives access to a specific group of occupation recognised by the employers. 1+2+3 gives access to fully qualified skilled jobs and 4+5 gives access to partially qualified skilled jobs. For all 5 elements the apprentice shall have a training agreement which is a legally binding contract with an enterprise:

1. Vocational Upper Secondary Education and Training (IVET)/*Erhvervsuddannelse*/EUD, which is the 'main road' used by the large majority of students
2. Combined Vocational and General Upper Secondary Education, EUX-Programme (New Academic Preparation Programme) – a relatively new pathway, used by highly motivated students aiming at obtaining a double qualification
3. New Apprenticeship (*Ny Mesterlære*), used by students with a practical approach to learning
4. Basic Vocational Education and Training (egu), used by students with a practical approach to learning
5. Individual vocational education and training, used by a very small minority of students

A.1. Vocational Upper Secondary Education and Training (IVET)

The Danish vocational upper secondary education and training programmes (IVET) are alternating or sandwich-type programmes, where practical training in a company alternates with teaching at a vocational college. The vast majority of all students and apprentices in the Danish VET system take this path.

IVET consist of a basic and a main programme. The student is required to have a training agreement with a company approved by the social partners (a confederation of representatives of employers and employees) in order to accomplish the main programme. There are 111 vocational education and training programmes in Denmark, each of which can lead to a number of vocational specializations.

Vocational upper secondary education and training (IVET) includes agricultural, commercial, maritime, technical, social and healthcare programmes. They typically start with a foundation course with duration of between 20 and 60 weeks. The basic/foundation course is generally college-based, although alternative pathways exist.

The duration of the programmes typically are 3-3½ years, but can be shorter or longer for certain programmes (from 1½ and up to 5 years). In order to complete the main course, the student must have a training agreement with an approved company which offers training. The agreement can cover all or parts of the basic course, but is compulsory for the main course.

Examples:

Social- and Healthcare Worker: approx. 1 year and 2 months (1. level)



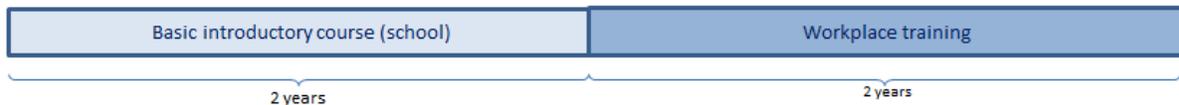
IT-supporter: approx. 2 year and 6 months



Carpenter: 4 year



Mercantile: 4 year



The vocational programmes are organized in 12 clusters. Each cluster consists of a number of programmes:

Basic courses	Number of programmes in the cluster
1. Motor vehicle, aircraft and other means of transport	6 programmes
2. Building and construction	15 programmes
3. Construction and user service	3 programmes
4. Animals, plants and nature	9 programmes
5. Body and style	3 programmes
6. Human food	11 programmes
7. Media production	7 programmes
8. Business	8 programmes
9. Production and development	30 programmes
10. Electricity, management and IT	7 programmes
11. Health care and pedagogy	4 programmes
12. Transport and logistics	7 programmes

The objective of vocational education and training programmes is to motivate young people to complete a programme of training that can qualify them for employment and at the same time, accommodate the needs of the labour market.

The programmes aim to give the young people a taste of further education and active participation in society by developing the students' personal and social skills like building a spirit of independence and cooperation, and stimulating their awareness about innovation, environment and internationalization.

Those who have completed VET can immediately work within the line of industry or trade that is the focus of the programme. The target group of vocational education and training programmes are not only students who come directly after obtaining basic school education, but also adults with prior vocational experience.

The number of VET students per year is shown in the scheme below:

	2004	2005	2006	2007	2008	2009	2010	2011	2012
IVET / Basic Course	43,299	45,470	45,826	44,475	44,256	47,366	49,172	48,551	48,019
IVET / Main Course	35,923	36,446	37,845	38,941	38,268	37,782	40,864	40,480	39,655

Source: <http://statweb.uni-c.dk/Databanken/uvmDataWeb/ShowReport.aspx?report=EAK-tilgang-erhudd>

All students must have their competences assessed in order to receive credit for prior learning. On this basis, the student, the college and if appropriate, the company offering practical training, draw up a plan for the student's training. The plan can be adjusted if the student changes his/her educational plans along the way.

The student's results are entered into the student's education book (portfolio/log-book), for example the marks the student is awarded and the guidance he/she receives, following each school-based and practical period, enabling the students to see where they need to improve. The personal education plan and education book are drawn up in an electronic system that can continuously register the parts of the programme that the student has completed.

