



World Data on Education

Données mondiales de l'éducation

Datos Mundiales de Educación

VII Ed. 2010/11



Sweden

Updated version, May 2012.

Principles and general objectives of education

The national school system is based on democratic foundations. The new Education Act of 2010 stipulates that education in the school system aims at pupils acquiring and developing knowledge and values. It should promote the development and learning of all pupils, and a lifelong desire to learn. Education should impart and establish respect for human rights and the fundamental democratic values on which Swedish society is based. Each and everyone working in the school should also encourage respect for the intrinsic value of each person and the environment we all share. The inviolability of human life, individual freedom and integrity, the equal value of all people, equality between women and men, and solidarity with the weak and vulnerable are the values that the school should represent and impart. In accordance with the ethics borne by Christian tradition and Western humanism, this is achieved by fostering in the individual a sense of justice, generosity of spirit, tolerance and responsibility. Teaching in the school should be non-denominational.

The task of the school is to encourage all pupils to discover their own uniqueness as individuals and thereby be able to participate in the life of society by giving of their best in responsible freedom. The school should promote understanding of other people and the ability to empathize. Concern for the well-being and development of the individual should permeate all school activity. No one should be subjected to discrimination on the grounds of gender, ethnic affiliation, religion or other belief system, transgender identity or its expression, sexual orientation, age or functional impairment or other degrading treatment. Such tendencies should be actively combated. Xenophobia and intolerance must be confronted with knowledge, open discussion and active measures. Awareness of one's own cultural origins and sharing in a common cultural heritage provides a secure identity which it is important to develop, together with the ability to understand and empathize with the values and conditions of others. The school is a social and cultural meeting place with both the opportunity and the responsibility to strengthen this ability.

The school should be open to different ideas and encourage their expression. It should emphasize the importance of forming personal standpoints and provide opportunities for doing this. Teaching should be objective and encompass a range of different approaches. All parents should be able to send their children to school, fully confident that their children will not be prejudiced in favour of any particular view. All those working in the school should uphold the fundamental values that are set out in the Education Act and in the curriculum, and clearly dissociate themselves from anything that conflicts with these values.

Teaching should be adapted to each pupil's circumstances and needs. It should promote the pupils' further learning and acquisition of knowledge based on pupils' backgrounds, earlier experience, language and knowledge. Education provided in each school form and in the leisure-time centre should be equivalent, regardless of where in the country it is provided. National goals specify the norms for equivalence.



However, the varying circumstances and needs of pupils should be taken into account. The school should also actively and consciously further equal rights and opportunities for women and men.

The school should make it clear to pupils and parents what the goals of the education are, what requirements the school imposes, and what rights and obligations pupils, parents and guardians. It is not in itself sufficient that teaching only imparts knowledge about fundamental democratic values. Democratic working forms should also be applied in practice and prepare pupils for active participation in the life of society.

The school should actively and consciously influence and stimulate pupils into embracing the common values of society, and their expression in practical daily action. It should take responsibility for ensuring that pupils acquire and develop the knowledge that is necessary for each individual and member of society. This will also provide a basis for further education. The school should support the harmonious development of the pupils. A sense of exploration, curiosity and desire to learn should form the foundations for school activities. It should provide pupils with structured teaching under the teacher's supervision, both as a whole class and on an individual basis. Teachers should endeavour in their teaching to balance and integrate knowledge in its various forms. Pupils should be given influence over their education and they should be continuously encouraged to take an active part in the work of further developing the education and kept informed of issues that concern them. The joint responsibility of the school, parents and guardians for the pupils' schooling should create the best possible conditions for the development and learning of children and youth. Pupils should receive an education of high-quality in the school and they should also obtain a foundation for making choices in their further education. This presupposes that the compulsory school works closely with the upper secondary schools pupils will later attend, and also close cooperation between working life and the local community in general. (NAE, 2011).

Laws and other basic regulations concerning education

During the 1990s, a radical reform of the education system was carried out, covering preschool activities, compulsory and secondary schools, and the public adult education system. The reforms involved a decentralization of the school system, and school administration shifting from a practice of regulatory resource-oriented management to a more result-oriented management, with fewer rules and clearer objectives. In July 1995, a new curriculum was introduced for the entire school system.

The Education Act came into effect in 1986 replacing an earlier Act (1962). The Act stipulates the legal framework for education, and more detailed regulations are given in the ordinances for the different types of schools. The Education Act applies to the entire public education system, including: preschool activities and childcare; compulsory school; upper secondary school; special needs schools; Sami school and adult education. The Act was amended many times since its adoption. As a consequence of increasing integration between the school, preschool and childcare, the provisions concerning preschool activity and childcare were reformulated to incorporate certain changes into the Education Act as of January 1998. In addition, the



pedagogical role of preschools was clarified and a curriculum was introduced in August 1998. The Ordinance on the compulsory school system (1994:1194), adopted on June 1994, the Ordinance on the upper secondary school (May 1992), and the Ordinance on adult education (May 1992) were supplements to the Education Act and further regulated compulsory schools, upper secondary schools, and municipal adult education.

A new **Education Act (2010:800)** was adopted in June 2010 and entered into force on 1 July 2011. The new **Ordinance on the compulsory school system (2010:37)**, the **Ordinance on upper secondary school (2010:2039)**, and the **Ordinance on adult education (2011:1108)** supplement the Act. The following main changes have been introduced by the Act: preschool has become part, in its own right, of the education system; the same legal framework now applies to both public and grant-aided independent schools; enforced rights for pupils in need of special support have been introduced, as well as higher qualification criteria for the teaching profession; teachers' and school heads' disciplinary powers in the classroom have been increased and clarified. (Eurydice, 2011). In 2011, new curricula and new syllabuses in all subjects for the preschool class, leisure-time centres, the compulsory school, and upper secondary school have been issued. A new grading scale and grading criteria specifying the minimum knowledge requirements for the state school system have also been introduced.

The Education Act requires that each municipality establish a local school plan describing the financing, organization, development and assessment of activities at each school. The role of social partners in vocational education and training (VET) has been strengthened in the new Act through the formation of national and local councils (CEDEFOP, 2011). For each vocational upper secondary programme, there is a national programme council with an advisory and consultative function concerning the quality, content and organization of vocational education, including the support the National Agency for Education in its work of developing diploma goals and providing examples of tasks and the assessment of diploma projects. Local programme councils shall contribute to organized and close cooperation between organizers and stakeholders. The local programme councils shall also consult and obtain the views of the students. (NAE, 2012).

The **Act (1992:1434)** and **Ordinance on higher education (1993:100)** entered into force on 1 July 1993. Changes in the Act and Ordinance have been decided and issued in accordance with the Bologna reform process. The reform covers the whole system for higher education and came into effect from 1 July 2007. Specific ordinances have been issued for the National Defence College and the University of Agricultural Sciences.

Vocational higher education brings together postsecondary school vocational programmes not found in the tertiary education system, including advanced vocational education which became the cornerstone of postsecondary VET after passing the Law on Advanced Vocational Education in 2001. Advanced vocational education is gradually being replaced by higher vocational education as a result of the adoption of the **Higher Vocational Education Act (2009:128)** in 2009. The provisions in this Act aim to ensure the establishment within higher vocational education of postsecondary vocational education that meets the needs of the labour market. The **Ordinance on**



higher vocational education (2009:130) further regulates its scope and specific requirements. (CEDEFOP, 2011).

The **Act Prohibiting Discrimination and Other Degrading Treatment of Children and School Pupils**, entered into force on 1 April 2006, stipulates that no child and no pupil shall be left without secure, clear and active protection against any kind of discrimination. According to the Act, the municipalities and educational institutions must conduct active targeted efforts to prevent and combat all forms of degrading treatment. The Act It is intended to promote equal rights for children and pupils in all institutions that are subject to the Education Act. The Act is also intended to combat discrimination and harassment on grounds of gender, ethnic origin, religion or other belief, sexual orientation or disability. (MOER, 2008). The **Discrimination Act (2008:567)** aims to protect against discrimination based on gender, transgender identity or expression, ethnic origin, religion or other belief, disability, sexual orientation or age. This Act applies to most areas of society, including working life and all parts of the education system.

In the 1990s, the independent (private) school system underwent substantial growth. Starting from the school year 1993/94, pupils and students are free to choose between different types of schools and higher education institutions as well as between study routes. Independent schools have to be approved by the National Agency for Education. Schools that have been approved receive a grant from the home municipality of the pupils attending. Each municipality determines the amount to be granted for each pupil, taking into account the schools' commitments and pupils' needs. The state also subsidizes a number of institutions run by private organizers, and private higher education institutions have also been given the opportunity to operate within a regulatory framework which defines their relationship with the state. Recognition by the government implies placement in one of two following categories: those that have been given the right to award degrees; and those which, in addition, receive state subsidies to assist with operational costs. The right of an independent university or college to award a degree also gives its students the right to receive study support.

Almost all children attend the comprehensive school system. Pupils with different disabilities or special difficulties are integrated into the mainstream schools and classes, excepting most of the deaf children, some children with two or more serious handicaps, and children who are mentally retarded. For these groups of pupils there are separate special schools. University and university college boards must consider the special needs of students who are disabled or cannot follow the regular education due to other reasons.

The right to education is stipulated in the Constitution and in Chapter 7 of the 2010 Education Act. Compulsory education takes the form of a nine-year comprehensive school for children aged 7-16 (the compulsory school reform that changed the previous seven-year school was gradually introduced in the municipalities across the country starting from the late 1940s). Since 1991, children have a right to start school at the age of 6 if their parents so desire and if the municipality has the capacity to provide this opportunity. As of January 2002, the right to education includes children seeking asylum and children in similar circumstances. They shall have access to preschool activities, school-age childcare



and education in the public education system on essentially the same conditions as children resident in Sweden.

Administration and management of the education system

The education system underwent fundamental changes towards goal- and result-oriented governance in recent years. The aim has been to transfer more authority to local actors for decision-making regarding the organization and development of work. The epicenter of decision-making has thus been moved to the schools themselves, and flexibility at the local level has increased. Administrators in the school now have more responsibility and have more leverage in the control of school activities.

The Parliament (*Riksdag*) and the government have the overall responsibility for publicly-financed education. At the central level, legislation is passed by Parliament which also decides on the funding of government appropriations to the education system. The government issues ordinances and general guidelines applying to various types of education. It also establishes curricula and syllabi for the school system. The state is responsible for ensuring that all educational activities are monitored and evaluated and for providing financial assistance to students. Subject to the authority of the Parliament and the government, these state functions are performed by agencies subordinated to the **Ministry of Education and Research** (MOER, previously, the Ministry of Education and Science), which have the overall responsibility for central administration of the education system. The Ministry defines the general framework for the education system and the agencies have the task to implement the law and ordinances. All public education is under the MOER's jurisdiction, excepting the University of Agricultural Sciences under the Ministry of Agriculture, employment training under the Ministry of Employment, and the training of officers and police under the Ministries of Defence and Justice. Responsibility for preschool and school age childcare was transferred from the Ministry of Health and Social Affairs to the then Ministry of Education and Science in 1996.

The MOER is headed by the Ministry, Deputy Prime Minister; the Deputy Minister has overall coordinating responsibility for the government's work for gender equality, the development of the role of civil society as well as for youth policy, in addition to matters concerning formal and liberal adult education, preschool, and student aid. In 2012 the MOER is organized into the following divisions: division for schools (including preschool, preschool class, school-age childcare, Sami schools, special needs schools and independent schools; the division is also in charge of the follow-up and evaluation of the activities of National Agency for Education, the National Agency for Special Needs Education and Schools, and the Sami Education Board); division for upper secondary education (also responsible for governance, allocation of resources and follow-up of results of the School Inspectorate; division for student financial support and adult education and training (also responsible for the Board for Study Support, the National Board of Appeal for Student Aid and the National Agency for Higher Vocational Education); division for higher education (also responsible for the National Agency for Higher Education, the National Agency for Higher Education Services and state higher education institutions); division for research policy; division for youth policy and civil society (also responsible for National Board for Youth Affairs); division for gender equality (responsible for



coordination and development of gender equality policy issues); and the legal secretariat, the secretariat for international affairs and the coordination secretariat.

