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Germany

History of the school system

Cultural context and corner-stones of the historical development of schooling

The beginnings of the German school system can be traced back to ‘monastery schools’ (*Klosterschulen*), which are documented from the ninth century, and to cathedral and collegiate schools (*Dom- und Stiftsschulen*), documented from the twelfth century. The monastery schools are considered to be the precursors of the later grammar schools. In the Middle Ages, especially in the context of the growth in trade, the emergence of cities, and the institutionalization of handicrafts, competencies in reading, writing, and numeracy became necessary for larger and larger portions of the population. In response to these needs, private and later communal schools were established in which elementary skills were taught. The heyday of these German schools for writing and mathematics stretched from the thirteenth to the eighteenth century, and they are regarded as one of the roots of the *Volksschule* (‘people’s school’), which later became the *Hauptschule*. The emergence of the broader middle class from the eighteenth century led to the establishment of the *Realschule*. Its guiding principles were to cater for those who desired an education which went beyond that of the *Volksschule*, but did not intend to pursue an academic career. The education imparted at this school differed from both classical humanistic and popular education. During the course of the nineteenth century, a three-track school system came into existence, whose role was essentially to cater to and stabilize the social interests of the three-class society of Germany.

The modernization process in the education system that began at the turn of the nineteenth century strengthened the role of the State in the school system (Tenorth 1992, pp. 136ff.), and met the educational interests of broad strata of the population. Since the end of the eighteenth century, schools and universities have as a rule been state institutions, and they can only be established and operated with the approval of the State in the form of the governments of the *Länder*. The diversity stemming from the federal system and from state and confessional contradictions, along with the continuing homogenizing ideal of national educational unity, characterize the history of German schools in the nineteenth century and beyond (Anweiler 1996, p. 31).

Neither in the German Empire (1871 to 1918), nor in the Weimar Republic (1918 to 1933) were there any unitary regulations on schooling or higher education.

Only the national Act on Primary Schools (*Reichsgrundschulgesetz*) of 1920 established, through the introduction of a four-year primary school, a statutory regulation in Germany. The same applied to compulsory education; until 1918 there was only a duty to provide instruction, which could also take the form of home schooling (Tenorth 1992, p. 37). The Weimar Constitution (Article 145) was the first to stipulate general compulsory school education. During the national socialist regime (1933 to 1945), no all-embracing changes to the three-track school structure were introduced in Germany.

Following the breakdown of the NS regime, the *Länder* in the three western zones, later the Federal Republic of Germany, largely adopted the pre-1933 school structure and developed their school systems in the tradition of federalism. This means that the *Länder* have legislative as well as administrative competency. In contrast, in the Soviet Occupation Zone and then the GDR an eight-year comprehensive school (*Einheitsschule*) and a four-year upper secondary school were introduced, which were later replaced by a ten-grade general education polytechnical high school (*Polytechnische Oberschule*). Thus, from 1949, the education system of West Germany and its federal structure were diametrically opposed to the centralized structure of East Germany (Anweiler 1996, p. 32).

From the beginning onwards, furthermore, the education system of both German states displayed major differences in their organization, structure, goals, and contents, as well as in their treatment of the 'results of education'. Even if one considers only the school structure, a significant difference becomes visible. On the one hand, there are the three classic types, born out of historical tradition, of the general-education school system in the Federal Republic of Germany: the *Volksschule* (after 1964 the *Hauptschule*), the *Realschule*, and grammar school or *Gymnasium* (to which must be added, from the beginning of the 1960s, comprehensive schools). On the other hand, the GDR had the ten-year general-education high school for all pupils. Since the first years of the Federal Republic of Germany, educational reforms aimed at changing this three-track structure have made hardly any progress. However, parliamentary democracy and pluralistic public life as a whole have turned out to be a decisive gain for the education system (Geißler 2002b, p. 17). In contrast, educational reform in the GDR lacked any real perspective, in spite of many radical measures and a programme focused on equality of educational opportunity up to higher education, not least because reform-oriented and educational discussions were increasingly ruled by ideology and politics.

Reforms and innovations

In the mid 1960s, a phase of educational reform initiatives began in the Federal Republic of Germany. These arose from various sources, not least the awareness of a looming 'educational catastrophe' (Picht 1964). In particular, the German Educa

tion Council (*Deutscher Bildungsrat*)¹, founded in 1965, aimed to promote and academically monitor educational reforms through a number of recommendations and studies. All levels of the education system, from primary school to the upper secondary level of the grammar school and right up to the universities were forced to undergo changes, albeit not radical ones. Furthermore, new educational institutions were created, for example comprehensive schools, *Fachoberschulen* (a specific type of upper secondary vocational school), *Fachhochschulen* (universities of applied sciences), and new universities. Finally, broad admission to institutions of further education was made possible and the proportion of *Abitur* (university entrance qualification) holders rose to 30% of each age group. The changes carried out or introduced at that time still determine to a large extent the educational landscape in Germany. In the contemporary GDR, there were remarkable efforts to modernize both the structure and the contents of the school system. On the other hand, the system had the clear function of selecting pupils on socio-political criteria (for example only about 12% of each age group had *Abitur*). The fall of communism in the GDR in the Autumn of 1989 resulted in the demolition of an education system developed in the course of more than forty years. The ‘Round Tables’, which had arisen mainly from the citizens’ rights movement, first sought to reform the GDR education system, and later attempted the balancing act between the most tried and tested elements of the GDR school and the fundamental structures of the federal German school system. In the end, however, the efforts invested in the process of ‘bringing both systems together’ mostly led to the adaptation of the East German to the West German order. Since the reunification of Germany on 3 October 1990, the federal structure has also been applied to the newly formed East German *Länder*. In effect, the West German tracked system was introduced in 1992-93 into all five new *Länder*, though in slightly modified versions.

Even if a new phase of educational development started in Germany with the German Reunification, the antiquated state of the education system only became a real public concern after the results of international surveys on student performance (TIMSS, PISA) were published at the end of the 1990s and at the end of 2001. The recommendations² on five issues spanning many fields of education made at the end of 2001 by the *Forum Bildung*³ (Forum for Education) were an important contribution to the discussion on changes in the German education system. These five recommendations focussed on future educational and qualification targets, the promotion of the equality of educational opportunities, quality assurance in the context of international competition, lifelong learning, and the new culture of learning and

¹ The *Deutsche Bildungsrat* [German Education Council] existed from 1965 to 1975. This panel of academics and government representatives was established to formulate development plans for the German education system, proposals for structural changes, and recommendations for long-term education planning.

² With the *Forum Bildung*, which was established in 1999 as a joint effort by the Federation and the *Länder*, an ‘Alliance for Education’ was created which offered the chance to discuss the reforms of the education system and possibilities for implementing them across the boundaries of legal competencies.

³ *Empfehlungen des Forum Bildung* [Recommendations of the Forum for Education]. Edited by the work team of *Forum Bildung* at the office of the BLK. Bonn 2001.

teaching. Nevertheless, the recommendations of the *Forum Bildung* were unable completely to fulfil the role assigned to them as initiators of an educational reform in Germany. Furthermore, they failed to play their intended part in the public discussion, and were even marginalized by the PISA results. A whole range of recommendations are found in the measures of the *Länder* governments decided upon in December 2001 for the improvement of school education in Germany as a consequence of the results of the PISA survey. These measures concentrated on seven fields of action: linguistic skills, interlocking the pre-school domain and primary school, primary-school education, the promotion of educationally disadvantaged children, securing quality of instruction and of schools, professional development of teachers, and all-day schools.