A.2. Combined Vocational and General Upper Secondary Education, EUX-Programme (New Academic Preparation Programme)

Combined vocational and general upper secondary education (EUX) was introduced in 2010 and offers an opportunity for young people to obtain a qualification providing full access to both higher education and the skilled labour market. The programme is still in its early stages and is currently only offered in conjunction with 17 of the main programmes and at a few VET colleges, although others are under development. Programmes are developed by relevant national trade committees and approved by the Ministry of Education.

In terms of volume, 30 students approximately started a EUX-programme in the academic year 2010/11, approximately 400 students started in the academic year 2011/12 and approximately 700 students in the academic year 2012/13. It is expected that the number of applicants will increase significantly in the coming years.

The programme duration varies, just as it varies for main programmes, but it will be longer than standard IVET. Example:



The ability to choose EUX in the future will mainly depend on the final number of key areas and individual education placement herein. The EUX-programmes has been criticized by employers for being too expensive. This could be the reason why the programme has faced some initial problems in finding the necessary number of internships for the students.

A.3. New Apprenticeship (*Ny Mesterlære*)

Students who prefer practical training to school attendance can commence their vocational education in a company which offers practical training. In the 'New Apprenticeship' the student enters a training agreement with a company and during the first year must acquire the same as the students who have followed the basic programme at a college. This requires flexible adaptation on the part of the student, the company and the college. This option has been introduced to make access easier for students who are more inclined towards learning through practical methods. This especially applies for some of the technical vocational programmes and is not very common for the other programmes.

The practical training ends with a practical task. The solution of the task typically takes place in the company and is based on what the student has worked with in the period. The task is assessed pass/fail basis by a master and contact teachers together.

2.267 students have signed a training agreement in the new apprenticeship-scheme in 2013.

A.4. Basic Vocational Education and Training (egu)

EGU is an alternating or sandwich-type training programme where practical training is combined with a subject-relevant school-based part in an overall 1½-3-year programme in which the school-based part lasts between 20 to 40 weeks.

The school-based elements are taken from a number of existing education and training programmes.

The objective of EGU is for the pupils to achieve personal, social and professional qualifications that both admit them to one of the other education and training programmes leading to a professional qualification, and provide a basis for employment. The programme and the competence aimed at, within a professional sector, are described in the EGU-pupil's personal education plan.

The young people in question are typically, practically-oriented, often come with a weak educational background, and are not very academically inclined. The annual intake to EGU was approximately 1500 pupils in 2012.

A.5. Individual vocational education and training

Individual vocational education and training programmes can be organized if a VET has not been established within a certain area of employment where a student can procure a training agreement. The VET can be composed of elements from different vocational education and training programmes, but a training agreement must be entered into. This option has up till now only been used by a few students.

B. Specific features of the above schemes/programmes

B.1. Governance

The Danish vocational education and training programmes are governed by target and performance management. The Danish Parliament (Folketing) decides the general framework for the vocational education and training system. This applies to the management, structure and objective of the programmes and also the frameworks for the institutions' tasks and development.

The social partners play an institutionalized role at all levels in the VET system. They make sure that the provision of VET is in line with the needs and demands of the labour market and they are in close contact with the Ministry of Education where they are advising the Ministry on principle matters concerning VET.

In addition to the social partners, the other stakeholders in the area are also involved in the overall management of the programmes. The Minister for Education appoints a Council for Vocational Training, which consists of a number of members nominated by the social partners. There are, in addition, representatives of managements, teachers and students. The possibility also exists to appoint special experts. The task of the Council is, on the general level, to give advice on the educational issues concerning the vocational education and training system, for example on structure, accreditation of colleges and on the framework for content and assessment. In addition, the Ministry of Education can appoint Development Committees so that new job areas can quickly be investigated and, where appropriate, be covered by education and training programmes.

The members of the Development Committees will typically be representatives from the Ministry of Education, the Ministry of Employment, researchers in labour market and vocational training areas and other stakeholders. This typically takes place in completely new areas with no existing trade committees.

The employers and employees set up a number of trade committees – approximately 50 in Denmark. The trade committees lay down the detailed content of the education and training programmes within the general framework. This applies to the duration and structure of the programmes, their objectives and assessment, as well as the distribution between practical training and school-based teaching. The committees are obliged to follow the development on the labour market and on this basis to take the initiative to new education and training programmes and adjustments to or closing of existing programmes, if not required any more, by the labour market. It is also the Trade Committees that assess and approve enterprises as qualified as training establishments and the Trade Committees are also the place where conflicts are resolved between the enterprise providing practical training and the apprentice.

