

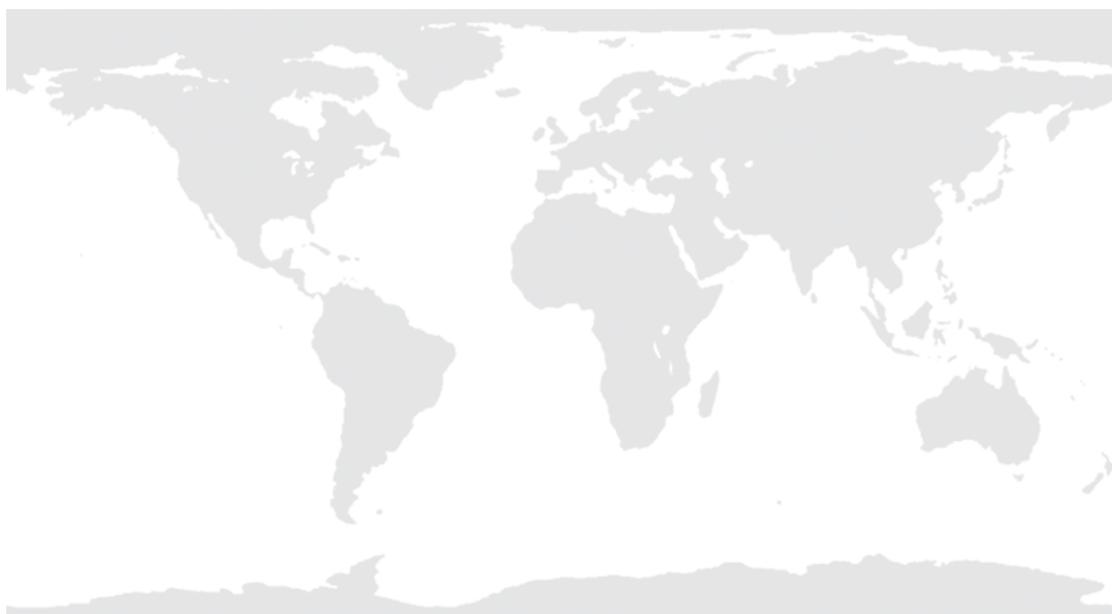


# World Data on Education

## Données mondiales de l'éducation

### Datos Mundiales de Educación

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# Serbia

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## Principles and general objectives of education

According to the Law on the Foundations of the Education System (2009), the education system must provide all children, students and adults with:

- equality and accessibility of education without any discrimination and segregation based on gender, social, cultural, ethnic, religious or other affiliation, place of residence, economic status or health conditions, developmental difficulties and impairments;
- balanced high quality education, based on the achievements of modern science and adapted to the age and personal needs of the child, students and adults;
- education in a democratic and socially responsible institution fostering openness, cooperation, tolerance, awareness of cultural and civilization interconnectedness in the world, a commitment to basic ethic values of justice, truth, solidarity, freedom, honesty and accountability, an institution which ensures the full respect for the rights of the child and students;
- child- and student-centered education through various forms of teaching, learning and assessment, which would meet the diverse needs of students, developing motivation for learning and raise achievement quality;
- equal opportunities for education at all levels and types of education, in keeping with the needs and interests of children, students and adults, without any obstacle to continuation and completion of education and lifelong learning;
- adequate work-related training of students and adults in line with the contemporary requirements of the occupation they are preparing for.

The main objectives of education are the following:

- achieve the full development of intellectual, emotional, social, moral and physical capacities of every student, in keeping with their developmental needs, abilities and interests;
- facilitate the acquisition of high quality knowledge and skills and attitudes, including linguistic, mathematical, scientific, artistic, cultural, technical, and computer literacy skills necessary for life and work in modern society;
- develop creative abilities of children and students, foster their creativity and aesthetic perception and taste;
- develop the abilities of children and students to find, analyze, utilize and communicate information, while skillfully and effectively using information and communication technologies;
- enable students to solve problems, establish links between different segments of knowledge and skills, and apply them in their further education, professional work and everyday life;