In general, recent years have seen the launch of a whole range of developments, some of which may be seen as long-term and sustainable reform and innovation strategies. These developments include: the tendency, influenced above all by the new *Länder*, towards flexible institutional solutions within the existing structures (for example a double-track secondary level); the step-by-step implementation of a new type of school system governance through the limitation of central requirements and the promotion of the responsibility of each school; an emphasis on the quality of school and instruction as the core of school development; a paradigm shift of school system governance towards output-oriented governance; and the introduction of continuous system monitoring and quality assurance.

Socio-cultural context of the current school system

Educational targets and general function of school

As a continuation of a tradition reaching back a long time in German history, German federalism, as it is laid down in the Basic Law (Constitution) can be seen as one of the most important structural features of the German education system. Article 30 of the Basic Law stipulates: ‘Except as otherwise provided or permitted by this Basic Law, the exercise of state powers and the discharge of state functions is a matter for the *Länder*.’ For the education system, this means that the *Länder* have legislative competency in all issues pertaining to cultural policy and cultural administration – from radio to state libraries, theatre, schools, and higher education. This division of competency is described as the ‘cultural sovereignty of the *Länder*’.

Competencies of the Federation

The cultural sovereignty of the *Länder* is restricted by a variety of far-reaching regulations in the Basic Law. For example, the Federation has the genuine right to legislate on these matters if ‘the establishment of equal living conditions throughout the federal territory or the maintenance of legal or economic unity’ (Article 72(2)) can only be reached by doing so. Specifically, the Federation has competencies for a number of areas in the education system, such as wage and employment law issues, work-based vocational training, the extension and construction of institutions of higher education, financial support of pupils and students, educational planning, and funding of research.

Competencies of the Länder and the municipalities

For all other areas of the education system, competencies rest with the *Länder* and the local authorities. The division of competencies between each *Land* and its local authorities (municipalities, districts, and urban and rural municipalities within districts) can be described – for the sake of clarity – in terms of ‘internal’ and ‘external’ school matters. The building and maintenance of school premises; the appointment and financing of non-teaching personnel (school secretaries and service employees); and communal school development programs, which involve making sure that the school premises are correctly located, that the school has the right operational size, and that it is available at the right time, are major external school matters for which the local authorities are responsible. Internal school matters, for which the *Länder* are responsible, are all educational issues in the narrower sense. In particular, these are: the aims and contents of instruction (curricula, timetables, textbooks, transfer to the next grade, and examinations); the training, appointment, and financing of teaching staff; and the structural form of the school system (school forms and duration of schooling). Co-ordination measures between the Federal Government and the *Länder* take place as necessary in the *Bundesrat* (Upper House), and in the Commission of the Federation and the *Länder* for Educational Planning and Research Funding (*Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung*), which serves as a permanent discussion forum for all matters concerning not only the Federation, but also the *Länder* and the promotion of research. They also take place in the *Wissenschaftsrat* (Science Council) and in the Planning Committee for University Construction. 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 - KMK*) is an organ that enables co-operation and co-ordination in educational matters between the governments of the *Länder*. Its decisions only have the status of recommendations. On the basis of a convention between the *Länder* with regard to the standardization of the school system (Hamburg Convention), which was concluded in 1964 and amended in 1971, the following features of the education systems of the *Länder* were unified: the beginning and the duration of full-time compulsory education, the dates of the beginning and the end of the school year, the length of holidays, the descriptions of the various educational institutions and their organization, the possibility to move from one school type to another, the beginning of foreign language instruction and the sequence of the foreign-language options, the recognition of leaving certificates and state examinations in the context of teacher training, and the definition of a scale of grades for school reports and for teacher-training examinations.

In Germany, school instruction is evolving between the conflicting priorities of material and formal education. Although the imparting of subject-related knowledge and skills is at the forefront, general, cross-curricular aims of classroom instruction have great importance. The *Länder*, responsible for shaping the school system, decide on their own on the aims and contents of institutionalized education. Cross-curricular objectives of education laid down in legislation and in relevant documents include the ability to act on one’s own initiative and areas of social competences

such as the ability to learn, to judge, to co-operate, to communicate, to criticize, and to solve conflicts. Those objectives are found as explicit or indirect requirements in the list of guiding principles of nearly all *Länder*. Alongside numerous similarities, it is also possible to distinguish different focal points and weightings. For example, preparation for the world of work is clearly stated as an educational goal in the school laws of only five *Länder*. On the other hand, the school laws of all but three *Länder* make at least general references to targets such as the ability to take part in economic and vocational life, and the fulfilment of vocational tasks.

Socio-economic context

German society is characterized by great cultural and social heterogeneity. On the one hand, this provides people with chances to shape their lives individually. At the same time, however, common principles of coexistence are losing their importance. The education system can contribute to social cohesion in a particular way. This primarily means that the education system is open to everybody and provides support to everybody: adolescents from all strata of the population, with and without an immigration background; boys and girls; and young people from large cities and rural areas. Presently, both integration and segregation are taking place in the education system. These aspects have to be more clearly specified in order to understand the peculiarities of the school system in Germany.

The plurality of secondary school forms is the one feature in the German school system that best illustrates the principle of segregation aimed at homogenizing separate learning groups. In this context, pupils are allocated to different education tracks at the end of the primary level, a decision that is commonly taken at the end of school year 4 and which, from an international perspective, is implemented particularly early. This system allows for later corrections in the form of changes in the type of school attended and leaving school before completion. The fact that school years can be repeated should also be mentioned in this context. The decision for a specific type of secondary school is governed by different rules in the *Länder*. In most of the *Länder*, parents now have the last say on the choice of secondary school (exceptions to this are Baden-Württemberg, Bavaria, Saxony and Thuringia). Theoretically, school years 5 and 6 are considered in many *Länder* to be 'trial periods' (described for example as 'observation level' or 'promotion level'), but practice shows that, because of resource-allocation policy, it is in the interest of every secondary school to keep pupils once they are enrolled, so a comparatively low number leave the school.

The allocation of pupils to the different types of secondary school is influenced to a large extent by their social background. Studies have shown that children whose parents attained a low level of education have to achieve far higher performance levels in order to be recommended for grammar school, compared to those whose parents hold a higher education degree (Lehmann e.a. 1997, 1999). Therefore, it is generally established that success at school greatly depends on social background. This is especially obvious in the case of children and young people with an immigration background. A whole range of different learning environments arise, so that individual pupils, in spite of having the same learning abilities, develop in quite

diverse ways. On the other hand, girls are considered to be more advantaged than disadvantaged.

The homogenization already effected by the allocation of school track is intensified by the change of school tracks, which is possible at the end of the 'probationary period'. Learning requirements increase particularly at the beginning of instruction in a second foreign language from year 7 onwards, which leads to further transfers to a less demanding school track. This so-called 'downward mobility' as well as comparatively high repetition rates are characteristic features of the German school system. The frequency of class repeats varies from *Land* to *Land*, from school track to school track, and from school year to school year. Research shows that around a quarter of the pupils in years 5 to 9 repeat a year at least once.