A new structure for education authorities has been established in 2008 in order to clarify responsibility and tasks on national as well as on local levels, to strengthen inspection and to separate supervision from development work. (MOER, 2008). The responsibilities of the former National Agency for School Improvement were transferred to the National Agency for Education and the School Inspectorate was established. The main central authority in charge of the school system is the **National Agency for Education**. Its main tasks include the support, supervision, follow-up and evaluation of all school activities in order to improve quality and outcomes. The Agency sets up the frameworks and guidelines on how education is to be provided and assessed with the aid of syllabuses and subject plans, knowledge requirements and tests, as well as general guidelines. The Agency is also responsible for the National School Leadership Training Programme and the initiative for professional supplementary training of preschool teachers and teachers. Since 2008 the Agency is also responsible for quality enhancement work in pre-primary and primary education. The Agency is responsible for the national system for assessing knowledge. Together with universities and university colleges, it develops national tests and assessment guides for teachers to ensure that pupils receive equivalent assessment. The **School Inspectorate**, an independent agency since October 2008, is responsible for the supervision of preschools, schools and adult education. For grant-aided independent schools at primary and secondary level, the Inspectorate is responsible for granting operating licenses. Inspection could result in a decision to withdraw the school's license to operate or its right to subsidies. The **Office of the Child and School Student Representative** is also part of the Inspectorate.

The **National Agency for Special Needs Education and Schools** was established in 2008 by integrating the former functions of the National Agency for Special Educational Support, the Swedish Institute for Special Needs Education, and the National Agency for Special Schools for the Deaf and Hearing Impaired. The Agency coordinates state support and supports school management. The Agency also promotes access to teaching materials, runs special needs schools and allocates funding to pupils with disabilities and to education providers.

Responsibility for the evaluation of higher education is borne by the **National Agency for Higher Education**, which coordinates assessment and evaluation of higher education institutions. The Agency is also responsible for the national follow-up of university and university college activities and for examining the rights of an institution to award degrees. The Agency also provides information on higher education in Sweden and other countries.

The **National Agency for Higher Vocational Education**, established on 1 July 2009, is responsible for developing and overseeing a new form of publicly-funded vocational education and training at the postsecondary level (e.g. higher vocational education courses). The Agency is responsible for setting up a common framework agreed upon and followed by vocational education and training providers. The Agency determines what courses are to be provided, makes decisions on public funding to be allocated to education providers, assesses and audits quality and outcomes of courses, analyzes and assesses needs for skilled competence and the



development of the labour market, coordinates and supports a national framework for validation, and serves as the national coordinator for the European Qualifications Framework for Lifelong Learning. (Eurydice, 2009/10).

The **Board for Student Support** is responsible for administration, follow-up and evaluation of financial assistance to students for post-compulsory studies in Sweden and abroad. The **National Agency for Higher Education Services** is a contracting agency which main task is to provide services and support to universities and other institutes of higher education. It conducts coordinated admissions to educational programmes at universities and university colleges, and offers procurement services in the form of consultation support and manages education administration systems.

The **National Council of Adult Education** comprises three entities, the National Federation of Study Associations, the Swedish Association of Local Authorities and Regions, and the Interest Organization of Popular Movement Folk High Schools. The Council allocates state appropriations to the ten study associations and 150 folk high schools, provides financial records and annual reports to the Government, follows up and evaluates liberal adult education activities. The **Folk High Schools' Information Service**, under the National Council of Adult Education, acts as an information centre and is responsible for providing general information on the folk high schools in the country, producing and distributing information on courses and other material including information and guidance on studying at folk high schools. According to the Council, in 2010 the folk high schools had 28,000 participants in the long-term courses, 114,000 participants in short courses and around 230,000 participants in cultural programmes. That same year, the study associations had just over 2.5 million participants, corresponding to 970,000 unique individuals, in study circles and other *folkbildning* (e.g. liberal adult education) activities, and nearly 16.5 million participants in cultural programmes. (National Council of Adult Education, 2011).

The **Sami Education Board** is an administrative authority for the Sami schools and integrated Sami education in municipal compulsory schools. The Board is responsible for promoting Sami education and disseminating information. The Board can be contracted to fulfil the municipal tasks regarding preschool class activities and preschool and after school care for Sami children.

Those responsible for the provision of education under the MOER are the state, the municipalities, the county councils, and private school organizers. In general, the municipalities organize all public education below university level, including municipal adult education. In some cases the county councils organize upper secondary schools. Sami schools and special needs schools are under the authority of the state. There are also independent schools that are run by company corporations, economic associations and foundations.

Municipalities (in the number of 290) have considerable freedom to decide how educational activities will be carried out, and are also held accountable for the activities undertaken. This implies the administration, follow-up, supervision and development of educational activities based on the objectives set at the national level. The municipalities usually delegate administrative responsibilities for preschools and



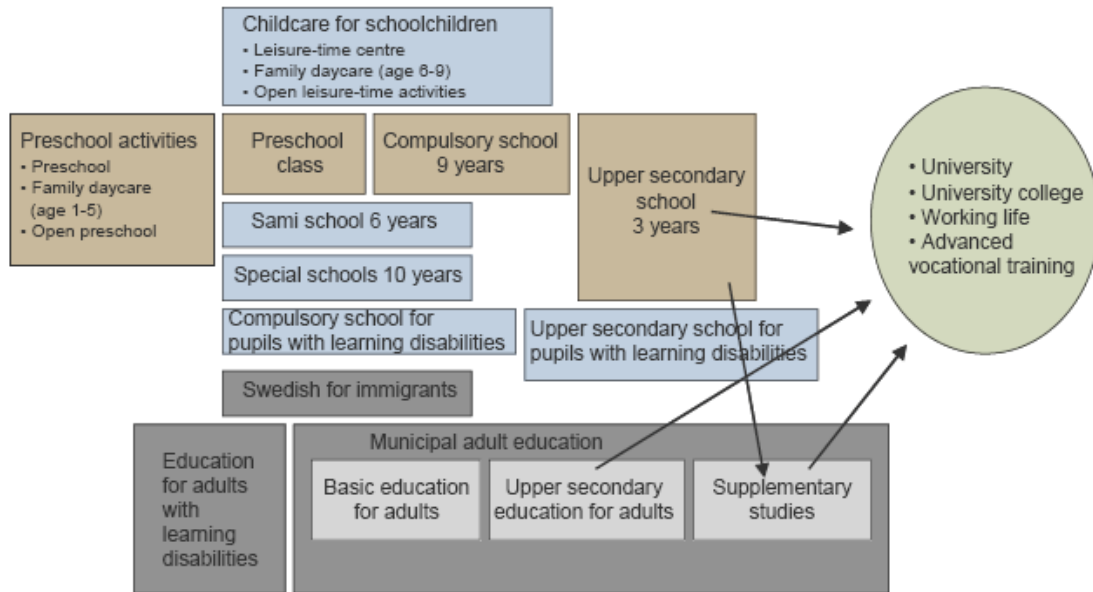
schools to the local institutions who decide on how to organize their work. Every municipality shall have an education plan which is approved by the local government and which defines how the school system in the municipality is to be shaped and developed. Every school shall also have its own action plan describing how the national objectives and the goals of the municipal plan are to be achieved. Included in the individual school's responsibility is that school administrators and teachers work together with the pupils to give their school work content and structure. The responsibility of developing and improving teaching also lies with the individual school. Municipalities are also obligated to submit data concerning school and early childhood education and care, as well as to participate in the evaluation of activities in these areas. Local authorities are bound by law to provide a number of services for which they receive subsidies from the national government. In addition, they have the right to levy income taxes and they also charge fees for various services. Practically all education in Sweden below university level is operated by local authorities.

Each **municipal council** and **county council** appoints one or more committees which have the responsibility to ensure that educational activities are conducted in compliance with State regulations and guidelines and that the external conditions of education are as appropriate and favourable as possible. In practice, it is the responsibility of the local committees to ensure that schools uphold equivalent standards throughout the country. Compulsory school, upper secondary school and municipal adult education can be organized in a variety of ways as decided by the principal organizer (e.g. municipalities or in some cases the county councils). The **school head** shall keep abreast of the daily work of the institution and has particular responsibility for developing cooperation between the preschool, compulsory school and leisure-time centres. At the local level, as prescribed in the curriculum, the school cooperates with industry, the social partners and industrial organizations, as well as with universities and university colleges to provide students with educational guidance for their future studies.

Teachers' organizations and other employees' organizations are entitled, under the Co-determination Act, to information on and opportunities to influence impending decisions. Pupil determination rights are enshrined in the Education Act but their practical implementation is decided locally. Proposals for the school system which affect pupils and are made at the central governmental level are circulated for comment to the **Swedish Pupils' Council** and the **Pupils' Organization**. (Eurydice, 2009/10).

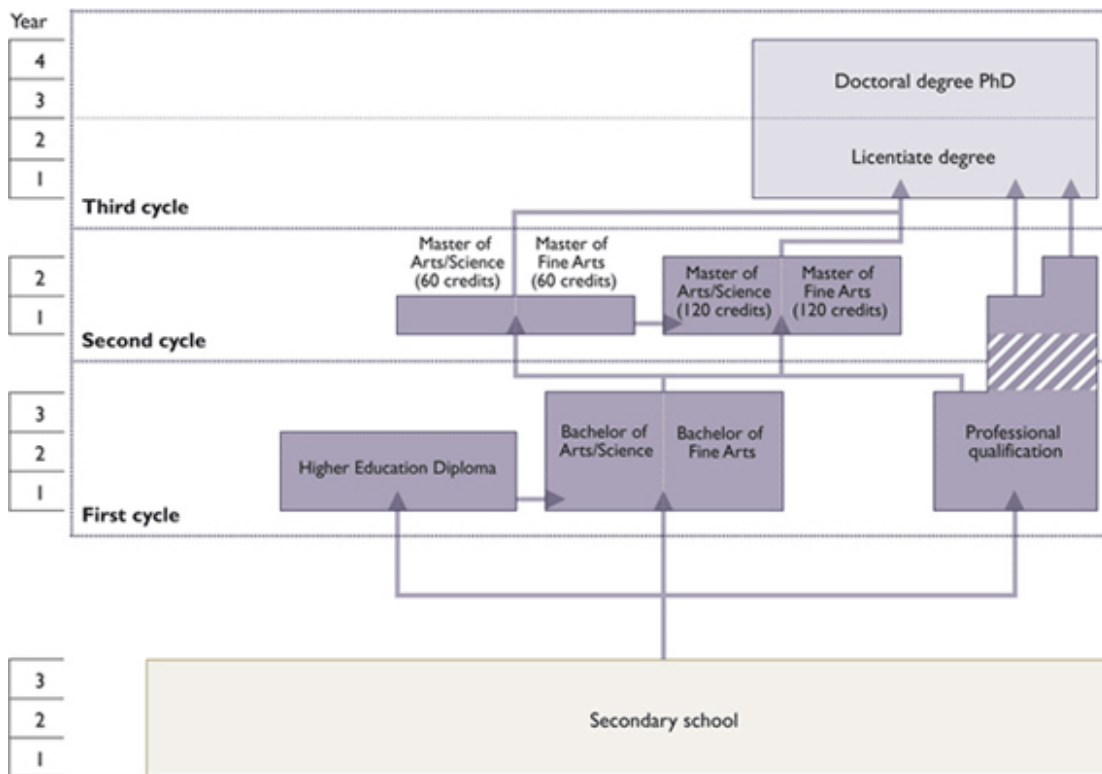
Structure and organization of the education system

Sweden: structure of the school system



Source: MOER, 2008.

Sweden: structure of the higher education system



Source: NAHE, 2011.



Pre-school education

Pre-primary education is for children from age 1 until they start the preschool class or compulsory education. Pre-primary education and care is provided in preschools and in open preschools for children aged 1-5 without any other kind of preschool place; pedagogical care in family daycare homes is provided by registered child minders in their own homes looking after children aged 1 to 12 while their parents work or study. School-age childcare is provided up to the age of 12 in leisure-time centres and open leisure-time activities; it is provided the part of the day when children are not in preschool/school and during holidays. The provision of a preschool class for all 6-year-olds has been introduced since 1998 as an obligation for all the municipalities; it is usually organized within compulsory schools. In 2003 the preschool provision of not less than 525 hours per year free of charge (normally three hours a day, mostly in the morning) was extended to 4- and 5-year-olds; from July 2010 this also applies to 3-year-olds. Attendance of preschool classes is not compulsory, but the large majority of 6-year-olds attend.