- develop motivation for learning among children and students, enable them to learn independently and engage in lifelong learning and international educational and professional processes;
- develop in children and students self-awareness, personal initiative, the ability for self-evaluation and expression of their opinions;
- enable children and students to make adequate decisions about their future education and profession, their development and future life;
- develop in children and students key competences necessary for living in a modern society, enable them to work and pursue their profession by developing professional competences, in accordance with the requirements of a given profession, through the development of modern sciences, economy, technical equipment and technology;
- help children and students develop and practice healthy life styles, raise awareness about the importance of their own health and safety, and the need to develop and foster physical abilities;
- raise awareness about the importance of sustainable development, protection and preservation of nature and environment, ecology related ethics and the importance of animal protection;
- help children and students develop communication and dialogue skills, a sense of solidarity and efficient cooperation with others, and acquire team-building skills and fostering friendship and camaraderie;
- develop in children and students the ability to become responsible citizens, capable of living in a democratic society based on the respect of human and civil rights, right to be different and care for others, as well as the basic principles of justice, truth, freedom, honesty and personal accountability;
- assist children and students in forming their opinions, views and value systems, in developing personal and national identity, developing the awareness and sense of belonging to the Republic of Serbia, respecting and fostering of the Serbian language and their language, the Serbian tradition and culture, the tradition and culture of national minorities and ethnic communities, developing multiculturalism and respecting and preserving national and world heritage;
- develop and respect racial, national, cultural, linguistic, religious, gender and age equality, tolerance, and respect for differences.

The vision of education reform in Serbia has been directed towards the creation of an education system: capable of gathering and including significant actors and answering to their real needs; decentralized, efficient, effective, and transparent; employing highly professional, reflexive, creative and motivated education staff; offering a high quality curriculum; promoting the culture of evaluation, self-evaluation, and school development; nurturing fairness, tolerance, and constructive communication; capable of meeting special educational needs and the needs of ethnic minorities; and which includes the perspective of lifelong learning. (MOES and DSED, 2004).



## Laws and other basic regulations concerning education

The most important laws which constitute the normative basis of the education system are: the **Law on Social Care for Children** (No. 29/2001, amended several times, first issued as Law No. 49/92); the **Law on Elementary (Basic) Education** (No. 22/2002, amended several times, first issued as Law No. 50/92); the **Law on Secondary Education** (No. 23/2002, amended several times, first issued as Law No. 50/92); the **Law on Education of Children with Developmental Disabilities** (1984); the **Law on Vocational Tertiary Schools**; and the Universities Law (2002). The Universities Law has been replaced by the new **Law on Higher Education No. 76/2005** approved in September 2005, effective starting from 2006/07. Article 36 of the **Law Preventing Discrimination against Persons with Disabilities** (2006) contemplates the obligation of taking measures to ensure equality in the field of education.

In June 2003, the **Law on the Foundations of the Education System** (No. 62/2003 and 64/2003) was issued. In July 2009 a new text of this Law was adopted replacing the former one. The new Law sets forth the fundamentals of the system of preschool, elementary and secondary education, including the principles, objectives and standards of education, ways and conditions for the delivery of preschool, elementary and secondary school education, as well as the establishment, organization, funding and supervision of the operation of educational institutions. The new **Law on Textbooks and other Teaching Aids** was adopted in August 2009. The **Law on Preschool Education** was adopted on 23 March 2010 and came into force in April 2010.

In accordance with these laws, a series of statutes has been passed and various matters important for the realization of the educational process (assessment of students, appraisals and rewards to be given, enrolment into secondary school, standards concerning the lessons of teachers, in-service teachers training, etc.) were formulated. Statutes are sub-acts regulating more closely certain segments of education; their passing and application are the competence of the Ministry of Education.

Article 6 of the Law on the Foundations of the Education System (2009) stipulates that every person shall have the right to education. Article 91 specifies that one year of preschool education as well as elementary education (grades 1-8) and secondary education shall be provided free of charge in public educational institutions. According to Article 97, all children shall be enrolled in a preschool institution one year before starting the first grade of elementary school (i.e. children between the age of 5.5 and 6.5 years). Compulsory education also covers elementary education (grades 1-8).

