

Initial Vocational education and training programmes

– *The Danish vocational education and training programmes (I-VET) are alternating or sandwich-type programmes, where practical training in a company alternates with teaching at a vocational college.*

Vocational education and training (VET)

The programmes consist of a basic and a main programme. The student must enter into 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 approximately 110 vocational education and training programmes (2010), each of which can lead to a number of vocational specialisations. The social partners have considerable influence on and thus, great responsibility for VET.



VET's Objective and target group

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 instilling a spirit of independence and cooperation, and stimulating their awareness about innovation, environment and internationalisation.

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.

Number of students and educational capacity

51 percent of a youth cohort are admitted to a VET. A declining share of these come directly from compulsory education in "Folkeskolen" (primary and lower secondary education) while a number of participants are admitted after having been in the labour market. A growing share are admitted after having completed a general or vocational upper secondary education.

Approximately, 37 percent of a youth cohort obtain a vocational education. Of these, around 33 percent

normally have the vocational education as their highest completed education, while the remaining 4 percent usually take higher education subsequently.

About 56,500 students commence a fulltime vocational education every year whereas the total number of students in vocational education and training programmes is approximately 125,000 at any given time.

The colleges

109 institutions offer basic vocationally oriented education programmes. These institutions are technical colleges, commercial colleges, agricultural colleges or combination colleges. In addition, 20 colleges offer social and health care training programmes. A number of the colleges offer their programmes

through local branches at addresses other than the main college. These branches are not included in the report.

In addition to the basic vocational education and training programmes, the colleges also offer other education programmes: vocational upper secondary education (the Higher Commercial Examination - HHX, and the Higher Technical examination - HTX) and further education and training for adults (C-VET called AMU - Adult Vocational Training). Most of the vocational colleges cooperate

with other colleges to offer short-term higher education. Further, the colleges also offer courses and programmes commissioned by companies.

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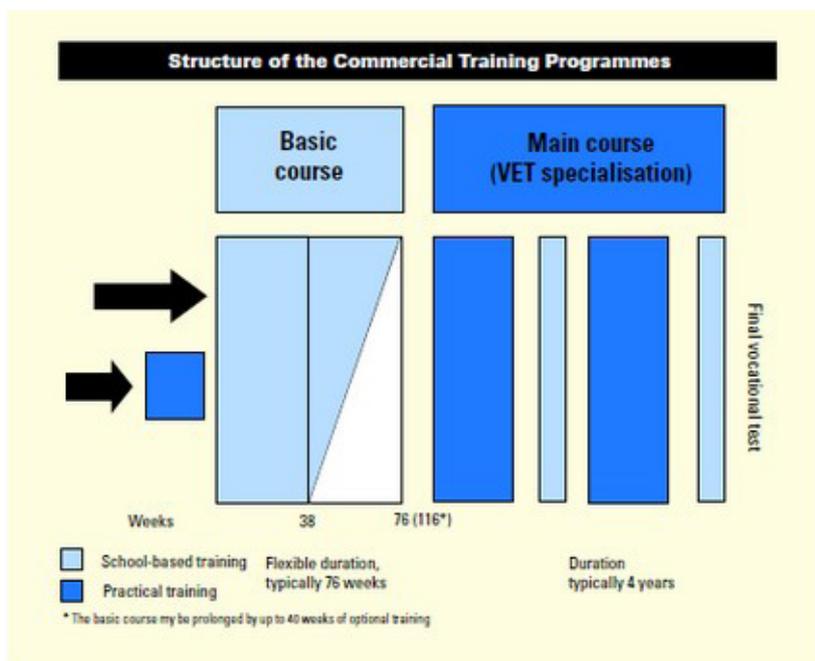
The structure of the programme

Vocational education and training consists of a basic course and a main course. The basic course is flexible in duration and depends on the individual student's prior qualifications and ambitions. Typical length of such a basic course is usually between 20 - 40 weeks in the technical basic course and 38 - 76 weeks in the commercial basic course.

This is followed by the main course or VET-programme, which is based on an alternating principle.

The duration time 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.



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

Admission to vocational education

There is free admission to almost all the basic VET programme. 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.

There are 109 vocational education and training programmes (2010). From August 2008 the basic programmes will be gathered in 12 vocational clusters leading to the related vocational programmes.

The students have a guarantee that, if they are admitted through one basic access channel, they will have the opportunity to complete one of the programmes within that channel (educational guarantee), if they make their own contribution to the programme.

If a student is unable to obtain a training agreement, the educational guarantee means that they can be offered admission to a school-based practical training (a practical training period conducted by a college) or admission to one of the 3 vocational programmes conducted as school-based education without a practical training period.

Basic programme

Those students who know which programme they wish to take from the beginning, can take a targeted basic programme with a view to realising their wishes.

Other students who need to try out their skills and interests, can typically take a broader basic programme where they can identify their wishes. Some students need to brush up their knowledge from basic school, while others wish to choose higher levels in the general subjects to be able to continue to higher education afterwards. The students have the option of prolonging the basic programme for up to a total of 60 weeks in the technical programmes. Likewise, a basic programme can be shorter for students with prior learning, which can give credits. There is, normally, ongoing intake to the basic programme.

