



# Germany

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## Principles and general objectives of education

The Federal Republic of Germany is a democratic and social federal state. The constitutional option for a federal state means that not only Germany as a whole but also each of its sixteen *Länder* are states in their own right to the extent that they enjoy governmental authority.

The Unification Treaty of 1990 (*Einigungsvertrag*) between the Federal Republic of Germany and the German Democratic Republic (GDR) required the five new *Länder* to lay the legislative foundations for the reorganization of education by 30 June 1991. Under the Establishment of *Länder* Act (*Ländereinführungsgesetz*) of July 1990, the five new *Länder* set up their own Ministries of Education, Cultural Affairs and Science which joined the Standing Conference of the Ministers of Education and Cultural Affairs (KMK) in December 1990 with a view to introducing a common and comparable basic structure in the education system by way of cooperation between the *Länder* in the Federal Republic.

Since the unification of the two states in Germany, a central task of educational policy has been the reorganization of the school system on the basis of relevant agreements of the KMK, as well as the reform of higher education in the new *Länder*. With the adoption of school legislation by the parliaments of the new *Länder*, western Germany's subdivided system was introduced in all five eastern *Länder* at the beginning of the 1992/93 school year.

Responsibility for the education system is determined by the federal structure of government. Under the *Grundgesetz* (Basic Law) the exercise of governmental powers and the fulfilment of governmental responsibility is incumbent upon the individual *Länder* as far as the Basic Law does not provide for or allow for any other arrangement. The Basic Law contains only a few fundamental provisions regarding education, culture and science. Thus, for example, it guarantees the freedom of art and scholarship, research and teaching, the freedom of faith and creed, free choice of profession and of the place of training, equality before the law and the rights of parents. The entire school system is under the supervision of the state.

The responsibilities of the Federal Government in education include in particular the following domains of education and science: regulations of in-company initial and further vocational training; educational grants for pupils and students; promotion of scientific and academic research; framework legislation on the general principles of higher education; promotion of non-university research and technological development; regulations of youth welfare services; regulations on admission to training and educational prerequisites for medical and paramedical occupations; employment promotion measures; occupational and labour market research.



## Current educational priorities and concerns

In 2001, the Forum Bildung (Education Forum) elaborated recommendations for reforming education in order to ensure the quality and future viability of education in Germany. These recommendations focus on general issues affecting both the Federal Government and the Länder.

Education is increasingly taking on a key role: education offers people orientation and guidance in an increasingly complex world, education enables people to participate in and shape their social life and education is the key to employment and the basis of economic development.

To ensure the quality of the education system and its future viability, a high level of commitment is demanded from all parties involved: from individuals, from education institutions and their sponsors, from business and industry and from the state. New ideas and concepts must be sought, use of available resources must be improved, and additional funds must be provided for specific areas, for instance, those areas in which international comparisons have identified shortcomings, such as in the furthering of children at an early age. For educational reforms to be successful, the proper legal, organizational and financial framework must be put in place, while the various elements of the reforms must be fleshed out at the lower level.

Society and the economy are undergoing a continuing process of structural change that is affecting every area of life and work. The increasingly rapid growth of knowledge and worldwide access to it by means of the new information and communication technologies open up vast opportunities for personal development and for social and economic progress. On the other hand, it is increasingly difficult to access and use this knowledge because of its sheer volume, its degree of specialization and the rate at which it becomes obsolete. An individual's chances of success and role in society as well as the ability to compete economically are increasingly determined by the ability to find, retrieve, select, evaluate and use knowledge to find the best solution to a problem at hand.

Education is the key to achieving three goals: it offers people orientation and guidance in an increasingly complex world, enables people to participate in society and shape their personal and social life, and is the key to employment and the basis of economic development. Educational policy has to meet the dual challenge of creating the prerequisites for: imparting knowledge and skills which will determine the future of individuals as well as the future of societies and economies; and preventing or reducing social exclusion as a result of increased and/or new qualification requirements.

The Forum Bildung's recommendations focused on twelve areas. The Forum considered the most urgent areas to be furthering children at an early age, providing individual support, applying the principle of lifelong learning for everyone, teaching children to be responsible, and reforming initial and in-service training for teachers. (Forum Bildung, 2001).



The agreement concluded by the Federal Government and the Länder with regard to the investment programme *The Future of Education and All-day schools* is the first important step on the way towards major educational reforms. With this four-billion euro (€) programme, the Federal Government is making a substantial contribution to ensuring sufficient availability of all-day schooling in all German regions. The first disbursement of €300 million has been made available to the Länder in 2003. The PISA survey has proved that Germany is the “world champion in selection” but does not provide sufficient support for its children. Success in education still largely depends on people’s social background. This is where reform must start.

Changes and adaptations in the education system, and in particular in educational content, can thus no longer be exclusively initiated and controlled centrally; such processes are often too ineffective for the specific individual cases. Consequently, in all Länder of the Republic particular attention is paid to strengthening the individual responsibility and self-effectiveness of the individual school. This tendency does not release the state from its principal responsibility of ensuring the quality of its schools. However, it does make clear where measures are reaching the limits of their effective sustainability. New or extended educational objectives, as well as new forms of teaching and learning, determine the relevant discussion both in professional circles as well as in the public domain. Some features are common to all Länder, but individual Länder set their own points of emphasis. As regards educational contents and methods, a few general trends can be mentioned: (i) interdisciplinary matters and tasks have become more important; (ii) new forms of teaching and learning, especially those that require and promote independent learning and sustainable, intelligent knowledge, are increasingly becoming a core component of the curriculum; (iii) this goes hand in hand with a concentration on the basics: core curricular or basic knowledge have to be identified; in addition to a sound, systematically ordered specialist knowledge, other dimensions such as a discipline’s methods of work and thought or attitudes and opinions are of equal value; (iv) inner-school development is an important element for giving schools a dynamic and lively structure to ensure that, as a matter of course, teachers keep up to date with the latest developments in their professional work. (KMK, 2001).

The federalism reform passed in 2005 redefines the relationships between the Federation and Länder in regard to legislation. This includes a further reduction of the already sparse legislative competences of the Federation in the education system. Among other changes, the reform serves to transfer legislative powers in the education, science and research sectors as well as in civil service legislation from the Federation to the Länder. The federalism reform entered into force in 2006.

Fundamental changes are currently being implemented under which special importance is attached to the various efforts for quality assurance and quality development. In the school sector, the measures lead from input-oriented control based on the political and administrative regulations for school education to greater output-oriented control of the system. In the school sector, the core elements of this output control are educational standards that are binding for all Länder and educational reporting as part of the comprehensive monitoring of education. In 2003 and 2004, educational standards were adopted for the primary level, the general education school leaving certificate obtained on completion of Grade IX at the



*Hauptschule (Hauptschulabschluss)* and the general education school leaving certificate obtained on completion of Grade X at the *Realschulen (Mittlerer Schulabschluss)*. The educational standards are reviewed and further developed by the Institute for Educational Progress (IQB), which is supported by the Länder. Within this framework, the activities of the IQB also include the development of assignments for the educational standards. The reform measures of the Länder regarding the improvement of professionalism in teaching are also to be seen in conjunction with quality development and quality assurance in the school sector. The standards for teacher training in the educational sciences passed in 2004 will form the basis of teacher training programmes and practical training, as well as for the further and continuing education of teachers.

The focus of the reforms in the vocational training and further education sector has been the review of the related legislation. The Vocational Training Reform Act of 2005 is aimed at safeguarding and improving training opportunities provided as well as ensuring high quality standard in the vocational training available to all young people, irrespective of their social or regional backgrounds. In order to achieve these aims, the new vocational training legislation provides the responsible authorities within the Federation, the Länder and the regions with greater scopes of action. The functions of the Federal Institute for Vocational Education and Training have been re-defined accordingly.

Extensive reforms have also been introduced for the modernization, internationalization and quality assurance in the higher education sector. The development of the consecutive degree system and the further development of accreditation and evaluation serve the objectives of quality assurance and quality development. The new bachelor's and master's degree programmes are becoming standard offers at higher education institutions. This development is given further impetus by the cooperation within the framework of the Bologna process for the realization of the European Higher Education Area. Higher education institutions also play a key role in the Lifelong Learning for All Strategy which was agreed upon on 5 July 2004. To make the transition between the various educational sectors smoother, cooperation is promoted between higher education institutions and schools, businesses, industry associations, job centres and further education and training institutions. Flexible learning arrangements such as part-time studies, correspondence courses, e-learning and mixed forms are legally possible and will be allotted sweeping support, especially e-learning. Since 2002 knowledge and skills acquired outside the higher education system can be counted towards a degree by as much as 50%. (German Eurydice Unit, 2007; KMK and BMBF, 2006).

## Laws and other basic regulations concerning education

*Pre-school education:* Under the Basic Law it is the prerogative of the Federation to enact legislation on child and youth welfare within the framework of public welfare. This also applies to provision for children in daycare centres. The Federation exercised its legislative authority in this field by passing the **Child and Youth Welfare Act** on 26 June 1990 which was last amended in 2001. Under this Act, the Länder are required to give concrete form to the general outlines of the law on pre-school institutions through their own legislation. The Child and Youth Welfare Act was also amended within the framework of the **Maternity and Family Welfare Act**



of 27 July 1992 and expanded to include the legal right, introduced on 1 January 1996, to a *Kindergarten* place for all children from the age of 3 years until they start school. As a matter for local self-government, the implementation and financing of child and youth welfare legislation are the responsibility of the local authorities.

*Primary education:* The Basic Law and the constitutions of the Länder include a number of fundamental provisions on schools (inspection, parents' rights, compulsory schooling, religious instruction, private schools) which also have a bearing on primary schools. The legal basis for the *Grundschule* as the first compulsory school for all children is to be found in the **Educational Acts**, the **Compulsory Schooling Acts** and the **school regulations** (*Schulordnungen*) for the primary school enacted by the Ministries of Education and Cultural Affairs in the Länder.

*Secondary schools providing general and vocational education:* Based on the Educational Acts, School Administration Acts and Compulsory Schooling Acts of the Länder, the school regulations known as *Schulordnungen* for schools providing general and vocational education contain detailed regulations covering the content of the courses as well as the leaving certificates and entitlements obtainable on completion of lower and upper secondary education. The legal provisions for vocational training in the workplace in industry and in handicrafts are contained in the **Vocational Training Act** of 1969 and the **Handicrafts Act** of 1953, respectively. Among other things, these two laws govern matters of the relationship between young people and companies that provide training (e.g. contracts, certificates, pay), in other words the rights and obligations of trainees and trainers. They also govern the regulatory aspects of vocational training (e.g. the suitability of training providers and trainers, the terms of the training regulations known as *Ausbildungsordnungen*, the examination system and supervision of training) and the organization of vocational training (e.g. the function of the various chambers of industry and commerce as the "competent bodies" and of their vocational training committees). The **Vocational Training Promotion Act** of 1981 governed the planning of vocational training and defined the organization and functions of the Federal Institute for Vocational Training. The **Protection of Young Persons at Work Act** lays down special provisions for the protection of young trainees. In 2004, the 1981 Vocational Training Promotion Act and the 1969 Vocational Training Act were completely reformed and merged in the **Vocational Training Reform Act** entered into force on 1 April 2005. The reform is aimed at safeguarding and improving training opportunities provided as well as ensuring high quality standard in the vocational training available to all young people, irrespective of their social or regional backgrounds. In order to achieve these aims, the new vocational training legislation provides the responsible authorities within the Federation, the Länder and the regions with greater scopes of action. The functions of the Federal Institute for Vocational Education and Training have been re-defined accordingly.

*Higher education:* The legal basis of higher education is provided by the **Framework Act for Higher Education**, last amended in 2005, and the higher education legislation passed in the Länder. In accordance with its purpose, the Framework Act describes the general objectives of higher education institutions as well as the general principles underlying the system of higher education, study, teaching and research, admission, membership and participation, staff, organization



and administration of institutions of higher education. Based on the general provisions of the Framework Act, the laws on higher education passed by the Länder cover the above-mentioned areas in detail. The regulations apply to all institutions of higher education, including private establishments, and provide a systematic foundation for the higher education system, which comprises more than 300 institutions. The Länder's freedom of action in the reforming of organization and administration has been extended through the 1998 amendment to the Framework Act. The majority of Länder have already carried out the appropriate reforms of their Higher Education Acts. Also of importance to the development of higher education is the provision contained in the Basic Law that declares the establishment of higher education institutions to be a joint task of the Federal Government and Länder. This constitutional provision is fleshed out by the 1969 **Higher Education Institutions Construction Act**, a law to promote the joint task of expanding existing institutions of higher education and building new ones. The **Qualifications Framework for German Higher Education Degrees** has been adopted on 21 April 2005; a degree programme must meet the requirements of the Framework in order to receive accreditation. With the **Law of 15 February 2005** on the establishment of a "Foundation for the Accreditation of Degree Courses in Germany" (German Accreditation Council) the accreditation process has been given a new legal basis. There are no differences between external education evaluation and accreditation. With resolutions between December 2005 and June 2006, the German Accreditation Council revised all fundamental procedure regulations and accreditation criteria thereby adopting the European Standards and Guidelines (ESG). The accreditation agencies are formally recognized by the Accreditation Council and bound to observe the ESG by corresponding provisions.

*Adult education:* Continuing education is regulated by the State to a lesser degree than other areas of education. The justification given for this is that the diverse and rapidly-changing demands on continuing education can best be met by a structure which is characterized by diversity and competition among the institutions and the range of courses and services on offer. The aim is that the wide range of institutions should meet the diverse interests of those in continuing education. A central principle of continuing education courses is that attendance should be voluntary. The activities of the State in the field of continuing education are restricted to laying down principles and to issuing regulations relating to organization and financing. Such principles and regulations are enshrined in the legislation of the Federal Government and the Länder. The responsibilities of the Länder include powers to regulate and promote: continuing general education, continuing education leading to school-leaving qualifications, continuing academic education at higher education institutions, and some areas of continuing political education and continuing vocational training.

The prerequisites and principles for the promotion and funding of continuing education are laid down in continuing education and employment release legislation. Continuing and adult education legislation describes continuing education as an independent education sector which incorporates continuing general and political education and continuing vocational training and the development of which is the responsibility of the public sector. In addition to continuing education legislation, educational legislation contains regulations on continuing education within the school system (e.g. the attainment of school-leaving qualifications) and higher education legislation regulates the development of continuing academic education.



In ten of the sixteen Länder, study leave and employment release legislation allows employees to attend continuing education courses for several working days per year (usually five) with no loss in earnings, provided that certain conditions are fulfilled.

The Federal Government's responsibilities include in particular: continuing vocational training outside the school sector, the principles of continuing academic education at higher education institutions, basic regulations for the protection of those on distance learning courses which are offered under private law, some areas of continuing political education, research and pilot schemes within the scope of educational planning - in some cases jointly with the Länder - in all sectors of continuing education, statistics on continuing education, international cooperation in continuing education, including within the European Union. Therefore, regulations for the continuing education sector have been adopted at national level in the following legislation, in particular: the Employment Promotion Act, Vocational Training Act, Handicrafts Act, Upgrading Training Assistance Act, Framework Act for Higher Education, Federal Training Assistance Act, and Distance Learning Protection Act.

*Compulsory schooling:* Compulsory schooling begins for all children at the age of 6 and usually lasts nine full-time years (ten years in five Länder). Once pupils have completed compulsory schooling those pupils who do not attend a general education school at upper secondary level or a full-time vocational school are required to attend a part-time school normally for three years, according to the duration of training in a recognized occupation requiring formal training. For pupils who do not attend a general education school at upper secondary level or enter training, some Länder have regulations under which pupils are required to remain in full-time education and attend some sort of vocational school. In addition, most Länder offer the option of attending a voluntary tenth year of education to obtain additional qualifications.

Disabled children and young people are also required to attend school and complete their compulsory education. On the basis of their special educational needs, they are either taught in general schools together with non-handicapped pupils, or in special schools (*Sonderschulen*).

Compulsory schooling involves regular attendance of lessons and other compulsory school events. Both pupils and parents are responsible for seeing that this obligation is met and training companies are also responsible for ensuring that their trainees fulfil their obligation to attend vocational school. The school head checks on attendance records and can, if necessary, enforce attendance through various measures against the pupil, parents or the training company.

## **Administration and management of the education system**

Under the Basic Law, certain responsibilities in the educational sector are allocated to the Federation. Within the Federal Government, the **Federal Ministry of Education, Science, Research and Technology (BMBF)** is primarily responsible for the Federation's areas of responsibility. This ministry was created in 1969 in connection with the amendment to the Basic Law (*Grundgesetz*), which gave the Federation



additional responsibilities in the educational sector. Wherever necessary, consultations between Federation and Länder take place in the *Bundesrat*, the **Joint Commission of the Federation and the Länder for Educational Planning and Research Promotion** (*Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung-BLK*), the **Science Council** and the **Planning Committee for the Construction of Higher Education Institutions**.

Educational legislation and administration of the education system are primarily the responsibility of the Länder. The **Ministries of Education, Cultural Affairs and Science** in the Länder are the highest authorities responsible for education, science and culture. Their scope of responsibilities generally includes schools, higher education, libraries, adult education, arts and culture in general, relations between the state and religious or ideological communities, local history and the preservation of monuments and sites and in some Länder also sport and youth welfare.

The Ministries of Education, Cultural Affairs and Science develop policy guidelines in the fields of education, science and the arts, adopt legal provisions and administrative regulations, co-operate with the highest authorities at national and Land level and supervise the work of authorities under their purview and of subordinated bodies, institutions and foundations. To assist the ministries in their work the Länder have established their own research institutes for school education, higher and continuing education. The Ministries of Education and Cultural Affairs are headed by a Minister (in Berlin, Bremen and Hamburg: Senator) who is answerable to parliament. The Minister is usually represented by a State Secretary or Director-General.

The education, socialization and supervision of children from the age of 3 to school age is for the most part assigned to the Child and Youth Welfare sector. In most Länder, the social ministries are the competent authorities. The overall responsibility for pre-school establishments is entrusted to the local youth welfare offices. Only *Vorklassen* (pre-school classes) for 5-year-olds, and *Schulkindergärten* (school-kindergartens) for 6-year-olds who are not yet ready for school, are directly accountable to the school supervisory authorities.

In 1994, around 64% of kindergartens in the old Länder were run by non-public bodies concerned with child and youth welfare (mainly churches and welfare associations, and also local groups and parents' associations), while the remaining 36% were maintained by the local authorities. In the new Länder in 1994 approximately 16% of kindergartens were currently run by non-public bodies, the rest by public authorities. Despite the subsidies provided by the Länder and the local authorities for the maintenance of kindergartens and the use by privately-maintained establishments of their own funds, parents are also required to make contributions. Charges vary, and in some cases depend on the parents' income.

Supervision of the school system (general education and vocational schools) is the responsibility of the Ministries of Education and Cultural Affairs in the Länder in their capacity as the highest educational authority. The planning and organization of the overall school system is the responsibility of the Ministries of Education and Cultural Affairs and the school administration. The Länder are not only in charge of



organizing the school structure and determining the content of courses and teaching objectives, but their responsibilities also include supervising the work of teachers in public-sector schools. The educational objectives presented in school legislation are given concrete shape in the curricula for which the Minister of Education and Cultural Affairs of the respective Land is responsible. In order to implement the curricula for the various subjects in the different types of school, textbooks are used as learning material in the classroom. These books must be approved by the Ministries of Education and Cultural Affairs, and a list of approved books is published regularly.

School administration is in many cases structured in a three-tier system, in which the Ministries of Education and Cultural Affairs form the upper tier, the schools offices of the regional authorities (*Bezirksregierungen*) or independently existing upper-level schools offices form the middle tier, and the schools offices of the local authorities form the lower tier. In some Länder and in the city states school administration is based on a two-tier system, in the city states it is even organized as a single-tier arrangement. Here it is either the middle or the lower level which is eliminated. *Gymnasien*, comprehensive schools, vocational schools and usually also *Realschulen* are directly answerable to the intermediate regional authorities or the top level of the school supervisory authorities (Ministries of Education and Cultural Affairs), while the much more numerous primary schools, *Hauptschulen*, certain special schools and, in some Länder, also the *Realschulen* are the concern of the authorities at the lower level.

Public schools are, for the most part, state/local authority schools maintained jointly by the Land and a local authority. The cost of the teaching staff is borne by the Land and other staff or material costs are borne by the local authority. The local authorities (*Kommunen*), responsible for the establishment and maintenance of schools and their financing, are described as *Schulträger*, meaning schools maintaining bodies. The exception to this is Bavaria, where the Land is regarded as *Schulträger*, even if the local authority takes responsibility for the material costs of a public-sector school. Schools with a catchment area extending beyond the local authority area, e.g. schools offering specialized education in artistic subjects or sport, certain institutions providing continuing vocational training (*Fachschulen*) and special schools are usually state schools, i.e. they are maintained by a Land, which bears the staffing and material costs. In some Länder (including Bavaria), there are also local authority schools that are established by the *Kommunen* and, in terms of the costs of teaching staff and material costs, are supported solely by them.

As far as vocational training is concerned, the vocational schools are the exclusive responsibility of the Länder and in-company vocational training that of the Federation. Within the Federal Government, the **Federal Minister of Education, Science, Research and Technology** is responsible for coordinating issues of in-company training. The **Federal Institute for Vocational Education and Training** brings together representatives of employers, trade unions, the Länder and the Federal Government on an equal footing. The Institute advises the Federal Government on all vocational education and training matters. Its functions and tasks have been redefined in 2005 following the adoption of the Vocational Training Reform Act. At the level of the Länder vocational training committees are set up which are composed of employers', trade unions' and ministerial representatives. They advise the governments of the Länder on vocational training matters. At the regional level, the



business community's organizations (chambers of industry and commerce, chambers of handicrafts, chambers of agriculture, various other chambers representing the liberal professions) are the competent bodies for consultation, supervision and recognition of vocational training in accordance with the relevant legislation.

Institutions of higher education have the status of a public law corporation and are, as a rule, public institutions under the authority of the Länder. They have the right of self-administration within the framework of the law. The higher education institutions draw up their own statutes which require the approval of the Land in which they are situated. Within the Land governments, responsibility for the higher education institutions lies with the ministries responsible for science and research. In addition to the higher education institutions to which access is open to all, there are some specialized institutions with restricted access which are maintained by the Federation and the Länder.