At the colleges, the trade committees appoint local education committees for each of the programmes at the college. At the local level, they are required to advise the colleges about the planning of the program and work towards the development of cooperation with local trade and industry and strive to obtain more internship.

The VET providers – the colleges in Denmark – are self-governing institutions led by governing boards with representation of teachers, students, administrative staff and the social partners. The colleges assume the everyday responsibility for teaching and examination. They work closely with the trade committees in determining course content and the long term development of VET in Denmark.

B.2. Support for companies (SME), offering company placements

The cooperation between vocational colleges and companies is supported by a group of professionals at the colleges, LOP-konsulenter (consultants working with placements in companies). All Danish VET institutions have these professionals working in their staff.

There is free admission to almost all the basic VET programmes, EUX-programmes and the new apprentice. Most students commence their vocational education with a basic programme at a college, but they can also start directly in a company and take the basic programme after a period of time at the company.

The school-based part of the vocational education and training programmes is financed by the state on the basis of a taximeter system (pay per student).

The student receives wages from the company for his or her work during the practical training. The Employers' Reimbursement Fund (AUB) reimburses the company for the student's wages when the student is attending college. All companies, both public and private, contribute with a fixed annual amount to this fund for each of their employees – no matter if they have apprentices or not. The students are expected to finance their wages through productive work during their internships. Teaching is free of charge for the students, and students in the basic programme who do not have a training agreement can receive grants from the Danish State Education Grant and Loan Schemes if they meet the required criteria. During the school-based part of the programme, EGU pupils receive a weekly school allowance.

B.3. New practical training centers

In 40-50 percent of the vocational programmes, school-based practical training is offered to students who are unable to obtain an internship within a reasonable time limit (2 months). This is part of the educational guarantee. However, it is imperative that the student, at first, tries himself/herself to obtain a practical training contract. Furthermore, the student has to be prepared and ready, both in terms of education and physical condition to embark on a vocational education programme.

In September 2013, the Danish government and the Ministry of Education decided to establish 50 new practical training centers in connection with selected vocational colleges all over Denmark aiming to offer a school based practical training in company-like surroundings.

An intense focus on quality in training and development of teachers/trainers competencies shall ensure that students without an ordinary training agreement can get same level of practical training as it would be in a company.

The training centers represent a new way of practice placement and vocational colleges will have a greater share of responsibility for putting together a student's total education plan if the student has not received a regular training contract with an employer for the entire education programme.

In connection with the establishment of training centres, the legislation has been revised in order to give more flexibility for the students who do not have a full contract with a company. It means that the student with help from the training center can get short time contracts in different companies, so that they can have as much practical training as possible in their educational pathway. At the same time, new models for combination of ordinary internship and training in the new training centers are introduced, and efforts are made to strengthen the use of internships abroad according to the so called *PIU-ordning* (Practice Abroad).

B.4. Career guidance

Every vocational college has a number of educational guidance counsellors supporting and guiding the students in completing their education and training programmes. At the vocational college, the student is also assigned a 'contact teacher' who is to contribute to a good educational environment and support the individual student. Students with special needs will receive the support of a mentor. In special cases, they can be offered psychological support.

In line with the VET reform that was passed in Parliament in August 2014, there is also a proposal of a new reform in guidance aiming to support the connection between compulsory school and VET focusing on the students with special needs.

The college is obliged to actively assist the student to find practical placements in companies and also receives a special grant for this work, including a grant for each training agreement entered by the students and registered by the college.

B.5. Quality assurance in work-based learning and/or apprenticeship

Supervision of vocational education and training programmes and the vocational colleges is the task of the Ministry of Education. The trade committees approve the companies to undertake training during an internship and are responsible for monitoring the in-company training.

Following consultation with the national Council for Vocational Training, the Ministry accredits the colleges' supply of VET programmes based on a number of criteria.

There is a requirement that all colleges have a quality control and management system for continuous quality assessment and development in which self-evaluation on the basis of the college's results, forms a part. The results must be made public on the college website together with a follow-up plan for improvement. Many colleges are parts of networks to compare their results and for mutual inspiration. All the VET programmes and colleges can be included in evaluations carried out by the Danish Evaluation Institute.