Social position of the teaching profession

In the academic year 2000-01, around 900,000 teachers were teaching in Germany at general-education and vocational schools. Of those 900,000, 90% were in full- or part-time employment. Women make up more than 60% of the teaching workforce. In Germany, teachers are commonly trained at universities, in a few cases, at teacher-training colleges. After a standard period of study of six to ten semesters (depending on the type of teacher training), teacher training at university is completed with the first state examination. This is followed by a two-year practical traineeship phase, the *Referendariat*, which mostly takes place at schools, and by the second state examination. After this, education-degree holders can apply for a teaching position. Teachers who find a job are generally given civil-servant status (in East German *Länder*, this generally only applies to school directors). Because of this social protection and the relatively generous old-age pension which they can expect, the teaching profession enjoys high social prestige. Furthermore, in Germany the wages of teachers are significantly above average earnings. The remuneration of a teacher is dependent on the level of training achieved, on the school type in which he or she is employed, and on his or her age. The highest wages are paid to grammar-school teachers, the lowest to primary-school and *Hauptschule* teachers. The deployment of teachers is carried out according to school types and on the basis of the hours to be taught (mandatory periods). According to school type, teachers have to teach between twenty-three and twenty-eight periods of forty-five minutes per week.

School and the role of the family

School and family fulfil specific functions in the process of education, upbringing, and socialization. These functions are strongly influenced by the social-strata specific cultural environment of the family. The family plays a special role as an educational institution that prepares children for school and accompanies them while they attend school. The development and promotion of performance are particularly affected by the social and cultural conditions of the family. According to the Basic Law, the upbringing of children is both the natural right and duty of parents. The mission of schools therefore includes as a fundamental principle the observance of parental rights. The interaction of school and family is regulated by regulations at

Land level. Parents' representatives, elected at regional and supra-regional level in classes, schools, and regions have varying yet definite rights to voice their concerns about basic issues of educational policy, such as the design of the curricula.

Organizational context and governance of the current school system

Basic legal principles, levels of governance, and philosophy of governance

The Federal Republic of Germany is a democratic and social federal state. This means that any survey of the education system should consider not only Germany as a whole, but also each one of the sixteen *Länder* with its own legislation and government. Mandates for the education system are regulated by the federal structure. The Basic Law contains only a few fundamental regulations on education, culture, and science. For example, it guarantees the freedom of the arts, science, research, and teaching. It also guarantees the freedom of creed and philosophy of life (*Weltanschauung*), the free choice of a profession and of a professional training establishment, equality before the law, and rights of parents as legal guardians. Furthermore, the whole school system is under state control.

According to the Basic Law, it is the responsibility of the Federation to pass legislation relating to the support of children and young people within the framework of social legislation. This also applies to the provision of nursery schools and kindergartens. The *Länder* are expected to give this legislation more concrete form by passing their own laws. Where the *primary level* is concerned, the Basic Law and the constitutions of the *Länder* contain a range of fundamental regulations on the school system (school supervision, rights of parents, compulsory education, religious instruction, and private schools). The legal bases for primary school as the first level of compulsory schooling for all children are contained in school laws, laws on school system administration, and school regulations for primary schools, which are passed by the ministers of education of the *Länder*. The *secondary level* comprises general-education as well as vocational school instruction. Grounded in educational legislation, the laws of the *Länder* concerning school administration, compulsory education, and school regulations for general-education and vocational schools contain detailed provisions on the contents of the courses and of the leaving certificates and qualifications that can be acquired at the end of the lower and upper secondary level. The legal regulations for vocational training in industry and handicrafts are contained in the Act on Vocational Training and the Act Regulating Handicrafts. At the *higher-education level*, the Framework Act for Higher Education and the legislation on higher education of the *Länder* provide the legal basis. On the basis of regulations, which are kept rather broad, the laws on higher education of the *Länder* provide concrete guidelines for individual matters. The regulations apply to all higher-education institutions, including private ones, and thereby constitute a systematic basis for the higher-education system, which comprises over 300 institutions. One regulation of the Basic Law refers to the expansion of higher-education institutions and establishes that the construction of higher-education buildings is the common task of the Federation and the *Länder*. Adult education is ruled by the state to a lesser extent than the other educational sectors. State activities in the field of

continuing education are limited to laying down fundamental rules and regulations related to organization and financing. Here, too, detailed regulations are under the competency of the *Länder*.

In Germany, 'input control' has traditionally dominated in accordance with the classical basic understanding of educational policy control. Great importance was attached to input (for example financing, qualification of personnel, deployment of material resources, and the extension of the administration) into the school system in the hope that the expected 'output' would then more or less 'automatically' ensue. This input control through various central specifications meant that every school enjoyed a rather modest 'autonomy'.

After the publication of the TIMSS results, there was a paradigm shift in the organizational and steering philosophy of the German education system from input to output control. The steering model, which was at first practised in municipal administration as the so-called 'new steering model' according to the Dutch model, also found entry into educational policy. At the core of this policy is an emphasis on 'result-oriented' steering procedures. On the one hand, this emphasis implies a clear tendency towards greater freedom for individual schools in nearly all of the *Länder*. On the other hand, it means that the previous scepticism towards empirically-based comparative studies was widely abandoned, and empirical evaluation received an increasing amount of attention in the area of educational policy. As a result, standardized tests in the course of school careers, which are organized at the level of the *Länder*, and national and international *Large Scale Assessments* are gaining ground.

Financing

The financing of the education system from public money rests on the following rules. Most education institutions are financed by public authorities. They generally finance themselves through direct funding from the public budget and only to a very small extent through school or study fees. Decisions are taken at all three levels of the political and administrative hierarchy in Germany (Federation, *Länder*, municipalities) on the financing of education, yet 90% of the funds are provided by the *Länder* and municipalities. The pre-school sector is not part of the state school system, so attendance at nursery school or a kindergarten is generally subject to a fee. The institutions of the pre-school sector are co-financed by public and non-public bodies, i.e. by the municipalities, welfare associations, and the churches. Public as well as voluntary services receive allowances for material and staff costs. Furthermore, parents have to pay fees in order to cover the costs. The amount of fees that parents have to pay depends on their income. The state school system is financed on the basis of the division of competencies between the *Länder* and the municipalities. Attendance at school is free of charge. Every *Land* supports the municipalities through funding, e.g. grants for the construction of school buildings or for certain operating costs. The payments made by the municipalities cover around 20% of the costs of the school system, while the *Länder* carry around 80% of the total costs of the school system. Public institutions of higher education are financed to a level of 95% from the budget of the ministries for science and research of the *Länder*. As a general rule, institutions of higher education (with the exception of some private

institutions of higher education), charge neither fees, nor semester fees, nor examination fees - yet⁴. This applies to both German and foreign students. The continuing education sector is operated by public authorities, private enterprises, corporate groups, and institutions of continuing education. The governing bodies of *private schools* are granted subsidies by the *Länder* in various forms. Authorized private schools have the right to a regulated financial grant, which covers the staff and material costs that a comparable public school would have. Public grants depend on the type of school, e.g. authorized private schools (replacement schools), recognized private schools (complementary schools), boarding schools, and church replacement schools.

In 2001, over 187 billion euros were spent in Germany on education, science, and research (spending of public bodies, private bodies, and companies). The State, the economy, and private persons spent 131.7 billion euros of this on the carrying out of the education process and the promotion of participants in education (see *BLK-Bildungsfinanzbericht* (financial report for education) 2001-02). From 2000 to 2001, spending on education rose by around 2.3%. For the schools, the institutions of higher education, and the promotion of the education system, spending for the years 2001 and 2002 was increased again, although spending on education in Germany as a percentage of GDP is still below the OECD average. Compared to other European countries, Germany expends its resources particularly strongly on older pupils and students (in 2002 the spending per pupil or student was 6% above the OECD average), whereas many other European states do more for nursery schools, kindergartens, and primary schools (in Germany the spending per pupil in the primary sector was 8% lower than the OECD average).