The general principles for the organization and administration of higher education institutions and for the academic and artistic staff, including the participation of all members of these institutions in self-administration are laid down in the Framework Act for Higher Education. It is on the basis of these principles that the organization and administration of higher education institutions are regulated in detail by Länder legislation for those higher education institutions that come within the purview of each Land. In administrative matters there is a cooperative relationship between the responsible Land ministry and the higher education institution. Within a unitary administration the latter's functions include both academic matters and governmental matters such as personnel, economic, budgetary and financial administration. Independent of this, legal supervision and, to a certain extent, academic supervision, the power of establishment and organization and authority over financial and staffing matters all lie with the responsible Land ministry or government.

In 2006, the federal system underwent an extensive reform which resulted in a shifting of responsibility from the Federal Government to the Länder, especially in the area of higher education. Likewise, the system of higher education taxation and financing is currently undergoing a phase of change. In place of detailed state control, institutions are increasingly acting independently. First and foremost, reform measures affect allocation modalities. To a growing extent, budgets funds are assigned according to agreements on objectives and performance-based parameters. As a result of deregulation, higher education institutions have been awarded increased influence in areas of organization and staff. In joint agreements on objectives, state and higher education institutions define services to be provided. These agreements are also increasingly used as a guiding function within institutions. The growing autonomy of higher education institutions is also reflected in their increased rights concerning the students' selection process. In the meantime, the Länder have now the option of imposing tuition fees on students. The first Länder went ahead with this option in the 2006/07 winter semester and imposed tuition of, normally, up to €500. Parallel to this, loan systems are being developed which allow for payback of funds after graduation and given adequate earnings.

In order to receive accreditation, a degree programme must meet the requirements of the Qualifications Framework for German Higher Education Degrees



adopted in April 2005. The Foundation for the Accreditation of Degree Courses in Germany (the **German Accreditation Council**) has been established at the beginning of 2005. The task of the accreditation process is the assurance of technical standards in regards to the content which includes reviewing the degree programme concept, the educational feasibility of programme options, the quality of instruction as well as reviewing the professional relevance and promoting gender equality. As a rule, accreditation and re-accreditation are requirements for the introduction of bachelor's and master's degree programmes. The accreditation system comprises local agencies, which carry out the accreditation of degree programmes and one central body (the Accreditation Council), which accredits and re-accredits the agencies and defines the requirements for the procedure so that accreditation is executed according to reliable, transparent standards. At the same time the Council makes certain that the concerns of the entire system for which the community of Länder are responsible are taken into consideration in the context of the accreditation process. The state is not directly involved in the accreditation procedures. There are no differences between external education evaluation and accreditation. With resolutions between December 2005 and June 2006, the German Accreditation Council revised all fundamental procedure regulations and accreditation criteria thereby adopting the European Standards and Guidelines (ESG). The accreditation agencies are formally recognized by the Accreditation Council and bound to observe the ESG by corresponding provisions. For non-state higher education institutions a procedure of institutional accreditation has been introduced. Private higher education institutions have to be accredited by the **German Science Council**, if possible prior to beginning operations, but at the latest prior to final recognition by the Länder. In this regard, the German Science Council passed procedural principles and criteria for institutional accreditation on 16 July 2004. (KMK and BMBF, 2006).

As described above, responsibility for schools lies with the Ministers of Education and Cultural Affairs, whilst it is the ministries responsible for science and research that are in charge of higher education. Exceptions are the universities for the German Armed Forces and *Fachhochschulen* (universities of applied sciences) for Federal and Land public administration. In addition, Germany has several church-run institutions of higher education, which have the status of a public-law corporation, and some higher education institutions maintained by private bodies. The role of ministries other than the science and research departments is the supervision of the training for future civil servants at the middle echelon level in federal, regional and local authorities offered by a special type of *Fachhochschulen*, i.e. the colleges for public administration (*Verwaltungs-fachhochschulen*). The ministries are responsible for the supervision of the training within their purview (for example the Interior Ministries at federal and Land level exercise supervision of the training in public administration).

The instrument for cooperation and coordination in the field of education among the Land governments is the **Standing Conference of the Ministers of Education and Cultural Affairs** of the Länder in the Federal Republic of Germany (*Ständige Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland*). The Standing Conference is based on an agreement between the Länder and deals with cultural policy matters of supra-regional importance, with the aim of forming a common viewpoint and a common will as well as representing common interests. Cultural policy is here understood in a very wide sense, incorporating



education, higher education and research, cultural affairs and sport. Resolutions of the Standing Conference can only be adopted unanimously. They have the status of recommendations - with the political commitment of the competent Ministers to transform the recommendations into law, however - until they are enacted as binding legislation by the parliaments in the sixteen Länder.

In order to guarantee the basic rights of the individual to a free choice of profession and of the place of training throughout Germany, co-operation takes place with the aim of creating a common and comparable basic structure for the school system and, in terms of quality and structure, comparability throughout higher education and research. To a large extent this co-operation has indeed led to a harmonization of structures.

On the basis of an agreement between the Länder on the standardization of the school system (*Hamburger Abkommen*) reached in 1964 and amended in 1971, the following fundamental structures of the Länder education systems were standardized: the beginning and duration of full-time compulsory education, the dates for the start and end of the school year, the length of school holidays, the designation of the various educational institutions and their organization, the possibility of transfer from one school type to another, the beginning of foreign language learning and the sequence of language options, the recognition of leaving certificates and teacher training certificates, and the designation of grade scales for school reports and teacher training examinations. Through supplementary resolutions, the Standing Conference has agreed further fundamental common features for the school system as well as mutual recognition of qualifications from general education and vocational schools in all Länder.

In the higher education sector, the Länder have also come to a variety of agreements. For the *Fachhochschulen*, an agreement on standardization was reached in 1968 and, most recently, in 1996 an agreement was made to guarantee standard terms for branches of study and academic degrees at *Fachhochschulen* and their comparability in the higher education sector as a whole. Through cooperation between the Standing Conference of the Ministers of Education and Cultural Affairs, on the one hand, and the association of institutions of higher education as represented by their rectors or presidents, the **Conference of Rectors**, on the other, it has been possible to bring together governmental administration and self-administration in the field of higher education. This co-operation has led, among other things, to agreements on the content and form of state examinations and academic examinations at institutions of higher education.

The body responsible for joint educational planning and research promotion, in which the Federal Government and the governments of all the Länder are represented, is the *Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung* (BLK), established under an agreement in 1970 as a permanent forum for the discussion of all questions of education and research promotion which are of common interest to Federation and Länder and for the presentation of recommendations to the heads of the Federal and Länder governments.

Under the Higher Education Institutions Construction Act of 1969 the **Planning Committee for the Construction of Higher Education Institutions** was



set up to regulate co-operation between the Federation and the Länder in the joint task of the “Expansion and construction of institutions of higher education, including university clinics.” The committee is responsible for the medium-term planning of construction measures in the higher education sector. The Federal Minister for Education, Science, Research and Technology, the Federal Minister of Finance and one Minister or Senator per Land sit on the committee.

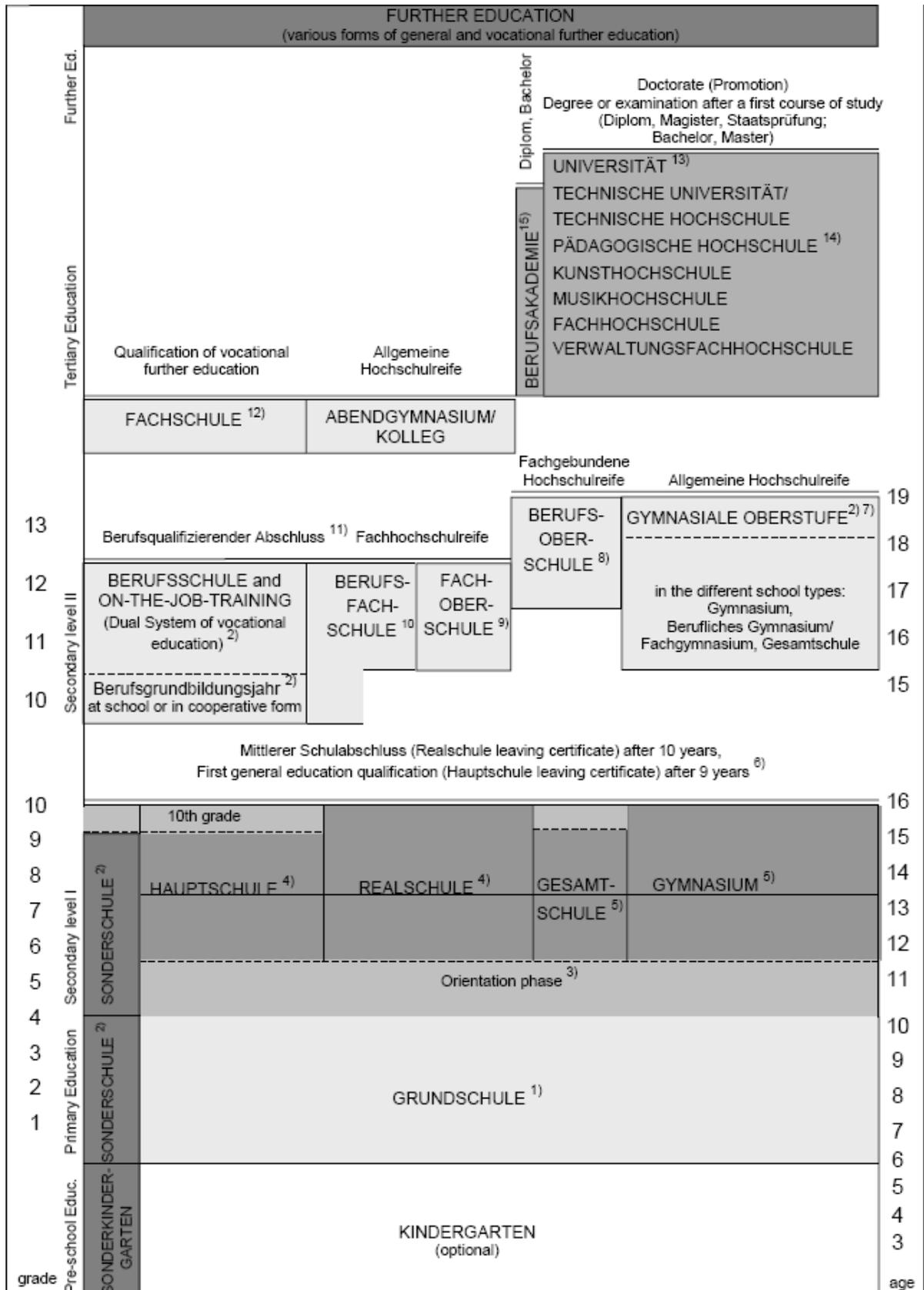
Under an agreement between the Federation and the Länder, the **Science Council** was established in 1957. It has the task of drawing up recommendations on the content and structural development of higher education, science and research. The Science Council is made up of scientists, recognized public figures and representatives from the Federal and Länder governments.

Due to the division of responsibilities between the Federation and the Länder for in-company vocational training and vocational education in schools, the **Coordinating Committee on Training Regulations and Framework Curricula** was set up under an agreement of 1972. Its function is to clear up fundamental issues in the co-ordination of in-company vocational training and vocational education in schools in the recognized occupations requiring formal training and to agree training regulations and framework curricula.



## Structure and organization of the education system

### Germany: structure of the education system



**Notes:**

Basic structure of the education system. Lower secondary education (secondary level I) is portrayed in line with the distribution of the school population in Grade VIII as per 2004 taken as a national average: *Hauptschule* 22.5%, *Realschule* 25.2%, *Gymnasium* 30.4%, *Gesamtschule* 8.6%, types of schools with several courses 7.7%, special schools 5.0%.

The ability of pupils to transfer between school types and the recognition of school-leaving qualifications is basically guaranteed if the preconditions agreed between the Länder are fulfilled. The duration of full-time compulsory education (compulsory general education) is nine years (ten years in four of the Länder) and the subsequent period of part-time compulsory education (compulsory vocational education) is three years.

1. In some Länder special types of transition from pre-school to primary education (*Vorklassen*, *Schulkindergarten*) exist. In Berlin and Brandenburg the primary school comprises six grades.
2. The disabled attend special forms of general education and vocational school types partially integrated with non-handicapped pupils) depending on the type of disability. Designation of schools varies according to the law of each Land.
3. Irrespective of school type, Grades V and VI constitute a phase of particular support, supervision and orientation with regard to the pupil's future educational path and its particular focuses. In some Länder, the orientation stage (*Orientierungsstufe* or *Förderstufe*) is organized as a separate organizational unit independent of the standard school types.
4. The *Hauptschule* and *Realschule* courses are also offered at schools with several courses of education, for which the names differ in the various Länder. The *Mittelschule* (Sachsen), *Regelschule* (Thüringen), *Sekundarschule* (Bremen, Sachsen-Anhalt) *Erweiterte Realschule* (Saarland), *Integrierte Haupt- und Realschule* (Hamburg), *Verbundene Haupt- und Realschule* (Hessen, Mecklenburg-Western Pomerania) and *Regionale Schule* (Rheinland-Pfalz, Mecklenburg-Western Pomerania), as well as comprehensive schools (*Gesamtschulen*) fall under this category.
5. The *Gymnasium* course of education is also offered at comprehensive schools (*Gesamtschulen*). In the cooperative comprehensive schools, the three courses of education (*Hauptschule*, *Realschule* and *Gymnasium*) are brought under one educational and organizational umbrella; these form an educational and organizational whole at the integrated *Gesamtschule*. The provision of comprehensive schools varies in accordance with the respective educational laws of the Länder.
6. The general education qualifications that may be obtained after Grades IX and X carry particular designations in some Länder. These certificates can also be obtained in evening classes and vocational schools.
7. Admission to the *Gymnasiale Oberstufe* requires a formal entrance qualification which can generally be obtained after Grade X. In the majority of Länder the *Allgemeine Hochschulreife* can generally be obtained after the successful completion of thirteen school years (nine years at the *Gymnasium*). Yet in almost all Länder the gradual conversion to eight years at the *Gymnasium* is currently under way, where the the *Allgemeine Hochschulreife* can be obtained after a twelve-year educational programme.
8. The *Berufsoberschule*/Grade XIII of the *Fachoberschule* has so far existed in a few Länder and offers school-leavers with the *Mittlerer Schulabschluss* who have completed vocational training or five years' working experience the opportunity to obtain the *Fachgebundene Hochschulreife*. Pupils can obtain the *Allgemeine Hochschulreife* by proving their proficiency in a second foreign language.
9. The *Fachoberschule* is a school type lasting two years (Grades XI and XII) which takes pupils who have completed the *Mittlerer Schulabschluss* and which qualifies them for higher education *Fachhochschulreife*. Students who have successfully completed the *Mittlerer Schulabschluss* and have been through initial vocational training can also enter the *Fachoberschule* directly in Grade XII.
10. *Berufsfachschulen* are full-time vocational schools differing in terms of entrance requirements, duration and leaving certificate. There is a special form of the two-year *Berufsfachschulen* that requires a *Mittlerer Schulabschluss* for admission leading to a state-recognized examination as assistant. One-year or two-year courses at *Berufsfachschulen* offer basic vocational training. Under certain conditions the *Fachhochschulreife* can be acquired on completion of a course lasting a minimum of two years.
11. Extension courses are offered to enable pupils to acquire qualifications equivalent to the *Hauptschule* and *Realschule* leaving certificates.
12. *Fachschulen* offer continuing vocational training (one to three years of study) and as a rule require the completion of relevant vocational training in a recognized occupation and subsequent employment. In addition, the *Fachhochschulreife* can be acquired under certain conditions. *Fachschulen* are classified in the tertiary sector.
13. Including institutions of higher education offering courses in particular disciplines at university level (e.g. theology, philosophy, medicine, administration science, sport).



14. *Pädagogische Hochschulen* (only in Baden-Württemberg) offer training courses for teachers at various types of schools. In specific cases, study courses leading to professions in the area of education and pedagogy outside the school sector are offered as well.

15. The *Berufsakademie* is a tertiary sector institution in seven Länder offering academic training at a *Studienakademie* (study institution) combined with practical in-company professional training with the principle of the dual system. (January 2006).

### Glossary:

**ABENDGYMNASIUM:** Educational establishment offering evening classes for adults to obtain the general higher education entrance qualification.

**ABITURPRÜFUNG:** Examination leading to the *Allgemeine Hochschulreife* usually taken at the end of the upper level of the gymnasium. In the *Abitur* examination, candidates are examined in four subjects. In some Länder, candidates are examined in a fifth subject or a particular achievement is incorporated in the examination. Each of the following three subject areas must be part of the examination: languages, literature and the arts; social sciences; mathematics, natural sciences and technology.

**ALLGEMEINE HOCHSCHULREIFE:** General higher education entrance qualification. It entitles holders to admission to all fields of study at all higher education institutions and is usually obtained at the end of the upper level of gymnasium by passing the *Abitur* examination.

**BERUFLICHES GYMNASIUM:** Upper level of the gymnasium with a career-oriented or technical bias (Grades XI-XIII) which leads to a general university entrance qualification. Career oriented-subject areas and focuses such as economics and engineering are added to the subjects otherwise available at the general education gymnasium.

**BERUFSFACHSCHULE:** Full-time vocational school at the upper secondary level preparing students for a specific occupation and offering a wide range of branches and courses of varying duration.

**BERUFSGRUNDBILDUNGSJAHR:** Basic vocational training year at the upper secondary level, i.e. basic training in one of 13 vocational fields which may be counted as the first year of vocational training within the dual system. The year may be made up of full-time instruction or may be a combination of school and in-company training.

**BERUFSSCHULE:** Part-time vocational school at the upper secondary level providing instruction in general and vocational subjects to trainees receiving vocational education and training in the dual system.

**FACHHOCHSCHULE:** University of applied sciences. A type of higher education institution offering application-oriented teaching and research, particularly in engineering, business, administration, social services and design.

**FACHOBERSCHULE:** Technical secondary education school offering two-year courses (Grades XI-XII) in various subject areas leading to a qualification granting access to *Fachhochschulen*. The first year consists of both practical training in the workplace and lessons, whilst the second year covers general and subject-specific lessons.

**FACHSCHULE:** Institution providing continuing vocational training.

**GESAMTSCHULE:** A type of school (comprehensive school) at the lower secondary level offering several courses leading to different qualifications. It can be of two types. In the cooperative type, pupils are taught in classes grouped according to the different qualifications available, whilst in the integrated type, pupils are set in courses grouped according to level of proficiency for a number of core subjects, but taught together as a year group for all other subjects. A number of schools also have the upper secondary level, organized as the *Gymnasiale Oberstufe*.

**GRUNDSCHULE:** Primary school marking the beginning of compulsory education attended by all children once they have reached the age of 6 years. It comprises four grades, except in Berlin and Brandenburg where it covers six grades.

**GYMNASIALE OBERSTUFE:** Upper level of the gymnasium normally comprising Grades XI-XIII (in some Länder Grades X-XII or XI-XII) which offers general education programmes concluded by the final examination (*Abitur*) leading to the general higher education entrance qualification.

**GYMNASIUM:** Secondary education school (covering Grades V-XIII or V-XII) providing an in-depth general education aimed at the general higher education entrance qualification. At present, in almost all Länder, there is a change from the nine-year to the eight-year gymnasias. See also *Gymnasiale Oberstufe*.

**HAUPTSCHULE:** Lower secondary education school (normally comprising Grades V-IX) providing a general basic education.



**KOLLEG:** Educational establishment where adults attend full-time classes to obtain the general higher education entrance qualification.

**KUNSTHOCHSCHULE/MUSIKHOCHSCHULE:** College of art/College of music.

**PADAGOGISCHE HOCHSCHULE:** A type of higher education institution which exists only in one Land (Baden-Württemberg) equivalent in status to the universities, offering courses of study for teaching careers at primary level and certain teaching careers at lower secondary level. In specific cases, study courses leading to professions in the area of education and pedagogy outside the school sector are offered as well.

**REALSCHULE:** Lower secondary education school (normally covering Grades V-X) providing pupils with a more extensive general education and the opportunity to enrol in upper secondary education programmes leading to vocational or higher education entrance qualifications.

**SONDERSCHULE:** School for pupils with special education needs that cannot be adequately assisted in mainstream schools.

**TECHNISCHE HOCHSCHULE:** A type of higher education institution equivalent in status to university. Its focus traditionally lies in natural science and engineering.

**VERWALTUNGSFACHHOCHSCHULE:** A special type of *Fachhochschule* maintained by the Federation or a Land which trains young people to take up higher civil service grade posts in a particular sector of public administration.

## Pre-school education

Pre-school education is provided by institutions catering to children between the ages of 3 and 6 years (mainly kindergartens) and through schemes for children who, though they have reached school age, have not yet attained a sufficient level of development to attend a school (*Schulkindergärten* or *Vorklassen*). Some Länder have care facilities for children between the ages of four months and 6 or 12 years. Children under the age of three may be looked after in crèches (*Kinderkrippen*) or, in mixed-age groups, in daycare centres for children, together with children between 3 to 6 or 12 years of age. Pre-school education in the *Kindergarten* is not part of the state-organized school system. Attendance is usually voluntary.

## Primary education

Primary education is the first step of compulsory schooling and covers Grades I-IV, or Grades I-VI in Berlin and Brandenburg. All children attend the primary school as part of their compulsory schooling between the ages of 6 and 10 (in Berlin and Brandenburg between the ages of 6 and 12 years).

## Secondary education

Secondary education breaks down into lower secondary level (*Sekundarstufe I*, secondary level I), which comprises Grades V-X or VII-X, and upper secondary level (*Sekundarstufe II*, secondary level II), which comprises all the courses of education that build on the foundations laid in lower secondary. Lower secondary education caters to 10-15/16-year-old pupils, and upper secondary education to 15/16-19-year-olds. Both age groups are required to attend school: the 10-15/16-year-olds full-time and the 16-19-year-olds part-time for three years or until they have reached the age of 18, unless they are attending a full-time school. The organization of the secondary school system (Grades V to XII/XIII) in the Länder is characterized by division into the various educational paths with their respective leaving certificates and qualifications for which different school types are responsible. Secondary education



schools offer general education, a combination of general and vocational education, or vocational education. In the majority of the Länder general secondary education is offered at the *Hauptschule* (basic general education school, usually covering Grades V-IX), the *Realschule* (school providing more extensive general education, usually Grades V-X), *Gymnasium* (school providing an in-depth general education and covering both lower and upper secondary education), and *Gesamtschule* (comprehensive school). Normally, Grades V and VI of all general education schools represent a phase of particular supervision and orientation with regard to the pupil's future educational path and its particular direction. The orientation stage can also be organized as a separate unit independent of the school types (in this case the secondary schools subsequently attended will begin with the seventh grade). Once pupils have completed compulsory schooling (generally at age 15) they move to the upper secondary level. The type of school entered depends on the qualifications and entitlements obtained at the end of lower secondary education. The range of programmes offered includes full-time general education and vocational schools, as well as vocational training within the dual system.

