



Structures of Education and Training Systems in Europe

Denmark

2009/10 Edition

European Commission



STRUCTURES OF EDUCATION AND TRAINING SYSTEMS IN EUROPE

DENMARK

2009/10

Prepared by

The Danish Eurydice Unit

with the support of

Refernet, The Ministry of Education and the Ministry of
Science, Technology and Innovation

If you wish to obtain more details on education systems in Europe, please consult the EURYBASE database (<http://www.eurydice.org>), the Cedefop database (http://www.cedefop.europa.eu/etv/Information_resources/NationalVet/Thematic/) and the website of the European Training Foundation (<http://www.etf.europa.eu/>)

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INTRODUCTION: GENERAL POLICY CONTEXT

The kingdom of Denmark constitutes Denmark, the Faroe Islands and Greenland. Denmark is a constitutional monarchy with a single chamber parliamentary system. Denmark has been a single kingdom since the end of the 10th Century.

The Parliament (*Folketinget*) has 179 members, including two representatives from the Faroe Islands and two from Greenland. Both Greenland and the Faroe Islands have home rule and are responsible for local matters such as the education and social systems, welfare, taxes, environmental policy and a number of commercial matters. *Folketinget* is the legislative power.

A major reform of the administrative structure was implemented in 2007 whereby 5 regions replaced 14 counties and the number of municipalities was reduced from 275 to 98. The aim of the reform was to increase the quality of public services and make them more cost effective. There has been no change to the electoral structure, i.e. universal adult suffrage by voluntary and secret ballot. National elections are open to all Danish citizens of 18 years or over, while all adult residents are eligible to vote in local and regional elections. All voters are eligible to run for office.

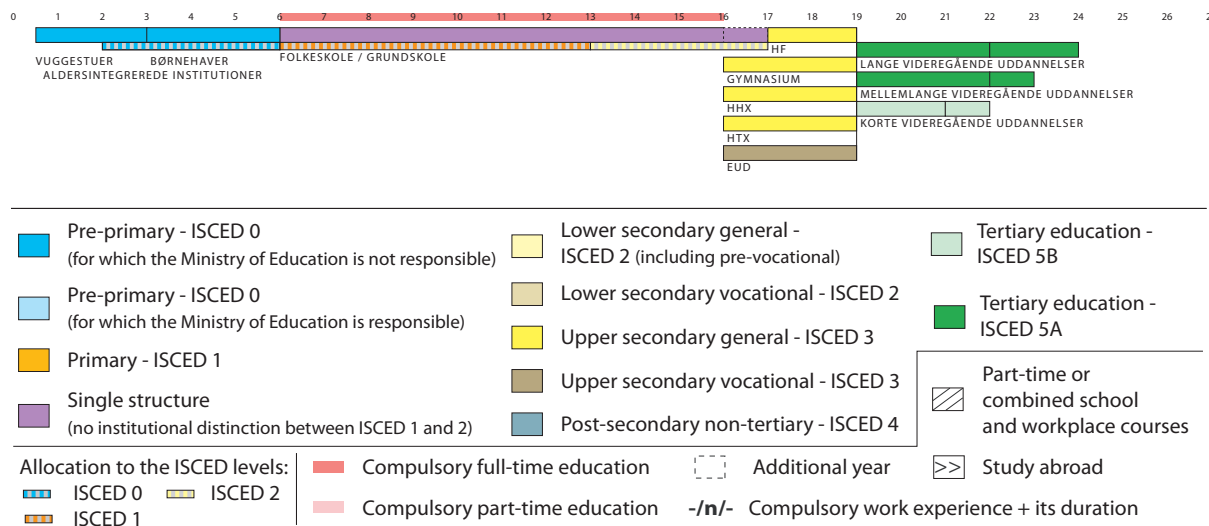
The state and municipalities are responsible for levying taxes and providing social services and health care, and in terms of education, the regions compile detailed plans for their own geographical area, whereas the state has overall responsibility for the framework and provision of education. Besides the public authorities, the social partners have major influence on VET in Denmark and pay their share of the costs of both initial and continuous VET.

In the first quarter of 2009, the population of Denmark was 5 515 287. In 2008, 67 % of the population between the age of 30 and 69 had professional qualifications (Statistics Denmark 2009, 72).

The official language is Danish, which is also used as the language of instruction in the vast majority of schools in Denmark.

1. INITIAL EDUCATION AND TRAINING: ORGANISATION, FUNDING AND QUALITY ASSURANCE

1.1 Organisation of the initial education and training system



All children living in Denmark have access to day care centres and kindergartens. Crèches (*vuggestuer*) are for children aged 0-2 years, and kindergartens (*børnehaver*) for 3-6 year olds. Children may also be looked after by a childminder (*dagplejer*) who is employed by the municipality but working in their own home. There is a compulsory pre-school class (*børnehaveklasse*) at the schools (CIRIUS 2009a).

In Denmark, education is compulsory for ten years from the age of 6 to 16. The public municipal school, the *Folkeskole*, is a comprehensive school in the sense that it includes both primary and lower secondary education. The *Folkeskole* is free of charge. Parents may choose a private school for their children. Private schools are self-governing institutions, and they are required to measure up to the standards of the municipal schools. Continuation schools (*efterskole*) are private schools offering education specifically for the 8th to the 10th form (CIRIUS 2009b).

Education programmes for those aged around 16-19 are often called 'youth education programmes' in Denmark and include a) general and vocational upper secondary education programmes, which primarily prepare for higher education and b) vocational education and training programmes primarily aimed at preparing students for a career in a specific trade or industry (CIRIUS 2009c).

There are three types of institutions offering higher education, each with well-defined profiles and qualities: 1) Academies of professional higher education offer 2-year academy profession programmes in fields such as business, technology, and IT; 2) Specialised colleges and centres for higher education/university colleges that offer 3-4 year professional bachelor programmes in fields such as business, education, engineering and nursing; 3) Universities that offer Bachelor's, Master's and PhD programmes: 3-year bachelor programmes (BSc/BA) followed by 2-year *candidatus* programmes (MSc/MA) and 3-year PhD programmes (CIRIUS 2009d).

1.2 Distribution of responsibilities

Education is primarily the responsibility of the Ministry of Education and the Ministry of Science, Technology and Innovation.

National legislation covers the aims and framework of education, funding and in some cases curricula, examinations and staffing.

The Ministry of Education oversees the primary and lower secondary schools in collaboration with the municipal councils. The Ministry of Education is responsible for setting up the framework for curricula at primary and secondary level. However, the contents of the courses are finalised by the teachers themselves.

In the field of vocational education and training, sectoral committees with equal representation of the labour market organisations concerned play an important role in defining and developing vocational qualifications and stipulating the training conditions. Technical colleges, business colleges and agricultural colleges are independent institutions under the overall authority of the Ministry of Education. The labour market training centres (AMU-centre) are administered by the Ministry of Education.

As of December 2001, the Ministry of Science, Technology and Innovation has been responsible for university education except for certain higher education programmes, which fall under the responsibility area of the Ministry of Cultural Affairs (e.g. architecture, music, fine arts, librarianship). In most cases, the Ministry of Education oversees short- and medium-cycle higher education.

Institutions of higher education in Denmark have a long tradition of academic freedom and autonomy. The Ministries lay down the overall regulations for all institutions of higher education. These include regulations concerning the admission of students, the structure of studies, programmes offered, awarding of degrees and appointment of teachers and academic staff (CIRIUS 2009g).

1.3 Financing

In Denmark, the education system is financed by the state, the counties and the municipalities. Some institutions, including the secondary education institutions, are independent and self-governing, while others are owned by the state, counties or municipalities (CIRIUS 2009g).

The self-governing educational institutions have two sources of revenue for financing their educational programmes: state grants and their own income from income-generating activities, participant fees and fees paid for unemployed people in activation programmes, etc. state grants amount to approximately 80 per cent of the total funding and are thus the primary source of revenue for the institutions. Of this amount, activity-level determined grants (teaching, building and maintenance, or collective expenses taximeters) total approximately 92 per cent, so that by far the greatest part of state funding consists of taximeter funding (Danish Ministry of Education 2008f).

The taximeter system is the primary appropriation model for distributing state funding. Taximeter management basically entails that within the state's total financial framework for educational purposes, which is determined by a range of overall political expense priorities, activity-level dependent appropriations are distributed to the individual educational institutions based on a) objective goals for activity levels and b) politically determined taximeter rates per activity-level unit (Danish Ministry of Education 2008f).

1.4 Quality assurance

The Agency for the Evaluation and Quality Development of Primary and Lower Secondary Education is the responsible body for evaluation in Denmark at primary and lower secondary level (Agency for the Evaluation and Quality Development of Primary and Lower Secondary Education 2009).

The accreditation system is based on the Danish Act on the Accreditation Agency for Higher Education, and the responsibility of implementing the Act lies with the Ministry of Science, Technology

and Innovation. In the Danish accreditation system, a principle aim of the Act is to create a system with a view to ensuring and documenting the quality and relevance of higher education in the Danish educational institutions.

According to the Accreditation Act, the Accreditation Council is the specific unit which makes the decisions regarding accreditation of all higher education study programmes. Decisions are made on the basis of accreditation reports prepared by accreditation operators.

In Denmark, there are two accreditation operators which head the accreditation process and preparing the accreditation reports that form the basis of the Accreditation Councils decisions:

1. For university study programmes under the Ministry of Science, ACE Denmark prepares the accreditation reports.
2. For higher education study programmes within the fields covered by the Ministry of Education and the Ministry of Culture, the Danish Evaluation Institute (EVA) prepares the accreditation reports (ACE Denmark 2009).

The accreditation operator ACE Denmark consists of three units:

- The Academic Secretariat
- The Council Secretariat
- The Administrative Unit

The Council Secretariat is responsible for secretariat duties for the Accreditation Council, and the Academic Secretariat assesses the university study programmes and prepares the related accreditation reports. Through an administrative unit, the director has a coordinating function in relation to the two secretariats. Generally, ACE Denmark works actively to document and disseminate relevant knowledge on quality and relevance in the Danish university study programmes (ACE Denmark 2009)

The Danish Evaluation Institute (EVA) is an independent state institution established under the Ministry of Education in 1999. EVA evaluate at all levels – from day care centres and schools through upper secondary schools and vocational colleges to universities and adult education. Research and evaluations are carried out on their own initiative as well as on request from ministries, local authorities and educational institutions among others (Danish Evaluation Institute (EVA) 2009).

As a part of the process of evaluating the students' learning outcomes, a range of obligatory national tests have been introduced. The tests in the *Folkeskole* are to be used in order to be able to follow the individual student's acquisition of knowledge and skills so that the education process can be planned to a greater extent according to the individual student's strengths, weaknesses and potential (Danish Ministry of Education 2008g).

All that is demanded of private education is that it measures up to that of the municipal schools. In principle it is not the responsibility of government authority but to the parents of each private school to check that its performance measures up to the demands of the municipal schools. It is the parents themselves who must choose supervisors to check the pupil's level of achievement in Danish, arithmetic, mathematics and English and whether in general the overall teaching of the school measures up to what is normally demanded in the municipal school. In extraordinary circumstances, the Ministry of Education may establish special supervision, for example if there is reason to believe that the school teaches Danish so poorly that the children's ability to cope with life in Denmark may be impaired (Danish Ministry of Education 2008a).

2. PRE-PRIMARY EDUCATION

Day-care facilities

A day-care facility is the term used for various types of facilities for children under school age. Day-care facilities cover crèche, family day-care, nursery schools and age-integrated institutions. The rules on day-care facilities can be found in the Day-Care Facilities Act.

All children in Denmark must be given the opportunity to attend a day-care facility. This therefore obligates the local council of the individual local authority to ensure the necessary number of places for the children in the local authority, referred to as guaranteed day-care availability. Day-care facilities can be set up in various ways – either as local-authority childminding, local-authority day-care centres, independent day-care centres, private childminding or an approved private day-care centre.