Public and private schooling

School legislation in all the *Länder* states that private schools may be set up in addition to public schools. Schools financed by private bodies (private schools) serve about 5.7% (1999) of pupils and thus play a marginal role, fulfilling a replacement and complementary function. They are divided into replacement schools recognized by the state, whose leaving certificates enjoy unrestricted recognition, and schools permitted by the state (complementary schools), whose pupils have to take examinations at a state school, or as 'external examinees' at a school recognized by the state. Most private schools are replacement schools. The governing bodies of private schools can be churches or other institutions under public or private law, but also private persons. Private schools recognized by the state are subject to state control. Curricula and learning targets correspond to those of state schools. Leaving certificates are controlled by state examination commissions. Private schools receive as a rule part compensation for costs (90%), or have all of their costs covered by the state. However, only those costs are covered that the state would spend on a comparable student at a state school. Since most private schools have smaller classes and more facilities, the costs are significantly higher than in state schools. Therefore,

⁴ According to the current ruling of the Federal Constitutional Court, the *Länder* have the right to charge tuition fees for higher education. It is therefore expected that such fees will be introduced as from 2006.

most private schools charge varying amounts of school fees. Supplementary costs also occur in boarding schools.

General standards of the school education system

The specifically German understanding of education received its formative basis in the late Middle Ages. Since then, it has constantly stood under the influence of both tradition and debates on the virtues of practice-remote, 'superior-quality', general education as opposed to practice- and work-oriented education. School education and its targets are given concrete form in subject contents, which define what is considered to be 'necessary to know'. The goals and contents of school education are fixed in timetables, teaching plans, and curricula that have enjoyed relative stability for nearly a hundred years. The discussion on education in Germany was given a twist through the introduction of the notion of competency, whose consequences for the determination of targets and contents of institutionalized teaching and learning are only gradually becoming clear. 'Competency' and 'education' (*Bildung*) differ from one another in both their formal and their content-related aspects. It must be noted that PISA clearly follows a competency-oriented approach to learning at school, which unequivocally differs from the traditional German understanding of education.

The central instrument with which the *Länder* implement and control the school policy that they each follow in the context of their competencies is *school supervision* (*Schulaufsicht*). Every one of the sixteen *Länder* possesses its own educational administration, which is comprised of several instances in charge of school supervision. The organization of school supervision varies from *Land* to *Land*. Above the level of school supervision there is in any case a ministry, which is responsible for schools and other sectors. The main specifications of school development are determined by this ministry. As far as they concern central areas of the school system, these rules and regulations must be passed by the legislative, that is, by the current parliament. These regulate in particular: the quantity and distribution of subjects of instruction (timetables), curricula, the recognition of textbooks, pupils' careers (grading, progression to another class, and transfer to another school track), the number of pupils per class, and the number of teachers. School supervision includes the areas of academic supervision, related to issues concerning school subjects and methodological questions of instruction and education; legal supervision, which, unlike academic supervision, does not address the schools, but the (municipal) school governing bodies; and staff supervision, which evaluates the performance of employees. In the context of the debates on a stronger decentralization of the school system, school supervision is nowadays expected to focus more on counselling and support services.

Quality management

To date in Germany school governance – and the quality assurance associated with it – has been mainly implemented by legal and administrative regulations. Since the whole school system is under the control of the State, the State created school supervision in the narrower sense of an instrument. In a broader sense, there is a net-

work of regulating factors, including teacher training, subject lessons, teaching plans and curricula, textbooks, timetables, and school supervision. Above all, state regulations quantitatively concentrate on three major areas. The first major area concerns what children should learn at school. This means timetables, subject-allocation plans, curricula, and procedures for licensing textbooks. The timetable acts as an important instrument in this area, which corresponds to the subject-teacher principle and time rhythms. A second area is concerned with standardizing status-relevant school-career decisions, that is the examination, transfer, admission, and leaving-certificate regulations. These regulations ensure the formal continuity of assessment performance and standardized assessment procedures at school. The third area concerns regulations on the organization of instruction, such as the fixing of numbers of pupils per class, the number of teaching hours, or the type of instruction-related differentiation. While exact legal and administrative regulations apply in these cases, fewer standards apply to the preparation and implementation of instruction, educational work outside of the classroom, co-operation among teachers, and in-service training.

Since the beginning of the 1990s, there have been plans in the *Länder* aimed at intensifying quality assurance. At the centre of these plans is the strengthening of the independence of the individual school, and at the same time the reduction of school administration and of the control function of school supervision (linked with an extension of support and counselling services for schools). Mainly as a result of the PISA survey and of a supplementary PISA for Germany's *Länder* (PISA-E), the Federation, the *Länder*, and schools in Germany have increasingly put their conventional system of quality assurance to the test, and have intensified their search for new solutions.

The decision of the KMK of June 2002 to elaborate national educational standards in key subjects for certain school years and final years is a major step in developing quality management in the German school system. Regular checks will be carried out through Germany-wide comparisons and comparative research. Such a measure rests on the recognition that a quality-development effect arises from binding standards that are directly reflected in the work of the individual school and in the shaping of instruction by the individual teacher. In order to support the efforts of the *Länder* in the assurance and improvement of educational outputs, an institute for quality development in the education system (*Institut zur Qualitätsentwicklung im Bildungswesen* - IQB) was founded. Its mission is to further develop, operationalize, standardize, and check educational standards in Germany. Educational standards represent an important instrument for the documentation and assessment of the successes of educational work. By implementing educational standards, indicators could be developed that would enable long-term quality management. In addition to the creation of the IQB, there are developments tending towards new forms of quality management in all the *Länder*, such as quality and evaluation agencies, school inspections, changes in school supervision, etc. The governance of the school system therefore poses a problem that is new to Germany, which is how to deal with this manifold steering information in a concrete and practice-promoting way.

Educational policy in Germany also responded to the demand for continuous monitoring, transparency, and controls in the form of a regular system of reporting on education. In Germany there was previously no continuous and overarching monitoring of the development of the education system (system monitoring), even though information existed on individual areas of the education system. This was unable, however, even when brought together, to provide a complete picture of the education system.⁵ In the autumn of 2003, a report on education in Germany was compiled and published for the first time.⁶ Such reports on education in the perspective of lifelong learning, which in the future will appear regularly, are on the one hand expected to serve as a basis for further educational planning, and on the other hand inform the public about the present state of development of the education system in Germany. An indicator-based report commissioned by the Federation and the *Länder*, which will be the next report to be issued, will provide a picture of the whole education system. It is expected to be available at the beginning of 2006.

Support systems

The term ‘support systems’ has only in recent years entered the vocabulary of educational policy, above all in connection with the decentralization of school administration and the strengthening of the independence and self-responsibility of individual schools following the paradigm shift from the ‘administered’ to the ‘learning school’. In this context, support systems are seen as instruments that support the ‘educational performance’ of the individual school as well as the activities of teachers and school management. This support stands in a close relationship to control of the schools, so that ‘control and support systems’ are also often spoken of as instruments of state governance of schools. More specifically, the following sectors belong to the ‘support systems’: school supervision, school counselling, in-service training of teachers, school-related counselling by experts, evaluation of schools, regional co-operation among schools, psychological services, school social work, school expert information, and media services⁷.

New models of school support systems aim at combining support measures either at *Land* level in service centres encompassing teacher training, school development, and IT-services – for example the *Land* institutes for school and media (*Landesinstitute für Schule und Medien*) – or in regional educational centres, which fulfil

⁵ Particularly: Schulstatistik der Kultusministerkonferenz [School Statistics of the Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany], Grund- und Strukturdaten des BMBF [Basic and Structural Data, published by the Federal Ministry of Education and Research], Berufsbildungsbericht (BMBF) [Report on Vocational Training, published by the Federal Ministry of Education and Research], Berichtssystem Weiterbildung (BMBF) [Report System on Continuing Training, published by the Federal Ministry of Education and Research], etc.