At the end of the upper level of the gymnasium (normally Grade XIII) students sit the *Abitur* examination leading to the general higher education entrance qualification, which grants access to all fields of study at all higher education institutions. The general higher education entrance qualification (*Fachhochschulreife*, *Hochschulreife* or an equivalent qualification) is generally obtained at the age of 18/19 years. There is no homogeneous age structure of students.

Higher education is offered at universities and equivalent higher education institutions (*Technische Hochschulen/Technische Universitäten*, *Universitäten-Gesamthochschulen*, *Pädagogische Hochschulen*, theological colleges and others) and colleges of art and music. Tertiary-level education outside the higher education system is offered at universities of applied sciences (*Fachhochschulen*) and professional academies (*Berufsakademien*).

A standard period of study (*Regelstudienzeit*) is fixed in the examination regulations (*Prüfungsordnungen*) for each course. The regulations state the time in which a course of studies with the intended examination can be completed. Eight to ten semesters are laid down for most programmes leading to the *Diplom*, *Magister* or *Staatsexamen* (six years in the case of long-cycle programmes, i.e. medicine, veterinary medicine, and dentistry). On average, however, students take one or two years longer to complete, i.e. many students only attain the first degree after studying for five years or more. The total standard period of study for consecutive programmes leading to a bachelor's or a master's degree is a maximum of five years. The standard period of study for a bachelor's degree is between three and four years and for a master's degree one to two years. In December 2004, the Standing Conference passed a resolution stipulating that programmes offered at colleges of art and music should also be included in the consecutive structure of programmes leading to bachelor's and master's degrees. At universities of applied sciences eight semesters, including one or two semesters of work experience, are normally required for programmes leading to the award of the *Diplom* (on average, students take one or two semesters longer to complete). Programmes offered at professional academies generally last three years. There are also other special graduate programmes which may be taken after the completion of a first degree; these courses last two to four semesters and lead to the



award of a certificate stipulating the level achieved or to a further higher education degree. Holders of a first degree (*Magister, Diplom, Staatsexamen*, master's degree, as well as well-qualified holders of a *Diplom* obtained at a university of applied sciences who have successfully undergone a procedure to assess their suitability for a doctoral programme) can be admitted to doctoral studies. Programmes leading to a doctoral degree generally require three to four years of full-time study, but may also last longer. The new degree structure introduced within the framework of the implementation of the Bologna process is expected to replace the traditional system by 2010. In the 2004/05 summer semester, 26.3% of all courses offered at higher education institutions were bachelor's and master's degree programmes. The percentage increased to about 45% for the 2006/07 winter semesters (KMK and BMBF, 2006).

The weekly teaching periods laid down by the Ministries of Education and Cultural Affairs of the *Länder* for the different types of primary and secondary schools may be distributed over five or six days in the week. In *Länder* with a six-day school week, there are usually two Saturdays per month on which no lessons take place. In some *Länder*, the responsible Ministry of Education and Cultural Affairs has introduced a five-day week for all schools.

With a five-day school week, teaching takes place on 188 days a year on average. In the case of a six-day week, the number of days on which lessons are taught increases to 208. However, the total number of teaching hours per year is the same regardless of whether teaching is carried out on the basis of a five-day or six-day week, since the lessons which are held on a Saturday in the six-day week are distributed among the other weekdays in the five-day week. The half-day school is the traditional form of teaching. All of the *Länder* are currently in the process of expanding their provision of care and supervision for children outside lesson time.

In primary school, the number of weekly periods increases from seventeen to twenty-three in Grade I to twenty-four to twenty-seven in Grade IV, depending on the particular *Land*. Each period is normally forty-five minutes long. At lower secondary level, pupils generally have twenty-eight weekly periods in compulsory and optional subjects in Grades V and VI of all types of school, and thirty periods in Grades VII-X. Each period normally lasts forty-five minutes. At upper secondary level, there are around thirty weekly periods in the *Gymnasiale Oberstufe*, of which twenty are spent on compulsory subjects and ten on optional subjects which must be completed in the form of basic and advanced courses.

At full-time vocational schools, thirty weekly periods are required at the two-year *Berufsfachschulen*. At least eight periods are compulsory in Grade XI of *Fachoberschulen*, together with practical on-the-job training while at least thirty weekly periods of general and specialist lessons are required in Grade XII. As for vocational training in the dual system (*duales System*), where initial vocational training is carried out jointly in a company and in the *Berufsschule*, at least twelve weekly periods of teaching are required at the *Berufsschule*; teaching may also be received in coherent blocks (*Blockunterricht*).

The academic year in higher education is divided into semesters. At universities, the summer semester runs from April to September (at *Fachhochschulen*



from March to August), the winter semester from October to March (at *Fachhochschulen* from September to February). Lectures in the winter semester are usually held from late September/early October until mid/late February at universities and *Fachhochschulen* respectively. In the summer semester, lectures take place from mid April until mid July at universities, from mid March until mid July at *Fachhochschulen*. A period of three months without lectures at *Fachhochschulen* and five months at other higher education institutions allows students time for private study, as well as time to prepare for classes, complete essays or take part in practical work experience and its examinations.

## The financing of education

The financing of education from the public purse is based on the following arrangements: (i) most educational institutions are maintained by public authorities; (ii) they receive only a negligible proportion of their funds from pupils or students fees and by far the greater part through direct allocations from public budgets; (iii) certain groups undergoing training receive a government grant mainly to provide them with the money they need to live; (iv) the public financing arrangements for the education system are the result of decision-making processes in the political and administrative system in which the various forms of public spending on education are apportioned between Federation, Länder and local authorities and according to education policy and objective requirements.

The political and administrative hierarchy in the Federal Republic of Germany is made up of three levels: (i) Federation; (ii) Länder; and (iii) local authorities (*Kommunen*), i.e. districts, municipalities with the status of a district, and communes forming part of districts. Decisions on the financing of education are taken at all three levels, but over 90% of the funds are provided by the Länder and the local authorities.

In 2003, the education budget of the Federation, the Länder and the local authorities (pre-school sector, out-of-school education, schools, higher education, continuing education, financial assistance measures, such as assistance for pupils and students, joint research promotion by the Federation and the Länder) totalled €35.4 billion. Thus, in 2003 the education budget (basic funds) made up 4.04% of gross domestic product and 16.95% of the total public budget of the Federal Republic of Germany. Broken down, this amounts to 2.26% of the total public budget for the pre-school sector and out-of-school education; 9.81% for schools; 3.75% for higher education; 0.42% for continuing education; 0.71% for assistance schemes. Expenditure for joint research promotion by the Federation and the Länder amounted to €4.9 billion or 0.90% of the total public budget. The Federation contributed 4.6%, the Länder 74.7% and the local authorities (*Kommunen*) 20.7% to the total expenditure for education.

In addition, the private sector in 2003 also provided the costs (some €14.7 billion) for in-company training within the dual system, which is maintained by industry and by other training companies and institutions. The vocational schools (*Berufsschulen*) which are, together with the training companies, jointly responsible for fulfilling the educational aims of the dual system receive public financing.



Total education expenditure on the part of the Länder and the local authorities rose in all areas between 1993 and 2003, increasing from €68 billion in 1993 to €81.4 billion in 2003.

Pre-school education is not a part of the state school system, and kindergarten attendance is not, as a general rule, free of charge. Institutions providing pre-school education are funded by public and non-public bodies, i.e. by local authorities and churches. As a rule, organising bodies of both the voluntary sector and public child and youth welfare services receive financial support from the Länder for the material and staffing costs of the kindergarten. In addition, parental contributions are levied to help cover costs; these depend on parents' financial circumstances.

The state school system is financed on the basis of a division of responsibilities between the Länder and the local authorities (*Kommunen*). While the latter bear the costs of non-teaching staff and the material costs, the Ministries of Education and Cultural Affairs of the Länder are responsible for the teaching staff payroll. Attendance of public-sector schools is free of charge. In order to balance out school costs between the local authorities and the Länder, the communes and districts have certain expenses (e.g. for transporting pupils to and from school) reimbursed from the budget of the Ministry of Education and Cultural Affairs as the highest school supervisory authority. The Land also supports the local authorities through one-off grants, for example contributions to school construction costs or certain subsidies for running costs.

Where schools have catchment areas extending beyond the local area (e.g. certain special schools and *Fachschulen*), the Land is usually the maintaining body (*Schulträger*) and therefore also responsible for funding the material costs and the non-teaching staff payroll. The payments made by the local authorities cover around 20% of expenditure on the school system, while the Länder pay around 80% of the overall costs of financing the school system.

The dual system of vocational training operates at two locations, namely within companies and at the vocational school. Vocational training outside the school sector is mainly financed by companies, whose expenditure was about €4.7 billion in 2002. In 2002, expenditure for vocational schools, the majority of which are financed by the Länder, was €6.85 billion. In the last two decades, as a result of the decline in the in-company training offer, the amount of public funding for vocational training outside the school sector (e.g. for the promotion of additional vocational training places or for the promotion of vocational training for disadvantaged young people) has increased considerably. Whereas, in 1980 the expenditure was €4.1 billion, by 2002 the amount had risen to just less than €10 billion. Overall, the costs for vocational training within the dual system have shifted from being company-funded to publicly-funded.

Public higher education institutions are mainly financed from the budget of the relevant Ministries of the Länder. The funding system of higher education is undergoing a period of radical change: detailed state control through the Länder is increasingly being replaced by financial autonomy of higher education institutions. Expenditure of the Länder on higher education amounted to €6.7 billion in 2003. In the same year the total expenditure on higher education amounted to €18.9 billion, of



which 11.5% was provided by the Federation and 88.5% by the Länder. In higher education no registration fees, semester fees and examination fees are imposed, neither on German nor on non-German students (with the exception of a few private institutions). However, all students have to pay a small contribution for the use of the institution's social facilities. If the institution has an organ of student self-administration (a General Student Committee) students also pay an additional contribution.

The financing procedure comprises several stages. First the higher education institution notifies the Land authorities of its finance requirement in the form of an estimate to be included in the budget of the relevant ministry. The entire budget is then compiled by the competent minister by agreement with the other responsible ministries and finally included in the budget proposals the government presents to parliament for its approval. The funds are made available once the Parliament has discussed the budget and adopted it. They are then distributed and spent according to requirements within the institution, a process which is again supervised by the Land. By contrast, it is not the Senator (i.e. Minister) responsible who establishes the budgetary plans of the universities in Berlin but the board of trustees, made up of members of the Land government and the higher education institution. The funds provided by the Länder from their budgets cover personnel and material costs as well as investments, in other words expenditure on property, buildings and equipment. Where the total costs for the construction and expansion of higher education institutions exceed a certain sum the Federation provides co-funding of 50% within the framework of the joint task of the "Expansion and construction of higher education institutions including university clinics" in accordance with Article 91(a) of the Basic Law and with the Higher Education Institutions Construction Act of 1969. The funds allocated from the budget of the relevant ministries in the Länder are the main source of finance for higher education institutions. However, members of the institutions engaged in research are also entitled, within the scope of their professional responsibilities, to carry out research projects which are not financed through the Land budget, but by third parties, e.g. organizations concerned with the promotion of research.

The public sector, industry, social groups, continuing education institutions and public broadcasting corporations as well as the general public bear responsibility for continuing education. This joint responsibility is reflected by the funding principle, which obliges all the parties concerned to contribute towards the cost of continuing education in relation to their share and according to their means. Public-sector funding (local authorities, Länder, the Federal Government, the European Union) includes the following areas: institutional sponsorship of recognized continuing education institutions by the Länder on the basis of continuing education legislation, institutional sponsorship of local adult education centres (*Volkshochschulen*) and sponsorship of activities of continuing cultural education by the local authorities, grants for adults seeking to obtain school-leaving qualifications under the Federal Training Assistance Act, continuing education for employees of the Federal Government, Länder and local authorities.

Industry provides a considerable proportion of funding for schemes under which people can obtain and improve vocational skills and qualifications. Companies spend substantial funds on continuing education for their staff. This spending came to



an estimated Euro €10 billion in 2003, including the funding of private non-profit organizations and the spending of the authorities at local, regional and federal level for the continuing education and training of their staff. Further training schemes designed to meet the needs of the labour market, which are targeted especially at the unemployed and those facing the threat of unemployment, are funded under the Social Security Code III from the unemployment insurance fund. A total of €4.3 billion was spent from this fund on further training, retraining and integration into the labour force in 2003.

Social groups (churches, trade unions, and so on) also bear a proportion of the cost of running their continuing education institutions. They guarantee the widest possible access to continuing education by setting their fees at an appropriate level. Continuing academic education at higher education institutions is funded by the fees of course members. Public broadcasting companies finance their contribution towards continuing education, which is one of their statutory obligations, through licence fee revenue.

The maintaining bodies of private schools receive funding from the Länder in various forms. All of the Länder guarantee standard financial support to schools entitled to such assistance; this includes contributions to the standard staff and material costs. The Länder either grant a lump-sum contribution, calculated on the basis of specific statistical data and varying according to school types, or the individual school may have to set out its financial requirements and receive a percentage share in subsidies. In all cases, the reference value is the situation pertaining to costs in the public-sector schools. As well as standard financial support, there are other forms of financial assistance, which may be paid together with that support, such as contributions to construction costs, contributions to help provide teaching aids to pupils free of charge, contributions to old-age pension provision for teachers as well as granting sabbatical leave to permanent teachers with civil servant status while continuing to pay salaries. Parents and guardians may have school fees and transport costs reimbursed. The funds are mostly provided by the Länder, but a small proportion is provided by the local authorities. The majority of *Ersatzschulen* (alternative schools) are, however, maintained by the Catholic and Protestant churches, which fund their schools from their own means to the extent that little or no fees must be charged. The share of public funding in the overall financing of private schools varies between the Länder, and also depends on the type of school (there are also numerous special provisions, for example for approved private schools in contrast to recognized private schools, for boarding schools and for church-run alternative schools).

Non-state higher education institutions are primarily funded by their maintaining bodies. The majority of private institutions receive their original capital from companies or industrial associations, and this money is transferred into a foundation. Alongside the foundation fund, tuition fees and funding from both public and private third parties are important sources of revenue.

Unlike private schools, private higher education institutions only have a limited right to state funding. Many are supported by the Länder in order to be able to cover current staffing and material costs. In accordance with Article 91a of Germany's Basic Law, it is also possible for private institutions of higher education to



qualify for state funding if they fall under the category “joint responsibilities”. In this way, planned investment measures such as extensions and new building work, as well as the acquisition of major equipment, can be financed jointly by the Federation and the Land in which the higher education institution is situated. This does, however, require an ordinance to be passed by the Federal Government so that the institution can be added to the list of institutions as laid down in the Law to promote the construction of higher education institutions. It is also possible for the institutions to receive co-financing from the Federation if the share paid by the Land does not actually come from the Land’s own funds but from private donors.

According to Eurostat, the total public expenditure on education represented 4.60% of GDP in 2004.

## The educational process

In Germany, two aspects of the term curriculum are taken into account: the overall curriculum, which comprises the timetable, textbooks and teacher training; and the syllabus (also referred to as framework plans or framework guidelines), which generally describes the objectives and contents of the subjects. Since 1995, an annual specialist conference has provided a forum for those responsible for the syllabi in the Länder to exchange ideas and experiences about the current status of the syllabi in the respective Länder and to discuss fundamental issues. This conference, which does not make decisions, emerged from the OECD project ‘Curriculum Redefined’ and is organized by a different Land each year.

Syllabi for the primary school as well as for other types of school are the responsibility of the Ministries of Education and Cultural Affairs in the Länder. Almost all Länder have a Land or State institute, namely an authority that is directly subordinate to the ministry and which usually drafts a syllabus. A syllabus is usually drawn up as follows. Once the Ministry of Education and Cultural Affairs of a particular Land has reached the decision to revise or completely reorganize a syllabus, a commission is appointed normally comprising teachers, including headteachers, as well as school inspectors, representatives of the school research institute of the Land and, to a lesser extent, experts in the relevant disciplines from higher education institutions.

As a rule, the commission has to devise a syllabus for a certain subject at a specific type of school. It will work on a draft for months, and often years. The syllabi not only deal with the contents, but also the programme objectives and teaching methods. Experience gained with previous syllabi is taken into account when it comes to devising new ones. In some Länder syllabi are introduced on a trial basis before being finalized and becoming universally valid. Finally, there are set procedures according to which the commission may consult associations and parents’ and pupils’ representative bodies. As soon as a new syllabus has been completed and is introduced on a definitive or preliminary basis at schools, the in-service training institutes for the teaching profession maintained by the Ministries of Education and Cultural Affairs carry out teacher training activities. This is the stage when textbook publishers embark on a revision or completely new edition of their titles.



There are essentially two main ways of preparing teachers for implementing the curriculum correctly: (i) participation in the development of new curricula; experience has shown that participation in syllabus commissions has a strong further training effect; (ii) targeted implementation of the curriculum with specific further training and special materials. Further training takes place at local (within schools), regional and central level. All Länder have institutes or academies of further training. Further training is aimed at teachers, headteachers and civil servants working for the school supervisory authority. Although further training is basically voluntary, the introduction of new curricula can make participation obligatory. This applies in particular to those people carrying out a specific function, for example, within the school supervisory authority or as specialist consultants.

Syllabi are generally formulated on an average level of abstraction. The details are specified locally, for example, by specialist groups or class conferences. The concentration of the state planning premises for the syllabus on more general guidelines is in line with the concept of inner-school development, which grants the individual school greater scope for decision-making. More recent syllabi should thus be understood as indicating directions for the further development of lessons and thus as describing key points of a good lesson as intended for the pupils. In order to clarify the understanding of these intentions, almost all syllabuses contain statements on: (i) the educational and training responsibility of the type of school for which the syllabus is intended; (ii) the interdisciplinary responsibilities and concerns (e.g. teaching on environmental issues, Europe); (iii) the educational and didactic profile of the subjects; and (iv) significant features of the individual school levels or grades from an educational point of view.

The subject-specific details are structured in accordance with the didactic categories of objectives and contents; these are two interrelated categories. These objective-content units are generally compulsory; possible choices and alternatives are marked specifically. The nature of special teaching methods is such that they often serve as a recommendation. This also corresponds to the basic principle of method pluralism; this cannot, however, be arbitrary, since the objectives specify a framework for it.

As a rule, syllabi envisage work as being of an interdisciplinary nature, albeit at different intensities and levels of obligation. The work ranges from cross-referencing of objectives and contents to binding projects and to integrated subject areas (e.g. biology, chemistry and physics are often combined to form a general 'natural science' subject). However, the structural principle of single subjects is generally retained at the gymnasium.

Recently, a core curriculum, also referred to as basic knowledge, has come to play a significant role. This involves establishing those areas of knowledge and behaviour that are essential for understanding the inherent nature of a subject, for interdisciplinary thoughts and deeds and for the progression through the school grades. This sometimes also includes areas that constitute the way the individual sees himself/herself.

In addition to the classical elements of a curriculum theory, such as the degree of separation of the educational categories of targets, contents and methods, or the



consistency between the levels of a syllabus and between contents and objectives, teaching and learning theories have come to assume a particular significance. Alongside elements of an educational theory, these increasingly feature the 'competence models', which emphasize that the curricula are designed so as to enable pupils to acquire a certain competence towards life. The competences at issue are as follows: self-competence, technical competence, social competence, method competence and, as a type of integrative dimension, the competence to act. Elements of an educational theory reflect these competences in view of a dialogue between the individual and the world; this could also be described in terms of the three subdivisions of exploration, interpretation and ordering of the world. Ultimately, all theoretical approaches seem to share the common concern of integrating learning and personality development as closely as possible. Great significance is also attached to learning that is self-directed, increasingly self-responsible and competent. In the curricula, a change from "storing education in schools" to a "dynamic model for the continuous replenishment and renewal of education" is clearly recognizable.

In all Länder, the responsible parties are concerned with the problem of the volume of content in the syllabi. It is a well-known fact that there is a need to reduce the quantity of contents to be learned in order to improve the way in which knowledge is acquired with lasting effect. However, work still has to be done on the criteria that will make a selection of contents, methods and also behavioural modes reasonably plausible and that will legitimize these with the extensive consensus of the professional world as well as of those concerned. It is a question of defining an indispensable core curriculum or basic knowledge, whereby, in the latter case, the term is to be understood in a wider sense as a 'cumulative or intelligent knowledge'.

### Pre-primary education

Pre-school education includes all institutions run by the non-public and public youth welfare services which cater for children from the time they reach the age of 3 until they start school. Under the Child and Youth Welfare Act enacted in 1990, amended in 1996 and 2001, institutions providing pre-school education are called upon to encourage the child's development into a responsible and autonomous member of the community. Their function includes caring for and educating the child. Pre-school education is designed to support and supplement the child's upbringing in the family, compensate for any developmental deficiencies and afford the child optimum opportunities for his/ her development and education. The child is encouraged to develop his abilities through play and other activities suited to children and to learn to live together with the rest of the group. It is also the responsibility of the kindergarten to improve the transfer for children to primary school in line with their level of development.

Pre-school education is not part of the state-organized school system, and the Ministries of Education and Cultural Affairs of the Länder therefore do not adopt regulations governing the timetable in the pre-school sector. Opening hours are arranged by the maintaining bodies, after consultation with the parents, and are therefore varying from one kindergarten to another. In the Länder in western Germany kindergartens generally provide care for children on five weekday mornings, for at least four hours, which should also be guaranteed during school holidays. In some cases, two or three hours' supervision is also offered in the afternoons and is



necessary also during lunch-times. Some kindergartens offer all-day care of a minimum of eight hours and a maximum of twelve hours each day. In the Länder in eastern Germany, children generally attend kindergarten for the whole day on a voluntary basis.

Subjects and weekly teaching hours are not laid down for the kindergarten sector, and there are no syllabi such as those in schools. Work focuses on the following areas: development of the child's physical, mental, emotional and social abilities, development of a sense of responsibility, accustoming the child to a daily routine and to basic hygiene, play and other activities suited to children.

Children's performance at kindergarten is not assessed, as teaching does not take place in the sense of lessons at school. The educational staff monitor children's development and inform parents of their child's progress and of any problems he or she may experience within the group. Particular importance is attached to providing early assistance to children with special education needs. Two types of establishment may fulfil this function: *Sonderkindergärten* (which are sometimes known as *Förderkindergärten*) which care for and support children with disabilities only; and integrative kindergarten which take care of children both with and without disabilities.