## Administration and management of the education system

According to the Law on the Foundations of the Education System (2009), the **Ministry of Education** (MOE, formerly the Ministry of Education and Sports established at the beginning of 2001 by merging the former ministries of Education, Higher Education and Sports) shall ensure the functioning of the education system in accordance with the general education principles and objectives. In particular, the



MOE: plan and monitor the development of education; supervise the work and performance of institutions and institutes; plan, coordinate and organize programmes for the continuous professional development of educators; verify the determined educational objectives and tasks attainment results at the level of the Republic; engage in the international cooperation according to the education system development plan; establish and manage an integral information system of education, ensures smooth data flow and provide accessibility and protection of information; keep a register and issue teacher, preschool teacher and psychologist/pedagogue licenses; and determine the national qualification framework for secondary school vocational education, professional improvement and other forms of vocational education.

The **National Education Council**, formed in 2006, is the highest body in the area of the development of education and quality assurance. According to the above-mentioned Law of 2009, the Council shall: monitor and analyze the situation in education at all levels and the degree of alignment with European principles and values; propose measures for the improvement of preschool, elementary, general secondary and art education; participate in the preparation of the education strategy; review, take official position and provide advice to the MOE in the process of adoption of laws and other regulations governing matters of significance for education. The Law also envisaged the establishment of the **Council for Vocational Education and Training and Adult Education**, which was formally established in March 2010. (ETF, 2010).

The **Accreditation and Quality Evaluation Commission**, established under the Law on Higher Education of 2005, is responsible for quality assurance in the higher education sub-sector. The Commission proposes to the National Council for Higher Education standards for the issuing of operating licenses, accreditation of institutions of higher education, study programmes, the self-evaluation and assessment of the quality of higher education institutions; carries out accreditation procedures; and gives opinions on the procedure of issuing an operating license. The **National Council for Higher Education** monitors the development of higher education and its harmonization with European and international standards, and submits proposals about higher education policy to the Ministry of Education. (MOE, 2008).

The **Institute for Educational Quality and Evaluation**, established under the amended Law on Elementary (Basic) Education of 2004, is responsible for defining and proposing educational standards, monitoring students' learning achievement, evaluating the performance of teachers and educational staff, and organizing the participation of the country in international assessment studies. The **Institute for the Improvement of Education**, also established under the Law above, comprises three centres. The Centre for Development of Curricula and Textbooks performs tasks related to the preparation of educational programmes as well as the approval of textbooks and teaching materials. The Centre for Professional Development in Education carries out activities related to the improvement and development of continuous training and professional development of educational staff, the examination for licensed teachers, educators and managers, and the provision of professional support to teachers, educators and associates. The Centre for Vocational and Adult Education is engaged among others in the development, monitoring and quality assurance of vocational and art education, vocational training after completing



secondary education, and vocational education and training. The **Pedagogical Institute of Vojvodina** is in charge of developing education in the languages of the national minorities of the territory of Vojvodina.

The **Institute for Educational Research** is an independent scientific research institution founded in 1959 which carries out studies and research in the field of education.

In the framework of the decentralization policy, **Regional School Administration Offices** among other tasks ensure the pedagogical supervision of educational institutions; coordinate professional development activities for teachers, preschool teachers, psychologists-pedagogues, and principals; support planning, pedagogical programme development and quality assurance in educational institutions; participate in the preparation of the education development plans within their jurisdiction; and control the utilization of earmarked funds of the institutions. The role of the **municipalities** has been strengthened, as they are now involved in school management, teachers' professional development, inspection, and the construction and maintenance of school premises.