⁶ Bildungsbericht für Deutschland: Erste Befunde [Report on Education in Germany], edited by H. Avenarius, H. Ditton, H. Döbert et al. Opladen 2003.

⁷ More detailed explanations on the whole field of ‘support systems’ can be found in Döbert, H./Klieme, E./Sroka, W. (Eds): Conditions of school performance. A quest for understanding the international variation of PISA results. Münster e.a. 2004, pp. 298-372.

core tasks (among them school supervision, school counselling, and the organization of teacher in-service training) and in addition set their own areas of emphasis.

The current school system

General structure: overview

For all children in Germany, *compulsory schooling* begins at the age of six years and generally consists of nine years of full time school (ten years in Berlin, Brandenburg, Bremen, and North-Rhine Westphalia). After finishing compulsory schooling, pupils who are attending neither a general-education school at upper secondary level nor a full-time vocational school have to attend a part-time school, generally for three years (the duration of school attendance is based on the duration of the apprenticeship years of recognized vocational-training professions). In some *Länder* there are regulations according to which pupils who neither attend a general-education school at upper secondary level, nor start an apprenticeship, must attend a full-time vocational school. Furthermore, in most *Länder* there is the possibility of completing a tenth school year, thereby acquiring supplementary qualifications. Compulsory schooling also applies to children and young people with handicaps. Depending on their special-schooling and support needs, they attend either a school together with non-handicapped pupils or a special school.

In structural terms, the school system in Germany is at best a ‘partly integrated system’ that, after a relatively unitary elementary and primary level, splits into different parts at lower and upper secondary levels, at higher-education level, and at the level of further education. This structure, which is different from *Land to Land*, and covers both school forms of varying levels and institutions of vocational training, confers upon the German education system, and especially the school system, a degree of differentiation, visible at an early stage, and numerous transfer decisions that make Germany stand out in international comparison. Currently, the manifold and differentiated general-education school system in Germany comprises:

- Primary school (compulsory education from six years of age), whose duration is of four or (in Berlin, Brandenburg and in some primary schools in Bremen) six years.
- The lower secondary level, which is organized in a different way in nearly every *Land*.

The only school form that exists in all the *Länder* is grammar school – *Gymnasium* – which starts in year 5 or year 7, with *Abitur* after year 12 or 13. Tracked systems in the ‘classic’ fashion, comprising *Hauptschule*, *Realschule* and grammar school are in place in Baden-Württemberg and in Bavaria. In Berlin, Hamburg, Hessen, Lower Saxony, North-Rhine Westphalia, and Schleswig-Holstein, these three school forms are complemented by a range of comprehensive schools (co-operative or integrated, and with or without the upper level of grammar school). In most of the new *Länder*, and now also in many ‘old’ *Länder*, there is a two-track school system: the *Mittelschule* in Saxony (with a leaving certificate combining the *Hauptschule* and the *Realschule*), the *Sekundarschule* in Saxony-Anhalt (with the same leaving certificates), and the *Regelschule* in Thuringia (likewise with leaving certificate for the

Hauptschule and the *Realschule* from year 9). In Brandenburg there are currently *Realschule* and comprehensive schools (as from the school year 2005-06, these two school forms will be replaced by an upper school), as well as grammar schools. In Mecklenburg-West Pomerania, there is, next to *Hauptschule*, *Realschule*, comprehensive schools, and grammar schools, the integrated form of the regional school (for school years 5 to 10). The most varied school landscape is found in North-Rhine Westphalia: alongside *Hauptschule*, *Realschule*, comprehensive school, and grammar school there are the regional school (comprising the instruction of *Hauptschule* and *Realschule*) and the ‘dual upper school’ (*Duale Oberschule*), which aims at linking general education to vocational training. Moreover, in all *Länder*, there are special schools for children with special needs. Often years 5 and 6 are run as ‘probationary periods’ of the transfer phase from primary school to the secondary level; this is supposed to foster, monitor, and orient the pupils.

- The upper secondary level comprises educational and training courses at general-education schools (upper level of grammar school), vocational full-time schools, and vocational courses under the dual system (in the vocational sector, there are around fifteen different school forms).
- Schools run by private bodies (private schools), catering for around 5.7% of pupils. There is a distinction within this type of school; some are recognized by the state as replacement schools, whose leaving certificates enjoy unrestricted recognition. Other schools are permitted by the state (supplementary schools); pupils at these schools have to sit examinations at a state school or at a school recognized by the state.
- Furthermore, there are various courses at ‘second chance’ schools, such as colleges, evening *Realschule*, and evening grammar school.

The upper secondary level is followed by higher education, which can also be acquired through a second-chance education course. Not only from outside Germany is it difficult to recognize a specific German school system among the diversity of structural characteristics of schools in the single *Länder*.

Leaving certificates and qualifications (admission requirements)

Corresponding to the traditional three-track school structure, there are, in the German school system, generally three school-leaving certificates: the *Hauptschule* leaving certificate (*Hauptschulabschluss*), the *Realschule* leaving certificate (*Mittlere Reife*), and the *Abitur*. Holders of the *Hauptschule* leaving certificate are entitled to entry to a vocational school, and it is the admission requirement for an apprenticeship and for training as a skilled worker in the industrial and commercial professions.

The *Realschule* leaving certificate (*Realschulabschluss*) and its equivalents, the *Mittlere Reife* and *Fachschulreife*, qualify for further school education at upper secondary level in a general or vocational grammar school (generally a certain minimum grade is required). Once vocational education is completed, these qualifications also qualify for the vocational upper level (vocational college). They further constitute the admission requirement for training in skilled professions (for example industrial clerk, bank clerk, dental technician, technical drawer, amongst others).

The advanced technical college entrance qualification (*Fachhochschulreife*) qualifies for admission to a university of applied sciences. The *Abitur* or general higher-education entrance qualification allows admission to a course at university, an institution of higher education, or a university of applied sciences. In some *Länder*, the acquisition of the general higher-education entrance qualification can contain an expert vocational element. But such a leaving certificate only qualifies for certain university courses. The leaving certificates obtained after successful completion of the different school types qualify for certain admissions, which can, however, be restricted, for example by a *numerus clausus*. In other words, the leaving certificate must have a given grade or above in specific subjects, or a certain average grade. Incidentally, for broad sectors of state and especially private education careers, there is no legal regulation stipulating what leaving certificate qualifies for what. The requirements are set by the school operators and their organizations – the guilds of the trades and handicrafts, chambers, and associations – according to their own judgement. Increasingly in the state and above all in the private further and higher education sectors, schools and other educational institutions no longer require only a leaving certificate but, additionally, a pass in an entrance examination or ability test.

Pre-primary education

All children who have not reached compulsory education age belong to the elementary sector. Pre-school education, which caters to children aged three to six, is provided primarily in nursery schools and kindergartens. Nursery schools and kindergartens or other care centres for children of pre-school age are mostly municipal institutions or institutions run by independent bodies. Normally, parents have to pay a fee for pre-school education. As a rule, children begin school at the age of six. For children who are of school age but who are not sufficiently physically or intellectually developed to attend school, there are pre-school programmes in school kindergartens. Whereas pre-school education is the responsibility of the Youth Welfare Service (for whom the social ministries, as a rule, are responsible), a few *Länder* have, as part of the school system, specific pre-school classes for five-year-olds, who are not yet of school age, or school kindergartens for six-year-olds who are not 'mature' enough to attend school.