For 6-year-olds who have reached compulsory schooling age but whose level of development does not yet allow them to cope with the challenges of primary school *Schulkindergärten* (school-kindergarten) or *Vorklassen* (pre-school classes) have been established. In most Länder the school authorities are authorized by law to require that 6-year-olds attend such institutions. These institutions have organizational links with primary schools. *Schulkindergärten* and *Vorklassen* seek to create and optimize the conditions for the healthy development of the children's ability to understand, show feeling and willpower by nurturing (as far as possible on an individual basis) the children's ability to gain expressions and express themselves, through exercises and the handling of materials designed to arouse and develop attention on the part of the children. The aim is to equip the children for school by channelling their natural urge to play and engage in activity but without anticipating the subject-matter dealt with at school.

In order to guarantee the continuity of early education between the pre-school sector and the primary sector, in 2004, the Standing Conference of the Ministers of Education and Cultural Affairs and the Conference of the Ministers of Youth together adopted a framework for early education in the pre-school sector along with a recommendation to strengthen and further develop the overall relationship between education, upbringing and supervision.

In 2002, 58.6% of children aged 3-4, 85.8% of children aged 4-5, and 92.5% of children aged 5-6 were enrolled at kindergarten or crechès (*Kinderkrippen*, normally for children under age 3). In addition, in 2004/05 there were 2,301 *Schulkindergärten* with 29,396 children enrolled and 604 *Vorklassen* with 18,610 children enrolled. (German Eurydice Unit, 2007).

## Primary education

The compulsory primary school (*Grundschule*) usually covers Grades I-IV (Grades I-VI in Berlin and Brandenburg). All children attend the primary school as part of their compulsory schooling, provided that they are able to follow classes at the required standard. Apart from mainstream primary schools, other types of school included in the primary sector are the special schools (*Sonderschulen*).

Primary school curricula, as well as for other types of school, are the responsibility of the Ministries of Education and Cultural Affairs in the Länder. Syllabi are published as regulations of the Ministry of Education and Cultural Affairs. They take the form of instructions from a higher authority and, as such, are binding on teachers. It is the responsibility of the head teacher to ensure that the current syllabi are taught at his/her school. At the same time, syllabi are formulated in such a general way as to leave the teachers the freedom of teaching methods in practice. Nevertheless all the teachers of a specific subject at one school hold conferences to reach a degree of consensus on methods and assessment criteria.

The tasks and objectives of the primary school are determined by its position within the school system. The primary school's role is to lead its pupils from more play-oriented forms of learning at pre-school level to the more systematic forms of school learning, and also to adapt the form and content of teaching programmes to fit the different learning requirements and capabilities of individual pupils. The aim of the primary school is to provide pupils with the basis for the next educational level and lifelong learning. It should make pupils capable of grasping and structuring their experience of the world around them. At the same time, they should further develop their psychomotor skills and their patterns of social behaviour.

The following areas are to be increasingly included as constant principles in the programme of education at the primary school: language education (encouragement of language development); mathematics (introduction to logical thinking and problem solving); media education (using media in a critical way); aesthetic education (creative activities and sensory experiences); using technology; movement education; introduction to foreign languages; environment and health (treating nature and one's own body in a responsible way); attachment to one's home country or region combined with an international outlook. In addition, in recent years the syllabi of the Länder have increasingly taken into account the concept of lifelong learning. The acquisition of fundamental knowledge, abilities and skills, as well as the acquisition of a knowledge that will serve as an orientation aid for further learning together with the development of key competencies, have become main educational objectives.

Lessons at the primary school initially focus on reading, writing and arithmetic. Teaching takes place both in lessons concentrating on a specific subject or area and in cross-disciplinary classes. As a rule, subjects include: German, mathematics, *Sachunterricht* (see below), art, music, sport and, in most Länder, religious instruction. Several areas, especially German, *Sachunterricht*, drama, music, art and handicrafts, are often brought together to produce lively and varied work on topic focuses or lesson units. In the first two grades, most lessons are with the same class teacher. It helps pupils become accustomed to school life if they can relate to

one teacher rather than having different members of staff for each subject. The principle of class teachers is used to ensure a certain combination of education and teaching, and a consistent pedagogical approach and makes it easier to respond to pupils' individual needs. From Grade III onwards the children increasingly encounter subject teachers, which helps them prepare for the transition to secondary school where subject teachers are the rule. In addition to lessons according to age group, individual Länder provide teaching for mixed age groups for the first two years of school in particular. In these cases, pupils can pass through the first two years of school in one to three years, depending on their own individual progress.

As regards the introduction to foreign languages at primary school age the Länder have developed various approaches. Foreign language teaching in Grades III and IV in the primary school is understood as a distinct course with its own specific didactic methods. It is characterized by play-based learning methods which permit each individual child to make his or her own progress. Some Länder are carrying out projects or fixed curricula, which provide for a more systematic consideration of a foreign language from Grade III onwards, to allow the pupil to take the first steps towards learning a foreign language.

All Länder have introduced foreign language teaching. In October 2004, the Standing Conference released educational standards for the primary sector in the subjects German and mathematics. These relate to general educational objectives and determine which competences and knowledge with regard to relevant content pupils should have attained by the end of Grade IV.

The tables presented below show some examples of weekly lesson timetables in the different Länder:

#### Baden-Württemberg. Primary education: weekly lesson timetable

Subject	Number of weekly periods in each grade			
	I	II	III	IV
Religious instruction	2	2	2	2
German language	6	6	7	7
<i>Heimat- und Sachunterricht</i> (*) [Motherland and discovering the world]	3	3	3	3
Foreign language (French or English)	2	2	2	2
Mathematics	4	5	5	5
Fine arts/Textile work (**)	1	2	3	3
Music	1	1	1	1
Sports (***)	3	3	3	3
<b>Total weekly periods</b>	<b>22</b>	<b>24</b>	<b>26</b>	<b>26</b>
Teacher's support (individual or group)	2	2	3	3

Source: Land Baden-Württemberg 2002. In principle, each teaching period lasts 45 minutes.

(\*) An interdisciplinary subject area which combines geography, history and physics.

(\*\*) In Grades III and IV, two periods are allocated to one subject and one period to the other.

(\*\*\*) In classes where a third period can not be allocated to sports, this will be used for music or handicrafts.

**Bayern. Primary education: weekly lesson timetable**

Subject	Number of weekly periods in each grade			
	I	II	III	IV
Religious instruction/ethics	2	2	3	3
German language			7	7
Foreign language			(2)	(2)
Mathematics			5	5
<i>Heimat- und Sachunterricht</i> (*)	17	17		
[Motherland and discovering the world]			4	4
Music			2	2
Artistic education			1	1
Sports	2	3	3	3
Handicraft/Textile work	1	2	2	2
Teacher support (individual or group)	2	1	1	1
<b>Total weekly periods</b>	<b>24</b>	<b>25</b>	<b>28(29)</b>	<b>28(29)</b>

*Source: Land Bayern, 2000.* Each teaching period lasts 45 minutes. In introducing foreign language teaching (English, French or Italian) in Grades III and IV, six weekly periods will be allocated to German language and one additional period will be added to the total.

(\*) An interdisciplinary subject area which combines geography, history and physics.

**Berlin. Primary education: weekly lesson timetable (guidelines)**

Subject	Number of weekly periods in each grade					
	I (*)	II	III	IV	V	VI
German language		6	7	7	5	5
Mathematics		5	5	5	5	5
Foreign language		–	–	–	5	5
<i>Sachkunde</i> (**) [Discovering the world] (includes: technology, biology, geography, history/social sciences)		3	5	7	–	–
Technology		–	–	–	2	2
Biology		–	–	–	2	1
Geography		–	–	–	1	2
History/social sciences		–	–	–	2	2
Sports		3	3	3	3	3
<i>Bildende Kunst</i> [Fine arts]		2	2	2	2	2
Music		2	2	2	2	2
<b>Total weekly periods</b>	<b>17</b>	<b>21</b>	<b>24</b>	<b>26</b>	<b>29</b>	<b>29</b>

*Source: Land Berlin, 1993–96.* In principle, each teaching period lasts 45 minutes.

(\*) In Grade I an integrated approach is used, as an introduction to the different subjects.

(\*\*) An interdisciplinary subject area which combines natural and social sciences, including environmental issues.

**Brandenburg. Primary education: weekly lesson timetable**

Subject	Number of weekly periods in each grade					
	I	II	III	IV	V	VI
German language and <i>Sachunterricht</i> (*)	9	9	9	10	–	–
German language	–	–	–	–	5	5
Foreign language	–	–	–	–	4	4
Mathematics	4	4	5	5	4	4
Learning natural sciences (biology, physics, work)	–	–	–	–	4	4
Learning social sciences (geography, history, politics)	–	–	–	–	3	3
Life formation, ethics, religion	–	–	–	–	1	1
Aesthetic education (music, art)	2	2	4	4	4	4
Sports	3	3	3	3	3	3
Support/additional lessons	2	2	2	2	2	2
<b>Total weekly periods</b>	<b>20</b>	<b>20</b>	<b>23</b>	<b>24</b>	<b>30</b>	<b>30</b>
Sorbian (Wendish)	1	3	3	3	3	3

Source: Land Brandenburg, 2002. In principle, each teaching period lasts 45 minutes and the timetable above refers to a school year consisting of forty working weeks.

(\*) An interdisciplinary subject area generally aimed at familiarizing pupils with scientific and technical phenomena and with social, economic and historical aspects of their own local area. Lessons are usually centered on technical and natural phenomena that the pupils can observe in the local area and on the economic, legal, political, historical and social conditions.

**Bremen. Primary education: proposed weekly lesson timetable**

Subject	Number of weekly periods in each grade			
	I	II	III	IV
German language	6	5	4	4
Foreign language	–	–	(2)	(2)
Mathematics	5	5	4	4
<i>Sachunterricht</i> (*) [Discovering the world], including textile work and handicraft	2	2	6	6
<i>Biblische geschichte</i> [Religious education]	–	1	2	2
Aesthetic education (including sports, art and music)	6	6	6	6
Interdisciplinary project and teacher support	1	1	2	2
<b>Total weekly periods</b>	<b>20</b>	<b>20</b>	<b>24–26</b>	<b>24–26</b>

Source: Land Bremen, 2001. In principle, each teaching period lasts 45 minutes.

(\*) An interdisciplinary subject area generally aimed at familiarizing pupils with scientific and technical phenomena and with social, economic and historical aspects of their own local area. Lessons are usually centered on technical and natural phenomena that the pupils can observe in the local area and on the economic, legal, political, historical and social conditions.

### Hamburg. Primary education: weekly lesson timetable

Subject	Number of weekly periods in each grade			
	I	II	III	IV
German language		6	5	5
Mathematics		5	5	5
<i>Sachunterricht</i> (*) [Discovering the world]	19	3	4	4
Introduction to arts and music:				
– Music/fine arts		4	3	3
– Compulsory electives		1	1	1
Religion	–	–	2	2
English language	–	–	2	2
Sports	3	3	3	3
Free activities	2	2	2	2
Additional lessons	3	3	–	–
<b>Total weekly periods</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>27</b>

Source: Land Hamburg 2002. Each teaching period lasts 45 minutes.

(\*) An interdisciplinary subject area generally aimed at familiarizing pupils with scientific and technical phenomena and with social, economic and historical aspects of their own local area. Lessons are usually centered on technical and natural phenomena that the pupils can observe in the local area and on the economic, legal, political, historical and social conditions.

### Hessen. Primary education: weekly lesson timetable

Subject	Number of weekly periods in each grade			
	I	II	III	IV
Religion	2	2	2	2
German language	5	5	5	5
<i>Sachunterricht</i> (*) [Discovering the world]	2	2	4	4
Mathematics	5	5	5	5
Arts, Handicraft/Textile works, music	3	3	4	4
Sports	3	3	3	3
Introduction to a foreign language	–	–	2	2
<b>Total weekly periods</b>	<b>20</b>	<b>20</b>	<b>25</b>	<b>25</b>
Support/additional lessons	2	2	2	2

Source: Land Hessen, 2002. Each teaching period lasts 45 minutes.

(\*) An interdisciplinary subject area generally aimed at familiarizing pupils with scientific and technical phenomena and with social, economic and historical aspects of their own local area. Lessons are usually centered on technical and natural phenomena that the pupils can observe in the local area and on the economic, legal, political, historical and social conditions.

**Mecklenburg-Vorpommern. Primary education: weekly lesson timetable**

Subject	Number of weekly periods in each grade			
	I	II	III	IV
German language	7	7	7	7
<i>Sachunterricht</i> (*) [Discovering the world]	1	3	4	4
Mathematics	6	6	5	5
Religion/Philosophise with the pupils	1	1	1	1
Handicrafts	1	1	1	2
Arts and creative expression	1	1	1	2
Music	1	1	2	1
Sports	2	3	3	3
Introduction to a foreign language (**)	–	–	(1)	(1)
<b>Total weekly periods</b>	<b>20</b>	<b>23</b>	<b>24(25)</b>	<b>24(25)</b>

Source: Land Mecklenburg-Vorpommern, 2002. Each teaching period lasts 45 minutes.

(\*) An interdisciplinary subject area generally aimed at familiarizing pupils with scientific and technical phenomena and with social, economic and historical aspects of their own local area. Lessons are usually centered on technical and natural phenomena that the pupils can observe in the local area and on the economic, legal, political, historical and social conditions.

(\*\*) Foreign language teaching is being introduced in Grades III and IV.

**Niedersachsen. Primary education: typical weekly lesson timetable**

Subject	Number of weekly periods in each grade			
	I	II	III	IV
German language	5	5	5	5
<i>Sachunterricht</i> (*) [Discovering the world]	2	3	4	4
Mathematics	5	5	5	5
Religion	2	2	2	2
Sports	3	3	3	3
Music/Art, handicraft, textile work	3	3	4	5
<b>Total compulsory weekly periods</b>	<b>20</b>	<b>20(21)</b>	<b>24(23)</b>	<b>24</b>
Additional lessons	0–2	0–2	0–2	0–2
<b>Total weekly periods (max.)</b>	<b>22</b>	<b>22</b>	<b>26</b>	<b>26</b>

Source: Land Niedersachsen, 1999. Each teaching period lasts 45 minutes.

(\*) An interdisciplinary subject area generally aimed at familiarizing pupils with scientific and technical phenomena and with social, economic and historical aspects of their own local area. Lessons are usually centered on technical and natural phenomena that the pupils can observe in the local area and on the economic, legal, political, historical and social conditions.

### Nordrhein-Westfalen. Primary education: typical weekly lesson timetable

Subject	Number of weekly periods in each grade			
	I	II	III	IV
German language, <i>Sachunterricht</i> (*) [Discovering the world], mathematics, teacher support	11–12	12–13	14–15	15–16
Art/Textile work, music	3	4	4	4
Religious instruction	2	2	2	2
Sports	3	3	3	3
<b>Total weekly periods</b>	<b>19–20</b>	<b>21–22</b>	<b>23–24</b>	<b>24–25</b>

Source: Land Nordrhein-Westfalen, 1999. Each teaching period lasts 45 minutes.

(\*) An interdisciplinary subject area generally aimed at familiarizing pupils with scientific and technical phenomena and with social, economic and historical aspects of their own local area. Lessons are usually centered on technical and natural phenomena that the pupils can observe in the local area and on the economic, legal, political, historical and social conditions.

### Rheinland-Pfalz. Primary education: weekly lesson timetable

Subject	Number of weekly periods in each grade			
	I	II	III	IV
Religion	2	2	2.5	2.5
German language, <i>Sachunterricht</i> (*) [Discovering the world]	6.5	6.5	9	9
Foreign language	–	–	1	1
Mathematics	4.5	4.5	4.5	4.5
Music, sports, rhythms, art, handicrafts, textile work	6	6	7	7
<b>Total weekly periods</b>	<b>19</b>	<b>19</b>	<b>24</b>	<b>24</b>

Source: Land Rheinland-Pfalz, 2002. Each teaching period lasts 50 minutes.

(\*) An interdisciplinary subject area generally aimed at familiarizing pupils with scientific and technical phenomena and with social, economic and historical aspects of their own local area. Lessons are usually centered on technical and natural phenomena that the pupils can observe in the local area and on the economic, legal, political, historical and social conditions.

**Saarland. Primary education: typical weekly lesson timetable**

Subject	Number of weekly periods in each grade			
	I	II	III	IV
Religion	2	2	2	2
German language	5	5	6	5
<i>Sachunterricht</i> (*) [Discovering the world]	3	3	3	4
French language	–	–	2	2
Mathematics	4	5	5	5
Fine arts	2	2	2	2
Music	2	2	2	2
Sports	2	2	2	2
<b>Total weekly periods</b>	<b>20</b>	<b>21</b>	<b>24</b>	<b>24</b>

Source: Saarland, 1995. In principle, each teaching period lasts 45 minutes.

(\*) An interdisciplinary subject area generally aimed at familiarizing pupils with scientific and technical phenomena and with social, economic and historical aspects of their own local area. Lessons are usually centered on technical and natural phenomena that the pupils can observe in the local area and on the economic, legal, political, historical and social conditions.

**Sachsen. Primary education: weekly lesson timetable**

Subject	Number of weekly periods in each grade			
	I	II	III	IV
German language	6	5	6	6
Religion/ethics	1	2	2	2
<i>Heimat- und Sachunterricht</i> (*) [Motherland and discovering the world]	3	4	3	4
Mathematics	4	5	5	5
Art education	1	1	2	1
Handicrafts	1	1	1	2
Music	1	1	2	2
Sports	3	3	3	3
Language exercises	–	–	1	1
<b>Total weekly periods</b>	<b>20</b>	<b>22</b>	<b>25</b>	<b>26</b>
Teacher support	2	2	2	2

Source: Land Sachsen, 2002. Each teaching period lasts 45 minutes.

(\*) An interdisciplinary subject area which combines geography, history and physics.

**Schleswig-Holstein. Primary education: typical weekly lesson timetable**

Subject	Number of weekly periods in each grade			
	I	II	III	IV
Religion	2	2	2	2
German language	6	6	6	6
Mathematics	5	5	5	5
<i>Heimat- und Sachunterricht</i> (*) [Motherland and discovering the world]	1	3	4	5
Music	1	1	2	2
Art/Textile work/Technology	2	2	2	2
Sports	2	2	3	3
<b>Total weekly periods</b>	<b>19</b>	<b>21</b>	<b>24</b>	<b>25</b>

Source: Land Schleswig-Holstein, 2001. In principle, each teaching period lasts 45 minutes.

(\*) An interdisciplinary subject area which combines geography, history and physics.

**Thüringen. Primary education: typical weekly lesson timetable**

Subject	Number of weekly periods in each grade			
	I	II	III	IV
German language	(5)	(5)	6	6
<i>Heimat- und Sachkunde</i> (*) [Motherland and discovering the world]	(3)	(3)	3	3
Mathematics	(5)	(5)	5	5
Handicraft	(1)	(1)	1	1
<i>Schulgarten</i> [Gardening]	(1)	(1)	1	1
Artistic education	(1)	(2)	2	2
Music	(1)	(1)	2	2
Religious instruction/ethics	2	2	2	2
Sports	2	2	3	3
Additional lessons (**)	1	2	2	2
<b>Total weekly periods</b>	<b>22</b>	<b>24</b>	<b>27</b>	<b>27</b>

Source: Land Thüringen, 2001. Each teaching period lasts 45 minutes.

(\*) *Sachkunde* is an interdisciplinary subject area which combines natural and social sciences, including environmental issues.

(\*\*) In Grades III and IV additional lessons must be used for foreign language teaching. Figures within parentheses indicate that a flexible, integrated approach is used.

Alternative forms of learning in the primary school are contributing towards a new understanding of what is conducive to learning, and of assessing pupils' performance. The focus has shifted to encouraging each individual pupil to achieve all which he or she is capable of - guided by the learning requirements for the respective school grade. It is therefore necessary to monitor the individual development and performance of each pupil on a constant basis, as well as their working and social behaviour, and assess these factors comprehensively. Educational progress is



examined by constant monitoring of the learning processes and by the use of oral and written controls. In Grades I and II, the focus is on direct observation of the pupils. In Grade III, pupils also begin to be familiarized with written class tests in certain subjects (especially German, mathematics and *Sachunterricht*). Assessment is always based on syllabus requirements and the knowledge, abilities and skills acquired in class. Assessment is carried out by the teacher responsible for lessons, who is responsible educationally for his or her decision. In the first two grades of primary school this assessment takes the form of a report at the end of the school year describing in detail a pupil's progress, strengths and weaknesses in the various fields of learning. At the end of Grade II, or sometimes later, pupils receive their first certificates with marks placing the individual pupil's performance more in the context of the group and enabling a comparative assessment. There is currently a trend towards learning processes and performance being assessed in the form of reports in Grades III and IV.

There is no leaving examination at the end of primary school, and pupils are not awarded a school-leaving certificate. However, at the end of Grade IV (or VI) pupils receive a report for that year. The transition from primary school to one of the secondary school types is regulated differently according to Land law. The vote of the school which the pupil is leaving is either taken as a basis for the decision or guidance in the decision concerning the pupil's future school career. In all cases, this is combined with detailed consultations with the parents. The final decision is taken either by the parents or by the school or school supervisory authority.

In 2004/05, there were 16,932 primary schools with 157,153 teachers and approximately 3.14 million pupils enrolled. The pupil/teacher ratio was 20:1 and the average number of pupils per class was 22. (German Eurydice Unit, 2007).

## Secondary education

General education schools at the secondary level I (lower secondary) build on the work of the primary school, which is compulsory for all pupils. In the majority of Länder general secondary education is offered at the *Hauptschule* (basic general education school, usually covering Grades V-IX), *Realschule* (school providing more extensive general education, usually Grades V-X), *Gymnasium* (school providing an in-depth general education and covering both lower and upper secondary education), and *Gesamtschule* (comprehensive school). Some Länder have also begun to offer new school types in recent years. These are given various names in the different Länder and combine the educational paths offered in the *Hauptschule* and *Realschule* in one organizational and educational unit; they include the *Mittelschule* (Sachsen), the *Regelschule* (Thüringen), the *Erweiterte Realschule* (Saarland), the *Sekundarschule* (Sachsen-Anhalt), the *Integrierte Haupt- und Realschule* (Hamburg), the *Verbundene Haupt- und Realschule* (Hessen) and the *Regionale Schule* (Rheinland-Pfalz).

The types of schools and educational paths at secondary level I are based on the idea of providing all pupils with a basic general education, combined with an element of individual specialization in line with support and progression of the pupil according to his/her performance and interests. Irrespective of school type, Grades V and VI constitute a phase of particular support, supervision and orientation regarding



the pupil's future educational path and its particular foci. In some Länder this orientation stage in Grades V and VI is also organized as an educational stage independent of the different school types. From Grade VII onwards, the types of schools and educational paths increasingly differ in terms of the subjects they offer, their requirements with regard to individual specialization and the leaving qualifications. As pupils progress through the grades, the shaping of the educational path and ensuring that this takes on a qualification-related form is accorded increasing importance with respect to the development of each pupil's individual school career.