Local-authority childminding is an offer where childminders take care of children in private homes. The local authority refers children to the individual childminders. One childminder may take up to five children. If two or more persons are carrying out childminding together, the local authority may allow the childminders to receive up to ten children.

Local-authority day-care centres are local-authority owned institutions such as crèches, nursery schools and age-integrated institutions. In the day-care facility area, centres basically take on board children aged 0 to school age.

Independent day-care centres are institutions that are owned by private individuals and have concluded an operating agreement with the local authority to operate a day-care facility. Independent day-care centres are subject to local-authority supervision and receive subsidies from the local authority to cover their costs.

Private childminding involves private childminders whose work is based on an operating agreement between the scheme and the local authority. The local authority grants a subsidy per child admitted to the scheme and supervises the scheme.

Approved private day-care centres are owned and operated by private individuals. The local authority must approve private day-care centres. The centres decide which children are admitted to the day-care centre and the local authority does not refer children to the day-care centre. The local authority grants a subsidy per child admitted to the private day-care centre.

When a child is admitted to a day-care facility under local authority allocation, the local authority grants a subsidy for the costs related to the place, while the parents pay own payment. The price for a place in a day-care facility is thus comprised by both the local authority's subsidy and the parents' own payment.

For children under school age, parents' payment of a place in a day-care facility must not exceed 25 per cent of gross operating costs for operating the individual day-care facility, or of the average gross operating costs for operating similar day-care facilities in the local authority.

This means that the local council's subsidy must account for at least 75 per cent of gross operating costs for operating the individual day-care facility, or of the average gross operating costs of operating similar day-care facilities in the local authority. The subsidies are not paid directly to the parents but to the day-care facility to which the child has been admitted and must be used to run the day-care facility.

According to the Day-Care Facilities Act the purpose of day-care facilities is:

Children in day-care facilities shall have a physical, mental and aesthetical child environment that promotes their welfare, health, development and learning.

Day-care facilities shall cooperate with parents to provide care for the children and support the comprehensive development and self-esteem of the individual child and contribute to the proper and safe upbringing of children.

Day-care facilities shall promote children's learning and development of competencies through experiences, play and educationally planned activities that give children room for contemplation, exploration and experience.

Day-care facilities shall give children co-determination, co-responsibility and an understanding of democracy. As part of this objective, day-care facilities shall contribute to developing children's independence, skills in entering into committing social relations and solidarity with and integration in the Danish society.

In cooperation with parents, day-care facilities shall ensure a good transition to school by developing and supporting basic competencies and the desire to learn. In cooperation with schools, day-care facilities shall create a cohesive transition to school and after-school facilities (Ministry of the Interior and Social Affairs 2009).

Pre-school class

The *Folkeskole* (the Danish municipal primary and lower secondary school) must comprise a one-year pre-school class. At the request of its parents, a child must be admitted to a pre-school class in the calendar year of his or her sixth birthday or – under certain circumstances – one year before or after the sixth birthday. The pre-school class' programme of teaching is intended to lay the foundation for the school's educational programme as a whole and create cohesiveness in the transition between a child's daily life at home or in a day-care centre and their school careers as well as between the pre-school class and the following form levels. The teaching, which is not divided by subject at this level, has the following compulsory themes which act as a foundation for the teaching programme as a whole: Language and methods of expression, the natural world and scientific phenomena, creativity, movement and coordination, social skills, and togetherness and cooperation. Binding descriptions of the contents and objectives connected to each of these themes have been formulated. Moreover, it has been determined that play is to make up a central element of the teaching, with emphasis being placed on the value of playing and learning through playing and play-related activities (Danish Ministry of Education 2008h). For more information on the one-year pre-school class see section 3. Single structure [education](#).

Overview of pre-primary education

<i>Institution/Indicators</i>	<i>Administrators</i>	<i>Age groups</i>	<i>Compulsory attendance</i>	<i>Attached to primary schools</i>	<i>Coeducational</i>	<i>Financial contribution by parents</i>
<i>Local-authority childminding</i>	Local authority	0-3	No	No	Yes	Max. 25 % of the cost
<i>Independent day-care centres</i>	Private supplier	0-6 (3-6)	No	No	Yes	Max. 25 % of the cost
<i>Local-authority day-care centres</i>	Local authority	0-6 (3-6)	No	No	Yes	Max. 25 % of the cost
<i>Private childminding</i>	Private supplier	0-3	No	No	Yes	Set by the individual institution

<i>Approved private day-care centres</i>	Private supplier	0-6 (3-6)	No	No	Yes	Set by the individual institution
<i>Pre-school class</i>	Local authority	6-7	Yes	Yes	Yes	None (if <i>Folkeskole</i>)

Pre-primary education is currently regulated by the following legislation:

Act on Day-Care, After-School and Club Facilities, etc. for Children and Young People (Day-Care Facilities Act), ACT no. 501 of 6 June 2007.

Rules of Guidance on Day-Care Facilities, VEJ no. 31 of 6 May 2009.

Regulation on Day-Care Facilities, BEK no. 1233 of 11 December 2008.

2.1 Admission

The individual local authority determines the guidelines for and makes decisions on admission to public day-care facilities. The local council may decide that the individual independent day-care centre or pool scheme makes its own decision on admission to the day-care centre.

The local authority must lay down the guidelines for admission to day-care facilities based on local needs in the local authority. When determining the guidelines, the individual local authority may, within the framework of the guaranteed day-care availability, consider factors such as siblings, composition of the group of children, geographical location of the day-care facility and children with special needs.

Parents may state their wishes for admission to specific day-care facilities. When allocating a specific place, the local authority must to the extent possible consider the parent's wishes. Parents are also entitled to state their wishes for admission to specific day-care facilities if they want a place in another local authority. Admission and registration follow the guidelines of the relevant local authority. When allocating a specific place, the local council may specifically assess the child's and the family's time needs and offer the child a part-time/half-time place accordingly (Ministry of the Interior and Social Affairs 2009).

2.2 Organisation of time, groups and venue

The individual childminder may care for up to five children. If childminding is handled by several people, the local council may decide that the childminder care for up to ten children (Day-Care Facilities Act, section 22).

2.3 Curriculum

Since 1 August 2004, all day-care facilities must prepare an educational curriculum. Educational curricula are the next step in the process of documenting the learning and development of 0-6-year-olds. It is up to the individual day-care facility to decide how to approach this work, however, the curriculum must relate to six main themes:

- The comprehensive personal development of the child
- Social competencies
- Language
- Body and motion

- Nature and natural phenomena
- Cultural expressions and values

(Ministry of the Interior and Social Affairs 2009).

2.4 Assessment

Since 1 August 2007, all local councils must offer all 3-year olds a language assessment and follow-up, as required. The language assessments are to serve as an extra support tool in the pedagogic work with children's linguistic development. Language assessment is optional for all parents of 3-year olds – meaning that the parents decide whether their child should undergo a language assessment. Since the 1st of August 2004, this form of language assessment has been compulsory for bilingual children (children with another mother tongue than Danish)

According to the material developed for the former Ministry of Family and Consumer Affairs, the language assessment process typically goes as follows:

A teacher whom the child knows well will offer the parents a language assessment. If the parents accept the offer, they will be given a parent form to be used in making the first part of the language assessment with the child. The parents then return the form to the teacher, who will enter the answers in a registration form for the child. The teacher will then perform the pedagogical part of the language assessment.

The parents are given the final score, meaning the overall result of the two assessments. If a special effort is called for, an agreement is made between the teacher and the parents.

Under the rules of the Day-Care Facility Act, all day-care facilities must prepare a written child environment impact assessment, which must be revised at least every three years and when changes are implemented that may affect the child environment.

The child environment impact assessment is a tool used to describe, assess and develop the child environment. The child environment must be assessed from a child's perspective and, to the extent possible, children's experience of the child environment must be included in the assessment. This means that the adults must try to put themselves in children's place and retrieve knowledge directly from the children.

It is up to the individual day-care facility to decide how to make the child environment impact assessment, which gives a range of options for creating a working process that fits locally into the educational practice, interest and logics of the day-care facility.

The assessment must consider three mandatory areas of the day-care facility:

- The physical child environment
- The aesthetical child environment
- The mental child environment

A comprehensive description of these areas in the child environment impact assessment must help focus attention on a good and healthy environment for children in day-care facilities throughout Denmark.

The management of the day-care facility is responsible for preparing a written child environment impact assessment. Staff and parents must be included in discussions concerning the child environment impact assessment to reflect their observations.

Similarly, management is responsible for ensuring that the child environment impact assessment is publicly available to parents and other interested parties at all times. The assessment must be displayed in a central location in the day-care facility and be published on the website of the day-care facility and/or local authority.

When preparing child environment impact assessments, day-care facilities may seek advice and guidance from the Danish Centre of Educational Environment.

The act entered into force on 1 July 2006; however, not until 1 January 2007 for local authority childminding (Ministry of the Interior and Social Affairs 2009).

2.5 Teachers

The education programme for a Bachelor Degree in Social Education is geared towards the entire educational occupational area, with specialisation within a specific occupational, functional or academic field. The programme is to provide professional qualifications for working with development and care assignments within the following areas: Children and young people (including working in day nurseries, daycare centres, pre-school classes, recreation centres/school-based leisure time facilities, after school clubs, 24-hour service institutions), institutions for children, young people and adults with reduced psychological or physical capacities, adults with social problems (homelessness, substance abuse, mental disorders), family institutions, and child and youth psychiatric hospitals. Additionally, the education provides qualifications for working in the field of crime prevention in, for example, neighbourhoods as well as working within the Prison and Probation Service.

The programme of education lasts 3½ years, amounting to 210 ECTS credits, and consists of formal teaching at the educational institution as well as practical training at relevant institutions. There are three periods of practical training during the programme. The total amount of time of the education programme spent on practical training amounts to 1 year and 3 months.

The programme of education consists of the following subjects and academic elements:

- Educational theory and practice
- Danish, culture and communication
- Individual, institution and society

One of the following main subjects according to the student's own choice:

- Health, the body and exercise
- Expression, music and drama
- Arts and crafts, science and technology
- Practical training

Specialisation within one of the following occupational or functional fields:

- Children and young people
- People with reduced functionality
- People with social problems

At the conclusion of the education programme each student must complete a bachelor project (Danish Ministry of Education 2009c).

3. SINGLE STRUCTURE EDUCATION

In Denmark, all children must receive 10 years' education, but – provided a certain minimum standard is obtained – it is a matter of choice for the parents whether the education is received:

- in the publicly provided municipal primary and lower secondary school (*Folkeskole*),
- in a private school, or
- at home.

Around 13 % of all children at basic school level (including the former voluntary pre-school class and 10th form) attend private schools. In 2006, approx. 91 000 children attended 491 private schools, while 690 000 pupils attended the municipal school, of which there are approximately 1 600 (Danish Ministry of Education 2009d). In 2008, the number of children attending private schools have risen to 98 581 (Statistics Denmark) and the number of children attending municipal schools have fallen to 592 214 (Statistics Denmark).

The *Folkeskole*

The Danish *Folkeskole* is a comprehensive school covering both primary and lower secondary education, i.e. one year of pre-school class, the first (grade 1 to 6) and second (grade 7-9/10) stage basic education, or in other words it caters for the 6-16/17-year-olds. Basic school comprises the *Folkeskole*, private elementary schools, continuation schools (Danish Ministry of Education 2009e).