The trade committees are obliged to conduct continuous quality development and quality assurance of the educational and training programmes and the companies offering practical training. In particular, they must follow developments in employment and completion rates of the trainees. They are in continuous dialogue with the Ministry concerning the education and training programmes.

B.6. Enhanced programme attractiveness

In 2013, the Danish government launched a proposal for a reform of the Danish VET system, 'Skilled for the future'. This proposal is passed in Parliament in the summer of 2014 and contains a lot of initiatives aiming to enhance the attractiveness of the Danish VET system.

Some of the most important initiatives are:

1. Clear targets
2. An attractive education environment for youth education and training
3. A more simple structure and more clarity in the VET system
4. Better opportunities for further education and training
5. New VET track for adults aged 25 and over
6. Clear access requirements and better training options for all young people
7. New vocational 10th grade (eud10)
8. New combined youth education
9. More and better teaching to provide higher skilled graduates
10. Continued efforts to create internships and enhanced training guarantee
11. Focusing the guidance

The reform is expected to be implemented from August 2015.

C. Main strengths and weaknesses of the schemes/programmes

The Danish system of apprenticeship schemes and programmes for work-based learning can be characterized as a flexible and enhanced system for apprenticeship. The key elements described above represent a modern flexible system of combining school-based learning and practical training in companies and is – due to the strong involvement of social partners – able to face and tackle new societal and educational changes rapidly.

Due to the strong dependence of practical placements in companies, the dual system is however vulnerable, when companies in times of economic crisis are restrictive concerning the creation of such placements.

For the time being 5,817 VET students (May 2014) are active in VET having no contract with a company and 6,441 students are enrolled in the practical training centers. Thus 12,258 VET students are in an unsatisfactory situation in VET.

In May 2014 the Danish government has launched a plan for growth (Vækstplan.dk) where one of the targets is to create 1000 new internships per year. The plan is going to be negotiated with the social partners in the summer of 2014.

Generally the entire VET system in Denmark has faced three main problems:

1. There is a tendency towards a lower search for apprenticeship programmes in Denmark (lack of attractiveness)
2. The drop-out rate is high (nearly 50%)
3. The system is sensitive to the market conditions which leads to a lack of internships

In order to solve these problems, the Danish government launched a proposal for a reform of the national VET system in the autumn 2013 called 'Skilled for the future', that was passed in Parliament August 2014.

Approximately 900 million Danish kroner (120 million euro) are set aside in the period 2014-20 for the initiatives in the VET reform.

The government's proposal must result in at least 25 % of youth cohort should choose a vocational education after the 9th or 10th grade in 2020. By 2025 the figure is expected to reach 30 percent. In addition, a larger percentage of the youth cohort is expected to complete vocational education and training.

Today there is nearly 50% drop-out along the way, but the goal is that in 2020, 60% should complete, and in 2025 it should be 67% of a youth cohort that complete their vocational education and training.

D. Conclusions

The Danish model for apprenticeship/work based learning undergoes for the time being a significant change in order to enhance the attractiveness of the system.

In 2013, it was decided to establish 50 new professional centers for practical learning in connection with the vocational colleges aiming to offer practical training for students without a training agreement

In the end of 2013 a reform of the Danish VET system – in line with a reform of primary education (*Folkeskolen*) that was passed in 2013 – is designed to simplify and qualify the apprenticeship based education and training. The purpose of the proposal is to enhance the attractiveness of VET in general and to reduce the high drop-out rates in VET.

The reform intends to develop the VET system with special regard to the practical part of the dual system. A key element in the VET reform is the effort to create more practical placements in companies and in this way strengthen the dual VET system. The Danish VET system is broadly regarded as well-developed and well-functioning, but an education system depending on the willingness by companies to make placements available is clearly vulnerable, especially when an economic crisis is the condition.

The VET reform also has a strong focus on higher competences for both teachers and students which intentionally should give a quality lift to the VET system in total and strengthen the attractiveness.

On the other hand, a new Social Assistance Reform will have the consequence that unemployed people under the age of 30 who receive social benefits will be obliged to take an education. This will bring new challenges to the VET system.

In 2013-14 the problems related to VET has been placed very significant on the public agenda and in the political debate in Denmark.

In succeeding with the reform of the primary education sector (*Folkeskolen*) – via stronger bridge building to the vocational education and training and via an enhanced preparation of students (development of the vocational introductory activities (*UEA-undervisningen*)) – and with the reform of the VET systems (higher quality, better teacher qualifications, more internships) then Denmark can continue having a VET system providing the enterprises with highly skilled labour and with a high level of employment among young people.

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