The agreement reached on 3 December 1993, amended on 27 September 1996 by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder, concerning the types of schools and courses of education in lower secondary level, lays down a framework schedule for Grades V-IX/X, requiring certain core subjects in every type of school and course of education: German, mathematics, one foreign language, natural and social sciences. Music, art and sport, at the very least, have to be among the other compulsory or elective subjects offered. A second foreign language is compulsory at the gymnasium in Grades VII-X, and may be offered as an elective course at other types of schools. An introduction to the professional and working world is a compulsory component of every course of education and is provided either in a special subject such as work orientation (*Arbeitslehre*) or as part of the material covered in other subjects. Religious education is subject to the respective regulations in each Land, according to which religion is a standard subject in nearly every Land.

The development of syllabi for secondary education, as well as for the primary school, is the responsibility of the Ministries of Education and Cultural Affairs in the Länder. The tables below present some examples of weekly lesson timetables in the different Länder (mainly gymnasium programmes):

**Baden-Württemberg. Secondary education (eight-year gymnasium, natural sciences profile): weekly lesson timetable**

Subject	Number of weekly periods in each grade					
	V	VI	VII	VIII	IX	X
Religion/ethics (*)	2	2	2	1	2	2
German language	5	4	4	3	3	4
Geography	2	2	2	–	–	1
History	–	2	2	2	2	1
Social sciences	–	–	–	–	2	2
First foreign language	5	4	4	4	3	3
Second foreign language	–	4	5	4	4	3
Mathematics (**)	4	3	5	4	4	4
Natural phenomena	1	1	–	–	–	–
Physics	–	–	2	2	2	3
Chemistry	–	–	–	3	2	2
Biology	2	2	1	1	2	2
Practical course of natural sciences (***)	–	–	–	1	1	1
Sports	3	3	3	3	2	2
Music	3	2	1	1	1	1
Fine arts	2	1	1	1	1	–
<b>Total weekly periods</b>	<b>29</b>	<b>30</b>	<b>32</b>	<b>30</b>	<b>31</b>	<b>31</b>
Arrangements for compensation (12 periods)						
Third foreign language (not compulsory)	–	–	–	3	3	3
Group work (should not exceed 3 weekly periods beyond the prescribed number of periods)						

Source: Land Baden-Württemberg 2002. Each teaching period lasts 45 minutes.

(\*) Ethics is for students that do not follow religious education, starting from Grade VII.

(\*\*) In Grade VII, one period will be used for introduction to information technology.

(\*\*\*) A combination of physics, chemistry and biology, the time spent on each subject should be rather equal.

**Bayern. Secondary education (seven-year gymnasium, humanities profile):  
weekly lesson timetable**

Subject	Number of weekly periods in each grade						
	V	VI	VII	VIII	IX	X	XI
Religion/ethics	2	2	2	2	2	2	2
German language	5	5	4	4	3	3	4
Latin	6	6	4	4	3	3	4
English	–	–	5	4	3	3	4
Greek	–	–	–	–	5	5	5
Mathematics	4	4	4	4	3	3	3
Physics	–	–	–	2	1	2	2
Chemistry	–	–	–	–	–	–	2
Biology	2	2	2	1	2	2	–
History (*)	–	2	2	2	2	2(1)	2
Geography	2	2	1	2	1	–	2
Social sciences (**)	–	–	–	–	–	1(2)	–
Economics and law	–	–	–	1	1	1	–
Art education	2	3	2	1	1	1	1
Music	3	2	2	1	1	1	1
Sports (***)	2+2	2+2	2+2	2+2	2+2	2+2	2+2
<b>Total weekly periods</b>	<b>28+2</b>	<b>30+2</b>	<b>30+2</b>	<b>30+2</b>	<b>30+2</b>	<b>30+2</b>	<b>34+2</b>

Source: Land Bayern, 2002. Each teaching period lasts 45 minutes.

(\*) In Grade IX, two weekly periods in the first half of the school year and one period in the second half.

(\*\*) In Grade IX, one weekly period in the first half of the school year and two period in the second half.

(\*\*\*) In Grades V and VI, two weekly periods are for extended basic sport education; in Grades VII–XI, two periods are for distinctive sport education, generally in the afternoon.

**Berlin. Secondary education (gymnasium, middle level): weekly lesson timetable**

Subject	Number of weekly periods in each grade			
	VII	VIII	IX	X
German language	4	4	3	3
History/social sciences	2	2	3	3
Geography	2	1	2	2
First foreign language	4	4	3	3
Second foreign language	4	3	3	3
Mathematics	4	4	3	3
Physics	–	2	2	2
Chemistry	–	1	2	2
Biology	2	–	2	2
Music	2	2	1	1
Fine arts/handicraft	2	2	1	1
Sports	3	3	3(2)	3(2)
Options	–	–	3(5)	2(3/5)
<b>Total weekly periods</b>	<b>29</b>	<b>28</b>	<b>31(32)</b>	<b>30(31/32)</b>

Source: Land Berlin, 1993–96. Figures within parentheses refer to the number of weekly periods if Greek is chosen as third language. Two weekly periods (included in the total) should be reserved for religious education or ‘view of life’ (*weltanschauungsunterricht*). In principle, each teaching period lasts 45 minutes.

**Brandenburg. Secondary education (gymnasium): weekly lesson timetable**

Subject	Number of weekly periods in each grade			
	VII	VIII	IX	X
German language	4	4	3	4
First foreign language	4	4	3	3
Second foreign language	4	4	3	3
Mathematics	4	4	3	4
Natural sciences	3	4	4	4
Social sciences	3	3	3	3
Life formation, ethics, religion (*)	2	2	1	1
Economics, work, technology	–	–	2	2
Art/Music	2	2	2	2
Sports	3	3	3	3
Compulsory elective (third foreign language)	–	–	3	2(3)
Support/additional lessons	1	1	–	–
<b>Total weekly periods</b>	<b>30</b>	<b>31</b>	<b>30</b>	<b>31(32)</b>

Source: Land Brandenburg, 2002. In principle, each teaching period lasts 45 minutes and the timetable above refers to a school year consisting of forty working weeks.

(\*) The subject area ‘Life formation, ethics, religion’ (LER) is being introduced, thus there may be variations in time allocations where LER is not yet introduced.

**Hamburg. Secondary education (gymnasium): weekly lesson timetable**

Subject	Number of weekly periods in each grade					
	V	VI	VII	VIII	IX	X
German language	5(4)	4	4	4	3	4
Mathematics	5(4)	4(5)	4	4	3	3
First foreign language	5	4	4	3	3	3
Second foreign language	–	5(0)	5	4(5)	4(3)	3
Natural sciences/Technology:						
Chemistry	–	–	–	–	3	2
Biology			2	2	–	2
Physics	4	2	2	2	2	2
Technology						
Social sciences:						
Geography	2	0(2)	–	1.5(2)	1.5(2)	–
History	–	2	2	1.5(2)	1.5(2)	2
Politics/Social sciences/Economics	–	–	–	2	2(1)	2
Religion	2	2	–	–	–	–
Religion or ethics (compulsory elective)	–	–	–	–	2	2
Fine arts	2	2	2	2	–	–
Music	2	2	2	2	–	–
Fine arts, music, performing arts (compulsory elective)	–	–	–	–	2	2
Sports	3	3	3	3(2)	3(2)	3(2)
Compulsory electives (arts: 2 periods; third foreign language: 3 periods) (*)	–	–	–	–	2	2
<b>Total weekly periods</b>	<b>30(28)</b>	<b>30(28)</b>	<b>30</b>	<b>31(30)</b>	<b>32(30)</b>	<b>32(31)</b>

Source: Land Hamburg, 2003. Each teaching period lasts 45 minutes.

(\*) If a third foreign language is chosen, one weekly period should be added to the total.

**Hessen. Secondary education (gymnasium): weekly lesson timetable**

Subject	Number of weekly periods in each grade					
	V	VI	VII	VIII	IX	X
German language	5	5	4	3	4	4
First foreign language	5	5	4	4	3	3
Second foreign language	–	–	5	4	3	3
Mathematics	4	4	4	4	4	4
Sports	3	3	3	3	2	2
Religion/ethics	2	2	2	2	2	2
Arts	2	2	2	–	2	–
Music	2	2	–	2	–	2
Biology	2	2	2	–	2	–
Chemistry	–	–	–	2	2	2
Physics	–	–	2	2	–	3
Geography	2	2	–	1	1	–
Social sciences	–	–	2	1	2	2
History	–	2	–	2	2	2
Compulsory electives/Third foreign language	–	–	–	–	2(3)	2(3)
Teachers' hour	1	–	–	–	–	–
<b>Total weekly periods</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>30</b>	<b>31(32)</b>	<b>31(32)</b>

Source: Land Hessen, 2002. Each teaching period lasts 45 minutes.

Note: The first foreign language is usually English or French (or Latin). When English is not the first language, it must be offered as second foreign language. With the approval of the state school authority, Italian, Spanish or Russian can also be offered as second foreign language. The third foreign language could be French, Latin, ancient Greek, Italian, Russian, Spanish or any other language, depending on the school's foreign language teaching tradition. As far as compulsory electives are concerned, priority is given to information technology (computer science) and introduction to the world of work.

**Mecklenburg-Vorpommern. Secondary education (gymnasium): weekly lesson timetable**

Subject	Number of weekly periods in each grade					
	V	VI	VII	VIII	IX	X
German language	6	5	4	4	4	3
First foreign language	5	5	4	4	3	4
Second foreign language	–	–	4	4	3	3
Mathematics	5	5	5	4	4	4
Physics	–	1	2	2	1	2
Chemistry	–	–	–	2	2	2
Biology	2	2	2	1	1	1
Astronomy	–	–	–	–	1	–
Work education, economics, technology, information technology	2	2	1	2	2	2
Geography	2	1	1	1	1	2
History	–	2	2	2	1	2
Social sciences	–	–	–	1	1	1
Religion/Philosophise with the students	1	1	1	1	1	1
Arts and creative expression	2	1	2	1.5	1	1
Music	1	2	2	1.5	1	1
Sports	3	3	2	2	2	2
Compulsory electives/Third foreign language	–	–	–	–	5	4
Hour of the class	1	1	–	–	–	–
<b>Total weekly periods</b>	<b>30</b>	<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>

Source: Land Mecklenburg-Vorpommern, 2002. Each teaching period lasts 45 minutes.

Note: Compulsory electives must include at least one weekly period for information technology (computer science).

**Rheinland-Pfalz. Secondary education (gymnasium, modern languages profile):  
weekly lesson timetable**

Subject	Number of weekly periods in each grade					
	V	VI	VII	VIII	IX	X
Religion	2	2	2	1	2	2
German language	4	5	4	4	4	3
First foreign language	5	4	4	4	4	3
Second foreign language	–	–	4	4	4	3
Mathematics	4	4	4	3	4	4
Geography	2	2	1	2	–	2
History	–	–	2	1	2	2
Social sciences	–	–	–	–	2	1
Physics and chemistry	1	1	–	–	–	–
Physics	–	–	–	2	2	2
Chemistry	–	–	–	1	2	2
Biology	2	2	2	1	–	2
Music	2	2	2	2	1	1
Arts, handicrafts, textile work	2	2	2	2	1	1
Sports	3	3	3	3	2	2
Teacher's hour	1	–	–	–	–	–
Additional support	–	1	–	–	–	–
<b>Total weekly periods</b>	<b>28</b>	<b>28</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>
Electives:						
Sports	(4/6)	(4/6)	(4/6)	(4/6)	(4/6)	(4/6)
Choir/Orchestra	6	6	6	6	6	6
Third foreign language	–	–	–	–	3	3
Natural sciences	–	–	–	–	3	3
Social sciences	–	–	–	–	3	3
Artistic field	–	–	–	–	3	3

Source: Land Rheinland-Pfalz, 2002. Each teaching period lasts 50 minutes.

Note: Compulsory electives must include at least one weekly period for information technology (computer science).

**Sachsen. Secondary education (language profile gymnasium): weekly lesson timetable**

Subject	Number of weekly periods in each grade					
	V	VI	VII	VIII	IX	X
German language	5	5	5	3	4	3
Religion/ethics	2	2	2	2	2	2
Geography	2	2	2	2	–	2
History	1	2	2	2	2	2
Social sciences/Law/Economics	–	–	–	–	2	2
First foreign language	5	5	4	3	3	3
Second foreign language	–	–	4	4	4	4
Mathematics	5	5	4	4	4	4
Information technology (computer science)	–	–	1	–	–	–
Physics	–	2	2	2	1	1
Astronomy	–	–	–	–	–	1
Chemistry	–	–	–	2	2	1
Biology	2	2	2	1	1	1
Sports	3	3	2+1	2	2	2
Music	2	1	1	1	2	1
Art education	2	1	1	1	1	1
Handicrafts	2	1	–	–	–	–
<b>Total weekly periods</b>	<b>31</b>	<b>31</b>	<b>32+1</b>	<b>29</b>	<b>30</b>	<b>30</b>
Third foreign language (language profile)	–	–	–	4	4	4
<b>Total weekly periods</b>	<b>31</b>	<b>31</b>	<b>32+1</b>	<b>33</b>	<b>34</b>	<b>34</b>

Source: Land Sachsen, 2002. Each teaching period lasts 45 minutes.

**Thüringen. Secondary education: weekly lesson timetable**

Subject	Number of weekly periods in each grade					
	V	VI	VII	VIII	IX	X
German language	5	5	4	4	4	3
First foreign language	5	5	4	3	3	3
Second foreign language	–	–	4	4	3	3
Mathematics	4	4	4	4	3	3
Physics	–	–	2	2	1	1
Chemistry	–	–	–	2	1	1
Biology	2	2	2	2	1	1
History	1	1	2	2	2	2
Geography	2	2	1	1	1	1
Economics and law	–	–	–	–	1	2
Social sciences	–	–	–	–	1	1
Music	2	2	2	2	1	1
Arts	3	3	2	2	1	1
Religion/ethics	2	2	2	2	2	2
Sports	3	3	3	2+1	2+1	2+1
Advanced class (seminar)	–	–	–	–	–	1
Additional lessons	1	1	–	–	–	–
Compulsory electives (language profile):						
Third foreign language	–	–	–	–	5	5
Compulsory electives (mathematics-natural sciences profile):						
Mathematics	–	–	–	–	1	1
Physics	–	–	–	–	1	1
Chemistry	–	–	–	–	2	1
Astronomy	–	–	–	–	–	1
Biology	–	–	–	–	1	1
Compulsory electives (music-arts profile)						
	–	–	–	–	5	5
Options for special profiles	1	1	1	1	1	–
<b>Total weekly periods</b>	<b>31</b>	<b>31</b>	<b>33+1</b>	<b>33+1</b>	<b>33+1</b>	<b>33+1</b>

Source: Land Thüringen, 2002. Each teaching period lasts 45 minutes.

Note: In Grade VII, students should follow a basic course in information technology (computer science).

The education and training establishments for 15/16- to 19-year-olds at upper secondary level include general education schools, full-time vocational schools, as well as training companies and part-time vocational schools as part of the dual training system.

The upper level of the gymnasium (*Gymnasiale Oberstufe*) covers Grades XI-XIII (in two Länder, Grades X or XI to XII). After a transitional period, students are



no longer taught in the class unit but follow courses in their chosen subjects. Although students are still required to take certain subjects or subject combinations, they have extensive scope for individual specialization with a wider range of subjects to choose from. Related subjects are grouped together into three main areas: languages, literature and the arts; social sciences; mathematics, natural sciences and technology. Every pupil is required to study subjects from each of these three areas right up to the completion of the upper level of the *Gymnasium*, including *Abitur* examinations. Religious education and sport are also compulsory. On the basis of an agreement by the Standing Conference of Ministers of Education and Cultural Affairs of the Länder of 1 December 1995, German, a foreign language and mathematics, have to be taken during the whole upper level of the gymnasium.

Basic courses (*Grundkurse*) and advanced courses (*Leistungskurse*) help to organize the studies according to different levels in terms of academic standards. While basic courses (usually three periods a week) are intended to ensure that all students acquire a broad general education, advanced courses (five or six periods a week) go beyond this in aiming at a more profound introduction to academic study and a wider range of specialized knowledge. Basic courses constitute up to two-thirds of courses. Students are required to choose at least two advanced courses, one of which must be either German, continuation of a foreign language, mathematics or a natural science. If German is the first advanced course, the four subjects covered in the *Abitur* examination must include mathematics or a foreign language. New subjects introduced at the upper level of the gymnasium, e.g. further foreign languages and vocational subjects, may be offered as a second advanced course. Some Länder restrict the choice of advanced courses to certain subject combinations. In the Länder with comprehensive schools extending beyond the lower secondary level, upper secondary education in Grades XI-XIII is organized along the same lines as the upper level of the gymnasium.

Full-time vocational schools include the *Berufsfachschule*, the *Fachoberschule*, the *Berufliches Gymnasium* or *Fachgymnasium*, the *Fachschule* and other types of schools that exist only in certain Länder or are of marginal importance due to their small numbers. *Berufsfachschulen* are full-time vocational schools which prepare students for an occupation or provide vocational education as well as extending their general education. There are full-time vocational schools for business occupations, occupations involving foreign languages, crafts industry occupations, home-economics-related and social-work-related occupations, artistic occupations, health sector occupations etc. The instruction is given in general and specialized vocational areas. The general subjects covered include German, social sciences, sport and religion.

The technical secondary schools (*Fachoberschulen*) equip their students with general and specialized theoretical and practical knowledge and skills and lead to the higher education entrance qualification for the non-university sector (*Fachhochschulreife*). Practical training takes place in Grade XI. Completed vocational training can serve as a substitute for Grade XI of the technical secondary school, so that students with such qualifications can proceed directly to Grade XII. Grade XII offers both general and specialist instruction. Compulsory subjects include: German, social studies, mathematics, natural sciences, one foreign language and sport. General subjects are the same for all students.



The *Berufliches Gymnasium/Fachgymnasium* exists in some Länder in the form of the upper level of the gymnasium with career-oriented specializations, comprises a three-year course of education and leads, as a rule, to a general higher education entrance qualification (*Allgemeine Hochschulreife*). Apart from the subjects offered at the gymnasium, these schools have career-oriented subjects like business and engineering (electrical engineering, metallurgical engineering, construction engineering etc.) which can be chosen in place of general subjects as the second advanced course and are examined in the *Abitur*.

The aim of the continuing vocational training provided at *Fachschulen* is to enable skilled workers with job experience to take on responsibilities in middle management, i.e. to manage enterprises in their field (agriculture or domestic science) independently and train junior personnel or assume major responsibilities within clearly defined spheres of competence. *Fachschulen* provide continuing vocational training, the prerequisites for which are suitable prior vocational training and related work experience. The compulsory subjects comprise three areas: “communication/society”, “technology/organization”, and “production/business/design.” The first area usually consists of general subjects (e.g. German and foreign languages); the second area courses are more specialized, laying the foundations for the project-based or practical approach of the third area, while the latter aims at vocational qualification in the fields of production, business or design.

Having completed their compulsory full-time schooling, two-thirds of young people in Germany undergo vocational training in the dual system (*duales System*) for two to three and a half years, depending on their chosen occupation. It is described as a “dual system” because training is carried out in two places of learning: at the workplace and in a vocational school (*Berufsschule*).

In the context of the dual system the vocational school is an autonomous place of learning. It works together on an equal basis with the companies participating in vocational training. The function of the vocational school is to provide pupils with general and vocational education, having particular regard for the requirements of vocational training. Vocational schools are also expected to offer courses preparing for or accompanying professional activities. They equip pupils with basic and specialized vocational training, adding to the general education they have already received. The purpose is to enable them to carry out their occupational duties and to help shape the world of work and society as a whole with a sense of social and ecological responsibility. About a third of total teaching time at the vocational school is taken up with general education subjects, namely German, social studies and economics, religion and sport. Foreign languages are included in vocational education to the extent they are likely to be of importance in the students’ future career, e.g. office jobs.

The framework curricula (*Rahmenlehrpläne*) for vocational instruction at *Berufsschulen*, on the other hand, are worked out jointly in a coordinated procedure by federal and Land authorities on the basis of the training regulations (*Ausbildungsordnungen*) for on-the-job training. They set out the areas of instruction, educational objectives and course content as well as guidelines on timetables (number of periods required to achieve the educational objectives, including assessment of



performance). The knowledge and skills to be imparted in on-the-job training for professional qualification are set out in the training regulations. These regulations are issued for all recognized occupations (*anerkannte Ausbildungsberufe*) by the competent federal ministry with the assistance of those in charge of vocational training. The coordination procedure ensures that the training regulations take account of what has been learnt from experiences in the working world as well as the results of employment and occupational research and the results of pilot schemes of the Federal Institute of Vocational Education and Training.

It is also possible to follow a one-year course of basic vocational training, either in the form of full-time schooling or a dual system arrangement (known as the *Berufsgrundbildungsjahr*). The purpose of this basic vocational training year is to provide general knowledge and skills required in every occupation and every field as well as special theoretical and practical education in one particular career area and in this way to lay the groundwork for subsequent vocational training in this field. Students may choose one of the thirteen existing career areas.

German is stipulated by law as the official language of administration and the judiciary. Education differs from administration and justice in that there are no legislative provisions on the language of instruction. German is the normal language of instruction and training at general education and vocational schools. The exceptions at school include certain private schools, all bilingual schools and classes as well as instruction and extra classes in the mother tongue for foreign pupils who lack a sufficient knowledge of German. The children of the Danish minority in Schleswig-Holstein can attend private schools instead of the general education schools of the public sector, as long as the educational objectives of these schools essentially correspond to those of the school types provided for in the Schleswig-Holstein education act. Lessons in these schools are taught on a bilingual basis. Parents may choose whether their children should attend schools catering for the Danish minority. They merely have to inform the local primary school that their child has been accepted at a school which caters for the Danish minority, and thus absolve him/her from the need to attend the public-sector school. The children of the Sorbian minority in the German-Sorb area in Brandenburg and Saxony are taught in the Sorbian language at Sorbian and other schools either as the mother tongue, a second language or a foreign language.

The evaluation of a given pupil's performance at the lower secondary level is based on all the work he/she has done in connection with the class in question, specifically written, oral and practical work. Papers and written exercises are spread evenly over the school year. The requirements in this work are gauged to meet the standards laid down in the curricula. Oral work refers to oral contributions made by pupils and evaluated in class. Practical achievements serve as the basis of evaluation particularly in such subjects as sport, music, and arts and crafts.