Primary and lower secondary education (compulsory school)

Children aged 7-16 attend the nine-year compulsory school (*grundskola*); if parents so wish, children can be admitted at age 6 (and also at age 8), although the large majority of children enter school at age 7. Sami schools cover grades 1-6, while special needs schools normally offer a ten-year programme. Pupils in grade 3, 5 and 9 sit national tests in Swedish, Swedish as a second language, English (in grades 5 and 9) and mathematics intended to measure and describe pupil's knowledge, skills and results achieved. The national test at the end of grade 9 is compulsory. In addition, each school administers national tests in grade 9 in one of the science subjects (biology, physics or chemistry). Beginning 2012 national subject tests are to be administered in grade 6 in English, mathematics, Swedish, and Swedish as a second language, replacing the tests in grade 5. Pupils completing compulsory schooling receive a school-leaving certificate showing the final grades in subjects, groups of subjects and optional courses.

Secondary education

All pupils completing compulsory schooling are entitled to three years of upper secondary education. Upper secondary education is co-educational and provided free of charge in the upper secondary school. Starting from 1995/96, the comprehensive upper secondary system was organized around 17 national programmes (of which 14 vocationally-oriented) lasting three years. In all programmes approximately one third of the total teaching was allocated to eight compulsory subjects (nine foundation subjects according to the reform of 2011). In vocationally-oriented programmes at least 15 weeks are spent in a workplace; as part of the 2011 reform, students can also opt for apprenticeship training within vocationally-oriented programmes, and at least 50% of the programme is workplace-based (normally starting in the first year). Under the reform of upper secondary education introduced in autumn 2011, a total of 18 national programmes are offered during an experimental period until June 2014, e.g. six programmes preparatory for higher education and 12 vocational programmes; in addition, for students who are not eligible for a national programme five introductory programmes are also offered. Upon successful completion of upper secondary



education students receive a leaving certificate (an upper secondary school diploma according to the 2011 reform), showing the marks achieved in all courses studied. All three-year programmes meet the general eligibility requirements for higher education. The programmes focusing on university entrance also meet most of the specific entrance requirements. Postsecondary training programmes provide initial or further training in a particular occupation; the length of most of these programmes is between six months and one year. Higher vocational education courses, introduced in July 2009, prepare trainees for a specific trade or vocation; courses lasting at least 40 weeks on a full-time basis lead to an advanced vocational education and training diploma. About 400 different advanced vocational training courses are offered at the postsecondary level.

Higher education

Higher education is provided by universities and university colleges. Some higher education institutions specialize in programmes leading to vocational qualifications in some specific fields, e.g. institutes of technology, the institute for medical training and nursing, colleges of nursing, the university college for physical education and sports and university colleges for arts. The general entry requirements for first-cycle courses/programmes are final school grades from a complete upper secondary programme with at least a pass grade in courses worth 2,250 upper-secondary credits and at least a pass grade in the core subjects of Swedish/Swedish as a second language, English and mathematics. There are also additional specific entry requirements for many courses/programmes. Under the previous system, a university diploma required a minimum of two years of study, a bachelor's degree three years, and a master's degree four years of study. Postgraduate training normally comprised four years of study leading to a *doktorsexamen* (doctorate). A *licentiatexamen* (licentiate degree) was taken after two years. The three-cycle degree programme structure in accordance with the Bologna process (including the European Credit Transfer System–ECTS) has been implemented since July 2007 and has replaced the former system (one credit of the old system corresponds to 1.5 credits in the current one). Programmes leading to a university diploma in the arts, sciences, social sciences as well as in artistic and professional fields, normally take two years to complete (equivalent to 120 ECTS credits), including an independent project. A bachelor's degree is normally awarded after three years of full-time studies (180 ECTS, including 90 credits in advanced studies in the main field, and an independent project equivalent to 15 credits; the BSc in social work requires 210 ECTS). The duration of programmes leading to a first-cycle professional degree is two to three years (120-180 ECTS). Master's degree programmes take one or two years to complete (60-120 ECTS, including 30-60 credits for advanced study in the main field and 15-30 credits for an independent project). A professional postgraduate diploma require between 60 and 90 credits, including an independent project. With regard to post-master education, a licentiate degree requires 120 credits, including a thesis equivalent to a minimum of 60 credits. Programmes leading to a doctorate normally take four years to complete (240 ECTS, including a doctoral thesis equivalent to a minimum of 120 credits). Long-cycle professional degree programmes consisting of 240 to 330 ECTS have been maintained in fields such as medicine and veterinary medicine (330 credits); dental surgery, architecture, pharmacy, engineering, psychology, horticulture, forestry (300 credits); law, agriculture (270 credits); business and economics, speech and language pathology (240 credits); and integrated teacher education (240, 270, 300



and 330 credits; four new disaggregated teacher education degrees are being introduced from July 2011, e.g. preschool teacher, primary school teacher, subject-specialist teacher for lower and upper secondary, and vocational education teacher). (NAHE, 2011).

The school year is divided into two terms and comprises 40 weeks with not less than 178 school days (Monday to Friday) and twelve days of holiday. The autumn term extends from the end of August to the end of December; the spring term from the beginning of January to the beginning of June. The exact dates vary from year to year and from one municipality to another. National regulations stipulate that pupils should receive a minimum of 6,665 instructional hours over the nine-year compulsory programme; the distribution of hours in weekly and daily timetables is determined by each school/municipality. In the early years, schools normally operate from 8:00 a.m. to 13:30 p.m. According to Chapter 16 (§ 18) of the Education Act 2010, at the upper secondary level students in vocational programmes are entitled to a minimum of 2,430 instructional hours over three years (on a full-time basis), and students in preparatory programmes to a minimum of 2,180 instructional hours. The academic year is normally divided into two terms (mid-/end of August to mid-January, and mid-January to the beginning of June) each comprising 20 weeks of full-time studies corresponding to 30 higher education credits. Additional courses are often offered during the summer months.

The educational process

The reform of the 1990s shifted the responsibility of a number of issues traditionally associated with curriculum (e.g. the content of teaching and how it is organized) to the school. Every school must determine how to organize activities in order to fulfil the national goals. The teacher and the institution decide what materials and methods will be used. While the government issues the basic principles of educational objectives and guidelines, the subject and course curricula are drawn up by the National Agency for Education (NAE) in accordance with governmental directives. The Agency publishes special commentaries explaining the purpose and motives of national objectives and gives examples of how they can be concretized. The school curriculum, which states teaching guidelines and programme objectives, plays a central role in schools. The goals must be formulated in such a way that they can be objectified and defined at the local level, and can allow for measurement and evaluation of achievement. However, the actual organization and content of the school's work is not determined at the national level but at the local level.

At the beginning of the 1990s, a committee was formed by the government to shape new curricula for compulsory school, upper secondary and adult education programmes. The committee's task was to submit proposals for legislation and directives that would allow municipalities to create a local profile, leaving ample room for student options, and which would lead to improved quality in education. In carrying out this task, the curriculum committee conferred with the parliamentary commission in charge of drafting the new grading system. It also worked with a reference group made up of representatives of professional organizations within the education sector, and maintained contact with government authorities, various committees and commissions, and experts from different disciplines. Publishers of educational materials were also kept informed of the process. Proposals for course



curricula and grading criteria were drawn up by the NAE. In 1998, the government issued a directive stating that all curricula should be revised at least every five years.

In December 1993, the Parliament adopted legislation establishing new curriculum guidelines for the whole school system, geared to the new goal- and result-oriented steering system for schools. This led to extensive changes in the curriculum, syllabi and timetables as well as in the assessment of pupils at the compulsory school level. From the school year 1998/99 a common curriculum for the compulsory school, the preschool class and leisure-time centres was implemented. Minor changes were introduced in the compulsory school curriculum (*Lpo 94*), adopted in 1995, in order to incorporate additional activities, but the structure and orientation of the curriculum remained the same. Some goals were supplemented or changed in order to make it easier to develop a coherent view of the child's development and learning. Some adjustments were made to educational goals in order to accommodate special needs of pupils in special schools. The first curriculum for preschool education was issued in 1998, in the form of a statute with legally binding directives for the municipality and the preschool. Earlier, the pedagogic programme for preschools took the form of general recommendations.

In 2011, new curricula and new syllabuses in all subjects for the preschool class, leisure-time centres, the compulsory school, and upper secondary school have been issued. A new grading scale and grading criteria specifying the minimum knowledge requirements for the state school system have also been introduced.

The new Curriculum for the compulsory school, preschool class and the leisure-time centre of 2011, is intended to support the integration of activities to reach the goals of the compulsory school. It sets out the underlying values and basic goals and guidelines for the following areas: knowledge, norms and values, responsibility and influence of pupils, choice of education, work and civic life, assessment and marks, and responsibility of the school head. The objectives are of two kinds, e.g. goal to aim for and goals to be attained. The goals to aim for indicate the orientation of the school's activities in terms of the knowledge qualities that should be aimed for within selected subject areas, while the goals to be attained set the minimum level of knowledge in the subject that all pupils are expected to attain at the end of years 6 and 9. Accordingly, the task of the school is to promote learning by stimulating the individual to acquire and develop knowledge and values. In partnership with the home, the school should promote the all-round personal development of pupils into active, creative, competent and responsible individuals and citizens. The school should be permeated by concern for the individual, consideration and generosity. The school has the task of imparting fundamental values and promoting pupils' learning in order to prepare them to live and work in society. The school should impart the more unvarying forms of knowledge that constitute the common frame of reference that all in society need. Pupils should be able to keep their bearings in a complex reality, where there is a vast flow of information and where the rate of change is rapid. This is the reason that study skills and methods of acquiring and using new knowledge are important. It is also necessary that pupils develop their ability to critically examine facts and relationships, and appreciate the consequences of different alternatives.

Creative activities and games are essential components of active learning. In the early years of schooling, play in particular is of great importance in helping pupils



to acquire knowledge. The school should strive to provide all pupils with daily physical activity within the framework of the entire school day. An important task for the school is to provide a general but coherent view. The school should stimulate pupils' creativity, curiosity and self-confidence, as well as their desire to explore their own ideas and solve problems. Pupils should have the opportunity to take initiatives and responsibility, and develop their ability to work both independently and together with others. The school should contribute to developing attitudes that promote entrepreneurship among pupils. In all education, it is important that overall, well-balanced perspectives are established, e.g. an historical perspective, an environmental perspective, an international perspective and an ethical perspective.

The school should promote the harmonious development of pupils. This should be achieved by means of a varied and balanced combination of content and working methods. Reciprocal exchange between the pedagogical approaches of the preschool class, the school and the leisure-time centre can together help to enrich the pupils' development and learning. The school should stimulate each pupil towards self-development and personal growth. It should focus not only on intellectual but also practical, sensual and aesthetic aspects. Health and lifestyle issues should also receive attention. Pupils should have the opportunity of experiencing knowledge in different ways. They should also be encouraged to try out and develop different modes of expression and experience feelings and moods. Drama, rhythm, dance, music and creativity in art, writing and design should all form part of the school's activity.

Harmonious development and educational activity provide opportunities for exploring, researching, acquiring and communicating different forms of knowledge and experiences. Creative ability is a part of what the pupils should acquire. The school should strive to be a living social community that provides security and generates the will and desire to learn. Every pupil has the right to develop in school, to feel the joy of growth and experience the satisfaction that comes from making progress and overcoming difficulties. School activities must be developed so that they match up to the national goals. The qualitative development of the school necessitates continuous review, following up and evaluating results, as well as assessing and developing new methods. Such work has to be carried out in active cooperation between school staff and pupils, and in close contact with the home and the local community.

The overall goals set out the norms and values, as well as the knowledge that all pupils should have acquired by the time they leave the compulsory school. The goals specify the orientation of work in the school. With regard to norms and values, the goals of the school are that each pupil:

- can consciously determine and express ethical standpoints based on knowledge of human rights and basic democratic values, as well as personal experiences;
- respects the intrinsic value of other people;
- rejects the subjection of people to oppression and degrading treatment, and also assist in helping other people;
- can empathize with and understand the situation other people are in and also develop the will to act with their best interests at heart; and

- shows respect and care for both the immediate environment, as well as the environment from a broader perspective.