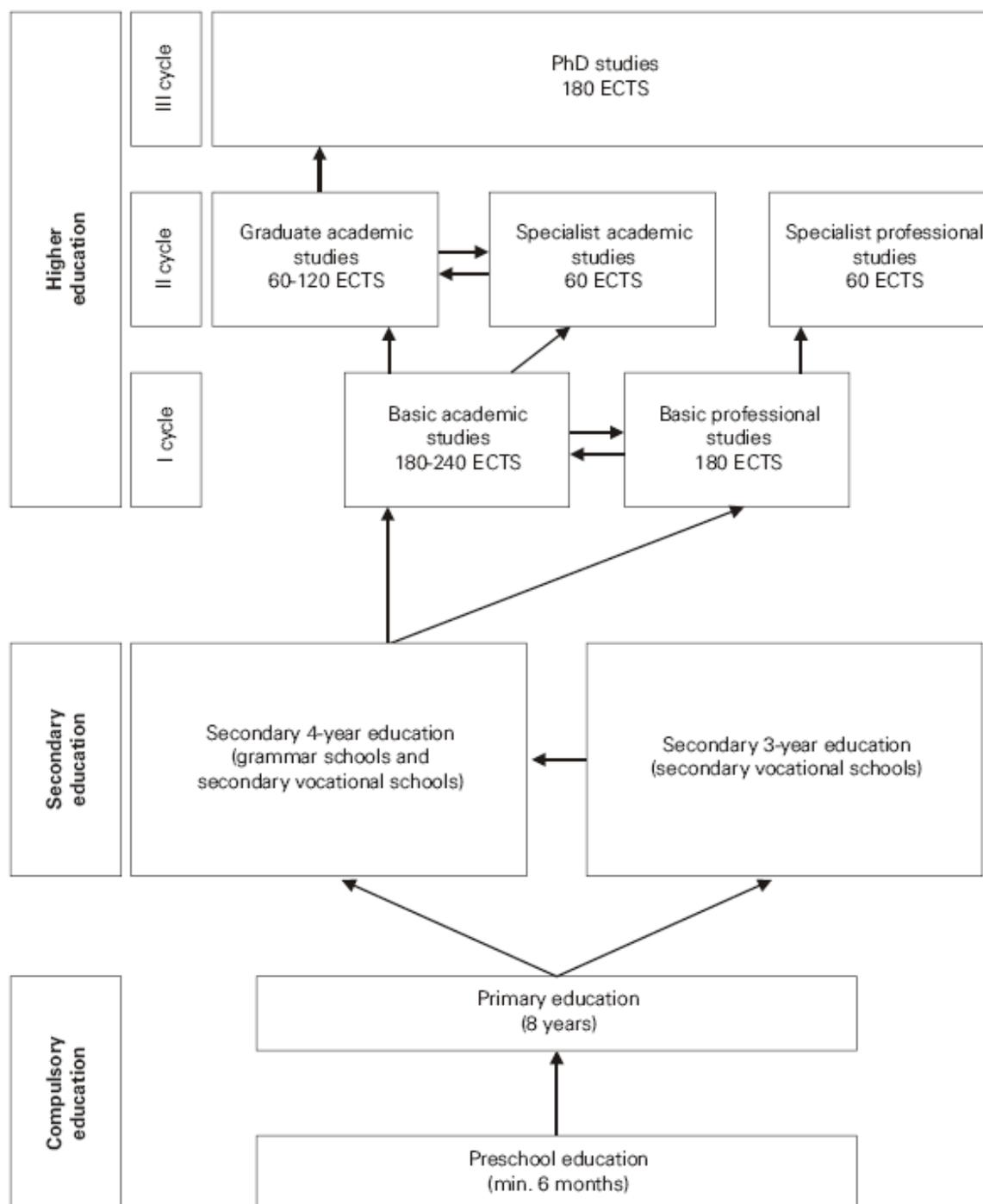
The school managing bodies are the school board (the managing board in preschools) and the principal. The **school board** passes the school statute, approves the school curriculum, adopts the report on work, makes decisions on school business activities, on investments, announces open competitions to fill the position of school principal, and gives opinions on candidates for teachers and school principal. The **principal** manages the school, organizes the educational activities, supervises the work of teachers and associates, convenes the sessions of the teachers' councils, orientates the work of professional bodies, and cooperates with all stakeholders. Professional bodies include: the teachers' council (the educational council in preschools), the class council, professional subject councils, and the professional body for curriculum development (in schools), as well as other professional bodies in accordance with the school statutes. Consultative bodies include the parents' council (in schools and preschools) and the students' parliament (in schools). (MOE, 2008).