Performance is assessed according to a six-mark system adopted by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder: very good (1), good (2), satisfactory (3), adequate (4), poor (5), very poor (6). Each student's performance is set out on a report twice a year in the middle and at the end of the school year. During the school year, each assignment is marked by the respective subject teacher. On the report, the marks for each subject are given either



by the subject teacher or, on the subject teacher's recommendation, by a teachers' conference known as the *Klassenkonferenz*. In addition to the marks in the various subjects, the report may contain remarks on class participation and social conduct at school. Standardized achievement tests to assess students' performance in certain subjects or grades are not held at Land level or nationwide.

Promotion of a pupil to the next grade depends on his/her level of achievement at the end of the school year as documented in the report received in the middle and at the end of the school year. An adequate mark or better is required in each of the subjects that have a bearing on promotion. As a rule, poor or very poor marks in one subject can be offset to a certain extent by good or very good marks in another. Whether or not to promote the pupils in a given grade is decided by the teachers' conference, a meeting of all the teachers who have taught those pupils. Their decision is noted on the report issued at the end of the school year. In some Länder, pupils who have not been promoted may, in certain school types and in certain grades, be promoted if they pass a subsequent examination at the beginning of the next school year. A pupil who has not been promoted must repeat the last year attended. If a pupil's performance is far superior to that of the rest of the class, it is possible to skip a year. Generally speaking, it is possible to transfer between courses of education or school types, e.g. from *Realschule* to *Hauptschule* or even gymnasium.

On completion of the courses of education in lower secondary level, students receive a leaving certificate, provided that they have successfully completed Grade IX or X—depending on the type of school—or, in some Länder, passed a final examination. As a rule, students at the gymnasium, which continue into upper secondary level, are not issued leaving certificates, but a qualification to attend the upper level of the gymnasium (*Gymnasiale Oberstufe*). Students who have not achieved the goal of the course of education they were pursuing receive a school-leaving report instead.

At the end of Grade IX, it is possible to obtain a first general education qualification, which is called the *Hauptschulabschluss* in most Länder. A leaving certificate is awarded after Grade IX, if adequate marks or better are received in every subject. At lower secondary schools that go beyond Grade IX, a corresponding qualification can be obtained in most Länder if certain marks are achieved. This first leaving certificate in general education is usually used for admission to vocational training in the so-called dual system (*duales System*). In addition, it qualifies a student, under certain conditions, for admission to full-time vocational schools (*Berufsfachschulen*) and for a year of basic vocational training (*Berufsgrundbildungsjahr*). Moreover, it is a prerequisite for subsequent admission to certain institutions providing continuing vocational training (*Fachschulen*) and institutions offering secondary education for adults (*Zweiter Bildungsweg*).

At the end of Grade X, it is possible to obtain a *Mittlerer Schulabschluss*, which is called *Realschulabschluss* in most Länder. This certificate is issued at *Realschulen* if adequate marks or better are received in every subject at the end of Grade X. The *Mittlerer Schulabschluss* can be obtained after Grade X at other types of lower secondary schools as well if certain standards of achievement are met, and also at the *Berufsschule* with the requisite achievement level and average mark. It qualifies students for admission to courses of upper secondary education, e.g. at special *Berufsfachschulen* and at the *Fachoberschule*. The entitlement to proceed to the upper



level of the gymnasium is obtained, if certain standards of achievement are met, at the end of Grade X at the gymnasium or *Gesamtschule* (in two Länder at the end of Grade IX at the gymnasium). However, an entrance qualification required for transfer to the upper level of the gymnasium may be obtained by way of a *Mittlerer Schulabschluss* if a certain level of performance is achieved or, alternately, via qualifications from a vocational school.

In 2003 and 2004, educational standards were adopted for the general education school leaving certificate obtained on completion of Grade IX at the *Hauptschule* (*Hauptschulabschluss*) and the general education school leaving certificate obtained on completion of Grade X at the *Realschulen* (*Mittlerer Schulabschluss*). The educational standards are reviewed and further developed by the Institute for Educational Progress (IQB), which is supported by the Länder. Standards for the *Mittlerer Schulabschluss* in the subjects of German, mathematics and the first foreign language (English, French) were adopted 2004/05 in the schools of all Länder as the basis for subject-specific requirements. In December 2004, educational standards were adopted for the subjects of biology, chemistry and physics. Standards in the subjects of German, mathematics and the first foreign language (English/French) for the *Hauptschulabschluss* were adopted in October 2004. The standards adopted in 2004 are being introduced from 2005/06 school year. Therefore, for the first time, quality development in the general education schools of all Länder can be checked against jointly agreed criteria in the form of general standards. The standards are based upon the areas of competence of the individual subject and: take up the basic principles of the respective subject; determine the subject-specific competences including basic levels of knowledge that pupils should have achieved by a certain stage of their school career; are aimed at systematic learning and learning in networks and thus follow the principle of cumulative acquisition of competence; describe expected levels of performance as part of requirement profiles; are related to the core area of the respective subject and provide scope for pedagogical measures taken by the schools; relate to a medium level of requirements; and are illustrated by examples for test questions. In order to determine to which extent the standards have been met, the Länder will conduct orientation and comparative tests as well as centralized or decentralized examinations on Land level. The observance of the standards will be checked both on Land level and throughout the Länder. The standards are part of a comprehensive system of quality assurance that also includes the development of schools and teaching practice, as well as internal and external evaluation.

At the upper level of the gymnasium, performance is assessed on a scale of 15 to 0, which correlates with the usual scale of 1 to 6 as follows: Mark 1 is equivalent to 15/14/13 points depending on the trend of marks; Mark 2 is equivalent to 12/11/10 points depending on the trend of marks; Mark 3 is equivalent to 9/8/7 points depending on the trend of marks; Mark 4 is equivalent to 6/5/4 points depending on the trend of marks; Mark 5 is equivalent to 3/2/1 points depending on the trend of marks; Mark 6 is equivalent to 0 points.

In the upper level of the gymnasium the last two grades are known as the qualification phase. The final marks received in courses taken in these two years and the marks on the *Abitur* examination go to make up a pupil's total marks. There is no procedure for promotion from Grade XII to Grade XIII. School-leaving certificates

may be acquired at the end of upper secondary level courses of education subject to the same basic conditions as described for lower secondary level. The upper level of the gymnasium concludes with the *Abitur* examination. The examination covers four subjects. Two of them are subjects taught in advanced courses (*Leistungskurse*). Written and, under certain conditions, oral examinations are given in these two subjects as well as in a third subject. Only an oral test is given in the fourth. All three subject areas (languages, literature and the arts; social sciences; mathematics, natural sciences and technology) have to be covered in the examination. In languages, literature and the arts German or a foreign language is an obligatory subject on the *Abitur* examination. Subsequent to passing the *Abitur* examination taken after thirteen years of school, students are awarded a certificate of general higher education entrance qualification (*Allgemeine Hochschulreife*). On the basis of an agreement by the Standing Conference of Ministers of Education and Cultural Affairs of the Länder in 1995, the certificate can also be obtained after twelve years, provided that the student is enrolled for a total of 265 weekly teaching hours during the lower secondary level and the upper level of the gymnasium.

Before the end of their second year of training, trainees in the dual system take an intermediate examination according to the standards laid down in the training regulations and framework curricula. These intermediate examinations are administered by the “competent bodies”, usually chambers of handicrafts or industry. As proof of their attainments in technical occupations, for example, trainees either submit a finished piece of work for examination or their work is sampled. As proof of acquired knowledge, written problems have to be solved. The intermediate examination usually covers the knowledge and skills listed in the training regulations for the first and second years of training, as well as the material taught at the vocational school according to the framework curricula. After taking an intermediate examination, the trainee receives a certificate showing his/her current level of training.

In the dual system of vocational training, trainees take final examinations administered by the “authorities responsible for vocational training” (self-governing regional and sectoral organizations from the various branches of industry and commerce, e.g. chambers of industry and commerce, of handicrafts, of liberal professions and of agriculture that perform governmental functions in the domain of vocational training). These finals have a practical and a written part. The boards of examiners are made up of representatives of industry and labour and teachers at vocational schools. Successful candidates are awarded a certificate showing proficiency as a skilled worker, commercial assistant or journeyman (*Facharbeiterbrief*, *Kaufmannsgehilfenbrief*, *Gesellenbrief*). Concomitantly, the vocational school issues a leaving certificate, which may incorporate a *Hauptschulabschluss* or *Realschulabschluss*, depending on the candidate’s achievements.

The programme at full-time vocational schools (*Berufsfachschulen*) normally concludes with a final examination. A *Mittleren Schulabschluss*, which is equivalent to a *Realschule* leaving certificate, can be obtained at full-time vocational schools where the programme takes two years or more to complete and where a *Hauptschulabschluss* is required for admission. The two-year full-time vocational schools that require a *Realschule* leaving certificate for admission lead up to qualification in various



subjects as a “state-certified technical assistant” (e.g. specializing in biochemistry, garment making, information technology, mechanical engineering) or as a “state-certified business assistant” specializing in data processing, foreign languages or secretarial skills.

The programme at the *Fachoberschule* (technical secondary school) concludes with a final examination after Grade XII. This exam covers three general subjects (German, mathematics, foreign language) and individual specialized subjects (e.g. in engineering, business or administration). On passing the exam, students receive the certificate of *Fachhochschulreife*, a higher education entrance qualification qualifying them to go on to *Fachhochschulen*.

The examination at the end of a two-year course at the *Fachschule* in the fields of technology, business and design comprises four subjects in the chosen fields of specialization. Satisfactory completion of the *Fachschule* confers on a student the occupational title of state-certified engineer/business manager/designer (*Staatlich geprüfter Techniker/Betriebswirt/Gestalter*), depending on his/her specialization, as well as other titles for the social work sector.

There is no drop-out rate at the primary level, since compulsory schooling, which usually lasts for nine years (ten years in four Länder), and the following obligatory three years’ compulsory part-time schooling that follow (*Berufsschulpflicht*), exclude the possibility of pupils leaving the education system before the age of 16/17 years. However, of the 866,668 young people who left school in 1995, 75,186 had not obtained a *Hauptschulabschluß*. In percentage terms, this means that 8.7% of school-leavers failed to gain a first general school-leaving certificate at the end of lower secondary level.

Close to 100% of pupils transfer from primary school to lower secondary level, and then on to the various education programmes offered at the upper secondary level. As explained above, this is due to the fact that there are nine to ten years of compulsory schooling, after which three years have to be spent in part-time education. No reliable figures on the number of school leavers who transfer from upper secondary level into higher education are available. It must be taken into account that not all those school leavers who are entitled to a place in higher education decide to pursue a course of study, whilst others will wait a few years before doing so. Analysis carried out by the *Hochschul-Informationssystem GmbH* suggests that around 80% of school leavers enrol in a higher education course of study.

In 2004/05, there were 15,569 general secondary education schools (lower and upper secondary) with 5,116,793 students enrolled at the lower secondary level with 311,115 full-time teachers (full-time equivalent) and 786,908 students at the upper secondary level with 59,857 full-time teachers. In 2004, there were 7,376 vocational schools with a total enrolment of 2,604,385 students and 107,617 full-time teachers. (German Eurydice Unit, 2007).



## Assessing learning achievement nationwide

State supervisory authorities for schools and higher education, statistical surveys carried out by the Federal Statistical Office and by the statistical offices of the Länder as well as educational research in institutes that are subordinate to federal or Land ministries or jointly funded by the Federal Government and the Länder are used for quality assurance and evaluation purposes.

Evaluation instruments in the narrow sense have been in the process of development for several years but have not yet been introduced throughout the country. The evaluation of research and teaching has been provided for in the higher education sector since the amendment to the Framework Act for Higher Education of 1998 and internal and external evaluation procedures have been tested in various contexts. Within the school system, the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder (KMK), in a resolution of October 1997, took up quality assurance processes that had already been introduced in several Länder in the school sector and declared these a central issue for its work. Quality assurance in all educational areas was also a central objective of the Education Forum (*Forum Bildung*) that was set up jointly by the Federation and the Länder in 1999 at the Commission of the Federation and the Länder for Educational Planning and Research Promotion and that submitted its final recommendations at the end of 2001.

In recent years, initiatives have been taken in all Länder in order to develop measures for assuring the quality of education at both the level of the school system and the level of the individual schools; this goes beyond the traditional range of instruments of the school supervisory authority and project supervision. An assessment of the quality evaluation procedures in the general education system in the Länder was carried out in 1998 on behalf of the KMK. This revealed that the Länder have taken a number of quality evaluation measures which combine various quality assurance and school evaluation procedures. These procedures, which combine central and decentralized action strategies in various ways, include: (i) the use of standardised school performance tests at Land level (e.g. to compare performance between parallel classes within a school); (ii) comparative tests, especially in core subjects; (iii) the external moderation of final examinations or the external correction of exam work (e.g. in the form of central final examinations with second correction of written examination papers or random monitoring by the school supervisory authority of work submitted for the *Abitur*); (iv) focused evaluation with the emphasis on special measures and topics (e.g. evaluation of examination work in individual subjects in various Länder); and (v) internal and external evaluation of the schools by external observers and advisors (e.g. by mutual participation in *Abitur* examinations of other Länder or the exchange of *Abitur* work between the Länder).

The KMK, in a resolution of October 1997, took up quality assurance processes that had already been introduced in a variety of forms at Land level in the school system and declared these an object to be tackled through joint efforts on the part of all Länder. These should also include a comparison of performance within Germany. Initially, nationwide comparative investigations should concentrate on the lower secondary level. The KMK has set up a commission including education experts from academic institutes to develop a detailed concept for conducting these comparative investigations. The national performance comparisons include German-



English Pupil Performance International, which is being carried out on behalf of the KMK during the period 2001-2005 by a consortium coordinated by the German Institute for International Education Research (DIPF). The aim of the study is to make available basic information regarding the performance status of Grade IX pupils in English as well as their command of German.

The Länder have also come to an agreement with the Federation to link up some of their measures in a pilot programme entitled “Quality improvement in schools and school systems”. Central to this is the issue of a general performance quality and the necessary framework conditions of the individual schools and the respective school systems. The development objective is to increase the educational performance at both levels. More than 180 schools of all types participated in the five-year pilot programme (2000-2004) for the qualitative further development of teaching and education in the individual schools and in the school system. In addition, the Länder are taking part in international comparative studies such as the Third International Mathematics and Science Study (TIMSS) and the OECD Programme for International Student Assessment (PISA) as a means of establishing pupils’ performance. After the publication of the PISA results in December 2001, the KMK identified seven areas in which the Länder and the KMK will act. These include the improvement of primary education, as well as the further professionalization of the teaching profession. The Länder already introduced a series of measures after the TIMSS study.

## Higher education

As mentioned, higher education is offered at universities and equivalent higher education institutions (*Technische Hochschulen/Technische Universitäten, Universitäten-Gesamthochschulen, Pädagogische Hochschulen*, theological colleges and others) and colleges of art and music. Tertiary-level education outside the higher education system is offered at universities of applied sciences (*Fachhochschulen*) and professional academies (*Berufsakademien*).

A standard period of study (*Regelstudienzeit*) is fixed in the examination regulations (*Prüfungsordnungen*) for each course of studies. The regulations state the time in which a course of studies with the intended examination can be completed. Eight to ten semesters are laid down for most programmes leading to the *Diplom*, *Magister* or *Staatsexamen* (six years in the case of long-cycle programmes, i.e. medicine, veterinary medicine, and dentistry). On average, however, students take one or two years longer to complete, i.e. many students only attain the first degree after studying for five years or more. The total standard period of study for consecutive programmes leading to a bachelor’s or a master’s degree is a maximum of five years. The standard period of study for a bachelor’s degree is between three and four years and for a master’s degree one to two years. In December 2004, the Standing Conference passed a resolution stipulating that programmes offered at colleges of art and music should also be included in the consecutive structure of study courses leading to bachelor’s and master’s degrees. At universities of applied sciences eight semesters, including one or two semesters of work experience, are normally required for courses leading to the *Diplom* (on average, students take one or two semesters longer to complete). Programmes offered at professional academies generally last three years. There are also other special graduate courses (*Postgraduale*



*Studiengänge*) which may be taken after the completion of a first degree; these courses last two to four semesters and lead to the award of a certificate stipulating the level achieved or to a further higher education degree. Holders of a first degree (*Magister, Diplom, Staatsexamen*, master's degree, as well as well-qualified holders of a *Diplom* obtained at a university of applied sciences who have successfully undergone a procedure to assess their suitability for a doctoral programme) can be admitted to doctoral studies. Programmes leading to a doctoral degree generally require three to four years of full-time study, but may also last longer. The new degree structure introduced within the framework of the implementation of the Bologna process is expected to replace the traditional system by 2010. In the 2004/05 summer semester, 26.3% of all courses offered at higher education institutions were bachelor's and master's degree programmes. The percentage increased to about 45% for the 2006/07 winter semesters (KMK and BMBF, 2006).

Under Section 59 of the Framework Act for Higher Education, higher education institutions are subject to state supervision which is exercised by the *Länder*. Whereas legal supervision encompasses all activities of the higher education institution (all that is checked is whether the higher education institution has, by its actions or omissions, infringed laws or other statutory provisions), a more wide-ranging supervision is carried out in those areas for which the state is responsible (as opposed to academic affairs). This includes staff administration and economic, budgetary and financial management, i.e. participation in the preparation of the science minister's budget and in its implementation, the organization of the higher education institution and the establishments affiliated to it, the management of budgetary funds, and so on. Within the relevant Ministry of Science and Education, the higher education supervisory authority examines whether actions taken are appropriate and economically efficient and whether targets are being fulfilled. Economic efficiency is also monitored by the audit office of the relevant Land.

The tasks of determining training capacity and setting admission figures are also subject to supervision by the higher education supervisory authority. The relevant Land ministry issues regulations on admission figures for the number of available places in higher education. Under the Framework Act for Higher Education, the student intake of an individual higher education institution may be restricted by a set admission figure only in as far as this is necessary to allow duties relating to research and teaching to be discharged properly. In this context, staffing conditions, the available premises and practical and subject-related factors must all be taken into account.

Traditionally, the structure and contents of the courses of studies are specified in the study regulations. They list the individual classes (including the number of hours) required for successful completion of a course of studies in each stage of higher education (basic and advanced studies, i.e. *Grundstudium* and *Hauptstudium*). The examination regulations specify the standard period of study, requirements for entry to examinations, crediting of specific courses and examinations taken, time allowed for completion of a dissertation, and examination standards and procedures.

To ensure that the various institutions of higher education throughout the country have comparable study regulations and examination regulations, the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* and the



Rectors' Conference set up a "Joint Commission for the Coordination of Study and Examination Regulations," which has adopted a framework regulation, covering all subjects, on examinations for the *Diplom* degree and general provisions concerning regulations on examinations for the *Magister* degree, which contain fundamental regulations for examinations in programmes leading to *Diplom* and *Magister* degrees. On this basis, until the end of 2002 the framework regulations for examinations in the individual programmes leading to a *Diplom* degree and the subject-specific provisions for programmes leading to a *Magister* degree were drawn up. With the introduction of the bachelor's and master's degree programmes from 1998, work has started on the development of an independent accreditation system. According to the resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of March 2002, a system of accreditation has to replace the system of coordination of study and examination regulations. Accreditation certifies in a formalized and objectively verifiable process that a programmes fulfils minimum standards in terms of structure, subject and content, as well as in terms of its professional relevance. For accreditation of bachelor's and master's degree programmes the Standing Conference has set up an independent Accreditation Council (*Akkreditierungsrat*) acting on behalf of all Länder. In October 2004, the Standing Conference established key points for the further development of the system consisting of an Accreditation Council and agencies that has proven fundamentally effective. From 2005, the Accreditation Council operates as a foundation under public law. In the long term the system of accreditation is to be extended to all courses of study. The structural guidelines valid for all Länder adopted by the Standing Conference of the Ministers of Education and Cultural Affairs in October 2003 (amended in 2005) form the basis for the accreditation. These serve as a framework for the planning and conception of programmes. The structural guidelines refer, among others, to the structure and length of study. They stipulate that bachelor's programmes, as study courses which lead to a first degree qualifying for entry into a profession, must provide the academic foundation, methodological skills and qualifications related to the professional field. Furthermore, the structural guidelines distinguish between more research-oriented master's degree programmes and more practice-oriented ones. Bachelor's and master's programmes are provided with a credit point system which is based upon the European Credit Transfer System (ECTS). In the 2006 summer semester the credit system was applied in 74% of bachelor's degree programmes and 67% of master's degree. (KMK and BMBF, 2006).

In accordance with the fundamental division of responsibilities between the Federation and the Länder, the Länder are responsible for awarding state recognition to non-public institutions of higher education. Recognition is dependent on proof of that the privately-maintained higher education institution is of equivalent status (not identical in form) to state higher education institutions. Therefore there is a whole list of points where the privately-maintained institution must prove that it satisfies the demands, the standards and the performance of a comparable state institution. Recognition involves establishing the designation and organization of the higher education institution, as well as the courses of study and examinations it plans to offer and the award of academic degrees. The Federation and the Länder have agreed that non-public institutions are to be accredited by the Science Council.

Universities usually offer a range of subjects including the humanities, law, economics and social sciences, natural sciences, medicine, agronomy, forestry and



nutritional science, and engineering sciences. The figures vary from institution to institution, but these or similarly designated subject categories offer a total of more than 8,800 different degree courses. Programmes leading to the *Diplom*, *Magister* or *Staatsexamen* are generally divided up into a basic studies section (*Grundstudium*) (usually four semesters), which ends with an intermediate examination, and an advanced studies section (*Hauptstudium*, usually five semesters), which ends with a final examination. Following the successful completion of a first degree with the achievement of a certain level of academic performance a doctorate may be embarked upon, a process termed *Promotion*. A doctorate is conferred on the strength of a doctoral thesis, which must be based on independent research, and oral examinations called *Rigorosum*. Oral examinations may be replaced by a defence of the student's thesis (*Disputation*). A doctoral thesis need not be written within any prescribed length of time. The doctorate entitles a graduate to bear the title of *Doktor*. Admittance to doctoral studies is regulated in the *Promotion* regulations of the universities. As mentioned there are also several procedures in place for admitting particularly qualified holders of a bachelor's degree or of a *Diplom* obtained at a university of applied sciences (*Fachhochschule*). In addition to their respective qualification, students are required to complete preparatory academic studies in the subjects to be studied at doctorate level and/or a supplementary period of study at the university in question or have to sit an aptitude test.