Furthermore, the goals of the school are that each pupil: takes personal responsibility for their studies and working environment; gradually exercises increasingly greater influence over their education and the internal work of the school; has knowledge of democratic principles and develops the ability to work in democratic forms; can examine different options and make decisions on questions concerning their own future; has an insight into the local community, its organizations, cultural life and associations; is informed about the opportunities for further education in Sweden and in other countries; develops increasingly greater responsibility for their studies; and develops the ability to assess their own results and relate these and the assessments of others to their own achievements and circumstances. (The goals related to the knowledge area are presented in a section below).

The nationally defined syllabuses for each individual subject indicate: the aim of the subject; the core content in years 1-3, 4-6, and 7-9 (for some subjects in years 1-6 and 7-9; for modern languages and sign language for the hearing in years 4-9); the knowledge requirements associated to the assessment grades (A to F, the latter being a non-pass result) at the end of years 6 and 9, and also the requirements for acceptable knowledge at the end of year 3 (in the case of mathematics, Swedish/Swedish as second language, biology, physics, chemistry, geography, history, religion, and civics). (NAE, 2011).

The new upper secondary curriculum 2011 is organized around 18 national programmes, of which 12 are vocationally oriented. There are also five introductory programmes which should give students who are not eligible for a national programme an individually adapted education. Education in the upper secondary school is now leading to an upper secondary school diploma. Students in vocational programmes can attend a school-based education or an apprenticeship education. Both routes lead to a vocational diploma. Higher education preparatory programmes lead to a diploma providing eligibility for higher education. Each programme has its diploma goals. The diploma goals provide the foundation for planning education and teaching from the student's very first day in the programme. These should steer the education and the organization of upper secondary work and its contents. The diploma goals set out the goals of the programme, the orientations in the programme, as well as the goals of the diploma project.

The main principle is that in the upper secondary school there are only national programmes and national orientations, and that both municipal and independent schools should provide these. Within the framework of the national programmes, however, there is scope for flexibility and local adaptation, amongst other things in the programme specializations. A school can draw up an individually adapted programme tailored to the needs of a student; however, the students' education must be related to a national programme and the requirements for a diploma must be satisfied.

Both vocational and higher education preparatory programmes are structured around: nine foundation subjects which are common to all programmes; programme



specific subjects; orientations (providing a foundation for further in-depth studies, specialization and extension, in the second/third year or in some cases in the first year); programme specializations (complementing and deepening the subjects specific to a programme; the courses are determined by the NAE, but it is the organizer who decides which of these courses will be provided on the basis of local needs); individual options; and the diploma project (to be carried out towards the end of the programme).

As in the case of compulsory education, each subject has a syllabus. The structure is the same for all subjects in the upper secondary school. The subject syllabuses contain not only descriptions of the subject as a whole, but also descriptions of each course included in a subject. The aim for the subject (including a number of goals) as a whole is stated, as are the courses included in the subject (there may be one or more courses in a subject). Core contents and knowledge requirements are specified for each course; if the courses are related to each other, they either have a digit added to their name or different names. Goals are subject specific and describe the knowledge students should be given the opportunity of developing through teaching in the subject. The goals start with 'the ability to', 'knowledge about', 'understanding of' and 'skills in'. 'Ability' covers the four knowledge forms set out in the curriculum (facts, understanding, skills and familiarity). 'The ability to' is used to represent the curriculum's broad view of knowledge. The view of knowledge set out in the curriculum is in line with the broad view of knowledge that is today discussed in European Union context in terms of 'key competences'. In the diploma goals and the subject syllabuses, the NAE has chosen not to use the concept of competence in order to be closer to the concepts used in the curriculum. (NAE, 2012).

Pre-primary education

Pre-primary education is for children from age 1 until they start the preschool class or compulsory education. Pre-primary education and care is provided in preschools and in open preschools for children aged 1-5 without any other kind of preschool place; pedagogical care in family daycare homes is provided by registered child minders in their own homes looking after children aged 1 to 12 while their parents work or study. School-age childcare is provided up to the age of 12 in leisure-time centres and open leisure-time activities; it is provided the part of the day when children are not in preschool/school and during holidays.

The provision of a preschool class for all 6-year-olds has been introduced since 1998 as an obligation for all the municipalities; it is usually organized within compulsory schools. In 2003 the preschool provision of not less than 525 hours per year free of charge (normally three hours a day, mostly in the morning, five days a week) was extended to 4- and 5-year-olds; from July 2010 this also applies to 3-year-olds. Attendance of preschool classes is not compulsory, but the large majority of 6-year-olds attend. The compulsory school and the preschool class, as well as the leisure-time centres, share a common curriculum and municipalities usually organize grades 1-9 and the preschool class together. Children with special needs must be provided a place in preschools. The municipalities are required to find out which children are in need of such support through outreach activities.



Since 1998, preschool goals and tasks have been regulated in a curriculum replacing the pedagogical programme which contained their guidelines. In the same year the compulsory school curriculum was amended in order to incorporate preschool and leisure-time centres' activities. This means that curricula for preschool, compulsory and upper secondary school should share a common view with regard to knowledge, development and learning. The 1998 curriculum has been revised in 2010 in order to reflect the fundamental values set out in the new Education Act 2010 (see previous sections). The principal organizers (the municipalities) must ensure that preschools are equipped to attain the goals of the curriculum. The curriculum sets out the foundation values, main tasks, as well as goals and guidelines for preschool activities. However, the curriculum does not determine the specific means by which goals are to be attained. The development and learning of the individual child should be supported in close cooperation between preschool and home.

The introductory sections in the curriculum deal with the foundation values and tasks, and thereafter describe the goals and guidelines, which are to be understood against this background. Goals and guidelines are set out for the following areas: norms and values; development and learning; influence of the child; preschool and home; cooperation between the preschool class, the school and the leisure-time centre. The goals stipulate the direction of the preschool's work and the desired quality targets. They stipulate what the preschool should strive for in terms of the individual development and learning of the child.

With regard to the tasks, preschool education should lay the foundations for lifelong learning and the preschool should be enjoyable, secure, and rich in learning for all children. The preschool should stimulate children's development and learning and offer secure care. Activities should be based on a holistic view of the child and his or her needs and be designed so that care, socialization and learning together form a coherent whole. Children's development into responsible persons and members of society should be promoted in partnership with the home. Pedagogical activities should be related to the needs of all children in the preschool. The preschool should take account of the fact that children have different living environments and that they try to create context and meaning out of their own experiences. Adults should give children support in developing trust and self-confidence. The child's curiosity, initiative and interests should be encouraged and their will and desire to learn should be stimulated. The preschool should provide children with a secure environment at the same time as it challenges them and encourages play and activity. It should inspire children to explore the surrounding world.

The preschool should provide a foundation so that children in the future can acquire the knowledge and skills which make up the common framework that everybody in society needs. The preschool should be a living social and cultural environment that stimulates children into taking initiative and developing their social and communicative competence. Play is important for the child's development and learning. Conscious use of play to promote the development and learning of each individual child should always be present in preschool activities. Learning should be based, not only on the interaction between adults and children, but also on what children learn from each other. Language and learning are inseparably linked together, as are language and the development of a personal identity. The preschool should put great emphasis on stimulating each child's language development, and encourage and

take advantage of the child's curiosity and interest in the written language. Children with a foreign background who develop their mother tongue create better opportunities for learning Swedish, and developing their knowledge in other areas. Creating and communicating by means of different forms of expression, such as pictures, song and music, drama, rhythm, dance and movement, as well as spoken and written language provide both the contents and methods to be used by the preschool in promoting the development and learning of the child. The preschool should put great emphasis on issues concerning the environment and nature conservation. The preschool should provide children with a well-balanced daily rhythm and environment related to their age and time spent in the preschool. A balance should be attained between care and rest, as well as other activities. (NAE, 2011b).

Concerning norms and values, the preschool should strive to ensure that each child develops: openness, respect, solidarity and responsibility; the ability to take account of and empathize with the situation of others, as well as a willingness to help others; the ability to discover, reflect on and work out their position on different ethical dilemmas and fundamental questions of life in daily reality; an understanding that all persons have equal value independent of social background and regardless of gender, ethnic affiliation, religion or other belief, sexual orientation or functional impairment; and respect for all forms of life, as well as care for their immediate environment.

In terms of development and learning, the preschool should strive to ensure that each child among others:

- develop their identity and feel secure in themselves;
- develop their motor skills, ability to coordinate, awareness of their own body, as well as an understanding of the importance of maintaining their own health and well-being;
- develop their use of spoken language, vocabulary and concepts, as well as the ability to play with words, relate something, express their thoughts, put questions, and put forward their arguments and communicate with others,
- develop an interest in the written language and an understanding of symbols, and their communicative functions;
- develop their creative abilities and the ability to convey impressions, thoughts and experiences in many different forms of expression, such as play, pictures, song and music, dance and drama;
- develop their understanding of space, shapes, location and direction, and the basic properties of sets, quantity, order and number concepts, also for measurement, time and change;
- develop their ability to use mathematics to investigate, reflect over and test different solutions to problems raised by themselves and others;
- develop their interest and understanding of the different cycles in nature, and how people, nature and society influence each other,
- develop their understanding of science and relationships in nature, as well as knowledge of plants, animals, and also simple chemical processes and physical phenomena;
- develop their ability to distinguish, explore, document, put questions about and talk about science;

- develop their ability to build, create and construct using different techniques, materials and tools;
- with a mother tongue other than Swedish, develop their cultural identity and the ability to communicate in both Swedish and their mother tongue.

Evaluating the quality of the preschool and creating good conditions for learning requires that the child's learning and development be monitored, documented and analyzed. Supporting and challenging children in their learning entails knowledge of each child's experiences, knowledge and participation, as well as influence over and interest in the different goal areas. The aim of evaluation is to obtain knowledge of how the quality of the preschool i.e. its organization, content and actions can be developed so that each child receives the best possible conditions for learning and development. Ultimately this involves developing better work processes, being able to determine whether the work takes place in accordance with the goals, as well as investigating what measures need to be taken in order to improve the conditions for children to learn, develop, feel secure and have fun in the preschool. All forms of evaluation should take the perspective of the child as the starting point. Children and parents should participate in evaluation and their views are to be given prominence. (*Ibid.*).

The preschool curriculum is built on the 'education and care' (*educare*) model in which one considers the child's development as a whole and in which different aspects of development presuppose and strengthen each other. Preschools and schools have come closer to each other at an organizational level in municipalities and in general they belong to the same board and the same administration, the childcare and education committee and departments. It has become more common for municipalities to govern preschools and schools with joint school plans and local municipality goals. There is a tendency towards preparation for schooling in preschools. Many municipal plans give priority to language and linguistic development in preschools with the intent to improve and attain goals. Such strong focus on one area of the curriculum means that the assignment to promote the view of the child's whole development will therefore be difficult to achieve. The increased monitoring and assessment of the child's development and skills is also something that can be interpreted as preparation for schooling. (UNESCO, 2010).

Preschools are usually open between 6:30 and 18:30, from Monday to Friday during the whole year (depending on the local needs). In preschools, mixed ages is the predominant form of grouping. There are toddlers groups for children up to 3 years old, mixed groups (normally 3- to 5-year-olds) or sibling groups (1- to 5-year-olds). There are also groups for children in the same age. Leisure-time centres provide activities outside school hours for pupils from different classes and ages, from preschool class up to age 12. Open leisure-time activities often provide activities for pupils from all classes in grades 4 to 6. There is no national regulation as regards the number of children per staff or the number of children per group. The preschool class combines the pedagogical methods of the preschool with those of compulsory school. An important objective is that the pre-school class, compulsory school and leisure-time centre, are to be more closely linked. The activities are to be stimulated by the meeting of different pedagogical traditions. In the preschool class teachers regularly monitor children progress, but there are no formal regulations on how this is done. In addition to daily contact between staff and parents, it is common that a special



dialogue is held twice a year between staff and parents to discuss the child's development and progress. (Eurydice, 2009/10).

According to national data, in 2004 there were about 9,000 preschool education institutions and centres with a total of 726,847 children enrolled (of whom 12.8% enrolled in independent preschool activities). There were 89,324 children enrolled in the preschool class. In the same year there were 114,100 employees working with children in preschools and leisure-time centres and 6,900 child-minders. Slightly more than 600 were employed at open preschools. This corresponds to 67,300 full-time employees in preschools and 17,900 in leisure-time centres.