Practical training routes in the New Apprenticeship

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.

About 40% of the students in some of the technical vocational programmes have chosen this route. The share is very small in other vocational education and training programmes.

Main programme

After the basic programme, the students are admitted to the VET main programme, i.e. the student must enter a training agreement with a company. It is in the main programme that the most important part of the practical training takes place.

50-70 per cent of the training period takes place in a company and 50-30 per cent during the school-based programme.

The students alternate between learning in a company that offers practical training and at the college, according to the principles of a sandwich-type programme, as the school-based periods are organised as blocks of between 5 and 10 weeks.

Individual vocational education and training

Individual vocational education and training programmes can be organised 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 until now been only used by a few students.

Partial qualifications in the vocational education and training programmes

In nearly all VET programmes, there are one or two steps, in order to increase the flexibility of the programmes. This means that the student can stop at a well-defined step that gives professional competence. The students can resume the VET at a later date, without prolonging the overall duration of education.

Content and educational method of the programmes

The objective of the programmes is described as competencies. All programmes contain at least one area of specialisation composed of specialised subjects. The remainder of the content is built up around the broad professionally oriented subjects and competencies (area subjects) and the fundamental general vocationally oriented subjects (basic subjects) and competencies.

Practical training takes place in both the company and the college, while theoretical teaching primarily occurs at the college. The college is responsible for organising the teaching in a holistic manner, and the colleges have the equipment that enables them to introduce the student to the practical side of the programme. Teaching in the general subjects, for example basic subjects such as mathematics and English, takes its starting point in the specific matters that are part of the student's education and training programme. For this reason, mathematics teaching will be different for a carpenter and an electrician.

Many students in vocational education and training programmes prefer teaching in practical subjects to theoretical instruction. Therefore, the theory is closely linked with the practical training in order to engage the individual student in the learning process.

Information for the students

Competence assessment, personal education plan and education book

All students must have their competencies 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.

Guidance

The college has a number of educational guidance counsellors who support and guide 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.

The college is obliged to actively assist the student to find an internship 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.

School-based practical training

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 edu-

cational guarantee. However, it is imperative that the student, at first, tries himself/ herself to obtain a practical training contract. Furthermore, the student is prepared and ready, both in terms of education and physical condition to embark on a vocational education programme.

School-based practical training is also utilised in situations where a company which has a student as a practical trainee, is forced to close down. In most cases, the students find another company where they can complete their training, but if this is not the case, then they can be admitted into a school-based practical training.

Trainee wages

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. In the vocational education and training programmes, the students are paid wages when they have entered into a training agreement. The wages are between DKK 8,000 and 12,000 a month and are spelt out in the collective agreement. The wages vary between the lines of industry and normally correspond to the student's average productivity during the year of education in question.

Tests and examinations

The basic programme normally concludes with a project assignment and an oral test. The purpose is to demonstrate that the student has achieved the competencies necessary to start on a VET main programme. The project contains practical and realistic tasks and is assessed by a teacher from another college or a person from a local company etc. If the basic programme is longer than 20 weeks, tests are drawn by lottery in other basic subjects.

In the final part of the programme, the student takes part in a concluding practical and theoretical examination (journeyman's test) which is meant to assess the

competencies obtained by the trainee. The external examiners are from companies or the trade committees, who often develop the final tests.

Teacher qualifications

Teachers in vocational education and training programmes have normally completed a vocational education in the subjects in which they teach and have typically taken higher education, subsequently. A minimum of 5 years' professional experience is required, but only 2 years of professional experience for teachers in the general subject areas. The teachers of general subjects, normally, have a bachelor or master's degree.

Teachers who do not already have pedagogical training must take a specially organised pedagogical training course at diploma level for vocational college teachers. This training must normally be completed within the first 2 years of appointment to a job at the college.

The individual teacher is obliged to keep his/her academic and pedagogical knowledge up to date. The college is required to draw up a plan for the competence development of the teachers' group at the college. On this basis and in cooperation with the teacher, the college determine the individual's professional upgradation.

Management and financing

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 both the management, structure and objective of the programmes and also the frameworks for the institutions' tasks and development.

The Council for Vocational Training

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.

The trade committees

The employers and employees set up a number of trade committees – approximately 50.

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.

Local education committees

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 programme and work towards the development of cooperation with local trade and industry and strive to obtain more internships.

Development committees

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. This typically takes place in completely new areas with no existing trade committees.

Provision of vocational education and training programmes at the colleges.

The vocational colleges must apply for permission to offer the individual vocational education and training programmes (accreditation).

Financing

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 internship. The Employers' Reimbursement Fund reimburses the company for the trainee's wages when the student is attending college. All companies, both public and private, contribute a fixed annual amount to this fund for each of their employees. The students are expected to finance their wages through productive work during their internships.

Supervision and quality

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 accredit 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 selfevaluation 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 of the trainees. They are in continuous dialogue with the Ministry concerning the education and training programmes.