The *Folkeskole* was founded in 1814, and at that time all children were given the right to seven years of education. The school subjects taught then were religion, reading, writing and arithmetic. Since that time and until the end of the 20th century, only five major changes have been made to the Education Act, i.e. in 1903, 1937, 1958, 1975 and 1993. On the other hand, in the beginning of the 21st century, a number of comprehensive changes to the Education Act have already been implemented

The *Folkeskole* constitutes the free, public school system as well as the individual municipal schools, that is to say the places where the teaching takes place. On the national level, the Danish *Folkeskole* is regulated by the *Folkeskole* Act, which provides the overall framework for the schools' activities.

By means of this Act and the Executive Orders it contains, all municipal primary and lower secondary schools share a common aim, standard requirements concerning the subjects which are to be taught at the specific form levels, standard regulations concerning the so-called Common Objectives for the teaching in the individual subjects as well as standard regulations concerning the leadership and organisation of the school system. However, it is the responsibility of the individual municipal boards to determine how the municipality's schools are to be organised in practice within the framework established by law. The municipal boards themselves determine the municipal level of service for the *Folkeskole* within this overriding framework and can set their own additional objectives for the schools.

Thus, the Danish *Folkeskole* is subject to a range of common regulations, and a child who changes schools will, on the whole, find a school routine in the new school familiar to the one he or she has previously attended. On the other hand, there is the freedom to allow for each school to incorporate their own local characteristics.

The individual municipal boards must prepare an annual quality report. The quality report must describe the municipality's school system, the schools' academic level, the measures the municipal board has taken in order to evaluate the academic level and the steps the municipal board has taken in response to the previous quality report (Danish Ministry of Education 2009f).

The aims of the *Folkeskole* as stipulated in the *Folkeskole* Act are:

- The *Folkeskole* is, in cooperation with the parents, to provide pupils with the knowledge and skills which will prepare them for further education and training and instil in them the desire to learn more; familiarise them with Danish culture and history; give them an understanding of other countries and cultures; contribute to their understanding of the interrelationship between human beings and the environment; and promote the well-rounded development of the individual pupil.
- The *Folkeskole* is to try and develop the working methods and create a framework that provides opportunities for experience, in-depth study and allows for initiative so that pupils develop awareness and imagination and a confidence in their own possibilities and backgrounds such that they are able to commit themselves and are willing to take action.
- The *Folkeskole* is to prepare the pupils to be able to participate, demonstrate mutual responsibility and understand their rights and duties in a free and democratic society. The daily activities of the school must therefore be conducted in a spirit of intellectual freedom, equality and democracy.
- The *Folkeskole* is the responsibility of the municipalities, cf., article 20, paragraph 3. The municipal board is responsible for ensuring every child in the municipality a free education in the *Folkeskole*. The municipal board is responsible for setting the targets and framework for the activities of the school within the provisions of this Act, cf. article 40 and article 40a.
- Each school is responsible for ensuring the quality of the education in accordance with the aims of the *Folkeskole*, within the framework of the Act, cf. article 1, and also bears the responsibility for determining the planning and organisation of the programme of education.
- Pupils and parents are to work together with the school in order to live up to the aims of the *Folkeskole*.

(Danish Ministry of Education 2008i).

The 10th form is an educational offer for young people who after finishing their primary and lower secondary schooling (9th form) feel the need for additional academic qualifications and clarification of their further educational opportunities before being able to complete a post-compulsory education.

The academic year can be organised as a whole year programme or a shorter-term programme. 10th form is comprised of a compulsory part and an elective part. There is compulsory education in Danish, English and mathematics amounting to half the total time of a whole academic year schedule. All pupils must participate in a compulsory programme of bridge building towards a post-compulsory education or combinations of bridge building and unpaid apprenticeships with a perspective of further education. The bridge building programme lasts two weeks for 10th form classes which last more than 20 weeks. Moreover, it is possible for a pupil to participate in up to four additional weeks of bridge building in connection with vocationally oriented education programmes or in combination with one of these and unpaid apprenticeships with a perspective of further education. The 10th form also consists of a number of elective subjects from which the pupil chooses.

The programme of teaching in the 10th form is based upon the individual pupil's personal education plan, which is prepared during the 9th form. The education plan forms the foundation for organising the education programme so it meets the needs of the individual pupil. The plan is to be used as a tool in the ongoing guidance of pupil's future educational choices. In some municipalities there may be specially designated 10th form teaching centres, which gather together all the 10th form pupils from a local area (Danish Ministry of Education 2008h).

Private schools

Denmark has a tradition of private schools with a substantial government subsidy. This tradition mainly originates in the ideas and initiatives of the Danish clergyman, poet and politician, N.F.S. Grundtvig (1783-1872), and the teacher, Christen Kold (1816-1870). On the basis of their ideas on 'a school for life based on the living word', the first 'folk high school' for adults was founded in 1844 and the first 'free school' (private independent school) for children in 1852. They were in particular meant to serve the rural population.

The ideas of Grundtvig and Kold had such an impact on the political thinking of their time that they were written into the democratic Constitution adopted by Denmark in 1915. It stipulates general compulsory education – not compulsory school attendance.

Private schools in Denmark may be roughly divided into the following categories:

- small independent schools in rural districts (*friskoler*),
- large independent schools in urban districts (*privatskoler*),
- religious or congregational schools,
- progressive free schools,
- schools with a particular educational aim, such as the Rudolf Steiner schools
- German minority schools,
- immigrant schools.

Private schools will be recognized and receive government financing regardless of the ideological, religious, political or ethnic establishment motivation.

Some private schools are very old, some are quite new, and new ones are still being added. It is characteristic of private schools that they are smaller than the municipal schools (Danish Ministry of Education 2009d).

All that is demanded of private education is that it measures up to that of the municipal schools. The small independent schools with a 9th class hold the Leaving Examination of the Primary and Lower Secondary School, unless they have informed the Ministry of Education that they will not hold the examination. However, in principle it is not up to any government authority but to the parents of each private school to check that its performance measures up to the demands of the municipal schools.

It is the parents themselves who must choose supervisors to check the pupil's level of achievement in Danish, arithmetic, mathematics and English and whether in general the overall teaching of the school measures up to what is normally demanded in the municipal school. If the pupil's knowledge is found inadequate, the supervisor must report it to the Ministry of Education. Individual parents who are dissatisfied with a private school may move their child to another private school or to a municipal school, or teach the child in the home. The local municipal school must always admit the child.

In extraordinary circumstances, the Ministry of Education may establish special supervision, for example if there is reason to believe that the school teaches Danish so poorly that the children's ability to cope with life in Denmark may be impaired (Danish Ministry of Education 2008a).

The private schools receive a grant ('per pupil per year') for their operational expenditures, which in principle matches the public expenditures in the municipal schools – less the private school fees paid by the parents. This is to ensure that public expenditures for the private and municipal schools follow the same trend (Danish Ministry of Education 2008b).

3.1 Admission

There are no admission requirements for the Danish *Folkeskole*. There may be specific admission requirements for private schools.

3.2 Organisation of time, groups and venue

The *Folkeskole* is an undivided (comprehensive, single-structure) school, where the formation of classes takes its point of departure in the age of the pupil – and not in his or her subject-specific proficiency.

The pupils are divided into classes with an average of approximately 20 pupils per class. The number of pupils in a class must not exceed 28. Under certain seldom circumstances, a municipality can give dispensation for a class to have up to 30 pupils. The majority of all classes in the municipal primary and lower secondary schools have an average of 20 or fewer pupils.

The Danish *Folkeskole* is not an examination-oriented school. The main rule is therefore that a pupil attends a class with pupils of the same age. School failure is an almost non-existing phenomenon in the Danish *Folkeskole*. In section 12, the *Folkeskole* Act allows for the possibility – with the consent of the child's parents – to repeat a school year, i.e. if the pupil has been away for a longer period of time or other reasons make this relevant.

In order to give all pupils in the *Folkeskole* the best possibilities for an all-round development and learning as much as possible, the *Folkeskole* builds on the principle of differentiated teaching. The teaching is organised in such a way that it both strengthens and develops the individual pupil's interests, qualifications and needs and so that it contains common experiences and situations providing them with experience which prepare them for cooperation in the performance of tasks.

The *Folkeskole* Act provides a further possibility to sustain the principle that all pupils should be given adequate challenges, as the teaching can take place in teams for part of the time in order to make it possible to take the point of departure in the individual pupil's background and current level of development. A team can consist of pupils from a number of different classes within the same form level or from different form levels. When an ongoing evaluation of the pupils' learning outcomes is a basis for team formation, the team teaching is to be characterised by shorter courses, for example courses designed for the training of specific skills or with the intention of providing special challenges to a group of pupils. It is, however, a requirement that the pupils be taught in their own class during the majority of the teaching period (Danish Ministry of Education 2008j).

3.3 Curriculum

The education in the ten-years of primary and lower secondary schooling is distributed within three subject areas and includes the following compulsory subjects for all pupils:

1. Subjects in the humanities:
 - a. Danish in all form levels.
 - b. English in form levels 3-9.
 - c. Christian studies in all form levels, except for the year in which confirmation takes place.
 - d. History in form levels 3-9.
 - e. Social studies in form levels 8 and 9.

2. Practical/Creative subjects:
 - a. Physical education in all form levels.
 - b. Music in form levels 1-6.
 - c. Visual arts in form levels 1-5.
 - d. Design, wood and metalwork, home economics in one or more form levels between levels 4-7.
3. Science Subjects:
 - a. Mathematics in all form levels.
 - b. Natural sciences/technology in form levels 1-6.
 - c. Geography in form levels 7-9.
 - d. Biology in form levels 7-9.
 - e. Physics/chemistry in form levels 7-9.
4. The following topics are a compulsory part of the education programme in the primary schools:
 - a. Road safety,
 - b. Health and sexual education and family studies,
 - c. Educational, vocational and labour market orientation.

German language classes are to be offered to pupils as an elective subject in form levels 7-9. As an alternative to German, individual pupils may be offered the opportunity to select French language classes as an elective subject in form levels 7-9.

Teaching in Danish as a second language is provided when necessary to bilingual children in pre-school class and in form levels 1-9. The Minister of Education is responsible for establishing the regulations concerning education in Danish as a second language to bilingual children and concerning mother-tongue tuition of children from member states of the European Economic Area, as well as the Faeroe Islands and Greenland.

In addition to the abovementioned teaching that schools are obligated to provide, pupils in form levels 8 and 9 may also be offered education in a range of elective subjects.

The *Folkeskole* Act gives the Minister the authority to establish the regulations and aims regarding education and regarding the central knowledge and skill areas (end objectives) in subjects and compulsory topics. Moreover, the Minister of Education determines the regulations and objectives for specific form levels (form level objectives) for the specific subjects/topics. The end and form level objectives establish a national objective for the direction and goals of the teaching, ensuring that pupils acquire the knowledge and skills in the subject/topic at, respectively, the end of their programme of education and at the conclusion of specific form levels. A description (in Danish) of each subject is provided in the subject's folder under the title 'Common Objectives' (*Fælles Mål*) at <http://www.faellesmaal.uvm.dk/>. The text on Common Objectives covers the two most important sets of academic texts regarding the school's subjects and topics: The binding national objectives in the form of the subject aims, central knowledge and skill areas (end objectives) and form level objectives. Guidelines for curricula and descriptions of the educational development designed for reaching the

form level and end objectives. Once the local curricula and descriptions receive final approval from the municipal board, they also become binding – and thereby common – for the individual school (Danish Ministry of Education 2008k).

3.4 Assessment, progression and certification

As a part of the education process, regular evaluations of the pupils' learning outcomes are to be carried out. The evaluations are to gauge the pupils' level in terms of acquiring the knowledge and skills in the subjects and topics in accordance with the level and end objectives. The evaluations are to form the basis for providing guidance to the individual pupil and for the further planning and organisation of the teaching as well as being a tool for assisting in keeping the parents informed of the pupils' learning outcomes.

It is made clear that the regular evaluations of the pupils' learning outcomes must be in accordance with the level and end objectives of the individual subjects as they are defined under Common Objectives.