According to the National Agency for Education, in autumn 2010 a total of 856,922 children were enrolled in preschool or school-age childcare. About 458,000 children were enrolled in preschool, representing 83% of all children aged 1–5; 47% of 1-year-olds attended pre-school, 87% and 92% respectively of 2- and 3-year-olds, and 94% of all 4- and 5-year-olds. Some 19% of the children attended an independently-managed preschool (run by private companies or parental cooperatives). The distribution between boys and girls is generally equal. It is rare that children receive support in their native language. In 2010, 19% of children in preschool had a native language other than Swedish and, of all of these children, only 22% received native language support in preschools. Ninety-five percent of the full-time employees in preschools had training qualifications to work with children. The proportion of full-time employees with teacher training qualifications (preschool teacher, youth worker or teacher training) was 54%. There were 378,488 children enrolled in leisure-time centres, mainly aged 6 to 9; 10% of children attended independently managed centres. With regard to pedagogical care, in 2010 the total enrolment was just over 20,000 children. The total number of open preschools and open leisure-time centres was 457 and 617 respectively. Overall, there were 85,599 full-time equivalent employees in preschools. (Statistics Sweden, 2011).

Concerning the preschool class, in 2010 the total enrolment was 103,529 children (of whom 50,158 were girls), representing 95.8% of 6-year-olds. Over 9% of the pupils attended a preschool class organized by independent management. About 19% of the children had a native language other than Swedish, and the proportion who received support in their native language was just over 8%. There were 6,359 permanent employees (i.e. full-time equivalent) working with children in a preschool class; the majority of these employees were female (94%). Of all the employees about 10% worked in a preschool class organized independently. In 2010 the proportion of employees with teacher training qualifications for working in preschool classes was some 83%. Within municipally-run facilities the proportion of employees with teacher training qualifications was 86% and in the independent school facilities it was 66%. Among the employees 58.8% were qualified preschool teachers, 6.9% were qualified leisure-time teachers, and 17% qualified teachers. (NAE, 2011c; Statistics Sweden, 2011).

Primary education and lower secondary education (compulsory school)

Children aged 7-16 attend the nine-year compulsory school; if parents so wish, children can be admitted at age 6, although the large majority of children enter school at age 7. Sami schools cover grades 1-6, while special needs schools normally offer a ten-year programme.

Pupils in grade 3, 5 and 9 sit national tests in Swedish/Swedish as a second language, English (in grades 5 and 9) and mathematics; these tests intended to measure and describe pupil's knowledge, skills and results achieved. The national test at the end of grade 9 is compulsory. In addition, each school administers national tests in grade 9 in one of the science subjects (biology, physics or chemistry). Beginning 2012 national subject tests are to be administered in grade 6 in English, mathematics, Swedish, and Swedish as a second language, replacing the tests in grade 5. Pupils completing compulsory schooling receive a school-leaving certificate showing the final grades in subjects, groups of subjects and optional courses.

The curriculum has been recently revised in order to reflect the fundamental values set out in the new Education Act 2010 (see previous sections). According to the new Curriculum for the compulsory school, preschool class and the leisure-time centre of 2011, in terms of knowledge the school is responsible for ensuring that each pupil on completing the compulsory education programme:

- can use the Swedish language, both in speech and writing, in a rich and varied way;
- can communicate in English, both in the spoken and written language, and also be given opportunities to communicate in some other foreign language in a functional way;
- can use mathematical reasoning for further studies and in everyday life;
- can use knowledge from scientific, technical, social science, humanistic and aesthetic areas of knowledge for further studies, in societal and everyday life;
- can solve problems and transform ideas into action in a creative way;
- can learn, research, and work independently and together with others, and feel confident in their own ability;
- can make use of critical thinking and independently formulate standpoints based on knowledge and ethical considerations;
- has obtained knowledge about and an insight into the Swedish, Nordic and Western cultural heritage, and also obtained basic knowledge of the Nordic languages;
- has obtained knowledge about the cultures, languages, religion and history of the national minorities (Jews, Roma, Sami, Swedish and Tornedal Finns);
- can interact with other people based on knowledge of similarities and differences in living conditions, culture, language, religion and history;
- has obtained knowledge of society's laws and norms, human rights and democratic values in school and in society;
- has obtained knowledge about the prerequisites for a good environment and sustainable development;



- has obtained knowledge about and an understanding of the importance of the individual's own lifestyle and its impact on health, the environment and society;
- can use and understand many different forms of expression such as language, art, music, drama and dance, and also has developed an awareness of the range of culture existing in society;
- can use modern technology as a tool in the search for knowledge, communication, creativity and learning; and
- can make well-informed choices regarding further education and vocational orientation. (NAE, 2011).

As mentioned, the nationally defined syllabuses for each individual subject indicate: the aim of the subject; the core content in years 1-3, 4-6, and 7-9 (for some subjects in years 1-6 and 7-9; for modern languages and sign language for the hearing in years 4-9); the knowledge requirements associated to the new assessment grades (A to F, the latter being a non-pass result) at the end of years 6 and 9, and also the requirements for acceptable knowledge at the end of year 3 (in the case of mathematics, Swedish/Swedish as second language, biology, physics, chemistry, geography, history, religion, and civics). As in the case of the new upper secondary school curriculum 2011, goals are subject specific and describe the knowledge pupils should be given the opportunity of developing through teaching in the subject. The goals start with 'the ability to', 'knowledge about', 'understanding of' and 'skills in'. 'Ability' covers the four knowledge forms set out in the curriculum (facts, understanding, skills and familiarity). 'The ability to' is used to represent the curriculum's broad view of knowledge. The view of knowledge set out in the curriculum is in line with the broad view of knowledge that is today discussed in European Union context in terms of 'key competences'.

The new curriculum also introduces a new grading system. Under the former system, grades were awarded on a three-point scale: Pass (G), Pass with Distinction (VG) and Pass with Special Distinction (MVG). The grade Pass (G) was equivalent to what is expressed as 'goals to attain' in the syllabuses. Grades/marks were given at the end of the autumn term in the year 8 and thereafter at the end of each term. The new grading scale (which also applies to the upper secondary school and municipal adult education) consists of six levels and a seventh coding to indicate that a grade cannot be awarded. The five levels A-E will denote pass results and F a non-pass result. The grading scale is related to goals and national grading criteria exist for the highest, middle and lowest grading scales for pass results i.e. A, C and E. To attain any of the grades A, C and E, the knowledge requirements must be met in their entirety. Grade D means that the requirements for E and most of those for C are met. Grade B means that the requirements for C and most of those for A are fulfilled. The value of the grade should be set according to a scale where the grade of F corresponds to 0, E to 10, D to 12.5, C to 15, B to 17.5 and A to 20 in grade value. Grades/marks will be given starting in year 6. (NAE, 2011 and 2012; Eurydice, 2009/10).

The timetable, which forms part of the Education Act, determines a guaranteed total number of hours (e.g. 6,665 hours) over the nine years of compulsory education. This is the minimum amount of tuition hours that pupils must be given (i.e. guaranteed teaching time). The schools themselves are able to decide how the teaching time on the timetable is to be spread over nine years, and each school decides

how the workload is distributed over the day. National syllabuses include the following subjects: Swedish, Swedish as a second language, English, modern languages, mother tongue tuition, mathematics, geography, history, religion, civics, biology, chemistry, physics, art, music, crafts, home and consumer studies, physical education and health, sign language for the hearing, and technology. The timetable also allows scope for pupils' own options (i.e. 382 hours over nine years) and for the school's options (i.e. 600 hours). Each school can decide to use hours from all subjects in order to develop its own orientation. However, no subject or group of subjects may be reduced by more than 20%. All pupils must choose another second language in addition to English; German, French and Spanish are the most common. Municipalities must offer the choice of at least two of these languages. Other languages can also be offered. As an alternative to foreign languages, pupils may choose sign language, the language spoken at home, a deepening of their knowledge of Swedish/Swedish as a second language or English. The schools decide when to begin instruction in a second foreign language. Around 70% of the pupils took a second foreign language in grade 6 in 2009/10. (Eurydice, 2009/10).

The table below shows the guaranteed minimum number of teaching hours by subject or subject groups for the nine-year programme in 2009/10:

Sweden. Compulsory school (grades 1-9): distribution by subject of the minimum number of hours over the nine-year programme

Subject/subject group	Minimum number of hours in grades 1-9
Swedish/Swedish as second language	1,490
English	480
Mathematics	900
Art	230
Home and consumer studies	118
Physical education and health	500
Music	230
Crafts	330
Geography, history, religion and social studies (together)	885
Biology, physics, chemistry and technology (together)	800
Language options (except English)	320
Student options (elective subjects)	382
Total guaranteed number of hours (min.)	6,665
(Of which available for school specific options)	600

Source: Eurydice, 2009/10. Subjects included in groups can be studied separately or combined.

Normally children receive the major part of their compulsory education in the same school. Children are usually grouped by age. Integrated classes (e.g. grades 1-2, 1-3, 2-3, 4-5 etc.) are common where there are few children and can be used as a pedagogical tool. The number of pupils per teacher or pupils per class is not nationally



regulated. It is most common that the class teacher teaches all subjects in grades 1-3, but there may be teachers specialized in some subjects such as music and physical education. In grades 4-5 specialist teachers often teach languages (Swedish and English) and mathematics, as well as craft, sport and health, art and music. Starting with grades 6-7 pupils often change to (a bigger) school. Teachers who are oriented towards the final years of the compulsory school are also specialized in two or three subjects. Teachers are free to make their own decisions and choices of teaching materials and aids. There is no list of compulsory reading materials. The schools purchase teaching material from various publishers and distribute it to pupils free of charge. ICT is used as a tool for all learning and as an aid to develop teaching. Several on-line tools for teachers are made available free of charge at the NAE website. (Eurydice, 2009/10).

Pupils automatically move to a higher class each year. After consulting with parents, or if requested by a pupil's parents/guardians, the school head may decide not to move a pupil to the next class, however this is unusual. The grades given in the school-leaving certificate awarded at the end of year 9 are determined with the aid of nationally devised grading criteria in conjunction with the course syllabus for each subject. Pupils who do not attain a pass level in a particular subject are not awarded a grade in that subject. Instead, a written assessment is made that identifies a pupil's aptitude for further studies. School-leaving certificates are set by the teacher and signed by the school head.

According to national data, in 2004/05 there were 4,963 compulsory education institutions with a total of 1,023,724 pupils enrolled, of whom 952,000 in schools run by municipalities and 64,451 in independent schools. In the same year the number of teachers was 94,522 (or about 82,300 full-time positions).

According to the National Agency for Education, in autumn 2010 there were 886,487 pupils enrolled in 4,627 compulsory schools. The majority of pupils (88%) attended municipal schools. Gender distribution in the schools was almost equal; however, the proportion of girls in independent schools was 50.6% which is slightly higher than in municipal schools where the corresponding share was 48.5%. Approximately 181,000 pupils were reported as being eligible for native language tuition, representing over 20%. The proportion of those eligible who then participated in native language tuition was 55%. The number of serving teachers (excluding short term employees) in compulsory schools was 85,900 and the average proportion of full-time employment was 85%. This means that the number of teachers counted as being in full-time positions was just over 73,300; 76% of teachers and 65% of school principals were female. The proportion of full-time employees who had teacher training qualifications amounted to 86%. More female than male teachers had teacher training qualifications. In 2010/11, there were 12,115 pupils (of whom 7,389 were boys) in compulsory school for children with learning disabilities. Of the total number of pupils, 19% were integrated into compulsory school, i.e. they spent at least half of their school time with pupils in ordinary compulsory school classes. The number of full-time equivalent teachers was 2,853 (of whom 424 were men). The number of pupils enrolled in special schools was 501 and the number of full-time equivalent teachers was 210 (81% were female).

In autumn 2010, almost 99% of the pupils who left compulsory school in spring 2010 went on to upper secondary school. If individual programmes are excluded, the transition rate was almost 92%. There were no noticeable gender differences in relation to the applicants and the transition rate to upper secondary school. Of the pupils who completed grade 9 in spring 2010, 23.4% did not achieve a pass in one or more subjects. The corresponding proportion in 1998 was 20.4%. In spring 2010, 7.9% did not achieve a pass in one subject, 14.5% in two or more subjects, and 1% in any subject. A smaller proportion of girls (20.4%), than boys (26.3%), did not achieve a pass in one or more subjects. (NAE, 2011c; Statistics Sweden, 2011).