Universities, faculties and higher vocational schools can be founded by legal persons and, in that event, the managing bodies are appointed by founders. The role of university, its scope of work and basic work conditions and objectives are regulated by laws, while the overall organization and activities are more closely elaborated by their statute.

Universities are autonomous establishments and have managing and professional bodies. The rector manages the university, while the highest managing body of the university is the University Council, consisting of the representatives of associated members and founders representatives. The professional bodies are scientific-teaching councils which are divided by scientific fields and include representatives of relevant higher education institutions. The managing bodies at the faculty are the dean and the Faculty Council; at institutes these are the school principal and the Council.

## Structure and organization of the education system

### Serbia: structure of the education system (2008)



Source: Ministry of Education and Serbian Centre for Education Policy, 2008.

### Pre-school education

Preschool education caters to children between 6 months and 6.5 years of age. In 2003 preschool education became an integral part of the education system. On the basis of the 2004 amendments to the Law on the Foundations of the Education System, since



2006/07 a compulsory preparatory preschool programme has been introduced for children between the age of 5.5 and 6.5 years (four hours per day during at least six months).

## Primary education

Elementary (primary/basic) education lasts eight years and is compulsory. Children enter the primary school when they reach the age of 7. Children may be admitted to grade 1 at the age of 6 on the basis of a doctor's, psychologist's or pedagogue's assessment of their level of maturity. Primary education is divided into two four-year cycles, grades 1-4 (classroom teachers) and grades 5-8 (subject teachers). In primary music and ballet schools pupils are prepared to continue their education in similar schools at the secondary level; the programme lasts from two to six years and is provided in parallel with the regular primary education programme. At the end of primary education, pupils sit the final exam and if successful are awarded the certificate of completed primary education.

## Secondary education

Secondary education is provided in high schools (including gymnasia), vocational schools and art schools. Access to the different types of secondary education depends on the results of the entrance exams. General education and specialized high schools (science-mathematics and languages) offer four-year programmes. Secondary vocational schools offer general and vocational (theoretical and practical) education programmes lasting two, three (in principle, without direct access to higher education) or four years, and prepare students for work and/or further education. Vocational schools programmes cover among others the fields of construction, mechanical engineering, agriculture, forestry, health, economy, catering, and trade. Art schools offer four-year programmes in the fields of music, visual arts and ballet. At the end of secondary education (four-year programmes) students sit the *matura* examination. The vocational *matura* examination consists of two parts, theoretical and practical, and assesses general, vocation-related theoretical knowledge and skills, while the practical part tests proficiency in practical vocational skills.

## Higher education

Higher education is offered by colleges (of applied sciences or academic studies) and universities (faculties and art academies). Colleges of applied sciences offer three-year programmes leading to a professional diploma or bachelor's; one additional year leads to the award of a specialist diploma. Until 2002/03, universities offered the following programmes: basic studies (lasting four to six years); specialized studies (one to two years' duration); master's studies (usually lasting two years); and doctoral studies (taking at least three years to complete). In line with the implementation of the Bologna process, the Universities Law of 2002 introduced two types of undergraduate degrees (three to six years of study). Currently most higher education institutions adopted the three-cycle pattern of the Bologna process. Programmes leading to the bachelor's degree last three to four years (six years in the case of medicine); one or two additional years of study lead to the award of a master's degree. Doctoral degree programmes take at least three years to complete.



The school year normally begins in September and ends in June; it is divided into two terms. At the primary level (grades 1-8), the school year 2009/10 comprised 180 teaching days (or 36 five-day working weeks) in grades 1-7, and 170 teaching days (or 34 working weeks) in grade 8. At the secondary level (high school or gymnasium, grades 9-12), the school year 2009/10 comprised 185 teaching days (or 37 five-day working weeks) in grades 9-11, and 165 teaching days (or 33 working weeks) in grade 12. The academic year can be divided into two semesters (each comprising 15 weeks) or three ten-week terms.