As a part of the process of evaluating the pupils' learning outcomes, a range of obligatory national tests have been introduced. The tests are to be used in order to be able to follow the individual pupil's acquisition of knowledge and skills so that the education process can be planned to a greater extent according to the individual pupil's strengths, weaknesses and potential.

Pupils must complete the following tests:

- Danish, with a focus on reading in form levels 2, 4, 6 and 8.
- English in form level 7.
- Mathematics in form level 3 and 6.
- Geography in form level 8.
- Biology in form level 8.
- Physics/chemistry in form level 8.

The tests are computer based and adaptive, meaning that they are continuously adapted to the individual pupil. If a pupil answers a question incorrectly, they are given an easier question; if the pupil answers correctly, they are given a more difficult question. In this way, it is assured that the tests provide a precise picture of each pupil's academic level. No two pupils receive the exact same test. It is therefore not possible to make internal comparative evaluations of the tests within a specific class.

The test is one of a number of pedagogical tools available to the teacher. Together with the results of the evaluation, which the teachers also make use of, these tools are to be used in the planning of the further programme of education. The results are also used in guiding the individual pupil and will additionally be beneficial in strengthening cooperation with parents. The parents are therefore to be informed in writing about the results of the tests.

Information concerning test results for individual pupils, groups of pupils, teams, classes, schools, municipalities and regions, etc., are to be kept confidential, with the exception of the reporting on the national level. The test results will therefore similarly not be covered under the Public Administration Act's regulations regarding the right to public access to information. Finally, the exercises included in the tests will also be kept confidential.

In order to strengthen the process of carrying out an ongoing evaluation of the *Folkeskole*, a provision was introduced requiring a written pupil plan for all pupils at all form levels. The pupil plans are to

contain information about the results of the ongoing evaluations in all subjects and the course of action decided based on these results. The pupil plans are to be prepared at least once each school year.

The pupil plans are to be provided to the parents. A single model for the form the pupil plans are to take has not been introduced. It will continue to be the responsibility of the school boards to determine the specific principles for notifying the home regarding the pupil's learning outcomes and regarding any additional cooperation between school and home that is to take place within the framework that has been established by the individual municipal boards.

A national evaluation portal will assist teachers in the work of evaluating the pupils' learning outcomes. Teachers have access to a wide range of inspirational material for performing evaluations in the individual subjects, and examples of good evaluation practices and working with pupil plans are also included (Danish Ministry of Education 2008g).

At the conclusion of form levels 9 and 10, *Folkeskole* pupils sit for school-leaving examinations. This is compulsory after form level 9 but voluntary after the 10th. The examinations after the 10th form level place higher academic demands on the pupils than the examinations after form level 9. The final examinations after the 9th form level can be taken in the following subjects: Danish, English, Christian studies, history, social studies, mathematics, geography, biology, science/chemistry and German and French as electives.

Standard rules for all examinations ensure uniformity throughout the country. For the same reason, the papers for the written examinations are set and marked centrally. Each examination subject is assessed on its own merit; results cannot be summed up to give an average mark, in the same way, there are no pass or fail criteria.

Pupils must sit for examinations in a total of seven subjects. Five of the subjects are compulsory for all pupils: Written and oral examinations in Danish, a written examination in mathematics and oral examinations in English and science/chemistry. Moreover, each pupil must additionally sit for two examinations that are drawn at random, one from the humanities group, which includes written English as well as French or German, history, social studies and Christian studies, and one from the science group, which consists of geography or biology.

The examinations at the conclusion of the 9th form level are compulsory in order to ensure that all young people have a solid academic ballast when they leave the *Folkeskole* and thereby a better foundation for completing a post-compulsory education.

At the completion of education in the 10th form level, pupils have the opportunity to sit for examinations in one or more of the following subjects: Danish, mathematics, English, German/French and science/chemistry. Additionally, pupils can elect to sit for one or more of the 9th form level examinations in Danish, mathematics, English or science/chemistry, or choose a combination of 9th and 10th form level examinations.

At the 9th and 10th form levels, a mandatory project assignment gives pupils the opportunity to complete and present an interdisciplinary project. The project assignment is assessed in a written statement on the content, working process and presentation of the final result. The written statement affords a broader and more detailed assessment of the pupil's ability. At the pupil's request, a mark can also be given. The assessment of the project assignment can be indicated in the leaving certificate (Danish Ministry of Education 2008l).

The 7-point grading scale consists of five marks designating a passing level (12, 10, 7, 4 and 02) as well as two marks designating a non-passing level (00 and -3). The scale has been developed in part from a desire to simplify the compatibility between Danish and foreign grading scales, and, pivotally, to

provide a clear correlation between the descriptions for the individual marks and the academic objectives.

In tests and examinations that according to the rules on the individual study programmes etc. require documentation in the form of tests, examinations or leaving certificates, pupils are to be given an assessment according to the following grading scale (7-point grading scale):

- 12: For an excellent performance.
- 10: For a very good performance.
- 7: For a good performance.
- 4: For a fair performance.
- 02: For an adequate performance.
- 00: For an inadequate performance.
- 3: For an unacceptable performance.

(Danish Ministry of Education 2008m).

3.5 Guidance and counselling

It is the aim of the topic of educational and vocational guidance and labour market orientation that the individual pupil acquires a broad knowledge of the educational and occupational possibilities and realises the value of completing a course of education. Through the teaching, the pupils should be given the possibility to prepare for their own choice of education and occupation and understand the choice as a number of decisions which have to be taken on the basis of one's own prerequisites, needs, attitudes and social possibilities. Educational and vocational guidance and labour market orientation is a compulsory topic throughout the entire period of schooling.

Individual and collective guidance from the 6th to 9th/10th form levels is to ensure the continuous work with individual education planning and prepare educational plans for the individual pupil. Each pupil acquires knowledge of his or her own competencies and potential, to the educational system and to the opportunities in the labour market with the aim of achieving a solid foundation for choosing an education or occupation. The educational planning is based upon the abilities and skills that the pupils have acquired through, among other things, the compulsory topics of educational, vocational and labour market orientation. The educational plan is finalised in the 9th and 10th form levels in connection with the transition to a post-compulsory education (Danish Ministry of Education 2008h).

3.6 Teachers

The objective of the professional Bachelor of Education programme (B. Ed.) for primary and lower secondary school teachers is to train teachers for the primary and lower secondary school and to provide a basis for further training

With a view to their professionally oriented function as primary and lower secondary school teachers, the training programme is to:

- Provide the students with the necessary academic and educational insight and practical training,
- Contribute to furthering the students' personal development, and

- Contribute to developing the students' interest in and ability to participate actively in a democratic society.

Graduates of the teacher-training programme have the right to use the title of Bachelor of Education (B. Ed.). The programme provides a general qualification for teaching in the primary and lower secondary school. The long-term goal is, to an increasing extent, for qualified teachers to teach their main subject(s).

Approximately two-thirds of qualified teachers work in the primary and lower secondary school. The final third are mainly involved in other teaching such as at private schools, vocational colleges, folk high schools, adult education and social institutions. Some teachers are employed at private enterprises.

There are excellent opportunities for in-service training and further training, inter alia through:

- Courses and subjects on a level with main subjects in the teacher-training programme,
- Further training as a teaching practice teacher at the teacher-training programmes,
- A number of educational diploma programmes,
- The Master of Education degree,
- Master's programmes.

From the 1st of January 2008, teacher training takes place at one of the 8 university colleges in Denmark. University colleges are non-profit institutions under public administration. University colleges offer professional bachelor programmes which ensure that the region is covered geographically, as well as in-service training and further training in connection with this.

In relation to numbers of students, the educational professional bachelor programmes, the B. Ed. Programme, and the Bachelor in Social Education programme, respectively, are the two largest medium-cycle higher education programmes.

The teacher-training programme takes 4 years to complete, corresponding to 240 points in the European Credit Transfer System (ECTS points). A student's fulltime work for one year corresponds to 60 ECTS points.

The programme consists of the following for all students:

- Educational subjects in the form of general educational theory, psychology and educational science (a total of 33 ECTS points)
- Christian studies/life information/citizenship (17 ECTS points)
- Two or three main subjects (a total of 144 ECTS points)
- A Bachelor of Education project (10 ECTS points)
- Teaching practice (36 ECTS points)

(Danish Ministry of Education 2009g).

4. UPPER SECONDARY EDUCATION

This level of education typically begins at the end of full-time compulsory education. In Denmark, this level divides into:

1. General education qualifying for access to higher education and
2. Vocational or technical education qualifying primarily for access to the labour market

It normally caters for the 16-19-year-olds and comprises 1) the general upper secondary education provision of the Gymnasium (STX), the higher preparatory examination or HF-programme, the higher commercial examination or HHX-programme and the higher technical examination or HTX-programme, and 2) the vocational education and training programmes, the basic social and health training programmes etc. (Danish Ministry of Education 2009h).

General upper secondary education

The common objective of the general education programmes is to prepare young people for higher education, and in that connection ensure that they acquire general education, knowledge and competences by means of the subjects they study and in the interaction between them. STX, HHX and HTX take three years to complete and admit young people who have completed nine or ten years of basic school. HF takes two years and admits persons who have completed 10 years of basic school.

The STX and HF programmes consist of a broad range of subjects in the fields of the humanities, natural science and social science.

The HHX programme focuses on business and socio-economic disciplines in combination with foreign languages and other general subjects.

The HTX programme has its focus on technological and scientific subjects in combination with general subjects.

There are 146 schools offering STX and/or HF, 60 offering HHX and 38 offering HTX. Together they admit around 46 000 pupils every year. This means that more than 60 % of young Danes commence youth education after basic school.

The Ministry of Education issues the rules according to which the schools work. The schools, which are spread out all over Denmark, are self-governing institutions with different histories and academic profiles. They finance the implementation of one or more of the upper secondary education programmes by means of grants from the Ministry of Education provided on the basis of pupil numbers. The head of the school answers to a board, the composition of which reflects the school's specific profile. The teachers and pupils of the school appoint representatives to the board. The school board appoints and dismisses the headteacher and has overall responsibility for the running of the school and its activity.

All schools offering one or more upper secondary education programmes must have and utilise a system for quality development and results assessment of each individual programme and of the teaching. Within the general requirements, the school itself decides the methodology for self-assessment and quality assessment it wishes to employ. The school must be in a position to document its quality system vis-à-vis the Ministry of Education, which supervises the school's implementation of the education programmes and its results.

Teaching is covered by the state and is free of charge. However, to a limited extent (max. DKK 2 500) the school can require the students to acquire some of the teaching materials themselves, typically

dictionaries and pocket calculator. Pupils are eligible for Danish Education Support (SU) if they are active students, have reached the age of 18 and are Danish citizens. It is also possible in certain cases to obtain SU if one is not a Danish citizen (Danish Ministry of Education 2009a).

Basic vocational education and training (EGU)

EGU (*erhvervsgrunduddannelse*) is an individualised basic vocational education and training programme that is geared towards both employment and continued education.

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 which 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 EGU Act describes the target group as persons under the age of 30 living in the municipality who are neither receiving education (including not in a production school programme either) nor have a job; and do not have the preconditions for completing another qualifying youth education. The young people in question are typically practically-oriented with a weak educational background and not very academically inclined.

A radical increase in the annual intake to EGU is expected due to the fact that from 15 August 2007, all municipalities are obliged to offer EGU to the target groups.

During the school-based part of the programme, EGU pupils receive a weekly school allowance. In 2007 this allowance amounted to DKK 555 for the under-18 year olds and DKK 1 329 for young people over the age of 18. During practical training, the pupils receive ordinary trainee wages, which take a starting point in the first year's wages in the vocational education and training programmes (approximately DKK 8 000 a month). School-based teaching is ordinarily financed pursuant to the legislation governing the educational elements that are included in the education programme. The municipality can provide supplementary grants etc. for the teaching.