Upper secondary education

All pupils completing compulsory schooling are entitled to three years of upper secondary education. Upper secondary education is co-educational and provided free of charge in the upper secondary school. Starting from 1995/96, the comprehensive upper secondary system was organized around 17 national programmes (of which 14 vocationally-oriented) lasting three years. In all programmes approximately one third of the total teaching was allocated to eight compulsory subjects (nine foundation subjects according to the reform of 2011). In vocationally-oriented programmes at least 15 weeks are spent in a workplace; as part of the 2011 reform, students can also opt for apprenticeship training within vocationally-oriented programmes, and at least 50% of the programme is workplace-based (normally starting in the first year). The school is responsible for procuring such training opportunities and for supervising students during their training. In order to be eligible for upper secondary school, students are required to have pass grades in Swedish, English and mathematics from the compulsory school as of the 1998/99 school year.

Under the reform of upper secondary education introduced in autumn 2011, a total of 18 national programmes are offered during an experimental period until June 2014. Upon successful completion of upper secondary education students receive a leaving certificate (an upper secondary school diploma according to the 2011 reform), showing the marks achieved in all courses studied. All three-year programmes meet the general eligibility requirements for higher education. The programmes focusing on university entrance also meet most of the specific entrance requirements. Postsecondary training programmes provide initial or further training in a particular occupation; the length of most of these programmes is between six months and one year. Higher vocational education courses, introduced in July 2009, prepare trainees for a specific trade or vocation; courses lasting at least 40 weeks on a full-time basis lead to an advanced vocational education and training diploma. About 400 different advanced vocational training courses are offered at the postsecondary level.

According to the Education Act of 2010, the upper secondary school should provide a good foundation for work and further studies and also for personal development and active participation in the life of society. The education should be organized so that it promotes a sense of social community and develops students' ability to independently and jointly with others acquire, deepen and apply knowledge. As mentioned, the upper secondary school curriculum has been recently revised in order to reflect the fundamental values set out in the new Education Act 2010 (see previous sections for more details about the curriculum).



The new upper secondary curriculum 2011 is organized around national programmes, e.g. 12 vocational programmes and six higher education preparatory programmes. The 12 vocational programmes provide a foundation for working life and further vocational education. They are: child and recreation; building and construction; electricity and energy; vehicle and transport; business and administration; handicraft; hotel and tourism; industrial technology; natural resource use; restaurant management and food; HVAC and property maintenance; and health and social care. The six higher education preparatory programmes provide a foundation for further education in the higher education sector. They are: business management and economics; arts; humanities; natural science; social science; and technology.

There are also five introductory programmes which should give students who are not eligible for a national programme an individually adapted education, which satisfies students' different educational needs and provides clear educational routes. They are: preparatory education; programme-oriented individual options; vocational introduction; individual alternative; and language introduction. Education in the introductory programme should be provided in the form of full-time studies and should be equivalent to education in the national programmes. However, its scope may be decreased at the request of a student and if the organizer considers that it is in line with the aims of the student's education. Both vocational and higher education preparatory programmes are structured around: i) nine foundation subjects which are common to all programmes; ii) programme specific subjects; orientations providing a foundation for further in-depth studies, specialization and extension (in the second/third year or in some cases in the first year); iii) programme specializations complementing and deepening the subjects specific to a programme (the courses are determined by the NAE, but it is the organizer who decides which of these courses will be provided on the basis of local needs); iv) individual options; and v) the diploma project to be carried out towards the end of the programme.

The nine subjects common to all programmes in the upper secondary school are the following: English, history, physical education and health, mathematics, science studies, religion, social studies and Swedish or Swedish as a second language. In the natural science programme, the subject of science studies is replaced by the subjects typical of the programme (i.e. biology, physics and chemistry), and similarly in the technology programme with the subjects typical of the programme (i.e. physics and chemistry). The upper secondary foundation subjects are included in all upper secondary education, but they vary in scope between vocational programmes and higher education preparatory programmes. In history, social studies, science studies and mathematics, there are different courses for different programmes. In the subjects of history, social studies and science studies, there are introductory 50 credit courses (one credit is equivalent to one hour of classroom instruction), as well as an introductory 100 credit course. Students in the vocational programme study the introductory 50 credit course in each subject. Students in the higher education preparatory programmes study the introductory 100 credit course with the exception of the technology programme where students study a 50 credit course in history.

Education in the upper secondary school is now leading to an upper secondary school diploma. Students in vocational programmes can attend a school-based education or an apprenticeship education. Both routes lead to a vocational diploma.



Higher education preparatory programmes lead to a diploma providing eligibility for higher education. Each programme has its diploma goals. The diploma goals provide the foundation for planning education and teaching from the student's very first day in the programme. These should steer the education and the organization of upper secondary work and its contents. The diploma goals set out the goals of the programme, the orientations in the programme, as well as the goals of the diploma project. In order to obtain a vocational diploma, students should have grades for the education covering 2,500 credits, of which passing grades provide 2,250 credits. In the passing grades, the following courses are required: Swedish or Swedish as a second language 1; English 5; mathematics 1a; foundation courses of 400 credits. In addition, a pass in the diploma project is required. In order to obtain a diploma for admission to higher education, students should have grades for the education covering 2,500 credits, of which passing grades provide 2,250 credits. In the passing grades, the following courses are required: Swedish or Swedish as a second language 1, 2 and 3; English 5 and 6; mathematics 1b or 1c. In addition, a pass in the diploma project is required.

In the diploma goals and the subject syllabuses, the NAE has chosen not to use the concept of competence in order to be closer to the concepts used in the curriculum. The progression between courses in a subject can be expressed not only in the core content, but also in the knowledge requirements. The basic principle in the subject syllabuses for the upper secondary school is that the core content primarily expresses the progression between courses. This means that knowledge requirements may be identical for different courses in a given subject. Teachers should award grades for each course, and there are specific knowledge requirements for three of the passing grades (E, C and A). The levels for grades E, C and A in the knowledge requirements are formulated using a progression matrix. The grading scale does not specify knowledge requirements for grades D and B. Grade D means that the knowledge requirements for grade E and most of C are satisfied. Grade B means that the knowledge requirements for grade C and most of A are satisfied. (NAE, 2012).

The tables below show the structure of three higher education preparatory programmes (note that the programme structures are incomplete as they do not include the programme specialisations):



Sweden. Upper secondary school, humanities programme: distribution by subject of the number of hours/credits over three years

Subject	Number of credits/hours
<i>Foundation subjects:</i>	<i>1,150</i>
Swedish/Swedish as second language (3)	300
English (2)	200
History (2)	200
Physical education and health (1)	100
Mathematics (1)	100
Science studies (1)	100
Religion (1)	50
Social studies (1)	100
 <i>Programme specific subjects:</i>	 <i>350</i>
Philosophy (1)	50
Modern languages	200
Human languages (1)	100
 <i>Orientations (culture or languages):</i>	 <i>400</i>
<i>Culture:</i>	
Philosophy (1)	50
Art and culture (2)	200
Psychology (1)	50
Swedish literature (1)	100
<i>Languages:</i>	
Latin language and culture (1)	100
Languages	300
 <i>Diploma project</i>	 <i>100</i>
<i>Individual options</i>	<i>200</i>
<i>Programme specializations [not included]</i>	
Total credits (excluding specializations)	2.200

Source: NAE, 2012. The digits related to the different courses are not included; the figures within parentheses refer to the number of courses for each subject.



Sweden. Upper secondary school, social science programme: distribution by subject of the number of hours/credits over three years

Subject	Number of credits/hours
<i>Foundation subjects:</i>	
Swedish/Swedish as second language (3)	1,150
English (2)	300
History (1)	200
Physical education and health (1)	100
Mathematics (2)	100
Science studies (1)	200
Religion (1)	100
Social studies (1)	50
<i>Programme specific subjects:</i>	
Philosophy (1)	300
Modern languages	50
Psychology (1)	200
<i>Orientations</i>	
350-450	
<i>Behavioural sciences:</i>	
Leadership and organization (1)	100
Pedagogy–communication (1)	100
Psychology (1)	50
Social studies (1)	100
Sociology (1)	100
<i>Social studies:</i>	
Geography (1)	100
History (1)	100
Religion (1)	50
Social studies (2)	200
<i>Media, information and communication:</i>	
Journalism, advertising and information (1)	100
Media production (1)	100
Media, society and communication (1)	100
Psychology (1)	50
<i>Diploma project</i>	100
<i>Individual options</i>	200
<i>Programme specializations [not included]</i>	
Total credits (excluding specializations)	2,100–2,200

Source: NAE, 2012. The digits related to the different courses are not included; the figures within parentheses refer to the number of courses for each subject.

Sweden. Upper secondary school, natural science programme: distribution by subject of the number of hours/credits over three years

Subject	Number of credits/hours
<i>Foundation subjects:</i>	<i>1,150</i>
Swedish/Swedish as second language (3)	300
English (2)	200
History (1)	100
Physical education and health (1)	100
Mathematics (3)	300
Religion (1)	50
Social studies (1)	100
<i>Programme specific subjects:</i>	<i>450</i>
Biology (1)	100
Physics (1)	150
Chemistry (1)	100
Modern languages	100
<i>Orientations</i>	<i>300-400</i>
<i>Natural sciences:</i>	
Biology (1)	100
Physics (1)	100
Chemistry (1)	100
Mathematics (1)	100
<i>Natural sciences and society:</i>	
A natural science subject	100
Geography (1)	100
Social studies (1)	100
Social studies (2)	200
<i>Diploma project</i>	<i>100</i>
<i>Individual options</i>	<i>200</i>
<i>Programme specializations [not included]</i>	
Total credits (excluding specializations)	2,200–2,300

Source: NAE, 2012. The digits related to the different courses are not included; the figures within parentheses refer to the number of courses for each subject.

Vocational and general upper secondary education is provided within the same institutions run by municipalities, county councils or independent organizers. Schools have different profiles and run different national programmes. Various types of education within one school can be located in different buildings; in many places upper secondary students and students enrolled in municipal adult education share the same building. Sparsely populated areas have upper secondary schools which collaborate with the senior level of compulsory school and with an upper secondary school in a larger municipality. The number of students per class does not usually exceed 30. (Eurydice, 2009/10).

Marks are awarded on the completion of each course and not for individual subjects or for each term. Under the former system, marks were also given for special

project work, and were awarded on a four-category scale: Fail; Pass; Pass with credit; and Pass with distinction. The leaving certificate contained a record of marks for all courses in upper secondary education. As mentioned, in 2011 a new grading system and the upper secondary school diploma have been introduced.

According to national data, in 2004 there were 763 upper secondary schools (of which 241 were independent schools) with a total enrolment of 344,416 students. The total number of teachers was 34,100 or about 28,000 full-time positions.

According to the National Agency for Education, in autumn 2010 there were 1,015 upper secondary schools (of which 489 were independent schools and 21 were run by county councils) and the total enrolment was 385,712 students, of whom 186,710 were girls. About 75% of all pupils in upper secondary school were educated in municipal schools, 24% in independent schools and 1% in education organized by county councils. About 48% of the students chose training with an academic focus and 44% chose training with a vocational focus. Other students opted for individual programmes or tailor-made programmes which were not connected to the national programmes. The gender distribution was most unequal in energy, electrics, construction and vehicle education; for these programmes the proportion of boys was over 90%. The proportion of girls was highest in handicrafts, care and nursing, food and provisions and also children and leisure education. The training with the most even gender distribution was natural science. In October 2010 there were 37,400 serving teachers (excluding short-term employees) in upper secondary schools, or 31,100 full-time equivalent teachers. The majority of teachers taught in municipal schools, but an increasing proportion taught in independent schools. Of all the full-time equivalent teachers, 75% had teacher training qualifications. Municipal schools had the highest proportion of qualified teachers (80%) while independent schools had the lowest proportion (58%). The proportion of qualified teachers is highest in large and major cities and lowest in rural communities. In 2010/11, the number of students in upper secondary school for individuals with learning disabilities was 9,300 and the number of full-time equivalent teachers was 2,100. (NAE, 2011c).