## The educational process

In March 2002, the then Ministry of Education and Sport (MOES) created the Central Commission for the Development of Curricula, which prepared and presented the draft strategy for developing the curriculum for compulsory and secondary education. It was prepared on the basis of the general strategy and action plan for educational reform, the results of international reviews on the Serbian education system, feedback from local consultation processes and research results. The Council for Reform endorsed the paper in September 2002. The document is the first concept of the national curriculum framework.

Some of the major changes and innovations proposed by the document are: (i) giving more room to the professional initiative of teachers and schools; (ii) shifting the focus from content to educational goals and outcomes, processes and activities; and (iii) basing instruction on learning areas rather than on fragmented subjects. Public debates regarding the document then ensued; commissions for learning areas were formed, and the process of preparing the framework and related documents began.

In February 2003, teams were formed to develop curriculum implementation strategies and teacher training programmes. In March, piloting for the curriculum reforms started in gymnasia. In April 2003, the draft National Curriculum Framework was published. Public debate followed. In September 2003, the final version of the National Curriculum Framework for the Compulsory Education was published, and the new curriculum started to be implemented in the first grades of elementary schools.

In 2006, the knowledge standards for the completion of compulsory education for ten teaching subjects were prepared. (MOE, 2008).

Article 5 of the Law on the Foundations of the Education System (2009) states that general education and learning outcomes shall be the result of the overall educational process ensuring that the children, students and adults acquire knowledge, skills and values which would contribute to their development and success, to the development and success of their families, community and society as a whole. The education must provide all the necessary conditions for the children, students and adults to attain learning outcomes or to enable them to:

- acquire and build their knowledge and communicate the acquired knowledge;



- learn how to learn;
- identify and solve problems and make decisions using critical and creative thinking;
- work efficiently with others as members of a team, group, organization and community;
- responsibly and efficiently manage themselves and their activities;
- collect, analyze, organize and critically evaluate information;
- communicate efficiently using different verbal, visual and symbolic means;
- efficiently and critically use science and technology while at the same time being responsible for their life, the life of others and the environment;
- view the world as a whole consisting of many different systems and when dealing with practical issues they should understand that they are not isolated;
- initiate and readily accept changes, take responsibility and adopt an entrepreneurial approach and a clear orientation towards achieving objectives and success.

The same Article specifies that achievement standards shall be a set of learning outcomes pertaining to each and every level, cycle and type of education, educational profile, class, subject or module. General achievement standards shall be determined based on the overall education and learning outcomes according to different levels, cycles and types of education and pedagogy or educational profile. Special achievement standards shall be determined according to the classes, subjects or modules, based on the general education and pedagogy outcomes and general achievement standards. Special achievement standards may be applicable to an individual student who is socially deprived, has developmental or other disabilities, and also to an individual child or student with exceptional abilities.

### **Pre-primary education**

Preschool education caters to children between 6 months and 6.5 years of age. Until 2002, preschool education was under the jurisdiction of the Ministry of Social Affairs. In 2003 preschool education became an integral part of the education system. On the basis of the 2004 amendments to the Law on the Foundations of the Education System, since 2006/07 a compulsory preparatory preschool programme has been introduced for children between the age of 5.5 and 6.5 years (four hours per day during at least six months).

Preschool education institutions provide day nursery, upbringing and education, preventive medical care and social services. Different forms of provision are implemented (daily, half-day, five-day per week, shortened and periodical forms of work).

In mid-1996, in accordance with the Law on Social Care for Children, the Ministry of Education adopted a new preschool education programme for children aged 3-6 years, i.e. the Programme for Preschool Care and Education. This new programme provided preschool teachers with a common orientation for their individual work on the basis of real conditions and requirements in the environments



where they live and work. The programme consisted of two different models: model A and model B. The choice between the two was made by the preschool teachers and their associates.

According to Law on Preschool Education adopted in 2010, the objectives of preschool education are to support: the full development and welfare of children of preschool age, building and expanding the experience of learning about themselves, others and the world; the educational function of the family; and the involvement of the community. Preschool education provision is based on the following principles:

- Availability: equal rights and access to all forms of preschool education, without any discrimination or segregation.
- Democracy: respect for the needs and rights of children and families, active participation and accountability.
- Openness: building relationships with the family, schools, local governments and the community.
- A holistic approach to child development respecting the specificity of preschool age, cultural differences and peculiarities, and the use of play as an authentic means of expression and learning of preschool children.
- Development of various forms of preschool provision in accordance with the needs of children and their families, continuous improvement through evaluation, and pedagogical innovation.