The municipalities' expenditure for EGU purposes is financed through the municipal block grant scheme, i.e. the general transfer of funds from the state to the municipalities.

The municipalities themselves finance the appointment of persons in charge of EGU. The production schools and vocational colleges receive grants to establish, administer and implement EGU plans (Danish Ministry of Education 2009i).

Vocational education and training (VET)

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.

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 125 vocational education and training programmes (2007), each of which can lead to a number of vocational specialisations. The social partners have considerable influence on these and thus, great responsibility for VET.

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 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 have just completed basic school education, but also adults with prior vocational experience.

A declining share of VET students come directly from compulsory education in the *Folkeskole* (primary and lower secondary education) while a number of participants are admitted after having been on the labour market for a period of time. An increasing number is admitted after having completed a general or vocational upper secondary education.

Approximately 38 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 5 percent usually take higher education subsequently.

Around 56 500 students commence a full-time vocational education every year whereas the total number of students in vocational education and training programmes is approximately 130 000 at any given time

117 institutions offer basic vocationally oriented education programmes. 97 of these 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.

The education and training programmes which have a small intake are conducted at trade schools, which cover a whole region. In these cases, the colleges have boarding facilities for students.

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 to 25 weeks. This is followed by the main course or VET-programme, which is based on an alternating principle. This typically takes 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.

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.

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 (Danish Ministry of Education 2009j).

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) to the institution.

4.1 Admission

4.1.1 General upper secondary education

To be admitted to one of the three-year upper secondary education programmes (STX, HHX, HTX), a pupil must have completed nine years of Danish basic education or have received corresponding teaching, and have taken the compulsory final examination of the primary and lower secondary school.

To be admitted to HF, a pupil must have completed ten years of Danish basic education and have taken examinations in Danish, English, mathematics, a second foreign language (French or German) and physics/chemistry.

A pupil must take an admission test if he/she has not taken the examinations required for admission to STX/HHX/HTX or HF. A pupil may be required to take an admission test if the basic school has recommended this.

Pupils who have not attended a Danish school may be admitted following a concrete assessment of whether they have qualifications corresponding to the requirements that must be fulfilled by pupils who have attended a Danish school. They may be required to take an admission test (Danish Ministry of Education 2009a).

4.1.2 Basic vocational education and training (EGU)

The municipalities are required to establish EGU for the target group. Vocational and production schools can enter into an agreement to organise EGU on behalf of the municipality (Danish Ministry of Education 2009i).

4.1.3 Vocational education and training (VET)

There is free admission to 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.

From August 2008, the basic programmes have been gathered in the following 12 vocational clusters leading to the related vocational programmes.

<i>Basic courses</i>	<i>Number of programmes in the cluster</i>
1. Motor vehicle, aircraft and other means of transportation	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	7 programmes
9. Production and development	31 programmes
10. Electricity, management and IT	7 programmes
11. Health, care and pedagogy	4 programmes
12. Transport and logistics	7 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 (Danish Ministry of Education 2009j).

4.2 Organisation of time, groups and venue

4.2.1 General upper secondary education

The individual school decides when the school year is to start after the summer holiday, the number of school days and the placing of holidays and school days. The calendar and holiday schedule of a school can usually be found on the school's website (Danish Ministry of Education 2009a). Typically the school year begins in August and ends in June.

4.2.2 Basic vocational education and training (EGU)

Each time an EGU plan is signed, in principle a new individual educational programme is established that is adapted to the individual young person's qualifications, wishes and needs. An EGU plan can thus be freely drawn up within a frame of up to three years, with between 20 and 40 weeks at school wherein school and practical training can alternate in the course of a week (Danish Ministry of Education 2009i).

4.2.3 Vocational education and training (VET)

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 first 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. Students have the option of prolonging the basic programme for up to a total of 40 weeks. Likewise, a basic programme can be shorter for students with prior learning, which can give credits. Normally, there is ongoing intake to the basic programme.

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.

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

Following the basic programme, 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 which 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 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 up till now only been used by a few students.

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 terminate at a well-defined step that gives professional competence. The students can resume the VET at a later time without prolonging the overall duration of education (Danish Ministry of Education 2009j).

4.3 Curriculum

4.3.1 General Upper secondary education

The Ministry of Education draws up curricula for subjects and multi-subject courses. All subjects are placed in system of levels, C, B and A, in relation to the subject's scope and depth, with A representing the highest level. The level system is as a general rule structured in such a way that C-level subjects are allotted 75 periods of 60 minutes, B-level subjects have 200 periods and subjects at A-level 325 hours. There are a number of exceptions, however, in the individual programmes, in particular as regards B and A levels (Danish Ministry of Education 2009a).

The focus in the STX programme (*Gymnasium*) is on general education and general study preparation. The academic standard is closely linked to aspects of the academic subjects, and the students are to achieve general education and study competence in the humanities, natural science and social science with a view to being in a position to complete higher education.

The structure of the programme:

- Specialized study programme 2½ years:
 - Compulsory subjects and levels
 - Normally three subjects constituting the specialized study programme
 - Multi-subject coursework

- Electives
- Specialized study project
- Basic programme ½ year:
 - Compulsory subjects and levels: Danish, English, 2nd foreign language, history, physical education, an artistic subject, mathematics, a natural science subject and social science. The head of the school can also decide that instruction in Danish, English, 2nd foreign language, history and physical education should start at the same time as the specialized study programme proper.

Compulsory subjects and levels: Danish A, English B, 2nd foreign language B or A, history A, classical studies C, physics C, physical education (PE) C, an artistic subject C, mathematics C, religion C, social science, and in addition at least two of the subjects biology, chemistry and natural geography at C-level.

As a main rule, each student must also complete biology, physics, chemistry or natural geography at B-level.

The compulsory artistic subject is chosen from among visual arts, drama, media studies or music.

The 2nd foreign language is chosen from among the following: French continued level B and A, German continued level B and A, French beginner language A, Italian A, Russian A, Spanish A or German beginner language A.

Parts of the instruction are implemented as multi-subject courses within the framework of general study preparation, general language understanding and a natural science basic programme.

Apart from the compulsory subjects, each student chooses a specialized study programme and electives, and each student also writes a specialized study project in the third year within two or three subjects of their choice.

Specialized study subjects: Each student chooses a specialized study programme consisting of a package with three subjects or – in certain packages – of two subjects. The packages, which are drawn up and offered by the individual school, can consist of subjects on the following levels: AAA-, AAB-, AAC-, ABB- or ABC. The number of different programmes as well as the specific content vary from school to school.

Electives: Each student selects a number of elective subjects. The number varies according to the study field subjects taken by the student.

Number of weekly periods: Each student completes a minimum of 2470 hours of 60 minutes each. There is, in addition, homework with written assignments, preparation of texts, research etc. as well as time for examinations.

Typical work methods: Various methods of working are employed, for instance classroom instruction, project work, individual and group based written work etc. Up to 25 % of the teaching time can be spent on virtually organised teaching, where students and teacher are not necessarily in the same room (Danish Ministry of Education 2008c).

The emphasis in the HF (The Higher Preparatory Examination) programme is on both the theoretical and the practical. The education programme aims to develop the students' capacity for in-depth study and their understanding of the connections between the subjects and to promote the individual student's responsibility for his or her own and joint results. The students are to attain analytical and

critical skills and achieve insight into natural science, social science and humanistic contexts. They are also to develop their linguistic competences.

HF is a fulltime, two-year programme of study, and the subjects are also offered as single subjects and sometimes as packages of subjects at adult education centres, where an annual approximately 80 000 students complete one or more HF subjects.

Compulsory subjects and levels: As well as an introductory course, a workshop course and project periods, the programme consists of the following subjects: Danish A, English B, mathematics C, physical education C, practical/musical subject C, natural science group of subjects (which includes biology C, geography C and chemistry C), and the culture and social science group of subjects (history B, social science C and religion C).

As well as the compulsory subjects, the student must choose two-four electives, and each student must also complete a major written assignment during the second year within one to three subjects of their choice.

Electives: The students choose from among a number of electives at C, B or A level offered by the schools. The electives can be HF subjects within the practical/musical area or electives common to the other upper secondary programmes for STX, HHX and HTX. The schools can also tone their HF range by offering electives as 'packages' for the students to choose between. The number and specific content of the elective options vary from school to school.

Number of weekly periods: Each student completes a minimum of 1625 hours of 60 minutes each. There is, in addition, homework with written assignments, preparation of texts, research etc. as well as time for examinations.

Typical work methods: Various methods of working are employed, for instance classroom instruction, project work, individual and group based written work etc. Up to 20 % of the teaching time can be spent on virtually organised teaching, where students and teacher are not necessarily in the same room (Danish Ministry of Education 2008d).

The emphasis in the HTX (Higher Technical Examination) programme is on subjects within the technics and natural sciences. A special feature of the programme is that students test the theoretical side of the curriculum in workshops and laboratories.

The structure of the programme:

- Specialized study programme 2½ years
 - Compulsory subjects
 - Three subjects constituting the specialized study programme
 - Multi-subjects coursework
 - Electives
 - Specialized study project
- Basic programme ½ year
 - Compulsory subjects and levels: Danish, English and Mathematics
 - Multi-subject coursework including workshop teaching

Compulsory subjects and levels: Danish A, technical science A, English B, physics B, chemistry B, mathematics B, technology B, biology C, communication/IT C, social science C and history of technology C.

Parts of the teaching are conducted as multi-subject courses within the framework of the study programme.

Technical science A is selected from among the following options: Construction and energy, design and production or process, food and health.

As well as compulsory subjects, the students also choose their specialized study programme and electives, and, in addition, in the third year each student writes a specialized study project within two or three subjects of their choice.

Specialized study subjects: Each student chooses a specialized study programme consisting of a package with three subjects. The typical HTX student selects packages consisting of three A-level subjects or two A-levels together with a third subject at B or C-level. However, specialized study programmes can also be offered consisting of one A-level subject together with a B-level subject and a third subject at B or C level. The packages are drawn up and offered by the individual school and the number of different programmes as the specific content vary from school to school.

Electives: Each student selects a number of elective subjects. The number varies according to the study field subjects taken by the student.

Number of weekly periods: Each student completes a minimum of 2630 hours of 60 minutes each. There is, in addition, homework with written assignments, preparation of texts, research etc. as well as time spent on examinations.

Typical work methods: A variety of working methods are used, for example classroom instruction, cases, experimental and workshop-based activity, individual and group based written work etc. Project work, which entails the interaction between theory and practice, also plays a particularly important role in the HTX programme. Up to 25 % of the teaching time can be spent on virtually organised teaching, where students and teacher are not necessarily in the same room (Danish Ministry of Education 2009b).

The emphasis in the HHX (The Higher Commercial Examination) programme is on vocational perspectives. The aim of providing a qualification for academic studies is realised within the areas of business economics and socio-economics combined with foreign languages and other general subjects. The education programme is to develop the students' capacity for in-depth studies and their understanding of theoretical knowledge as tools for analysing realistic issues.

The structure of the programme:

- Specialized study programme 2½ years:
 - Compulsory subjects and levels: Normally three subjects constituting the specialized study programme: Multi-subject coursework, electives, specialized study project.
- Basic programme 1 year:
 - Compulsory subjects and levels: Danish, English, Mathematics and optional 2nd foreign language, multi-subject coursework

Compulsory subjects and levels: Danish A, English A, 2nd foreign language B or A, business economics B, marketing B, international economics B, contemporary history B, mathematics C,

commercial law C and social science C. Parts of the teaching are conducted as multi-subject courses within the framework of the study programme.

Two foreign languages are selected from among the following options: French at continued level B and A, German at continued level B and A, French beginner language A, Italian A, Russian A, Spanish A or German beginner language A.