Colleges of art and music prepare students for artistic professions and teaching of music and art. The artistic qualification awarded on completion of a first degree programme is traditionally the *Diplom*; some institutions also offer programmes leading to the *Magister*. Further study, supplementary and follow-up courses culminate in the awarding of the title of *Meisterschüler* (member of a master class), the *künstlerische Reifeprüfung* (final arts examination), the *Konzertexamen* (concert examination) or a further *Diplom* or master's degree. Finally, on obtaining their first degree for entry into a profession, students can also pursue a doctorate. In December 2004, the Standing Conference passed a resolution stipulating that programmes offered at colleges of art and music should also be included in the consecutive structure of study courses leading to bachelor's and master's degrees. The structural requirements that are binding for all Länder and that were passed by the Standing Conference in October 2003 for the accreditation of bachelor's and master's degree programmes were supplemented accordingly in 2005.

Universities of applied sciences (*Fachhochschulen*) are characterized by a practice-oriented bias in the teaching, a usually integrated semester of practical training, and professors who have, in addition to their academic qualifications, gained professional experience outside the field of higher education. In 2003/04, a relatively high proportion of them (60 out of 192) were not publicly maintained, but were to a large extent subject to the same legal provisions as state institutions. The *Diplom* course of studies is divided up into a basic studies section (up to four semesters), which ends with an intermediate *Diplom* examination (*Diplom-Vorprüfung*), and an advanced studies section, which ends with a *Diplom* examination (*Diplomprüfung*) (the standard period of study is usually eight semesters). Further study, supplementary and follow-up courses lasting two to four semesters culminate in the award of a second *Diplom* degree, the master's degree, or a certificate of academic achievement. It is not possible to obtain a doctoral degree from a university of applied sciences, given that only universities and equivalent institutions of higher education are entitled



to award doctorates. The system of quality assurance through accreditation will replace the system of coordination of study and examination regulations.

Professional academies (*Berufsakademien*) form part of the tertiary sector and combine academic training at a study institution (*Studienakademie*) with practical professional training in the workplace, thus constituting a dual system. The students at the professional academies complete parallel training with a company in trade and industry, with comparable establishments in other sectors (particularly in the case of the liberal professions) or at institutions maintained by social services. During the training, periods of study at the study institution alternate with periods of on-the-job training in the training establishments. Training at the professional academies is generally divided up into two years of basic studies followed by one year of advanced studies. Each semester is divided up into on-the-job training and a theoretical part of the course at the study institution that lasts between ten and twelve weeks. Students who successfully complete their *Diplom* examination are awarded a qualification for entry into a profession, e.g. a Diplom degree in engineering, in youth and community work, or in business management, to which the abbreviation (BA) for *Berufsakademie* is added. In October 2004, the Standing Conference passed the resolution that bachelor's programmes at the professional academies should be accredited. With the fulfilment of certain requirements, these bachelor's degrees are equivalent to bachelor's degrees obtained at higher education institutions and thus provide access to master's degree programmes. The requirements for the professional academies apply in particular to teaching staff and to the scope of both theoretical and practical training components.

In 2004/05, there were 370 publicly maintained or officially recognized institutions of higher education, including: 121 universities and equivalent institutions of higher education (*Technische Hochschulen/Technische Universitäten, Universitäten-Gesamthochschulen, Pädagogische Hochschulen*, theological colleges and others); 52 colleges of art and music; and 197 universities of applied sciences (including twenty-nine *Verwaltungsfachhochschulen*, colleges of public administration). In addition, the tertiary sector also included twenty state-recognized and twenty-two non-public *Berufsakademien*, which are to be found in Baden-Württemberg, Berlin, Hessen, Niedersachsen, Sachsen, Schleswig-Holstein, Saarland and Thüringen. In 2005/06 (winter semester) there were 124 universities and equivalent institutions of higher education, 53 colleges of art and music, and 202 universities of applied sciences (including colleges of public administration); out of the 379 higher education institutions, 69 were non-state institutions (KMK and BMBF, 2006).

In the 2004/05 winter semester, there were 1,957,330 students enrolled in higher education institutions, including some 1.36 million students in universities and equivalent institutions, 31,204 students in colleges of art and music, and 562,713 in *Fachhochschulen* (including *Verwaltungsfachhochschulen*). Furthermore, there were 28,074 students in professional academies. In 2005 approximately 246,300 foreign students were enrolled in higher education institutions, of whom 186,700 were non-nationals who have obtained their university entrance qualification in Germany (KMK and BMBF, 2006).



## Special education

The right of disabled children to education and training appropriate to their needs is enshrined in the Länder constitutions and more detailed provisions are set out in the educational legislation of the Länder. The development and organization of special education in the Länder was harmonized by several decisions adopted by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder and especially by the “Recommendations on the Organization of Special Education” (Decision of 16 March 1972) and recommendations for all types of *Sonderschulen*. The current situation is documented in the “Recommendations on Special Education in the Schools of the Federal Republic of Germany” (Decision of 6 May 1994).

Under the Hamburg Agreement between the Länder of 14 October 1971 on harmonization in the school system, the basic school structure which applies to all Länder is such that a clear distinction is made between general schools and special schools (usually known as *Sonderschulen* but also called *Förderschulen* in some Länder). According to the above mentioned “Recommendations on the Organization of Special Education”, there are ten different types of *Sonderschulen*: schools for the blind, schools for the deaf, schools for the visually impaired, schools for the hearing impaired, schools for the mentally handicapped, schools for the physically disabled, schools for the sick, schools for children with learning difficulties, schools for children with speech defects, schools for children with behavioural problems.

Since the 1980s, pupils with special education needs have been increasingly integrated into mainstream schools under school pilot projects. Also, various forms of cooperation between mainstream schools and special schools have emerged and approaches to integrated teaching have been developed in educational science. A focus on institutions has given way to a focus on the needs of the individual. Formerly, the prevailing concept when making choices for a child’s school career (i.e., the decision in favour of a general school or a special school) was the “need for education at a special school”. This has since been superseded by the concept of *Sonderpädagogischer Förderbedarf*, special educational needs, meaning education, instruction, therapy and care requirements depending on an individual’s physical disabilities and social disadvantages as far as the institutional setting allows. This development has been influenced by a new understanding of disabilities and educational needs, improved diagnostic techniques, more effective early detection and prevention as well as better overall conditions at general schools (e.g. improved pupil-teacher ratios), more open approaches to instruction and education and, finally, a greater appreciation of the benefits to children of attending a school close to their home. Though it is not possible to dispense with *Sonderschulen* altogether, they should not be the only place of learning available to disabled pupils. The following forms of special education exist today alongside each other:

*Special education through preventive measures:* These measures aim to prevent an existing disability having a more far-reaching impact. Children and young people facing the threat of disability receive preventive assistance to help counteract the emergence of a disability. Particular importance is attached to interdisciplinary co-operation in the early stages of assistance.



*Special education in joint lessons:* Children and young people with special educational needs can attend general schools provided that the required special educational assistance, practical support and the right physical environment are guaranteed. Apart from the external environment, this also requires qualified special education teachers, individualized forms of planning, carrying out and monitoring the teaching process and coordinated co-operation between the teaching and specialist staff involved. Special education is provided during class lessons and, if necessary, alongside lessons.

*Special education at Sonderschulen:* Children and young people whose special educational needs cannot be met within a general school receive instruction either at *Sonderschulen*, at *Berufsschulen* with special emphasis on different types of special education or at comparable institutions. These institutions must be able to provide the required technical equipment and special teaching aids. They may turn to external organizations to obtain assistance such as therapy, care and social support. *Sonderschulen* vary according to the type of special education on which they focus and the educational courses they offer. They provide support to pupils in any developments which may lead to their possible transfer to a general school and to training.

*Special education in the form of cooperative measures:* Many *Sonderschulen* and general schools are in the process of developing close educational cooperation. This can greatly benefit both lessons and the general life of the school. Also, this trend expands the opportunities for changing between school types and educational courses, increases the proportion of joint lessons and encourages the transfer of pupils from *Sonderschulen* to general schools. By holding special school classes and general school classes on the same premises a suitable basis for co-operation can be created.

*Special education within special education units:* the aim of special education units, either as regional or supra-regional institutions, is to meet individual special needs or a range of different needs (e.g. physical and motor development, hearing and sight, etc.) and to guarantee special education in preventive, integrative, in-patient and co-operative forms. This form of education is based as near to the home as possible and provided by specialists.

Special education in the vocational training sector and during the transition to a work environment: young people with special educational needs should be given the opportunity to receive vocational training in a recognized occupation requiring formal training (*anerkannter Ausbildungsberuf*). Where this does not appear feasible they should be enabled to take up an occupation which is specially designed for the disabled, with the aim of facilitating future permanent integration into a work environment. If this is not practicable either, the young person must be prepared for an occupation that has been adapted to his individual capabilities and skills and will enable him to lead an independent life or be prepared for employment in a workshop for the disabled.

Apart from *Sonderschulen* for children with learning difficulties and the mentally handicapped, all special schools work on the basis of curricula which in terms of educational goals, lesson content and performance requirements match those of general schools (*Grundschule* and the educational courses offered by the



*Hauptschule*, *Realschule* and gymnasium). However, the methods used must take into account the special learning requirements and impairments relating to individual types of disability. The volume of lessons stipulated in the timetables of general schools is supplemented by special education lessons. Some educational courses at *Sonderschulen* also last a year longer than those at general schools. The schools for children with learning difficulties and for the mentally handicapped work according to their own guidelines which, like all other curricula, are issued by the Ministry of Education and Cultural Affairs of the relevant Land.

In so far as the type of disability or illness allows, *Sonderschulen* award qualifications equivalent to the qualifications obtained from general schools (*Hauptschulabschluß*, *Mittlerer Schulabschluß*, *allgemeine Hochschulreife*), provided that instruction was based on the curricula of the respective school type and the educational course was completed successfully. The subjects may be taught over more years than at general schools. For pupils who were not taught using the curricula of general schools, such as the mentally handicapped, the teachers' council deems that an educational course has been successfully completed when the pupil has passed through all the stipulated school levels successfully.

#### **Pupils enrolled in special schools (2003/04)**

<b>Focus of special education</b>	<b>Number of pupils</b>	<b>Attendance rate in %<sup>1</sup></b>
Learning difficulties	228,912	2.91
Sight	4,736	0.07
Hearing	11,013	0.15
Speech	35,883	0.51
Physical and motor development	22,937	0.30
Mental development	70,286	0.81
Emotional and social development	30,523	0.48
Sick	9,676	0.11
Types of special education not assigned to any other disability category	15,395	0.18
<b>All types of special education</b>	<b>429,325</b>	<b>5.55</b>

(1) Pupils at special schools as a percentage of pupils of compulsory schooling age (Grades I-X including special schools).

Source: German Eurydice Unit, 2007. In addition, there were 63,396 pupils with special needs enrolled in mainstream schools.

## Private education

In all areas of education there are also, to a greater or lesser extent, privately-maintained institutions. The fact that public-sector and privately-owned institutions exist side by side and co-operate with each other guarantees not only choice in terms of the educational programmes available but also choice between various maintaining bodies, which promotes competition and innovation in education. Through their maintenance of educational establishments, churches and other groups within the community help shape both society and the state. The right to establish private schools is expressly guaranteed by the Basic Law (Article 7, Paragraph 4) and, to some extent, by provisions in the constitutions of the individual Länder. This freedom to establish private schools is combined with a guarantee of the private school as an institution. Thus, constitutional law rules out a state monopoly of education.

Under the Basic Law, private schools are also under the supervision of the state. When establishing a private school, general legal requirements must be observed first of all, for instance with regard to building and fire safety regulations, health protection and protection of children and young people. The personal suitability of maintaining bodies, managers and teachers also has to be vouched for. In addition, there are different requirements for alternative schools (*Ersatzschulen*) and complementary schools (*Ergänzungsschulen*). Alternative schools must acquire state approval, while complementary schools have merely to notify authorities that they plan to start up.

The criteria for approval of alternative schools are laid down in the Basic Law. Such approval is given by the competent education authority of the respective Land on condition that private schools are not inferior to public-sector schools in terms of their educational aims, their facilities and the training of their teaching staff and that they do not encourage segregation of pupils according to the means of their parents. Approval shall be withheld where the economic and legal status of the teaching staff is not adequately secured. The school supervisory authority must monitor whether the criteria on the basis of which approval was granted are being respected and can withdraw approval if these criteria are no longer being met.

The individual prerequisites for state approval of private schools as alternatives to public-sector schools include: (i) the equivalence of educational aims: as far as the equivalence of the educational aims of private schools and the corresponding school type in the public sector is concerned, strict adherence to the approved teaching hours and curricula of public-sector schools is not required; the private school can pursue religious or ideological educational aims and may use its own teaching methods; (ii) the equivalence of facilities: this involves aspects such as school equipment on the one hand, and issues relating to school organization on the other. Although schools must have equivalent buildings and equipment, differences are permitted in the organization of private schools (e.g., management by staff, particular rights of participation for pupils and parents); (iii) the equivalence of teacher training: teaching staff must have an academic education and teaching qualifications comparable to those provided by the state system of teacher training; in practice, most teachers have completed state teacher training courses; (iv) teachers' economic and legal security: a contract of employment is required, covering duties,



conditions for resignation or dismissal, holiday entitlement, sufficient emoluments and a right to future pension payments; in this way it should be ensured that teachers at private schools are not in a significantly worse position than teachers at public-sector schools in terms of economic and legal security; (v) no segregation of pupils according to economic means: under the Basic Law, pupils should be able to attend alternative schools regardless of their economic means; school fees may be charged but must be socially equitable; state-approved alternative schools therefore only charge moderate fees or guarantee relief to pupils whose parents are of limited financial means (e.g. reduction in school fees, reduction for additional siblings attending the same school).

In almost all Länder, state approval of a private school as an alternative school does not automatically give that school the right to hold examinations and award leaving certificates corresponding to the qualifications gained at public-sector schools. The pupils concerned may only receive these through an external examination, i.e. an examination before a state examining board at a public-sector school.

Only state recognition permits the alternative school to hold examinations in accordance with the regulations in force for public-sector schools and to award certificates; state recognition thus confers the legal powers enjoyed by public-sector schools on the alternative school. A prerequisite for this recognition is that the conditions already required for approval are fulfilled on a permanent basis (operation of school without complaint from school supervisory authority), and that the regulations applicable to public-sector schools are applied to the acceptance of pupils and their transfer between school grades, as well as to examinations.

Recognition also involves several additional rights and obligations for the body maintaining the school, and for teachers, parents and pupils. These include, for example, a fundamental right to public funding for the school and to financial aid for pupils in line with that at public-sector schools. Teachers may also be granted sabbatical leave to work at recognized alternative schools and have these years included in their years of teaching service. They bear titles like those conferred on teachers in the public sector; and schools can train student teachers. On the other hand, recognized schools in some Länder are also obliged to abide by public-sector school provisions relating to school rules, provision governing council meetings and rights to participation.

In the primary sector, private schools may only be established on very strict conditions. Their establishment is permitted only where the education authority finds that they meet a special educational need or where (at the request of parents) they are to be established as non-denominational schools, denominational schools or schools pursuing a certain ideology and no public-sector primary school of that type exists locally. Private primary schools are therefore the exception; in almost all cases they are either denominational primary schools, Rudolf Steiner schools (known as *Freie Waldorfschulen*), reformist schools (*Alternativschulen*) or primary schools with an integrated boarding facility.

At the secondary level, two types of private school are to be differentiated: (i) alternative schools are, in terms of their overall purpose, to serve as a substitute for a public-sector school which already exists or is essentially provided for in a Land; at

these schools general compulsory schooling can be completed, however, these alternative schools, in their capacity as, for example, denominational schools, reformist schools (*Reformschulen*), boarding schools or international schools may also fulfil an educational mission of their own; (ii) complementary schools complement the range of courses on offer from public bodies by offering types of education which do not generally exist in public-sector schools, above all in the vocational sphere.

The main legal provisions are the special laws on private schools or the relevant provisions in the education acts, as well as financial aid regulations in the form of laws and regulations of the Länder. Standard framework conditions in the Länder are guaranteed by an Agreement on Private Schools drawn up by the Standing Conference of the Ministers of Education and Cultural Affairs in 1951.

### Private schools in 2004/05

Type of school	Number of schools	Pupils	Proportion of the total of pupils attending the respective type of school, in percentage
<b>General education schools</b>			
<i>Vorklassen and schulkindergärten</i>	173	4,093	8.5
<i>Grundschulen</i>	529	56,484	1.8
<i>Orientierungsstufe</i>	69	3,484	3.1
<i>Hauptschulen</i>	207	25,114	2.3
<i>Realschulen</i>	303	108,460	8.0
Schools offering both <i>Hauptschule</i> and <i>Realschule</i>	42	4,020	1.1
<i>Gymnasien</i>	392	253,260	10.5
<i>Integrierte Gesamtschulen</i>	43	14,920	2.9
<i>Freie Waldorfschulen</i>	180	50,853	100.0
<i>Abendschulen and Kollegs</i>	89	7,925	17.1
<b>Total</b>	<b>1,236</b>	<b>460,111</b>	<b>7.8</b>
<b>Selected types of vocational school</b>			
<i>Berufsschulen</i>	193	41,000	2.5
<i>Berufsfachschulen</i>	949	113,351	20.9
<i>Fachschulen</i> (tertiary sector)	516	49,507	31.9
<b>Special education</b>			
<i>Sonderschulen</i>	656	65,324	15.4

Source: German Eurydice Unit, 2007.

## Means of instruction, equipment and infrastructure

Legal supervision, which is exercised by the Ministries of Education and Cultural Affairs in their capacity as the highest educational authority, involves monitoring the lawfulness of the administration of external school matters by the local authorities in their capacity as maintaining bodies. External matters include the establishment and maintenance of the school building, and the procurement and provision of textbooks and other teaching materials.

Public-sector schools are, for the most part, state/local authority schools maintained jointly by the Land and a local authority. The cost of the teaching staff is borne by the Land and other staff or material costs are borne by the local authority. Schools with a catchment area extending beyond the local authority area, e.g. schools offering specialized education in artistic subjects or sport, certain institutions providing continuing vocational training (*Fachschulen*) and special schools are usually state schools, i.e. they are maintained by a Land, which bears the staffing and material costs.

Pupils have access to all teaching aids used in lessons, regardless of their economic and social circumstances, and all Länder have regulations on the provision of financial assistance for pupils to purchase teaching aids, or on their provision free of charge. Under these regulations, pupils are either exempt from the costs of teaching aids or only have to pay part of the costs. The funds are provided either by the local authority responsible for establishing and maintaining the schools, or by the Land in question. Generally, pupils at public-sector schools are lent textbooks and other expensive teaching aids (e.g. pocket calculators) for the time they require them. When teaching aids become the property of pupils, parents may be required to pay a portion of the costs in some cases. Parents and pupils are expected to provide their own expendable materials (exercise books, pens and pencils) and other items (e.g., drawing instruments, material for use in crafts and needlework/metalwork lessons). In some Länder schools also provide expendable materials. The precise arrangements vary from Land to Land. Greater emphasis is being placed on the use of computers in all of the Länder, many of which have set up central advice centres for the acquisition and use of hardware and software in schools. These centres provide recommendations and evaluations but the final decision on which pieces of equipment and software to purchase is taken on a decentralized basis by the schools themselves or their maintaining bodies (municipal and local authorities), who are also responsible for financing the provision of hardware and software. In individual cases, educational software is produced either by the Länder's central institutions themselves or on their behalf. The finished production is then made available to the totality of schools in the Land concerned. Yet even in this case it is up to the school and/or its maintaining body to decide if the software is to be obtained/used in the classroom. In the different Länder of Germany many projects exist concerning the utilization of computers and ICT at different levels of education. Apart from a few exceptions most of the secondary schools are equipped with computers for instructional needs, and most of them have computer rooms. The use of new media (multimedia) is becoming increasingly important, both as a teaching aid and as something to be taught and learnt. Currently, access to electronic networks (Internet) is provided for all schools.



It is also the responsibility of the Land to decide whether pupils at private schools are to be supplied with teaching aids free of charge. Some Länder expect parents to pay a portion of the cost of teaching aids themselves, either in the form of a lump sum or by buying certain items directly. Others offer pupils the option of buying their own teaching aids by making a contribution (i.e. 50%) to the cost.

In order to implement the curricula for the various subjects in the different types of school, textbooks are used as learning material in the classroom. These books must be approved by the Ministries of Education and Cultural Affairs, and a list of approved books is published regularly. As soon as a new syllabus has been completed and is introduced on a definitive or preliminary basis at schools, the in-service training institutes for the teaching profession maintained by the Ministries of Education and Cultural Affairs are charged with training teachers to work with it. This is the stage when textbook publishers embark on a revision or completely new edition of their titles. The publishers are private institutions specialized in the production of school textbooks.

One of the responsibilities of the Länder in their educational policy is to maintain a sufficiently varied range of schools in all regions. As the highest school supervisory authority, the Ministry of Education and Cultural Affairs of each Land is therefore concerned with establishing the base for an efficient school system in all regions. Accordingly, present and future school needs and school locations are identified in a school development plan drawn up at Land level. The establishment of plans for developing schools is regulated by the education acts in some Länder.

A school day beginning at 7:30 am and finishing in the early afternoon at 13:00 or 14:00 p.m. is the norm in Germany. As a result, the provision of cafeterias and school canteens in schools is the exception. Accommodation and meals are not generally available for pupils other than in a special form in boarding schools. In planning the development of schools, the Ministers of Education and Cultural Affairs work to keep schools close to pupils' homes, hence keeping to a minimum the problem of schoolchildren having to travel a long distance.

Each of the Länder has its own arrangements as regards the transport of pupils to and from school. There are certain differences as to who is entitled to use school transport and the scope of services provided. In all cases, however, there are comprehensive provisions for the period of compulsory full-time schooling to which the following statements refer. In general fares are refunded, usually for public transport, while under certain conditions a school transport service will be established in its own right. The purpose is to guarantee equal opportunities for pupils from all walks of life, between urban and rural areas, non-handicapped and handicapped schoolchildren.

It is generally the responsibility of the districts and municipalities with the status of a district, and in some Länder of the communes individually, to ensure adequate provision for transporting pupils to and from the school they attend. School transport is funded by the maintaining bodies (usually the local authority). In most cases subsidies are granted by the Land in question. The assumption of travelling costs by the authorities does not mean that school transport is entirely free of charge in all Länder. In some Länder, the crucial factor is parental need, while others have a



graduated scale of parental contributions towards the cost of school transport for their children dependent on income.