Article 39 of the Law stipulates that teachers working with children aged 3 years to school age must be higher education graduates (at least from a first-cycle programme lasting three years). The Law also sets forth measures for increasing children coverage, particularly children from vulnerable groups, as well as measures that would contribute to the development of inclusive preschool education.

Access to preschool education is seriously hindered by lack of facilities and their uneven distribution. Consequently, preschool education includes to a lesser degree those children who need it the most, i.e. children from poor and rural regions, from marginalized ethnic groups, and children with disabilities. According to the 2007 Living Standards Measurement Survey, 38.1% of the children (39% of boys and 37% of girls) aged 3-5 attend preschool. Preschool attendance is 83% for children aged 6-7 (81% of boys and 85% of girls). More than 96% attend state-run preschools. At the beginning of the academic year 2007/08, the (compulsory) preparatory preschool programme covered 99.6% of the children aged 5.5-6.5 years. (MOE, 2008).

Preschool education is currently provided on the basis of the *Guidebook on the General Foundations of the Preschool Programme*, and preschools prepare their own syllabi following the guidelines of the Guidebook. This Guidebook also regulates the (compulsory) preparatory preschool programme offered in the year preceding the entry into school. The preparatory programme also contributes to programmatic and organizational linking between preschool and elementary education. The programmatic concept is the basis for developing an individual approach to each child and his/her needs, abilities, experiences, different study styles and rhythms, family backgrounds, etc. Preschool teachers design the programme by adapting the range of educational methods and approaches to the actual group within the process of continual monitoring of children's development. The principle of individualization is



one of the cornerstones in the concept of preschool education; however, it is rarely practiced. (*Ibid.*).

The results of the Multiple Indicator Cluster Survey 2005 showed that 32% of children aged 36-59 months were attending some form of organized early childhood education programme. Attendance was three times higher in urban than rural areas. Roma children attend preschool eight times less than the rest of the population. Overall, 89% percent of children who were aged 7 and attending the first grade of primary school in 2005 were attending preschool the previous year. Just 62% of Roma and 77% of the poorest children attended preschool programmes one year prior to the first grade. No significant differences in terms of child gender, region and type of settlement were found. (Statistical Office, SMRA & UNICEF, 2007).

According to the Statistical Office, overall there were 2,297 kindergartens and preschool groups in 2008 (in 2007 the number of preschools/kindergartens was 159, that is central buildings without including the buildings and other spaces of the preschool network associated to each of the central buildings); the total enrolment was 208,482 children. The total number of staff was 20,592 (of whom 17,889 were women), including 10,396 educational staff, 3,197 medical staff, 760 administrative staff, and 6,239 other staff. (Statistical Office, 2009).

## Primary education

As mentioned, elementary (primary/basic) education lasts eight years and is compulsory. Normally children enter the primary school when they reach the age of 7. Primary education is divided into two four-year cycles, grades 1-4 (classroom teachers) and grades 5-8 (subject teachers). Primary education is also offered in music and ballet schools. At the end of primary education, pupils sit the final exam and if successful are awarded the certificate of completed primary education.

The aim of primary education is to provide general education and upbringing, harmonious personal development and preparation for adult life and further general and vocational education. In primary education pupils should: acquire readiness for citizenship, work and further education and self-education; learn the basic elements of modern general education; acquire knowledge, apply skills, and make creative use of leisure time; develop intellectual and physical abilities, independence and interest in acquiring new knowledge; be aware of the basic principles concerning the development of environment, society and human belief; develop awareness of the need to protect health, nature and human environment; develop love of the truth, patriotism and other ethical characteristics of an individual; be encouraged to establish human and cultural relations with other peoples irrespective of their sex, race, religion, nationality and personal belief; cherish and develop the need for culture and preservation of cultural inheritance; acquire the basic knowledge of appropriate behaviour in all occasions.