As well as compulsory subjects, the students also choose their specialized study programme and electives, and, in addition, in the third year each student writes a specialized study project within two or three subjects of their choice.

Specialized study subjects: Each student chooses a specialized study programme consisting of a package with three subjects or – in certain cases – two subjects. The typical HHX student chooses packages consisting of two A-level subjects and a third subject at B or C level. However, specialized study programmes can also be offered consisting of one A-level subject together with a B-level subject and a third subject at B or C level. The packages are drawn up and offered by the individual school, and the number of different programmes as well as the specific content vary from school to school.

Electives: Each student selects a number of elective subjects. The number varies according to the study field subjects taken by the student.

Number of weekly periods: Each student completes a minimum of 2 470 hours of 60 minutes each. There is, in addition, homework with written assignments, preparation of texts, research etc. as well as time for examinations.

Typical work methods: Various methods of working are employed, for instance classroom instruction, project work, individual and group based written work etc. Case-based teaching programmes also play a significant role in the HHX programme. Up to 25 % of the teaching time can be spent on virtually organised teaching, where students and teacher are not necessarily in the same room (Danish Ministry of Education 2008e).

4.3.2 Basic vocational education and training (EGU)

On the basis of the professional competence aimed at for the pupil, the EGU plan describes the practical training and school-based parts included in the programme. Practical training can take place within the whole of the private and public labour market, The EGU supervisor responsible must ensure that the required professional competence is achieved. Examinations are held if they are on the programme for the educational elements which make up the pupil's EGU.

EGU pupils are typically trained for an assistant function within a particular line of industry.

When the EGU has been completed and the pupils have gained employment and educational competencies, as well as graduate rights, they can become members of an unemployment fund. Thus, an EGU plan is to ensure that pupils actually are prepared for the labour market when they have completed their EGU.

The EGU plan must ensure that the places offering training are sufficiently qualified to be able to live up to the objective of EGU practical training. Practical training places are very largely made available by enterprises that cannot be approved for Vocational Education and Training (VET) (Danish Ministry of Education 2009i).

4.3.3 Vocational education and training (VET)

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 takes place 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 than for 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 (Danish Ministry of Education 2009j).

4.4 Assessment, progression and certification

4.4.1 General Upper secondary education

Marks are awarded on a 7-point scale from -3 to 12. In STX, HHX and HTX each pupil regularly receives term marks in all subjects, and the teacher also gives final marks when a subject is completed. In addition, the pupils all receive marks when they sit for an examination.

Certain examinations are compulsory for all pupils in the education programme. Each year, the Ministry of Education decides which subjects are to form part of the examination for the individual pupil. Towards the end of the education programme, all pupils must submit a major written assignment or project, which forms part of the examination.

The examinations can be written, oral, case and project tests or taken mixed forms. At most of the examinations, the pupils may utilise all types of aids, including IT, but they may normally not communicate with one another or with anyone in their surroundings.

The Ministry formulates all written examination questions and appoints external examiners for all examinations, both oral and written.

An examination certificate is issued when the pupil has achieved a minimum of 02 in weighted average of the concluding term marks and examination marks. When the examination average is being calculated, the marks are weighted differently depending on the level. The examination average is crucial to the pupil's future opportunities in the education system as it forms an important part of the basis for admission to higher education. The examination average is raised for pupils who have taken more subjects at A-level than the education programme requires (Danish Ministry of Education 2009a).

All HF students take one or more written and/or oral examinations in all the compulsory subjects and in the subject groups within natural science and culture/social science. Examinations are also taken in the electives. An HF examination also includes an individual, major written assignment within one to three subjects and an examination project prepared individually or in groups and which covers two to three subjects. Term marks (end of year marks) are not given in the HF programme (Danish Ministry of Education 2008d).

4.4.2 Basic vocational education and training (EGU)

The majority of EGU pupils go on to seek employment or a vocational training programme when they have completed their EGU, or in circumstances when their education is interrupted with a view to continued education or training.

It is a special feature of EGU that if during the course of the EGU programme it is assessed that the pupil has achieved the prerequisites and the will to go on to an education and training programme in a qualified manner, or to achieve permanent employment, it may be appropriate to discontinue the EGU plan. If they continue to post-compulsory education, the pupils must obtain credits for the school-based parts they have completed (Danish Ministry of Education 2009i).

4.4.3 Vocational education and training (VET)

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.

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 skills obtained by the trainee. The external examiners are from companies or the trade committees, who often develop the final tests (Danish Ministry of Education 2009j).

4.5 Guidance and counselling

4.5.1 General Upper secondary education

The schools are obliged to provide academic guidance for the students and to ensure that they are offered individual and collective guidance concerning completion of the education programme. The students can also receive guidance concerning higher education and careers (Danish Ministry of Education 2009a).

4.5.2 Basic vocational education and training (EGU)

EGU may be characterised as a guided intensive programme considering the target group. Close personal and social support and follow up of the individual pupil, in both the school-based part and the practical training, is often a precondition for the programme being a success for the pupil. An EGU guidance counsellor often has a mentor role in relation to the individual EGU pupil (Danish Ministry of Education 2009i).

4.5.3 Vocational education and training (VET)

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 (Danish Ministry of Education 2009j).

4.6 Teachers and trainers

4.6.1 General Upper secondary education

Teachers must have completed a Master's programme at a university or – in certain cases – be able to document a corresponding level. Teachers must also have completed a course in educational theory and practice before or subsequent to their appointment at the school (Danish Ministry of Education 2009a).

4.6.2 Vocational education and training (VET)

Teachers in vocational education and training programmes have normally completed a vocational education in the subjects in which they teach and have typically completed 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 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 (Danish Ministry of Education 2009j).

5. POST-SECONDARY NON-TERTIARY EDUCATION

In Denmark there are no educations which fall under this category.

6. TERTIARY EDUCATION

Following a so-called binary structure, the higher education institutions can be grouped into two different sectors:

- the university sector
- the college sector, i.e. the professionally oriented higher education sector.

Students in Danish higher education work independently and exercise their own initiative. As well as attending traditional lectures, they study in small groups where they are expected to make active contributions. Part of their studies consist of independent project and research work. Most degree courses are self-contained and students choose their field of specialisation when commencing their studies. All programmes include the preparation of either a major project report, a thesis or a dissertation, depending on the level of the degree (CIRIUS 2009d).

The university sector

As a result of a government initiative, the number of universities was reduced from 12 to 8 through a series of mergers which took effect on 1 January 2007. The 8 universities are:

- University of Copenhagen, including the Faculty of Life Sciences (previously the Royal Veterinary and Agricultural University) and the Faculty of Pharmaceutical Sciences (previously the Danish University of Pharmaceutical Sciences)
- University of Aarhus, including the Aarhus School of Business and the School of Education (the Danish University of Education)
- University of Southern Denmark
- Roskilde University
- Aalborg University
- Technical University of Denmark
- Copenhagen Business School
- IT University of Copenhagen

In addition, there are a 13 specialist university-level institutions in architecture, art, music etc.

Teaching at university sector institutions must be research-based: this is a fundamental principle for all universities aimed at ensuring high standards in all programmes. The university sector only comprises institutions offering degrees up to the highest academic level, including doctorates (CIRIUS 2009d).

The degree structure is based on three main levels: Bachelor, *Candidatus* (Master) and PhD. The main types of degrees have been described in terms of learning outcomes in a National Qualifications Framework.

As a result of reforms in the late 1980s, Danish higher education has switched from a one-tier qualification structure to a two-tier structure with Bachelor's, Master's (*candidatus*) and PhD degrees.

Before then, all university study programmes had a duration of 4 to 6 ½ years and led to the award of the *candidatus (candidata)* degree (Master's degree).

From 1988, students completing 3 years of a *candidatus* programme were awarded the Bachelor's degree and could use the title B.A. (Humanities, Theology, Social Science) or B.S. (Natural Science, Health Science).

The 1993 university reform introduced a general bachelor degree structure. As a result, almost all university programmes now consist of a bachelor programme (BA/BSc), a *candidatus* programme and a PhD programme. The bachelor programme constitutes a complete programme in itself, but most students continue into a *candidatus* programme. As a result of this new degree structure, the 4-year cand.phil. degree within the Humanities was abandoned in 1995/96.

Subsequent legislation has established the structure based on two main cycles in all university disciplines. The most recent arrangements in this context, and linked to the Bologna process, are specified in the Ministry of Science, Technology and Innovation's Order No. 338 of 6 May 2004 on university Bachelor's and Master's programmes, which was issued under the Universities Act of May 2003, and the June 2004 Ministry of Culture Order on education in the academies of music and the Opera Academy.

The Bachelor/*candidatus* structure applies to Roskilde and Aalborg universities as well, even though these institutions offer certain special features. At Roskilde University, a bachelor programme consists of a 2-year general studies programme (*basisuddannelse*) in the Humanities, the Social Sciences, or the Natural Sciences followed by a 1-year specialised degree programme. At Aalborg University, the social science and technology & science bachelor programmes start with a 1-year general studies programme (*basisuddannelse*). At Aalborg University, there is also a special 1-year *cand.phil.* programme after completion of the bachelor programme in social science.

University education encompasses several hundred higher education programmes within a broad variety of fields: Humanities, Theology, Social Sciences, Health Sciences, Technical and Natural Sciences. Study programmes of the university sector are research-based, analytical and theoretical. They provide a broad academic foundation as well as specialised knowledge. A few of the programmes have a strong professional focus, such as Medicine, Dentistry and Psychology.

The Bachelor's degree is awarded after an undergraduate programme of 3 years of study (180 ECTS points). The programmes prepare students for occupational functions and for studies for the *Candidatus* degree.

All bachelor's programmes have to follow the same national standards, and there are no classifications in honours/ordinary programmes. They must be research-based and concentrate on the major scientific subject areas chosen for the degree from the very first year. All programmes require a bachelor's project. The study programmes do not include any components that could be classified as liberal arts.

The titles are, as a rule:

BA + field of study (English: Bachelor of Arts (BA) + field of study)

BSc + field of study (English: Bachelor of Science (BSc) + field of study).

In business administration, the title HA may be used. In the field of legal studies, the English title is Bachelor of Laws (LL.B.).

The *candidatus (candidata)* degree, the master's degree of the ordinary education system, is awarded, in most cases, after a total of 5 years of study: A relevant bachelor's degree + 2 years of graduate

study (120 ECTS points). A few *candidatus* programmes are longer: Medicine (3 years, 180 ECTS points) and Veterinary Medicine (2½ years, 150 ECTS points).

The programmes qualify students for assuming occupational functions and scientific work. Each *candidatus* programme must include one or two of the major fields of study of the Bachelor's programme. Independent research activities are an important part of the *candidatus* programme. The 'speciale' (master's thesis) is a major requirement and is normally scheduled for 6 months' full-time study.

The titles are, as a rule, cand. + field of study in Latin, e.g.: cand.mag. (*candidatus/candidata magisterii*). In English the titles are, in most cases, MA or MSc + field of study.

A less frequent degree, the mag.art. (*magister artium*) or *magisterkonferens*, is awarded following research-oriented studies in one subject and the defence of a thesis. Mag.art. exists within certain fields of the humanities, however, it is being phased out and no new programmes have begun after 1 September 2007.

Music Academies offer specialist degrees of 2 to 4 years following the *candidatus* degree.

Following a 1993 reform, the Ph.D. degree is awarded after a total of normally 8 years of higher education and research. The PhD programme itself normally lasts 3 years (180 ECTS points). The standard admission requirement is a *candidatus* degree.

The standard components of a PhD programme are:

- a scientific project (i.e. the PhD thesis) involving independent application of the scientific methodology of the relevant field;
- participation in research courses and seminars corresponding to six months' work;
- mobility to ensure integration in two or more active research groups and networks (mobility abroad is given a high priority);
- experience in teaching or other kinds of communication of research results;
- public defence of the PhD thesis.