By 2010, 72% percent of the country's 20-year-olds had received their final grades from upper secondary school. When examining the last ten beginner groups that were monitored over three years, between 65–69% of the students received their final grades within three years. After another year of study, the proportion of students increased to 73–76%. After five years of study, the proportion of students was 74–77%. For students who started their studies in the individual programmes the pass rate within three years was at most 6%, increasing to 17–21% within four years, and to 21–25% within five years. Girls generally have a higher pass rate than boys. Of those who started upper secondary education in autumn 2005, 72% of girls and 66% of boys achieved final grades within three years. The proportion of students with final grades is lower among students with foreign background than among students with Swedish backgrounds. Within three years, 53% percent of students with foreign backgrounds achieve their final grades, compared with 72% of the students of Swedish descent. By 2010 the proportion of all 20-year-olds that had achieved basic eligibility to further education was 64%. Of the 99,200 students in spring 2010 that received final grades from upper secondary school, 87% had achieved the basic eligibility requirements for university and higher education studies. The proportion with basic eligibility to further education, among the students with final grades in spring 2010, was higher



among girls (90%) than boys (84%). A higher proportion of students with Swedish background (88%) achieved basic eligibility to further education compared with students of foreign descent (79%). (*Ibid.*).

Assessing learning achievement nationwide

The state's responsibility for the national evaluation is carried out by the national agencies in their respective field of responsibility. The National Agency for Education (NAE) steers, supports, follows up and evaluates the work of municipalities and schools with the purpose of improving quality and the result of activities to ensure that all pupils have access to equal education. The School Inspectorate ensures that local authorities and grant-aided independent schools follow laws and regulations. The Inspectorate is the central agency responsible for preschool, the welfare of schoolchildren, schools management and adult education, and the aim of this agency is to ensure the equal right of all children to good education in a safe environment. The Inspectorate conducts regular supervision of all schools and can also initiate, or in order to investigate complaints from pupils, parents or other person undertake an investigation of a specific school. The Inspectorate is also responsible for granting licenses to new grant-aided independent schools. The National Agency for Higher Education is responsible for the evaluation of higher education and external quality assurance. The task of reviewing the quality of higher education includes evaluating subject areas (main fields of study) and study programmes, and granting degree awarding powers.

The municipalities themselves are responsible for the organization and implementation of evaluation locally, which leads to variations in how the evaluation is carried out. Methods for internal evaluation vary between educational institutions. The general objective of the internal evaluation of preschools and schools is to ensure that the curriculum is being followed. In addition a quality assessment is made on basis of the general guidelines from the NAE. Municipalities are expected to inspect, follow up and evaluate preschools on a continuous basis and through annual follow-up and evaluation measures.

The NAE is continually developing and revising syllabi, grading criteria and other steering documents to ensure that they help to improve equivalence and achievement of goals, as well as reflect the needs originated by developments in society and the workplace, and the needs of individuals. The NAE is responsible for the national tests system. This involves producing and developing subject testing and diagnostic materials in cooperation with higher education institutions for compulsory school, and other corresponding school forms, and national tests for upper secondary and adult education courses. Most of the work focuses on Swedish/Swedish as a second language, English and mathematics. Testing is a tool to support teachers in assessing and enable consistency in grading, and also important for clarifying what is stated in national course goals and grading criteria. At the compulsory level, national tests involve pupils in grade 3, 5 (grade 6 starting from 2012) and 9. The national tests measure and describe pupil's knowledge, skills and results achieved. They also provide a basis for evaluation of school results. The Agency is also responsible for the Swedish participation in international assessment studies. (Eurydice, 2009/10).

Concerning the national tests in grade 9, in the subject Swedish 94.9% of the pupils achieved a pass in 2009/10; the pass rate was lower for boys than for girls. A total of 76.5% achieved a pass for Swedish as a second language. The background factor which has the most influence on the results is parental education level. Among pupils with parents who have only had compulsory schooling 12.6% did not achieve a pass for the Swedish subject test, compared with pupils who have at least one parent with higher education where only 2.7% did not achieve a pass. In the subject tests in English 95.8% of the pupils achieved a pass. The test results in mathematics showed that 82.5% of pupils achieved a pass. The pass rate in English and mathematics were almost the same for boys and for girls. (NAE, 2011c).

In 2003, three different assessments of Swedish compulsory school pupils' knowledge in mathematics and science subjects were performed: the Programme for International Student Assessment (PISA 2003), the Trends in International Mathematics and Science Study (TIMSS 2003) and the National Assessment of the Compulsory School (NU-03). The three assessments were performed in randomly selected schools in the spring term of 2003, with the participation of pupils in year 8 of compulsory school for TIMSS and year 9 for NU as also, in the main, for PISA.

The NU-2003 was intended to give a broad view of the work and, in particular, of the pupils' knowledge in fifteen subjects. A corresponding survey was carried out in 1992. The main purpose of NU-03, as a basis for national decisions relating to the compulsory school, was to: give a comprehensive picture of goal achievement in the compulsory school per subject as well as from an overall perspective; demonstrate changes since the national assessment of 1992; indicate the need for efforts to be put in. In the case of mathematics, the average achievement in the 1992 survey was 13.6 points, and 13.2% did not reach the relevant limit for necessary knowledge. In NU-03 the average achievement was reported as being 12.4 points, with 16.7% of the pupils achieving under the determined limit. Via data from the national tests in mathematics in year 9 from 2001–2003, it is estimated that between 80 and 90% of the pupils achieve each of the syllabus's 'goals to attain'. In the case of science studies, the results show a deterioration from 28 to 25 percentage points in biology (i.e. a relative decline of approximately 10%), from 36 to 29 in physics (a decline of 19%), and from 46 to 36 in chemistry (a decline of 21%), measured as an average of the proportion of pupil responses that were deemed to correspond to a Pass grade or higher.

With regard to the 2003 PISA assessment of 15-year olds' reading, mathematical and scientific literacy, the average achievement for the Swedish pupils in mathematics was 509 points, which was significantly better than the total average of 500 points for the OECD countries. For science, in 2000 Sweden's total result was 512 points, which was not significantly better than the result in 2003 (506 scale points). In TIMSS 2003, 50 countries or regions participated in that survey, which mainly applied to pupils in their eighth year of compulsory school. For a comparable group of nations or regions (16 in all) that participated in both TIMSS 1995 and 2003, the average in mathematics in each respective assessment was 528 and 517 scale points, a decrease of 11 points in eight years. Sweden, which in the earlier assessment had significantly better results than the average of the group in question, dropped from 540 to 499 points in the later assessment. The decrease was, in other words, 41 scale points, and the result for Sweden was now markedly poorer than that of the



reference group. In the case of science studies, Sweden's total result in 2003 was 524 scale points, while in 1995 it was 553 points. (NAE, 2009).

“The School Inspectorate has undertaken a national re-correction of teacher scoring of student performance on national tests and found that the current assessment system is highly variable. The Inspectorate found that teachers interpret scoring guides very differently and that grading practices vary widely between teachers and schools. Possible explanations are that grading/scoring criteria are not adequately detailed and that teachers vary in their capacity to score student achievement on performance-based tests. The national tests currently serve many different functions including diagnostic, formative and summative assessment of individual students and they also produce the basic data for school self-evaluation, inspections and system-level evaluations. While the tests were originally designed to help teachers calibrate grades, they are increasingly used as national outcome measures.” (OECD, 2011).

“In the last round of the OECD's Programme for International Student Assessment (PISA 2009), the performance of Swedish 15-year-old students was around the OECD average in reading and mathematics, and below average in science. In PISA 2009, the main focus was on reading literacy. Results show that the performance of Swedish 15-year-olds in reading was at the OECD average and had significantly decreased since the first PISA study in 2000. In the previous PISA studies (2000, 2003 and 2006), the achievement levels of Swedish students in reading had been above the OECD average. Results from the IEA's Progress in International Reading Literacy Study (PIRLS) in 2006 had already indicated a significant decline in the reading performance of Swedish fourth grade students between 2001 and 2006. The results of Swedish 15-year-olds in mathematics have also decreased. The PISA 2009 results indicated a fall in test scores in comparison to the PISA in-depth assessment of mathematics in 2003. Science results of Swedish 15-year-olds were for the first time below the OECD average in 2009. Results from the IEA's Trends in International Mathematics and Science Study (TIMSS), which measures the mathematical and science performance of eighth grade students, further showed a significant decline in mathematics and science performance of Swedish students between 1995 and 2007. There are also concerns about an increase of inequity in Swedish schools. In previous PISA studies (2000, 2003 and 2006), Sweden had achieved a high level of equity among students from various socio-economic backgrounds. Sweden used to be among the countries with a below-average impact of socio-economic background on performance. However, in PISA 2009, the impact of socio-economic background on reading performance has markedly increased and is now above the OECD average. The variation in performance between high- and low-performing students has also increased between 2000 and 2009. This is due to lower scores among low-achievers while there was no change among high-achievers. The PISA 2009 data also show a large gap in education outcomes between immigrant students and their native peers at all levels of education, especially for first-generation immigrants.” (*Ibid.*).

Concerning PISA 2009, in reading comprehension nearly one fifth of the Swedish students did not reach up to the level of knowledge that the OECD believes is essential for continued learning. In science Swedish students for the first time perform below the worldwide average. On the digital reading comprehension test, the Swedish student performed better than the OECD level. From an international



perspective, in PIRLS 2006 Swedish students in grade 4 were very successful in their reading. However, between 2001 and 2006 a noticeable decline has occurred. In TIMSS 2007, Swedish students in grade 8 performed below the European Union/OECD average in mathematics. The negative developments that could be detected between 1995 and 2003 have continued, albeit at a slightly slower pace. Since 1995, the proportion of pupils failing to achieve the most basic level of knowledge has more than doubled. Meanwhile, the percentage of pupils who are performing at the most advanced level has decreased even more. Swedish students were relatively better at statistics and probability, and to some extent the understanding of numbers and arithmetic. However, Swedish students were worse in algebra and geometry.

In science, the Swedish students were performing in line with the EU/OECD average. The decline between 2003 and 2007 was greater than in mathematics and the results do not indicate that the decline from 1995 could be about to slow down. Since 1995, the percentage of pupils who do not meet the most basic level of knowledge has tripled while the proportion of students who are at the most advanced level has decreased to a similar extent. In grade 8 there were no differences in the average performance between boys and girls in either mathematics or science. However, for both subjects the boys' performance has fallen more than the girls' since 2003.

In the case of grade 4 pupils, the 2007 results show that Swedish pupils are performing below the average for the EU/OECD countries in mathematics. They are relatively good at compiling and interpreting data, but worse in their understanding of numbers, arithmetic and geometry. In science Swedish grade 4 pupils are performing at the same level as the EU/OECD average. Swedish pupils are relatively better in earth sciences and to some extent biology, but relatively worse in the field of physics and chemistry. In grade 4 boys are performing on average slightly better than girls in mathematics. In science there was no difference between the boys and girls. Sweden also took part in TIMSS Advanced 2008, which examined pupils in the last year of upper secondary school that studied advanced mathematics and physics. From an international perspective, Sweden had poor results in mathematics and average results in physics, and both of these results have deteriorated sharply since 1995. The difference between high and low achievers has increased. A decrease in results has also occurred amongst those performing at the most advanced level. (NAE, 2011c).

Teaching staff

Since 1977 teacher education is part of the higher education system and is provided by universities and university colleges. In 2001 an integrated teaching degree for all teachers, from preschool to the upper secondary level, was established giving all teachers a common basic competence combined with a specialization for particular subjects or subject areas and/or age groups. This integrated programme comprises a minimum of three years and a maximum of five and a half years of full-time studies depending on the chosen subject area and age level. The requirements are as follows: i) at least three and a half years for teaching in preschool, preschool class, the lower level of the compulsory school as well as school-age childcare and mother tongue tuition; ii) at least four years for teaching at higher level of the compulsory school and the upper secondary school, with exception for the upper secondary schools vocational subjects; one or two specializations (of at least one and a half years each) in a subject or subject area should be included; iii) at least three years for teaching in



subjects specific to vocationally oriented programmes in upper secondary schools; instead of emphasis and specialization, extensive professional experience as well as higher education in relevant subjects (of at least one and a half years) or other equivalent education is required.