Primary education

Compulsory schooling starts with the primary sector. The primary sector covers years 1 to 4 (in Berlin, Brandenburg, and partly in Bremen school years 1 to 6), which means that, as a rule, children attend primary school together from the age of six to ten (or twelve). During the two first years, primary school children are given neither numerical grades nor a school report. Instead, they receive detailed assessments of their learning behaviour, their learning progress, and their behaviour within the group. It is only from year 3 that verbal assessments are gradually replaced by numerical grades. At the end of primary school, pupils once more receive a verbal assessment, this time in addition to their numerical grade, along with a recommendation for the school they should attend at lower secondary level. For the transfer from primary school to the next level, the wishes of parents have precedence over

the right of the state to regulate. The regulations for progress to the next school, which differ from *Land* to *Land*, provide for co-operation between school and parents, whereby the parents have to be counselled, the school gives a recommendation, and, if need be, an aptitude test is carried out. After the selection period, the procedure that is most frequently applied can be described as follows: in the majority of cases, parents and pupils are already informed about the type of school that the pupils will attend in the school year that precedes the transfer. This information is generally provided by the teaching staff of the school, by representatives of the higher school, or by members of the school administration, as well as through visits to the higher school ('open days'). During the last primary-school year, the children or their parents receive a 'primary-school recommendation'. The basis for this recommendation is basically the median grade obtained in the school report. In some *Länder*, additional selection procedures are used. If the parents heed the recommendation, they can enrol their child at the higher school. If the parents wish to deviate from the recommendation by sending their child to a school with a lower status, for example by sending a child recommended for the *Realschule* to the *Hauptschule*, there are no problems. However, sending a child to a school of a higher status than the one he or she was recommended for is linked to certain conditions (entrance examination and average grade, amongst others). In nearly all *Länder*, the first three months or the first half year are treated as a probationary period, at whose end a final decision is made. This whole procedure has been repeatedly criticized. The core of the criticism is that it is hardly possible to make a safe school-career prediction for a ten-year-old child. Pointing to the possibility of a later transfer from one school type to another (permeability of the school system) does not make the problem go away.

Lower secondary education

For more than three decades, the lower secondary level has been one of the most debated sectors of the German school system, both from an academic point of view and with respect to school policy. At the centre of the debate are always the questions of the relationship between the fostering and integration of all pupils on the one hand, and appropriate differentiation according to skill and performance on the other. Until the beginning of the 1980s, this problem had culminated in the following question: is differentiation according to various types of school, or rather internal differentiation within a comprehensive school the solution to be implemented on pedagogical and organizational grounds, and should the three-track school system (*Hauptschule*, *Realschule*, grammar school) be preserved or be replaced partially or completely by a comprehensive school system? For more than two decades, discussion concerning the form of the lower secondary level revolved around the controversy in Germany over structural alternatives. Debate on the competing systems at the lower secondary level subsided following the agreement of the KMK on school types and courses at the lower secondary level in 1993, but it has flared up again since the publication of the results of the PISA surveys (2000 and 2003).

The *secondary school sector* is divided into the lower secondary level, stretching from years 5 to 10 (or 7 to 10) and the upper secondary level. The lower secondary

level caters to pupils from ten or twelve to sixteen years of age, whereas the upper secondary level caters to pupils from sixteen to nineteen years of age. Both age groups are subject to compulsory education. The first 'classical' secondary school type is the *Hauptschule*. The *Hauptschule*, which developed from the upper level of the *Volksschule* was, until the middle of the 1970s, the largest general-education school by numbers. The number of pupils attending this type of school sank considerably, however, up to the end of the 1980s. In some *Länder*, it has even become a 'left-over school'. But even in places where it was promoted in education policy, such as in Baden-Württemberg and Bavaria, the number of pupils decreased. For this reason, the *Hauptschule* has, not without justification, been called the 'loser in the educational expansion'. Its educational task is made more difficult by the facts that today's pupils are very heterogeneous, and that it educates so called 'problem children' and less motivated pupils, while at the same time demands with regard to the level of education have increased, for example by English being made a compulsory foreign language. In three *Länder* (Berlin, Bremen, and North-Rhine Westphalia) the *Hauptschule* does not finish after the tenth year, but after the ninth. Most *Hauptschule* pupils, after completing general education, proceed to a vocational course, but 12 to 14% still leave the *Hauptschule* without any kind of leaving certificate. On the other hand, around 14% of pupils obtain the *Realschule* leaving certificate after an obligatory or voluntary tenth year. Here too, however, there are great regional differences. The second 'classical' secondary school type, the *Realschule*, provides a course that is completed in ten school years and leads to the *mittlere Reife*, i.e. the secondary school level I certificate. Once again, there is no Germany-wide structure. For example, in many *Länder* (Bremen, Saarland, Saxony-Anhalt, Saxony, and Thuringia) the *Hauptschule* and the *Realschule* are joined together. The instruction contains a second, facultative foreign language, and a stronger vocational orientation is imparted, like at a *Hauptschule*, in the subject 'working skills', in the instruction of other subjects, and through special internships in organizations. The *Realschule* leaving certificate opens up the possibility of vocational educational, progress to the *Fachoberschule* (whose leaving certificate is the admission qualification for universities of applied sciences), and, if the pupil has the aptitude, grammar school. At the moment, around a third of pupils who complete *Realschule* have the possibility to continue attending school. The *Realschule* has been a 'winner' in the educational developments of the last two decades in Germany, and the leaving certificate it confers has become a standard. The *Gymnasium* (grammar school) comprises years 5 or 7 to 12 or 13, and can appear under a great variety of profiles (as well as schools with an emphasis on classics, there are grammar schools with a focus on modern languages, on mathematics and sciences, on music, on business and economics, and on other areas). Some grammar schools or vocational grammar schools in some *Länder* are part of the vocational school system. The traditionally strong position of the grammar school in the German school system results from the fact that it is the one school type that directly confers, after successful completion, the *Abitur*, i.e. the higher-education entrance qualification, and that opens the door to the best chances for admission to the training and job market. The grammar school has profited the most from the 'educational expansion'

since the 1960s. The enrolment numbers for grammar schools have significantly increased (on average by around 35% of the relevant age group). It has thereby to a large extent lost its old 'elite' character.

The concept of an integrated or co-operative comprehensive school was developed at the beginning of the 1960s, based on a critical attitude towards the tracked school system, its – at that time – outdated features, and its social selectivity. The notion of integrated comprehensive schooling envisioned the replacement of the relatively rigid vertical structure of the school types at lower secondary level with a more varied and flexible organization of instruction within one school. This double target – furthering on the one hand the development of the performance of every pupil, and on the other equality of educational opportunities – put high demands on and brought into focus issues concerned with the organization and shaping of instruction. The aim was that class groups, instruction in core subjects and differentiated courses in demanding subjects, and elective classes and free choice subjects should complement each other. These organizational innovations were linked to updates in educational programmes. After a trial phase, the comprehensive school was formally accepted as an integral part of the German educational landscape. As a result of the introduction of the comprehensive school, conventional school types also made changes, albeit to differing extents. The decisive transformation consists in increased mutual permeability, whereby the three-track school system acquired hitherto unknown interconnections and versatility. This meant that the individual school types largely lost their rigid character; transfers between school types were gradually facilitated. Furthermore, many organizational features of the comprehensive school have made their entry into the three-track school system, or have influenced parallel developments.