A PhD degree is awarded in recognition of the fact that the recipient has successfully completed a PhD programme and by means of a dissertation has demonstrated a capacity to carry out a scientific project involving independent application of the scientific methodology of the field in question, thereby contributing to research at a level corresponding to the international standards of a PhD degree in that field.

Mature researchers may obtain the traditional higher Danish doctoral degree (*doktorgrad*), usually after a minimum of 5-8 years of individual and original research (following a *candidatus* degree, a mag.art. degree or a ph.d. degree in the relevant field of study) and public defence of a dissertation.

There is no formal study programme for this award. The titles are dr. + field of study in Latin (CIRIUS 2009d).

The college sector

The college sector comprises around 100 specialised institutions of higher education offering professionally oriented programmes.

Professionally oriented higher education programmes are offered at colleges. Whereas in other countries, similar programmes may be offered by universities, in Denmark they have traditionally been

offered by specialised colleges. Very often these institutions are engaged in theoretical and practical developmental work, and many of them participate in international cooperation, e.g. through the EC mobility programmes.

Colleges offer medium-cycle programmes, mainly professional bachelor's degrees. Most colleges offering Professional Bachelor's degrees have merged into more comprehensive Centres for Higher Education (*centre for videregående uddannelse* – CVUs) following an act passed by Parliament in 2000. CVUs are a new type of institution developed with the aim of strengthening professionally oriented types of higher education and creating new possibilities for further education and training. The centres are also meant to be innovative bodies in the field of knowledge development. As from 2005, CVUs fulfilling certain quality criteria may be awarded the label of University College.

Vocational colleges offer short-cycle programmes, mainly 2-year Academy Profession degrees. Most colleges offering Academy Profession degrees have formed Academies of Professional Higher Education (*erhvervsakademier*) as a framework for regional cooperation. This was made possible by the 1998 reform of short-cycle higher education. In order to obtain the status of Academies of Professional Higher Education the participating colleges must fulfil a number of quality requirements in terms of scope and level.

The Academy Profession degree (AP degree) is awarded after 2 years of study (120 ECTS points) with the exception of the *datamatiker* programme in computing, which takes 2¼ years (135 ECTS points). Admission is possible on the basis of either general upper secondary education or relevant vocational education and training supplemented by adequate general upper secondary courses (e.g. maths, physics, English).

Academy profession programmes (*erhvervsakademiuddannelser*) exist in the fields of business, IT and technical studies. They prepare the student for performing practical, vocational tasks on an analytical basis and may lead to employment in middle-management positions. Apart from theoretical subjects, programmes are usually completed with a project of 3 months' duration.

In August 2000, a new act on the short-cycle higher educations (Act no. 1115 of 29 December 1997) was implemented, making the access routes broader and more transparent and with better possibilities for students to be awarded credits in a medium- or long-cycle higher education programme.

Thirteen study programmes were set up in the following fields: Agriculture, Textile, Clothing and Design, Food Industry, Hotel and Tourism, Finance, Construction, Technology and Energy, IT and Electronics, Media and Communication, Industrial Production, Laboratory Technician, Retail Trade and International Marketing. The programmes in Computer Science (*datamatiker*) and Transport Logistics were continued.

These 15 programmes replaced the previously existing 70 short-cycle programmes of varying lengths between 1 and 3 years. In many cases, this meant extending the course from 1½ to 2 years.

Medium-cycle professional higher education qualifications: Professional bachelor's degrees are first cycle degrees awarded after 3 to 4½ years of study (180-270 ECTS points) at a level corresponding to that of university Bachelor's programmes, but with a stronger focus on professional practice.

Professional bachelors' programmes exist in the technical, educational, social, creative and health-related fields. They provide students with knowledge of theory and the application of theory to professions and industries. All programmes include periods of practical training and require the submission of a project paper.

Most programmes give access to further studies in the same field, typically a Master's programme within in Adult Education and Continuing Training), or in certain conditions it might give access to specific *candidatus* programmes.

In 2000, the Act on medium-cycle higher education created a common framework for the programmes. One of the main features of this reform was the creation of the title of professional bachelor (*professionsbachelor*) indicating, in relation to university bachelor's degrees, a similar level of education combined with a stronger focus on professional practice.

Colleges may award the professional bachelor titles on completion of programmes that have been approved to meet a number of criteria. Among other things, the teaching must be rooted in the profession and its development and it must include links to national and international research (CIRIUS 2009d).

See also section 2.5 Teachers for information on the Bachelor in Social Education and 3.6 *Teachers* on the B Ed programme for primary and lower secondary school teachers.

6.1 Admission

General access requirements to higher education in Denmark are 12 years of education including one of the following secondary school leaving examinations or comparable qualifications:

- *studentereksamen* (STX) – Upper Secondary School Leaving Examination
- *højere forberedelseseksamen* (HF) – Higher Preparatory Examination
- *højere handelseksamen* (HHX), – Higher Business Examination
- *højere teknisk eksamen* (HTX) – Higher Technical Examination.

Access to Academy Profession programmes is also possible on the basis of a relevant 3-4 year vocational education and training programme supplemented by adequate upper secondary courses (e.g. maths, physics, English).

In certain Bachelor's degree programmes, alternative entry is possible on the basis of a relevant educational qualification (typically a professional bachelor's degree) combined with 2 or 3 years' work experience. Additional requirements may apply.

Admission to many study programmes depends on the fulfilment of specific requirements. These may either be a specific subject combination or requirements concerning the level of the subjects taken, the grades obtained, work experience etc. Admission to programmes in certain fields such as art and music requires an entrance examination based on talent.

The Ministers responsible for higher education may fix a maximum number of student admissions within certain fields of study. Apart from that, individual institutions may have restricted admission for certain fields of study.

Students apply for admission through a Coordinated Enrolment System (KOT). Each institution selects students according to the general admission regulations. The available places are divided into two quota systems. Places in the first quota are distributed to applicants with Danish and equivalent upper secondary school leaving certificates on the basis of their grade average. Places in the second quota are given to applicants on the basis of individual assessment by the institution (CIRIUS 2009d).

6.2 Students' contributions and financial support

In general, no tuition fees are charged for Danish and EU students. The Danish State finances higher education. However, as of August 1st 2006, you must pay tuition fees on all institutions of higher education in Denmark if you are not a Danish citizen and come from a non-EU/EEA country.

Since 1994, the universities have been awarded a lump sum grant each year and are free to determine their own priorities between their different departments and between education and research. They are also free to secure extra income by offering special courses and selling know-how. A substantial part of the lump sum granted to each institution consists of the so-called »taximeter« grant per active student (Danish Rectors' Conference 2002).

Danish students above 18 are entitled to the Danish State Education Grant and Loan Schemes. Some foreign students are also entitled to this, however special rules apply.

6.3 Organisation of the academic year

The study boards which are set up by the deans are responsible for the organisation of the education and teaching. The study boards consist of an equal number of students and research staff (Ministry of Science, Technology and Innovation 2007).

The most common form of organisation is the two-semester structure which typically begins in late August or early September with examinations in December or January. The second semester begins again typically in late January or early February and ends with examinations in May or June. Re-examinations are typically taken in August.

6.4 Assessment, progression and certification

Students are required to sit examinations for all courses. All examinations at Danish higher education institutions are administered not only by the teacher, but also by an examiner who, in the case of most examinations, must be external. The external examiners are responsible for assuring the same standard for all examinations and thus for their quality. After completion of a full programme, the student is awarded a diploma, transcript etc.

All Danish higher education institutions are required to issue an English-language Diploma Supplement to all of their graduates free of charge. Use of the Diploma Supplement has been mandatory since September 2002.

The use of ECTS credits has been mandatory in all higher education study programmes since September 2001. It is also used for lifelong learning in adult higher education. The use of ECTS for credit accumulation is possible in most programmes (CIRIUS 2009d). For more information concerning higher education certification see introductory part of 6. Tertiary education.

6.5 Guidance and counselling

Most university departments have student guidance centres which primarily offer advice relating to practical matters concerning the education programmes. In addition, some institutions have career guidance centres which offer advice and support relating to student's employability. A central student counselling service help students in medium and long-term higher education programmes with personal problems (Student Counselling Service).

6.6 Academic staff

The positions have been divided up into the following levels:

1. Positions below the level of assistant professor

- a. PhD fellow
- b. Research Assistant

Applicants for the post of research assistant must have a master's degree.

- c. Assistant Lecturer

Applicants for the post of assistant lecturer must have a master's degree.

- d. Part-time Lecturer

Applicants for the post of part-time lecturer must have a master's degree as well as additional qualifications at high level, for example particular areas of specialisation, expertise or practical experience achieved through employment involving practical application of the discipline. Teaching qualifications form part of the basis of the assessment.

2. Positions at the level of assistant professor

- a. Assistant Professor
- b. Assistant Researcher
- c. Assistant Postdoc

Applicants for the post of assistant professor/researcher/postdoc must hold academic qualifications at PhD level.

3. Positions at the level of associate professor

- a. Associate Professor
- b. Senior Researcher

Applicants for a position of associate professor/senior researcher are assessed on the basis of the qualifications stipulated in the job advertisement. Appointment as associate professor/senior researcher depends on research qualifications at the level that can be achieved by satisfactorily completing a period of employment as an assistant professor/researcher/postdoc, but may also be obtained in other ways. It is assumed that applicants have received supervision and enhancement of pedagogical competencies and have received a positive written assessment of their teaching qualifications. On appointment, other qualifications may also be required, e.g. in relation to knowledge and technology transfer and, for example, patenting and cooperation with external parties.

4. Positions at the level of professor

- a. Professor

Applicants for a position of professor are assessed on the basis of the qualifications stipulated in the job advertisement, but must also be able to document a high degree of original academic production at international level, which documents that the applicant has contributed to developing the academic discipline. Emphasis must also be placed on an assessment of the applicant's ability to manage research and any other management

functions, for example in relation to the university's cooperation with the outside world. On appointment, other qualifications may also be required, e.g. in relation to knowledge and technology transfer and, for example, patenting and cooperation with external parties.

b. Professor with Special Responsibilities

The qualification requirements correspond to those of ordinary professorships. Emphasis must, however, be placed on whether the applicant has the potential to continue the development of the discipline and has documented original academic production at international level. Special emphasis must also be placed on an assessment of the applicant's opportunities to perform the special responsibility or responsibilities associated with the specific post.

Furthermore, the job structure comprises of a number of other job categories that may be used within delimited areas. In future, the principal positions will include assistant professor/researcher/postdoc, associate professor/senior researcher, professor with special responsibilities, and professor. The principal positions constitute coherent career progression (Danish University and Property Agency 2006).

7. CONTINUING EDUCATION AND TRAINING

7.1 Continuing vocational education and training

The adult vocational training programmes (in Danish 'arbejdsmarkedsuddannelser or AMU') are short vocational training programmes mainly for low skilled and skilled workers on the labour market.

The programmes serve a triple purpose:

- To contribute to maintaining and improving the vocational skills and competences of the participants in accordance with the needs on the labour market and to furthering competence development of the participants.
- To contribute to solving labour market restructuring and adaptation problems in accordance with the needs on the labour market in a short and a long term perspective.
- To give adults the possibility of upgrading competences for the labour market as well as personal competences through possibilities to obtain formal competence in vocational education and training.

Participants may acquire new and updated skills and competences to better their opportunities to managing new and wider job functions and to becoming more flexible on the labour market.

Adult vocational training programmes have been developed for low skilled and skilled workers. However, everybody may participate irrespective of educational background. Only formal entrance requirement is being resident or holding a job in Denmark. In general:

- The programmes are mainly provided for low skilled and skilled workers having a job. Workers and employers in private as well as public sector enterprises may participate in the programmes.
- The unemployed in their first unemployment term may have a combination of adult vocational training programmes of their own selection for 6 weeks. Unemployed with a personal action plan from the job centres/local authorities may participate.
- Immigrants and refugees may follow ordinary courses or courses specifically developed for this group.