## Adult and non-formal education

Continuing education in Germany is regulated by the state to a lesser degree than other areas of education. The joint responsibilities of the Federation and the Länder include research and pilot schemes within the scope of educational planning in all sectors of continuing education. The Federal Government's responsibilities include in particular: continuing vocational training outside the school sector; regulated further vocational training; the principles of continuing academic education at higher education institutions; basic regulations for the protection of those on distance learning courses which are offered under private law; some areas of continuing political education; international cooperation in continuing education, including within the European Union. The responsibilities of the Länder include in particular the following powers to regulate and promote: continuing general education; continuing education leading to school-leaving qualifications; continuing academic education at higher education institutions; continuing cultural education; some elements of continuing political education and some elements of continuing vocational training.

In July 2004, the Federation and the Länder adopted a joint strategy for lifelong learning. The strategy is aimed at demonstrating how learning can be encouraged and supported for all citizens of all ages and at all stages in their lives; this takes place at different locations and teaching is offered in various forms. Lifelong learning includes all formal, non-formal and informal learning.

Under various continuing education legislation of some Länder, it is mainly the task of the local adult education centres (*Volkshochschulen*) to ensure the basic provision of continuing education courses in the field of general continuing education, in other words to provide a regular and comprehensive range of courses which meets the most diverse social requirements and individual needs. It is usually possible for adults to acquire school-leaving qualifications at evening classes (*Abendhauptschulen, Abendrealschulen, Abendgymnasien*) and full-time schools (*Kollegs*). As institutions of continuing vocational training, *Fachschulen* offer courses lasting between one and three years. Distance learning offers employed adults the opportunity to take up continuing education on a flexible basis while remaining in employment. The range of subjects is wide and comprises social sciences, education and psychology, humanities, languages, business and commerce, mathematics, natural sciences and technology, leisure, health and housekeeping, etc. The most popular subject area is business and commerce which accounts for about 25.8% of all students. Professional academies (*Berufsakademien*) may also offer continuing education courses.

Continuing education courses offer people the opportunity to specialize, to extend existing knowledge or to obtain an additional vocational qualification. Courses last from a few weeks or months to several semesters, with modular courses also being offered increasingly. Through continuing academic education, higher education institutions also contribute to regional development in cooperation with partners from industry.



Industry provides a considerable proportion of funding for schemes under which people can obtain and improve vocational skills and qualifications. The Federation and the Länder provide some €167 per year for the promotion of further vocational training as laid down in the Career Advancement Training Promotion Act (amended in 2002), which serves, amongst other things, to further training to become a master of industry or handicrafts.

Comprehensive statistics for all areas of continuing education covering all maintaining bodies are not available. Statistical data can therefore be taken only from parts of this whole sector. For example, statistics released by the German Adult Education Association for the 2004 business year show that 984 *Volkshochschulen* were offering over 560,000 courses attended by about 6.7 million people. These courses were run by some 207,000 members of teaching staff, full-time and part-time tutors and administrative staff. Furthermore, participants in distance learning courses reached an amount of 204,700 learners in 2004. Whereas 25% of Germans aged between 19 and 64 years attended continuing education courses in 1985, this figure was 41% in 2003. The attendance rate for continuing vocational training rose from 12% in 1985 to 26% in 2003. (German Eurydice Unit, 2007).

## Teaching staff

Due to the principle of cultural sovereignty and for historical reasons teacher training in the Federal Republic of Germany is characterized by a high degree of diversification per levels and types of schools. Additionally, teacher training has to combine subject-related studies, educational science and subject-related didactics as well as to provide for a meaningful relation between theory and teaching practice during preparatory service. Furthermore, the subjects of the first phase of teacher training have to be adjusted to the subjects of the second, predominantly practical phase.

Correspondingly, in all Länder efforts are being made to reform teacher training for all types of schools. With regard to the reforms considered necessary, the efforts of many Länder focus, among others, on the following measures: a more extensive practical orientation during teacher training; intensification of the relations between the theoretical and practical phases of training; particular significance of the induction period for newly qualified teachers; the introduction of examinations taken alongside courses of study; improvement of teaching practice with regard to diagnostic and methodical competence. In December 2004, the Standing Conference adopted Standards for Teacher Training: Educational Sciences. The reform of teacher training has also to take into account the implementation of the bachelor's and master's degree programmes. In June 2005, the Standing Conference adopted guideline definitions for the mutual recognition of bachelor's and master's degrees in teacher training courses.

Teacher training is basically divided into two stages, a course of higher education and practical pedagogic training. Teacher training programmes are offered at universities, *Technische Hochschulen / Technische Universitäten*, colleges of education (*Pädagogische Hochschulen*) and colleges of art and music. Practical pedagogic training in the form of a preparatory service takes place in teacher training institutes (*Studienseminare*) and training schools. For programmes offered at



universities, in all Länder teacher training centres have been established or are currently being planned in order to coordinate teacher training between the faculties and guarantee an adequate relationship to teaching practice. The basic entry requirement for teacher training courses is the general higher education entrance qualification (*Hochschulreife*).

The various careers for which teachers are trained correspond to the levels and types of school in the Länder. In view of the large number of different designations for teaching careers corresponding to the levels and types of school in the Länder, the following six types of teaching careers can be distinguished: Type I: Teaching careers at the *Grundschule* or primary level; Type II: General teaching careers at primary level and all or individual lower secondary level school types; Type III: Teaching careers at all or individual lower secondary level school types; Type IV: Teaching careers for the general education subjects at upper secondary level or for the gymnasium; Type V: Teaching careers in vocational subjects at upper secondary level or at vocational schools; Type VI: Teaching careers in special education.

In all Länder training is divided into studies at a university or equivalent institution of higher education and practical pedagogic training (preparatory service). The first period of training includes: (i) a specialist component (including subject-related didactics) with the study of at least two subjects or subject areas; (ii) an educational science component with compulsory study of educational theory and psychology; plus a choice of additional study areas (e.g. philosophy, social sciences/politics and theology); (iii) teaching practice, sometimes of several weeks' duration, accompanying courses of study. In addition, teacher training is also to cover issues concerning special education. The Standards for Teacher Training of December 2004 define the requirements to be met by teaching staff and refer to the education and training objectives formulated in the Education Acts of the Länder. The requirements are generated by the competences aimed for, which are subdivided into four areas: teaching, education, assessment, and innovation.

Training for Type I and largely for Type II of teaching career consists of a seven-semester programme with a total of 120 aggregate hours of weekly attendance during a semester, which devotes particular attention to educational science and practical teaching components. The training incorporates study of an elective or specialized subject as well as primary school didactics. Alternatively, future primary school teachers may study either areas of learning or one or several subjects if subject-related elements of didactics are incorporated into their course. Subject options and specializations vary from Land to Land. Training for Type III leads to teaching qualifications for all or for specific lower secondary level school types. As a rule it consists of a 7-9 semester programme with a total of 120-160 aggregate hours of weekly attendance during a semester of at least two subjects, together with appropriate incorporation of subject-related didactics and an accompanying programme in educational science. Students should also complete at least one guided didactics/subject-related didactics placement. Placements completed outside the school sector can also be used to complement the training. Training for Type IV involves a course of study generally lasting nine semesters (occasionally twelve semesters in the case of artistic subjects) with a total of 160 aggregate hours of weekly attendance during a semester of at least two subjects, with subject-related didactics also to be included. The course of study is designed to incorporate all academic



aspects of the subjects being studied and should develop the student's ability to tackle complex issues and to work in a multi-disciplinary and interdisciplinary manner. At least one period of practical training lasting several weeks is also required, as is at least one guided placement in didactics/subject-related didactics. Placements completed outside the school sector can also be used to complement the training. The principles for the First State Examination (*Erste Staatsprüfung*) for a teaching career at the gymnasium and the general regulations on examination requirements for virtually all disciplines which can be chosen as examination subjects have been laid down in agreements reached by the Standing Conference. They contain fairly specific requirements which have been incorporated into the examination regulations of the Länder.

Teacher training incorporating a teaching qualification in subjects offered by vocational schools (Type V), both for subject-specific theory and general subjects, usually involves a nine-semester course of study, with a total of around 160 aggregate hours of weekly attendance during a semester. Students must also complete a period of work experience lasting at least one year which must be relevant to the vocational subject area chosen and which must be completed before the First State Examination. The qualification to become a special education teacher (Type VI) can be attained either by passing the First and Second State Examinations following a first degree programme or by embarking on an additional programme following teacher training for a different type of teaching career which is also concluded with a state examination. In the Länder the two forms of training (normally lasting nine semesters) exist side by side or as alternatives.

For all teaching careers studies at a university or equivalent institution of higher education are followed by the preparatory service (*Vorbereitungsdienst*) as the second stage of teacher training. Generally lasting two years and with the particular emphasis depending on the Land and the type of teaching career, it involves sitting in on lessons, guided and independent teaching at training schools and studies in educational theory and subject-related didactics at teacher training institutes (*Studienseminare*) which reappraise and consolidate experience gained through practical training. The duration of preparatory service has been reduced to 18 months, and in some instances even to twelve months, in some Länder by means of awarding credits for semesters of practical pedagogical training, other courses in teaching practice etc. The teaching training programme concludes with the examination known as the First Examination which entitles the holder to be accepted into the state preparatory service. The preparatory service concludes with the Second State Examination. This is the prerequisite for permanent employment in a teaching career, but does not guarantee a teaching position. It has to be taken before a state examination board or a state examination commission. An appointment to a permanent post is made within an application procedure according to the criteria of aptitude, qualifications and record of achievement and on the basis of current vacancies. In some Länder, the vacancies are advertised with a relevant requirement profile by the schools themselves. Teachers who are not taken on can apply for temporary posts.

The legal position of teachers at public-sector schools is regulated by the civil service legislation of the Länder, which is guided by the provisions of the Civil Servant Framework Act. Working conditions (recruitment, salaries, promotion, in-



service training, professional and pedagogical support) are equal for women teachers. Individual aspects of the terms and conditions of employment of teachers (e.g. compulsory hours and release from duties) and career matters (recruitment, transfer, secondment and promotion) are regulated at Land level through ordinances issued by the Ministers of Education and Cultural Affairs.

Following successful completion of the preparatory service newly-qualified teachers can apply for permanent employment at public-sector schools. Depending on the Land, the application should be sent to the Ministry of Education and Cultural Affairs or to the intermediate-level school supervisory authority. A decision on recruitment is taken on the basis of job vacancies and according to the criteria of aptitude, qualifications and record of achievement. Successful applicants are usually appointed as civil servants on probation. During the probationary period (of five years at the most) a teacher's aptitude and performance are monitored with regard to his future appointment as a permanent civil servant.

As civil servants, teachers are classified, depending on their training, under the higher or senior service. The salary scales for teachers with civil servant status at public-sector schools apply throughout Germany and conform with the provisions of the Federal Act on the Remuneration of Civil Servants. Teachers at *Grundschulen*, *Hauptschulen*, *Realschulen* and *Sonderschulen* come under the higher service and teachers at *Gymnasien* and vocational schools under the senior service. Once a teacher has proved his suitability and aptitude in the probationary period (two and a half to three years depending on the career structure), he or she is appointed as a permanent civil servant. Following their studies and the preparatory service, teachers are usually placed on scales A12 or A13 under the Federal Act on the Remuneration of Civil Servants, i.e. teachers at *Grundschulen* (A12), teachers at *Hauptschulen* (A12), teachers at *Realschulen* (A13), teachers at *Gymnasien* and teachers at vocational schools (A13 plus allowance for special services).

The remuneration received by teachers with civil servant status consists of a basic salary, cost-of-living allowance and other allowances. The basic salary depends on the salary group and the seniority grade, of which there are fifteen. Seniority grading is based largely on the age of the teacher at the time that he became a civil servant, with his training period also being taken into account. When a teacher first becomes a civil servant, he usually starts out on Grades III-V. The teacher moves up to the next seniority grade every two years. The highest grade is generally reached, depending on the pay seniority set, between the ages of 50 and 55 years. Allowances may be provided for certain extra responsibilities, such as service on committees or staff bodies. Official allowances form part of the basic salary and count towards a teacher's pension whereas allowances for special services are as a rule paid only for as long as the teacher continues to perform the relevant duties. However, these allowances for special services can also count towards a pension given appropriate legislation. The remuneration received by teachers with civil servant status is regularly adjusted by law to keep pace with the general economic and financial situation, taking into account the degree of responsibility associated with the duties of a civil servant. These adjustments correspond largely to the pay settlements for salaried employees in the public sector.



The working hours of teachers comprise lessons and other responsibilities which teaching involves and which are very time-consuming and require considerable effort (e.g. preparing and reviewing lessons, marking pupils' work, attending meetings and organizing and taking part in school trips and parents' evenings). The number of periods which teachers are required to spend in class varies from one type of school to another as well as from Land to Land. In all Länder a period is forty-five minutes long. The following figures for 2004/5 serve as an example and are confined to types of school to be found in the majority of Länder: *Grundschule*, 27 to 29 weekly periods; *Hauptschule*, 26 to 28 weekly periods; *Realschule*, 25 to 29 weekly periods; *Gymnasium*, 23 to 28 weekly periods; *Gesamtschule*, 23 to 27 weekly periods; *Sonderschule*, 25 to 32 weekly periods; vocational schools, 25 to 30 weekly periods.

The goals of in-service teacher training have been laid down by most Länder in their teacher training or educational legislation. Other details about organizations which provide in-service teacher training and about applications, admission and release from teaching duties for attendance of courses are regulated by directives. Some Länder have also formulated the fundamental aims and tasks of in-service teacher training in directives or publications and not in legal provisions. The duty of teachers to undergo in-service training is expressly laid down in all Länder by law or ordinance, whilst it is the duty of the employers (usually the Ministries of Education and Cultural Affairs) to ensure that suitable training programmes are provided. In-service training, like initial training, is the responsibility of the Länder. In each of the Länder the Ministry of Education and Cultural Affairs is responsible for in-service teacher training because it is the highest school supervisory authority and usually the employer of teachers with civil servant status. State-run in-service teacher training is organized in the Länder at central, regional and local level. In-service training can also take place within schools or in the form of guided private study.

In order to organize in-service teacher training at central locations, the Länder have established state-run in-service training institutions which are subordinate to the Ministries of Education and Cultural Affairs as dependent Länder institutions. Central in-service training institutions (a specific Land can have several such institutions) have various names such as state academy or academic institute for in-service teacher training. In-service teacher training at regional level is conducted differently in each Land by the institutes for in-service teacher training and their branches and by intermediate and lower-level school supervisory authorities. Lower-level school supervisory authorities are usually responsible for the organization of in-service training at local level.

In-service training serves to maintain and extend the professional skills of teachers. It helps teachers to meet the current requirements of their teaching career and to fulfil the educational mission of their school. Attendance of in-service training courses serves to deepen and extend the knowledge and skills in the fields of educational theory, psychology, didactics and subject-related studies which the teacher requires as part of his job. The range of subjects covered by in-service training is extremely broad. Course content can relate to school subjects, types of school or educational and teaching goals. The subject matter includes topics relating to general and school education, sessions on subject-related didactics and studies, courses dealing with key current issues (e.g. intercultural learning or new technologies) and introductions to new curricula. In central in-service training in particular, many



courses are aimed at headteachers, guidance teachers, teachers training probationers in the preparatory service and school inspectorate officials. In some Länder the main target group of central in-service training are the subject advisers who themselves organize and hold in-service training courses for teaching staff. Teachers attending in-service training courses are not usually appraised. However, certificates which are then placed on personnel files are awarded in some Länder for certain in-service training courses. Attendance of in-service training courses has no impact on the appraisal or pay of teachers. However, it can have an indirect effect in that regular attendance of in-service training courses is viewed positively in applications for senior posts (such as headteacher). Further training courses, especially if they have taken the form of higher education, culminate in a supplementary examination to the First State Examination which is held by the state examination boards. Below this level there are further training courses which lead to a teaching permit, meaning permission to teach a certain subject or at a certain type of school.

In the year 2004, a total of 714,324 teachers were employed in German schools. Of these, 159,359 were primary school teachers. A total of 311,997 teachers were at the lower secondary level, 178,865 at the upper secondary level (all modalities) and 64,103 at special schools. The number of full-time staff at the higher education level was 164,789 (of whom 38,443 were professors). The number of instructors in the dual system of vocational training was 594,341. (German Eurydice Unit, 2007).

## **Educational research and information**

Educational research projects in Germany are mainly conducted in university and non-university research establishments. Non-university research establishments include institutes of the Land that have been established by and are subordinate to individual Land governments as well as research institutes that are maintained by the Federal Government, for example the Federal Institute for Vocational Education and Training, and institutes that are jointly funded by the Federal Government and the Länder, including for example: the Max-Planck-Institute for Human Development in Berlin; the German Institute for International Educational Research in Frankfurt (DIPF); the Leibniz Institute for Science Education in Kiel (IPN); and the German Institute for Adult Education in Bonn (DIE).

Pilot projects of national importance may also be counted among educational research, for example the promotion of pilot experiments within the scope of activities of the Commission of the Federation and the Länder for Educational Planning and Research Promotion. Pilot experiments are being carried out in five key areas to which the Länder and the Federal Government attach particular importance with regard to educational policy and practical relevance. Within these key areas, the following main programmes were supported in 2005: quality enhancement of the training and education provided in daycare centres and primary schools and organization of the transition; further development of the range of dual courses available in the tertiary sector; support of children and young people with migrant backgrounds; all-day learning; lifelong learning; cultural education in the age of media; innovative in-service training for teachers in vocational schools; continuing higher education in the academic field; teaching and learning languages as a



continuum: practical strategies for transfer between key stages within the education system.

The Federal Government is primarily strengthening empirical educational research by means of three lines of action as part of departmental research and the promotion of research: thematic foci as part of departmental research that are in line with educational reform; improvement in statistical basic conditions; measures for quality development and assurance, as well as for the promotion of the next generation of academics. In the Länder, as part of the promotion of the development of schools and teaching practice, the institutes for school pedagogy and educational research are responsible for educational research and for carrying out pilot experiments in the school sector.

The Institute for Educational Progress (IQB) that was set up by the Länder at the Humboldt University Berlin and the Scientific Advisory Committee for the Support of the Federation and Länder in Educational Reporting are examples of collaboration between the public sector and educational research. As a scientific establishment, the IQB supports the Länder in the assurance and ongoing improvement of educational returns in the school system. In particular, the Institute should make a key contribution to the review and further development of the educational standards.

The Federal Government and the governments of the Länder co-operate in the Bund-Länder Commission for Education Planning and Research Promotion (BLK), to support institutions engaged in, and projects concerning, scientific research of supra-regional significance. Support covers in particular pilot projects in the field of education and their scientific support and evaluation. Pilot projects are currently being conducted and promoted in the following fields, which are assigned particular importance by the Länder and the Federal Government with regard to educational policy decisions and practical applications: vocational education and training; higher education institutions; new information and communication technologies in education; inclusion of environmental issues in education; artistic and cultural education; selective support of special groups; girls and women in education.

An up-to-date survey of educational research projects which are being conducted in the Federal Republic of Germany can be obtained from the FORIS database (*Forschungsinformationssystem Sozialwissenschaften*). The database, produced by the Social Sciences Information Centre, is updated each year on the basis of surveys covering around 5,000 research institutions. Educational research forms part of the spectrum of social science research which is recorded in the database.

## Sources

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. *Germany*. National summary sheets on education systems in Europe and ongoing reforms. Eurydice, April 2007.



Federal Ministry of Education and Research. *Online-offline. Information technology in education*. August 2000.

Forum Bildung Working Party. *Recommendations of the Forum Bildung*. November 2001.

German Eurydice Unit. Secretariat of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany. *The education system in the Federal Republic of Germany 2001. A description of responsibilities, structures and developments in education policy for the exchange of information in Europe*. Bonn, KMK, 2002.

German Eurydice Unit. Secretariat of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany. *The education system in the Federal Republic of Germany 2005. A description of responsibilities, structures and developments in education policy for the exchange of information in Europe*. Bonn, KMK, 2007 (original version: January 2006).

Secretariat of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK). *Report on the development of education in the Federal Republic of Germany 1994-1996*. International Conference on Education, 45th session, Geneva, 1996.

Secretariat of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK). *Enhancing the role of teachers in a changing world*. Reply to the IBE questionnaire ED/BIE/CONFINTED/45/Q/95, International Conference on Education, 45th session, Geneva, 1996.

Secretariat of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK). *Educational content and learning strategies for leaving together in the twenty-first century: problems and solutions*. International Conference on Education, 46th session, Geneva, 2001.

Secretariat of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK). *Quality education for all young people: Challenges, trends and priorities. Report to the forty-seventh session of the International Conference on Education*. International Conference on Education, 47th session, Geneva, 2004.

Secretariat of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK); Federal Ministry of Education and Research (BMBF). *National report of Germany within the framework of the Bologna process 2005-2007*. December 2006.



## Web resources

Bund-Länder Commission for Educational Planning and Research Promotion (BLK): <http://www.blk-info.de/> [In German; some information also in English and French. Last checked: September 2007.]

Federal Ministry of Education and Research (BMBF): <http://www.bmbf.de/> [In German; information also available in English. Last checked: September 2007.]

Federal Institute for Vocational Education and Training (BIBB): <http://www.bibb.de/> [In German; information also available in English. Last checked: September 2007.]

German Academic Exchange Server: <http://www.daad.de/> [In German, English, Spanish and other languages. Last checked: September 2007.]

German Accreditation Council: <http://www.akkreditierungsrat.de/> [In German; information also available in English. Last checked: September 2007.]

German Educational Server: [http://www.bildungsserver.de/index\\_e.html](http://www.bildungsserver.de/index_e.html) [In German; information also available in English. Last checked: September 2007.]

German Institute for Adult Education (DIE): <http://www.die-bonn.de/index.asp> [In German; information also available in English. Last checked: September 2007.]

German Institute for International Educational Research (DIPF): <http://www.dipf.de/> [In German; information also available in English. Last checked: September 2007.]

German Rectors' Conference (HRK): <http://www.hrk.de/> [In German; information also available in English. Last checked: September 2007.]

German Science Council: <http://www.wissenschaftsrat.de/> [In German; information also available in English. Last checked: September 2007.]

Ministries of Education and Cultural Affairs in the Länder: <http://www.blk-bonn.de/links.htm> [In German; also includes links to related institutions. Last checked: September 2007.]. Another link: <http://www.bildungsserver.de/laenderministerien.html>

Standing Conference of the Ministers of Education and Cultural Affairs of the Länder (KMK): <http://www.kmk.org/index1.shtml> [In German; some information in English. Last checked: September 2007.]

EURYBASE, the information database on education systems in Europe: <http://www.eurydice.org/> [In several languages.]

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