In Germany, special needs schools and schools governed by private bodies, i.e. the Waldorf schools (years 5 to 10), the evening *Hauptschule* and *Realschule*, the vocational further education schools, and the one-year work-life preparation school (*Berufsvorbereitungsjahr*), are also part of lower secondary education.

Upper secondary education

In Germany, years 11 to 13 of the integrated comprehensive schools, the Waldorf schools, and the special-needs schools are regarded as belonging to upper secondary education. The same applies to the two-year technical grammar school, the vocational-skills schools (where a qualification to study can be obtained), the vocational fundamental formation year, the vocational schools of the dual system (day-release system), and the one-year schools of the health system.

A radical change occurred at the upper secondary level of the grammar school through a reform agreed upon in 1972 that aimed at creating both greater individual options with regard to subjects and differentiated performance assessment. In the following period, the principle of a binding fundamental education was expressed in compulsory subjects and fundamental courses were strengthened again. One ruling of the KMK from the beginning of the 1990s enables the *Länder*, under certain circumstances (at least 265 student-week periods at lower secondary level and the upper level of grammar school) to decide if grammar school instruction can be com-

pleted after twelve or, as has hitherto been the case, after thirteen years of schooling. Meanwhile, in nearly all *Länder* there are grammar schools that can be completed within eight years (years 5 to 12).

Vocational Schools

Vocational education, as the means to a first professional qualification, represents, alongside the general-education schools and the institutions of higher education, a relatively independent sector of the education system. Formally, vocational education was attributed to the upper secondary level (Anweiler 1996, pp. 42ff.). Since 1964, it has been organized according to the so-called 'dual system', which is characterized by vocational-practice training in an apprenticeship with accompanying instruction in vocational full-time schools, while the core education is traditionally provided in the working environment. Dual system means co-operation between two 'learning locations' (vocational school and on-the-job instruction). The training lasts three years. The apprentices receive a monthly apprentice wage from the employer. The instruction at the vocational school occupies one or two days in the week, and is sometimes carried out in intensive courses. The syllabuses contain a general education part (German, social sciences, sport, and religion) which make up around 40% of the number of taught hours, and a subject-specific part, which consists mostly of theory related to the chosen vocation. Vocational school ends with a leaving certificate that, together with the results of the examination at the end of the apprenticeship, is equivalent in value to a *Realschule* leaving certificate, provided the average grade is good. Full-time courses for specific vocations represent the largest group among vocational-education courses at the vocational schools. Behind the common description of vocational school lies a very wide range of institutions with a variety of governing bodies, fields, durations, and entitlements. Basically, the entrance requirement for any vocational school is the *Hauptschule* leaving certificate. The instruction lasts one, two, or three years, and the certificates and qualifications obtained at the end of the courses can serve either as an entrance qualification for further education or as a qualification in a recognized trade. More than a quarter of vocational schools are maintained by private bodies. For pupils leaving school with low academic achievements or problems choosing a vocation and for young people without an apprenticeship, there are special institutions (for example the vocational preparation year, amongst others). In 1969, the technical upper secondaries were established as an underlying foundation for the new universities of applied sciences. They cover years 11 and 12, and their admission requirement is the *Realschule* leaving certificate, i.e. a middle school certificate. The technical upper secondaries lead to an entrance qualification for a university of applied sciences. There are technical upper secondaries for technology; for business, economics and administration; for social sciences; and for other areas. In the first year of instruction, subject-oriented teaching is dominant; in the second year, instruction covers general education and subject-based theory.

Special schools

Special schools were created to cater to the needs of handicapped children. Special schools can be classified into ten types according to the type of handicap that they cater to, and include schools for learning-impaired children, which are the most strongly represented, followed by schools for mentally handicapped children and for language-impaired children. The special schools span the primary and the lower secondary level and, in the case of physically and mentally handicapped young people, it also stretches to the upper secondary level. 4% of the age group from six to fifteen years are instructed at special schools. Since the middle of the 1970s, the broadest possible integration of handicapped pupils into general-education schools has been promoted, in order to counteract the social exclusion of handicapped people. Their special-needs instruction is therefore increasingly given in common classes of both the three-track and the integrated school system.

Post-secondary and tertiary education

Evening grammar schools, colleges, the one-year technical upper secondary school, and the vocational and technical upper secondary schools all belong to post-secondary education in Germany.⁸

Tertiary education covers universities, teacher-training colleges, theological colleges, comprehensive institutions of higher education, arts colleges, and universities of applied sciences. Furthermore, tertiary education institutions include technical schools, technical and vocational academies, administration colleges, and the two- or three-year training schools of the health system. The technical-college entrance qualification, the entrance qualification for institutions of higher education, or a qualification of equal value is generally acquired at the age of 18 or 19. The age structure of the students is not homogeneous. All higher-education degree courses leading to equivalent degrees (*Diplom*, *Magister*, state examination, and the recently introduced Bachelor's and Master's) are regulated by framework regulations. The framework regulations contain quantitative reference data for degree courses, amongst others the standard duration of studies, the number of instruction hours, compulsory and optional subjects, the number of continuous-assessment assignments that have to be passed, and details of the examination of and the accepted time frame for the completion of the end-of-studies thesis. Since the creation of universities of applied sciences in 1968, a 'double structure' has characterized the German higher-education system. The genuine universities and the universities of applied sciences, having different entrance requirements and offering different types of degrees, are relatively delimited areas. The distinguishing characteristics of the universities of applied sciences are above all practice-oriented study programmes, shorter study times, and application-based research. In 1999, the university sector comprised a total of ninety-three universities (of which eleven were private), sixteen theological colleges (all of them independent institutions), six teacher-training colleges and forty-seven arts colleges (of which two are non-state institutions). The

⁸ In addition, post-secondary education includes specific combinations of ISCED 3A and 3B.

comprehensive higher-education institutions, which were set up in the 1970s and whose aim was to integrate different types and durations of higher education and degree are called today *Universität-Gesamthochschule* (University - Comprehensive School of Higher Education). Anyone who fulfils the entrance requirements can enrol at a university or a university of applied sciences. In Germany it is commonly accepted that only places on degree courses attracting too many applicants have admission restrictions (a *numerus clausus*) and a selection procedure (for example courses of study for medicine or psychology). The admission modalities are handled by the Central Office for the Allocation of College Places (*Zentralstelle für die Vergabe von Studienplätzen - ZVS*) in Dortmund (according to grades obtained in *Abitur*, time on the waiting list, social aspects, and other criteria). At present, only private universities and institutions of higher education charge fees and are free to select their students themselves. But one must assume that fees will be introduced in 2006 at all institutions of higher education. The relatively high drop-out rate (30% of the students starting a course) shows the necessity for reform, of which we have been constantly reminded.

Teacher training and the qualification of principals

Teacher training consists of initial teacher training and continuing teacher training. The characteristic feature of teacher training in Germany is that it is structured in two phases. The first phase involves the higher-education course, which ends with the first state examination. The second phase consists of preparation for service (*Referendariat*) following the university degree in special seminars and at the schools themselves. Only after passing the second state examination do teachers acquire the full qualification to practise the profession they have trained for. In spite of the formal equivalence of the various teaching qualifications, different emphases are placed during the study programme on specific school types or on the level that the teacher will be teaching. For those studying towards a teaching position at grammar school, subject-related contents serve as the basis for the two subjects that the teacher will teach; conversely, for students who will be teaching at primary schools or at a *Hauptschule*, pedagogical subjects are given more weight. A regulation of the KMK of 1990 lays down the minimum study requirements (number of taught hours in a semester) for the various teacher positions. There is no special training for future principals, but there is continuous training parallel to the job. Generally speaking, teachers apply for positions as school heads or as *primus inter pares* (first among equals), and grow into the task through 'learning by doing'. The working hours of principals and teachers are comprised of management time and teaching time. The increasing pedagogical and administrative responsibilities of schools have led to increased demands on principals. It is already the case that the functions carried out by a principal demand high pedagogic and management qualifications. It has therefore been argued that school principals need specific training before entering their position, so as to be competent school leaders able to organize and further develop an all-embracing communication between all school stakeholders.