Source: Danish Ministry of Education (2009e).

Number of participants	617 000
Of which women	270 000
Number of individuals (participate in one or several programmes)	318 000
Number of full time equivalent participants	11 000
Number of schools (approximately)	120

7.1.1 Policy and legislative framework

Consolidation Act on Adult Vocational Training Programmes, LBK no. 190 of 18 March 2008.

7.1.2 Distribution of responsibilities

The social partners play a major role in the management, priority setting, development, organisation and quality assurance of adult vocational training programmes. At national level, a National Council for

Adult Vocational Education and Training (REVE) advise the Minister of Education and 11 continuing training and education committees, each responsible for a specific sector of the labour market. The continuing training and education committees have to continuously analyze the need for new competences on the labour market and for developing relevant new joint competence descriptions and adult vocational training programmes. At local level, the social partners participate in the governing board at institutions providing adult vocational training programmes e.g. at vocational and technical colleges and commercial colleges. Each institution sets up one or several local education boards for adult vocational training programmes directed at specific local job areas, i.e. job areas corresponding to the joint competence description(-s) that the school has permission to provide (Danish Ministry of Education 2009k).

7.1.3 Financing

The adult vocational training programmes are partly publicly financed. The providers operate within a fixed financial framework (EVE) based on taximeter funding according to the Budget and provided by the Ministry of Education (taximeter grant per full-time equivalent participant, a fixed rate per programme). There are different instruments to securing that the fixed financial framework is not exceeded. Once a year, the school has to present and negotiate activity and budget targets with the Ministry, i.e. the framework within which the school may decide which programmes they want to provide according to the need in the local area.

There are user fees, 500 DKK or 750 DKK per week. Free of user fees are courses in the social and health service, in the pedagogical field, individual competence assessment and participation by the unemployed in their first unemployment term who attend individually selected programmes for 6 weeks and finally programmes part of a basic adult education plan. The expenditure for user fee is normally paid by the employers. On average, the user fee for adult vocational training programmes is around 15 per cent of the total working expenses.

Low skilled and skilled participants are entitled to a fixed allowance financed by the state, the State Grant System for Adult Training (*VEU-godtgørelse*) corresponding to the level of maximum unemployment benefit rate. Companies paying regular wages to employees participating in adult vocational training programmes are entitled to receive the grant instead. Expenditures for the allowances are covered by employer's en bloc (*AER Arbejdsgivernes Elevrefusion*). Expenditures for participation by unemployed after their first term of unemployment are covered by the job centres/local authorities.

There are around 120 schools approved by the Ministry of Education providing adult vocational training programmes all over the country – the principle being to offer training programmes in all regions. The providers are adult vocational training centres, vocational technical colleges, commercial colleges, agricultural colleges, social and health service schools etc. Most of the schools provide education programmes for adult as well as young people. The schools are mainly state schools, however also a number of private schools provide adult vocational training programmes e.g. driving schools (Danish Ministry of Education 2009k).

7.1.4 Programmes and providers

The adult vocational training programmes and affiliated single subjects from the mainstream vocational education and training programme have been organized in joint competence descriptions (FKB). The joint competence descriptions gives an overview of the system for users, guidance staff etc. Every joint competence description corresponds to one job area for low skilled and skilled workers. A competence description consists of:

- A description of the typical workplaces

- A description of relevant competences within the job areas
- A list of adult training programmes and affiliated single subject courses from mainstream vocational education and training programmes leading to those competences.

There are around 120 joint competence descriptions to which around 2 800 adult vocational training programmes and 300 single subject courses from the mainstream vocational training and education programme are affiliated.

They are mainly short vocational training programmes, the duration of which normally varies from half a day to 6 weeks, in average 3 ½ days. It is possible to combine adult vocational training programmes in a package including programmes in the same field at a higher level.

The training is organized in classes or as open workshops where participants may follow different programmes at different levels in the same room with the same teacher or organized at the workplaces. Normally the training activities take place during working hours. The training activity may also take place outside working hours e.g. during weekends or as distance learning. Language of instruction is normally Danish, but may be other languages.

The specific content of the programmes reflect development and demands from sectors with many low skilled and skilled workers. Around 500 to 800 programmes are developed or revised every year. In general there are three main types of programmes directed at:

- Specific job/sector related skills and competences, e.g. crafts, technical insight and knowledge of materials
- General skills and competences, e.g. ICT and job relevant mathematics
- Labour management skills and competences, e.g. social communication, organization and management.

In addition there are special programmes for:

Recognition of prior learning according to the individual competence assessment programmes (IKV) within the adult vocational training programme – with the aim of recognizing competences acquired in education and training, on the labour market or from spare time activities as the basis for composition of an individual training plan including one or several adult vocational training programmes for the participant.

Immigrants and refugees not having adequate Danish language skills to join ordinary adult vocational training courses may join specifically developed programmes e.g. Danish language courses combined with introductory short training courses and work placement. According to individual needs, immigrants and refugees may join a combination of courses for a short or long period where ordinary adult vocational training courses are combined with Danish language courses and practical training.

Participants with inadequate basic skills and competences may be assessed in reading, writing, arithmetic and mathematics and may receive guidance in this context. Participants may follow preparatory courses for adults with low qualifications and competences in reading, writing and mathematics (FVU) as a supplement and support to the adult vocational training programme/-s.

On completion of a programme, the participant receives a certificate. The teachers assess the participant and almost everyone gets a certificate. For around 150 of the training programmes, the participants pass an exam and receive a formal, qualifying certificate for the labour market recognized by the legal authorities, e.g. crane driver. All certificates from the adult vocational training programme are qualifying for the national labour market.

Certificates from adult vocational training programmes do not give direct access to further education in mainstream education or in other adult education and training programmes. However, there are many options for participants who want to continue in education and training programmes corresponding to mainstream vocational education and training or higher education programmes.

In the adult vocational training system, participants may receive proof of recognition of prior learning as a result of competence assessment in two ways. As recognition in the form of a regular certificate when the school has assessed the participant's competences to be equivalent to a completed adult vocational training programme, or/and a single subject registered in the common competence description; or as recognition in the form of a competence proof when the school has assessed the participant's competence to be equivalent to parts of an adult vocational programme or/and a single subject in the common competence description.

A regular certificate or proof of recognition of prior learning may give access to specific jobs and sectors on the labour market or/and credit transfer. For low skilled it may give credit transfer into mainstream vocational education and training programmes or into the basic adult education programme (GVU). Admission requirements for the basic adult education programme are minimum 25 years of age, minimum two years of relevant work experience and qualifications corresponding to the leaving examination of upper secondary school in relevant subjects. The participant will have an individual personal education plan drawn up by the school and normally follow the education and training activities part-time while still keeping his or her job. The certificate from the basic adult education programme gives the same formal qualification for the labour market and for further studies as a certificate from the mainstream vocational education and training. At the higher education level, skilled workers may have access to continuing professional education programmes, i.e. mainstream short-cycle higher education programmes or further adult education programmes (VVU) and possibly obtain credit transfer (Danish Ministry of Education 2009k).

7.1.5 Quality assurance

The providers are responsible for meeting the demands of their local labour market and the Ministry of Education supervises provision and quality of the training activities. Moreover, the providers analyse the quality of the training activities i.e. the satisfaction rate is measured systematically among all participants and a representative segment of companies. The results are made available on the Internet by the Ministry of Education (Danish Ministry of Education 2009k).

7.1.6 Guidance and counselling

Guidance and counselling activities for workers and enterprises take place in many locations, and many actors are involved: Teachers at schools or visiting the workplaces, local authorities in job centres, trade unions etc. For small and medium size enterprises guidance, counselling and dialogue at the workplace is specifically important. In addition there is a demand for relatively more activities specifically directed at motivating low skilled workers for participation in adult training programmes, i.e. there is focus on information by trade unions representatives at the workplace, with immediate superior etc (Danish Ministry of Education 2009k).

7.1.7 Teachers and trainers

Training is carried out by teachers with qualifications at the same level as a vocational education and training certificate or a diploma at higher education level in the relevant field and with minimum three years of relevant job experience. Two years after being employed by the school, teachers also have to have acquired adult pedagogical education experience at least at the same level as required for teachers at the vocational technical colleges and commercial colleges. Some teachers only teach at adult vocational training courses, others teach at adult vocational training courses as well as

mainstream vocational education and training courses. The teachers need to be flexible as new programmes continuously are being introduced, training may be organized at the workplace and teachers have to take part in counselling and guidance activities for workers and enterprises (Danish Ministry of Education 2009k).

7.2 Other forms of continuing education and training

There are two other forms of continuing education and training: Higher education for adults and non-formal adult education.

Higher education for adults

A reform of lifelong learning was introduced in 2000 (Act no. 488 of 31 May 2000). It introduced three advanced levels of open education qualifications at levels comparable to mainstream higher education, although not identical:

- *Videregående voksenuddannelse* (Advanced Adult Education) – comparable to a short-cycle higher education level (programmes at this level are yet to be elaborated);
- *Diplomuddannelse* (Diploma programmes) – comparable to a medium-cycle higher education level;
- *Masteruddannelse* (Master's programmes) – comparable to a long-cycle higher education level, e.g. Master of Business Administration (MBA), Master of Public Administration (MPA) or Master of Public Health (MPH).

Most programmes consist of 2 years of part-time study, equivalent to 1 year of full-time study. The admission requirements are a relevant prior qualification and at least 2 years of professional experience. Institutions may accept applicants on the basis of other relevant qualifications.

Education programmes at the advanced levels within the adult education system may be advanced in depth and in breadth, i.e. either vocational specialisation within or outside the ordinary vocational field of the participant. The organisation of the content and teaching methods of the continued education programmes within the adult education system is also to a high degree based on the life and work experience of the adults (CIRIUS 2009f).

Act on Vocational basis education and higher education, IBK no. 1051 of 29 August 2007.

Non-formal adult education

Non-formal adult education consists of forms of teaching and education that only to a limited degree are part of the formal, public educational system.

The concept of 'Non-formal adult education' is associated with the Danish philosopher, poet, educational thinker and clergyman, N.F.S. Grundtvig, and his thoughts concerning free educational opportunities. The concept first arose in the 19th century and is one of the special features of the Danish education system.

A wide range of different schools operates within the framework of liberal non-formal adult education. The courses do not lead to recognised formal qualifications, the aim being personal development. Non-formal learning activities are frequently based on private initiatives by non-governmental organisations. Non-formal adult education comprises:

- Independent non-formal educational activity: Evening schools and voluntary activity in associations
- University extension courses
- Day folk high schools
- Private independent boarding schools (folk high schools, home economics schools, arts and crafts schools and continuation schools)

The Folk High Schools are the most well known ones. These are state-funded self-governing residential schools providing general and liberal education. The courses are meant to broaden general, social and democratic competencies. The courses last between 1 and 36 weeks and do not lead to examinations. For courses longer than four weeks, a certificate is normally issued. The courses are attended by people from 18 to 70-80 years. User payment is charged and includes tuition fees and free board and lodging.

No particular school or professional qualifications are required for participating in liberal adult education (Danish Ministry of Education 2009).

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Useful websites

Ministry of Education: <http://www.eng.uvm.dk/>

Ministry of Science, Technology and Innovation: <http://en.vtu.dk/>

Ministry of the Interior and Social Affairs: <http://english.ism.dk/>

CIRIUS: <http://cirusonline.dk/english>

Danish Legislation (only in Danish): <https://www.retsinformation.dk/>

Statistics Denmark: <http://www.dst.dk/HomeUK.aspx>