The teacher education programme consists of three education areas: the general education area, common for all students, covering key topics such as learning, special needs education, socialization, fundamental values as well as interdisciplinary subject studies (at least one and a half years of study); subject/subjects that the prospective teacher intends to teach (at least one year); specialization complementing earlier acquired knowledge (at least one term). In the general education area, practical supervised training in a school should account for at least half a term. To receive a teaching qualification, students must also complete an independent project work corresponding to half a term's studies.

As a result of the introduction of the three-cycle degree programme structure in accordance with the Bologna process (including the European Credit Transfer System–ECTS), implemented since July 2000, the degree system has been reformed. The teaching qualification can be taken at first and second level, depending on orientation and specialization. Teaching qualifications with orientations that require three to 3.5 years of studies are at the first level. These cover education in preschool, the preschool class and leisure-time centres. At the first level there are also programmes for vocational education and mother tongue tuition. The qualification focusing on the earlier years of the compulsory school years can be taken at either the first or second level. Teaching qualifications requiring at least four years education and some additional specialization are at the second level. These cover programmes that focus on the later years of the compulsory school, and the upper secondary school. The qualification focusing on the earlier years of the compulsory school can be taken at the second level if this includes specialization. University colleges and universities can choose the level at which teacher training shall be offered (first level, second level or both). The teacher education programme emphasizes the importance of competence in special needs education and all teachers, irrespective of category, obtain special needs education within the general education area.

Starting from 2011, the previous integrated teaching degree is being replaced by four new professional degrees, i.e.: in preschool education teacher, primary school education teacher, subject teacher, and vocational education teacher. The four new professional degrees include knowledge objectives in the subject to be taught, and objectives concerning other key knowledge contents and skills of a more general nature, for school and preschool teachers. The new degrees are intended to provide greater clarity regarding the three components of teacher education, e.g. studies in the subject to be taught, a school placement (comprising 30 ECTS credits), and an educational science core (60 credits).

The programme leading to the degree in preschool education comprises 210 credits and the focus is on the knowledge and skills required to meet the learning and care needs of the youngest children, including a solid knowledge of how reading, writing and basic mathematical skills are acquired.

The degree in primary school education includes three specializations. For teaching in preschool class and years 1–3 of the compulsory school, the programme comprises 240 credits. It focuses on a broad range of knowledge and is intended to prepare teachers to teach most subjects; knowledge about the development of reading and writing skills and in-depth knowledge of mathematics for younger children is an essential part of the programme. For teaching in years 4–6 the programme comprises 240 credits and has higher requirements in terms of broad orientation and in-depth subject studies. Apart from knowledge of Swedish, mathematics and English, prospective years 4–6 teachers can choose between social subjects, natural science subjects and technology, or one or more practical or artistic subjects. For work in leisure-time centres, the programme comprises 180 credits.

The subject teacher degree includes two specializations. For teaching in years 7–9 of compulsory school the programme comprises 270 credits, of which 195 are in the subjects themselves (including the degree project and parts of the school placement). This specialization provides prospective teachers with the skills to teach three subjects. For teaching in upper secondary school the programme comprises 300 to 330 credits, of which 225 to 255 are in the subjects themselves (including the degree project and parts of the school placement), depending on the choice of subjects. This specialization provides prospective teachers with the skills to teach in two subjects.

The degree in vocational education comprises 90 credits, consisting of one year (60 credits) of course-based study and one semester (30 credits) of work-based training in upper secondary schools. To be accepted to the programme basic eligibility for higher education studies is required as well as advanced and relevant vocational knowledge. Alternative routes include: completion of at least 60 credits of other postsecondary education in a relevant vocational field combined with relevant vocational experience; or a certificate issued by the National Agency for Education (NAE) confirming knowledge and competencies that meet the qualifications required in the selected field of teaching. (Eurydice, 2009/10).

In July 2011 a system of teacher registration for teachers and preschool teachers has been introduced. The NAE has replaced the National Agency for Higher Education as the competent authority for the teaching profession and qualified teacher status certification. From 2012, in order to be qualified to teach at a school, a teacher should be registered and qualified for certain subjects and grades. Registration will be required for a teacher to be able to independently set grades and to be a mentor to new teachers during their introduction year. Further, only registered teachers will be qualified for permanent employment.

The introduction of the new structure for teacher training has been motivated by past and current concerns about the relatively high number of teachers without a teaching degree. Despite the fact that teacher education programmes have the highest number of participants among all programmes at higher education institutions, many reports have pointed to weaknesses in teacher education, including an underdeveloped culture of academic research and lower than average levels of internationalization. According to the NAE, in 2009/10 approximately 77 % of upper secondary teachers held teaching degrees. In upper secondary vocational education and training, only 61% held a teaching degree. Media (48.3%) and vehicle engineering (46.8%) were the



programmes with the lowest proportion of teachers with a teaching degree. The highest proportion of fully qualified teachers was found in the child and recreation (89.6%) and health and nursing (79.1%) programmes. (CEDEFOP, 2011).

To be permanently appointed as a teacher in the national school system an applicant must have a university diploma in teaching, knowledge of the Swedish language as well as of the regulations applicable to the school system, in particular the regulations concerning the goals of education. Most preschool teachers, leisure-time pedagogues, teachers and school heads are employed by a municipality, and the Swedish Association of Local Authorities and Regions negotiates with the teachers' trade unions over salaries and general working conditions. Teachers employed by grant-aided independent schools, get their salaries and working conditions set through negotiation by the principal organizer and the teachers' trade unions. (Eurydice, 2009/10). According to a central agreement, fully qualified teachers (i.e. those with a teaching degree) are employed on a 12-month probationary basis before they receive a permanent position; the purpose is to give newly-qualified teachers a year of introduction under the guidance of an experienced teacher. An applicant without full qualifications may be employed on a temporary basis but this may be extended year after year. (CEDEFOP, 2011).

Staff in preschool, compulsory school and upper secondary school has an average working week of 40 hours. For most teachers the workload per year represents an amount of 1,767 hours of which 1,360 are scheduled and 407 hours are at the teacher's disposal for administrative and representative duties. For full-time employees this includes 104 competence development hours that may be unevenly distributed between teachers. The regulated working hours are divided into 194 days during or in connection with the pupils' school year. Teachers at universities and university colleges have a 40-hour working week. (Eurydice, 2009/10).

Teachers' competence development is a central instrument for attaining equivalent and high-quality teaching standards. It also aims at strengthening the attainment of national and local goals and develops school activities. In-service training mainly takes place during study days, evenings or pupils' holidays. Qualifications obtained via competence development are taken into account for determining individual salaries. The organizer of education is obliged to ensure that competence development is available for teaching staff. Contract education for this purpose can be purchased from various providers. Higher education institutions and the regional development centres are the primary organizers of publicly-funded competence development courses. Other organizers are the public service company which produces educational broadcasting, the teachers' trade unions, other state authorities inclusive of higher education institutions, and independent educational companies. The municipalities have funds set aside for competence development of their staff and decide on its scope. The government can set aside funds for the municipalities and independent schools to support their work on developing the competence of teachers through extra funding to the NAE for web-based support materials, conferences, etc.

An essential element in the work of NAE is skill development for school staff. and the Agency has the responsibility for the national school head training and for professional development for teachers.. In-service teacher training can be optional, or



a prerequisite for promotion. In the campaign ‘A boost for teachers’, nearly a quarter of all teachers received further education between 2007 and the end of 2011. Some 30,000 fully qualified teachers have been offered a chance to study at a higher education institution. During their studies they receive 80% per cent of their current pay. (*Ibid.*).

References

CEDEFOP (European Centre for the Development of Vocational Training). *Sweden. Vocational Education and Training (VET) in Europe. Country Report 2011*. Prepared by ReferNet Sweden.

EURYDICE. *National system overview on education systems in Europe: Sweden*. European Commission, 2011 edition, September 2011.

EURYDICE. *National summary sheets on education systems in Europe and ongoing reforms: Sweden*. European Commission, January 2010.

EURYDICE. *Organization of the education system in Sweden*. European Commission, 2009/10 edition.

EURYDICE. *Focus on the structure of higher education in Europe 2006/07. National trends in the Bologna Process*. EURYDICE, European Unit, Brussels, March 2007.

EURYDICE, CEDEFOP and ETF. *Structures of education and training systems in Europe: Sweden*. European Commission, 2009/10 edition.

Ministry of Education and Research. *OECD review on evaluation and assessment frameworks for improving school outcomes. Country background report for Sweden*. Stockholm, September 2010.

Ministry of Education and Research. *The development of education. National report of Sweden*. Presented at the 48th session of the International Conference of Education, Geneva, 2008.

Ministry of Education and Science. *The development of education. National report of Sweden*. Presented at the 47th session of the International Conference of Education, Geneva, 2004.

Ministry of Education and Science. *The development of education. National report of Sweden*. Presented at the 46th session of the International Conference of Education, Geneva, 2001.

Ministry of Education and Science. *The 1998 Swedish contribution to the EURYDICE database*.

Ministry of Education and Science. *The development of education. National report of Sweden*. Presented at the 45th session of the International Conference of Education, Geneva, 1996.



National Agency for Education. *Upper secondary school 2011*. Stockholm, 2012.

National Agency for Education. *Curriculum for the compulsory school, preschool class and the leisure-time centre 2011*. Stockholm, 2011.

National Agency for Education. *Curriculum for the preschool Lpfö 98, Revised 2010*. Stockholm, 2011b.

National Agency for Education. *Facts and figures 2011. Preschool activities, school-age childcare, schools and adult education in Sweden*. Summary of Report 363, Stockholm, 2011c.

National Agency for Education. *With a focus on mathematics and science. An analysis of the differences and similarities between international comparative studies and national syllabuses*. Stockholm, 2009.

National Agency for School Improvement. *Improving school leadership. Background report of Sweden*. Prepared for the OECD Activity Improving School Leadership, Stockholm, February 2007.

National Agency for Higher Education. *National Qualifications Framework – Revised May 2011*. Stockholm, 2011.

National Agency for Higher Education. *OECD thematic review of tertiary education. Country background report for Sweden*. Stockholm, June 2006.

National Council of Adult Education. *The significance of folkbildning to Swedish society*. Stockholm, May 2011.

OECD. *OECD reviews of evaluation and assessment in education. Norway*. (Prepared by D. Nusche, G. Halász, J. Looney, P. Santiago and C. Shewbridge). Paris, February 2011.

Statistics Sweden. *Yearbook of educational statistics 2012*. Stockholm, 2011.

Sweden Eurydice Unit. *The education system in Sweden 2005/06*. Prepared for Eurybase/Eurydice, 2006.

UNESCO. *Caring and learning together: A case study of Sweden*. (Prepared by I. Munkhammar and G. Wikgren), Early Childhood and Family Policy Series No. 20, Paris, 2010.



Web resources

Board for Student Support: <http://www.csn.se/> [In Swedish. Last checked: May 2012.]

Ministry of Education and Research: <http://www.regeringen.se/sb/d/1454> [In Swedish and English. Last checked: May 2012.]

National Agency for Education: <http://www.skolverket.se/> [In Swedish and English. Last checked: May 2012.]

National Agency for Higher Education: <http://www.hsv.se/> [In Swedish and English. Last checked: May 2012.]

National Agency for Higher Vocational Education: <http://www.yhmyndigheten.se/> [In Swedish and English. Last checked: May 2012.]

National Agency for Special Needs Education and Schools: <http://www.spsm.se/> [In Swedish and English. Last checked: May 2012.]

National Council of Adult Education: <http://www.folkbildning.se/> [In Swedish. Last checked: May 2012.]

National Portal for Education and Career Guidance: <http://www.utbildningsinfo.se/> [Mainly in Swedish. Last checked: May 2012.]

National Reference Point for Vocational Qualifications: <http://www.senrp.se/> [In Swedish and English. Last checked: May 2012.]

School Inspectorate: <http://www.skolinspektionen.se/> [Mainly in Swedish. Last checked: May 2012.]

SIRIS (Online information system on results and quality): <http://sirisskolverket.se/> [Mainly in Swedish. Last checked: May 2012.]

For more detailed and updated information consult EURYDICE, the information network on national education systems and policies in Europe:

http://eacea.ec.europa.eu/education/eurydice/index_en.php

For updated links, consult the Web page of the International Bureau of Education of UNESCO: <http://www.ibe.unesco.org/links.htm>