Current problems, discussions, and perspectives for development

Since the publication of the results of the IEA Study on Reading Literacy (1992/1994), the International Adult Literacy Survey (1995/1997), the TIMS-Studies (2000), and the PISA tests, (2001/2004) it has become clear that action needs to be taken to fundamentally enhance the German education system. During the past three years there have been discussions on education in all parts of Germany. At the centre of the current discussion is a range of pedagogical and policy-related issues; for example the question of how to deal with standards, performance assessment, and system monitoring and feedback; the question of the independence of educational institutions (especially the 'autonomy of the school'); the role of support systems, teacher-training and continuing teacher education (including preparation in dealing with heterogeneous classes); and finally the question of how to devise class instruction that allows every pupil to make progress. There are critical questions concerning the structure of the school system (especially scheduled courses and factual education paths v. real education careers, including at elementary and primary level), concerning the treatment of empirical findings from previous studies or assessments, and concerning issues of cultural background (the relationship between education and family, and the role of learning in the family and society). The discussion also involves issues concerning the new educational targets and their corresponding curricula (under the keywords core curriculum and competencies), the relationship between internal school development and external differentiation, the means of elaborating performance comparisons and standardization, the implementation of governance information, and measures to certify instruction, to establish new governance models, and to increase the professionalism of teaching staff.

Comparisons at the international level reveal that the general-education school system in Germany is characterized by a range of specific features. Seen from the inside, these features are self-evident, and therefore hardly attract attention, but seen from the outside they can appear extraordinary: the half-day school, from which only a few schools in exceptional cases have deviated to provide all-day schooling; the disconnection between the governing body of the school on the one hand (responsibility for premises and equipment, mostly at the local level) and the responsibility for curricula, appointment of teachers, staff control and quality assurance on the other; the civil-servant status of the teaching staff and their strong integration within an administrative hierarchy (which, at present, however, is being eroded by tendencies towards limited autonomy of schools in many *Länder*); the strong differentiation not only in educational careers (which can run parallel within one school), but also in school types, between which binding transfer decisions have to be taken (tiered education system at lower secondary level), and in which allocation (assignment or free choice) is implemented relatively early; the differentiated extension of special-education and therapeutic education in the shape of independent schools; and the variety of school forms, transfer and certification rules, teacher training, etc. in the federal structure of the *Länder*. It is above all the different school types, each with their specific educational and professional tradition, social environments, and curricular and didactic-methodological emphases, which lend diversity to all aspects

of the general-education school system in Germany, from instruction practice to the structure of the organization of the ministries.

A child's educational career – if one includes the parallelism that exists between primary school and special-education schools from the beginning onwards, and that continues through upper secondary level – involves a variety of decisions (be they by means of official assignment and selection or through the independent decisions of children or their parents) which are of great importance in Germany. If the function as a means of educational allocation that is fulfilled by the school types and the educational programmes linked to them is not taken into consideration, one runs the risk of wrongly interpreting the structures and developments of the German school system. Alongside its structural and organizational peculiarities, the general-education school system in Germany – compared to the school systems of other industrial countries – is characterized by two cultural (one could also say 'ideological') traditions: the aims of the general-education school system are defined neither by its 'consumers', nor in pragmatic terms by the interests, needs, and development perspectives of its 'clients', but mainly in a normative manner by the intellectual tradition of so-called education theory. What is taught and what comes out of it are not functional and motivated by pragmatic aims, but rather result from superordinate ideas and cultural and practical traditions. Connected to this is the continuous discussion on the contrast or equivalence of general education vis-à-vis vocational education. The scepticism with which the professional environment often reacts to the notion of 'competencies' as targets is also the result of this tradition. In this context, 'it belongs to the idiosyncrasies of the post-war German education system that the success of reforms was not measured by their effectiveness – however defined – but according to their political enforcement alone' (Leschinsky/Cortina 2003, p. 45) Evaluation and quality assurance are therefore comparatively new elements of the system, and are often considered an unreasonable restriction on the professional autonomy of the teaching staff.

Not least as a result of a range of studies on school performance, ordered by the *Länder* or the KMK, a number of topics have emerged that are now at the forefront of discussions, analyses, and development perspectives:

- The acquisition of competencies (above all reading literacy, but also skills related to mathematics and natural sciences), key competencies (self regulation, dealing with new technologies), and attitudes towards learning. Not only the level of the acquisition of competencies, but also their particularly broad distribution, represents a challenge for the general-education school system.
- Disparities in the participation in and the success of education: the strong link between educational chances, learning results, and social background; the problems faced by the integration of children and young people with an immigration background; and the considerable regional differences within Germany require efforts in the way of reform.
- Dealing with education and work careers: there is a widespread call for the reduction of deferments and repeats, to intensify the use of learning time and to enable earlier transfers into vocational life.

- Individual and early advancement: a central reply to the challenges mentioned above under points one to three is that children and young people should be encouraged as early as possible to develop their individual capabilities and needs – not only in the case of disadvantaged starting conditions and adverse effects during the learning process, but also in the case of special talents.

This requires differentiated diagnostics as well as the elaboration and implementation of broad support programmes.

- Teaching processes: reform approaches of past years and more recently the results of the PISA 2003 survey have made clear that the quality of instruction has to remain at the centre of education reforms. The dominance of an instructional pattern based on the ‘question/development-principle’, teaching methods that do not sufficiently activate cognitive skills, and what pupils perceive as low levels of support from teachers still characterize day-to-day instruction in Germany.
- Upgrading schools to give them rich development conditions: above all, a school can do more for the integration of immigrants and pupils with difficult access to education if it provides a living and learning environment that goes beyond the work needed for instruction in given subjects. These efforts centre on all-day schools.
- Professional development: the measures named here (individual assistance, further development of instruction and school) only have a chance of success if they are accompanied by systematic efforts to further qualify teaching staff. The training and continuing education of teachers, the strengthening of team work, and ways of making performance tasks more professional have been a subject of discussion for a long time.
- Quality assurance: internal and external evaluation at schools, parallel work and comparative orientation along with other forms of quality assurance are being introduced everywhere – not only in order to control progress and impediments in the process of school and instruction development, but also in order to make targets and procedures more transparent.

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Germany

	Preprimary education	Primary education	Lower secondary education	Upper secondary education	Postsecondary & tertiary education	Grade	Age																	
	Kindergarten (optional)	Grundschule*	Gesamtschule Gymnasium Realschule Schularten mit mehreren Bildungsgängen Hauptschule	Gymnasiale Oberstufe Berufsschule Fachoberschule Berufsfachschule Vocational education in the Berufsschule and On-the-job-training (Dual System)	University and colleges (Universität Technische Universität/ Technische Hochschule Pädagogische Hochschule Kunst-/Musikhochschule Fachhochschule Verwaltungsfachhochschule) Berufsakademie Fachschule Abendgymnasium/ Kolleg	17	23																	
	10th grade Berufsbildungsjahr					11	12	13	14	15	16	17	18	19	20	21	22	23						
		Special schools (Sonderschule)																						
		Compulsory education																						
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

*Primary Education in Berlin, Brandenburg and partially in Bremen continues up to grade 6.