Primary schools comprise four-year, five-year, six-year (incomplete), and eight-year (complete) primary schools.

Primary school curricula are approved by the Ministry of Education. The curriculum includes compulsory and optional subjects, their schedule by grades,

weekly and annual number of lessons and other types of educational processes. The curriculum defines the contents of each subject, including teaching aims and objectives as well as guidelines on how to attain them. School boards, after having consulted the municipality, make decisions on which optional subjects and foreign languages (both compulsory and optional) will be taught in school.

The weekly lesson timetable of primary education implemented in 1998 is shown in the table below:

**Primary education: weekly lesson timetable (1998)**

Subject	Number of weekly periods in each grade							
	I	II	III	IV	V	VI	VII	VIII
Serbian language	5	5	5	5	5	4	4	4
Serbian language for pupils of national minorities	(2)	(2)	(3)	(3)	(3)	(3)	(3)	(2)
Other language (mother tongue)	(5)	(5)	(5)	(5)	(5)	(4)	(4)	(4)
Foreign language	–	–	–	–	4	3	2	2
Art	2	2	2	2	2	1	1	1
Music	1	1	2	2	2	1	1	1
Nature and society	2	2	2	–	–	–	–	–
Nature	–	–	–	2	–	–	–	–
Society	–	–	–	2	–	–	–	–
History	–	–	–	–	1	2	2	2
Geography	–	–	–	–	1	2	2	2
Physics	–	–	–	–	–	2	2	2
Mathematics	5	5	5	5	4	4	4	4
Biology	–	–	–	–	2	2	2	2
Chemistry	–	–	–	–	–	–	2	2
Technical education	–	–	–	–	2	2	1	1
Physical education	3	3	3	2	2	2	2	2
<b>Total weekly periods</b>	<b>18</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>
	<b>(20)</b>	<b>(20)</b>	<b>(22)</b>	<b>(23)</b>	<b>(28)</b>	<b>(28)</b>	<b>(28)</b>	<b>(27)</b>

Each teaching period lasts 45 minutes.

The weekly lesson timetable of the first six years of primary education implemented since 2005-2006 is shown in the table below:

**Serbia. Elementary education (first six years, grades 1 to 6): weekly lesson timetable**

Subject	Number of weekly periods in each grade					
	1	2	3	4	5	6
First language (Serbian or another mother tongue)	5	5	5	5	5	4
Serbian as second language*	2	2	3	3	3	3
Foreign language	2	2	2	2	4	3
Mathematics	5	5	5	5	4	4
The world around us	2	2	–	–	–	–
Nature and society	–	–	2	2	–	–
History	–	–	–	–	1	2
Geography	–	–	–	–	1	2
Physics	–	–	–	–	–	2
Biology	–	–	–	–	2	2
Technical education	–	–	–	–	2	2
Fine arts	1	2	2	2	2	1
Music	1	1	1	1	2	1
Physical education	3	3	3	3	2	2
Sub-total	19-21*	20-22*	20-23*	20-23*	25-28*	25-28*
Compulsory elective subjects (including among others: religious education or civics; discovering the world; languages)	2-3*	2-3*	2-3*	2-3*	2-4*	3-4*
<b>Total weekly periods</b>	<b>21-24*</b>	<b>22-25*</b>	<b>22-26*</b>	<b>22-26*</b>	<b>27-32*</b>	<b>28-32*</b>

*Source:* Ministry of Education, *Study plan (curriculum) for grades 1-4 of elementary education*, February 2005; *Study plan (curriculum) for grades 5 and 6 of elementary education*, May 2006. Each teaching period lasts 45 minutes. \* For pupils speaking a language other than Serbian in schools where the first language is the mother tongue of the pupils.

In addition to compulsory and optional subjects, primary school pupils are exposed to other types of upbringing and learning, including: meeting with the class teacher; sports; social work in grades 1-5; excursions (one to three days per school year); orchestra; additional work (for gifted pupils); remedial instruction (for pupils with learning problems); special care; preparatory activities for pupils sitting the examination; social and free activities with their mates; preparation for participation in competitions; cultural and other activities.

The educational process is carried out on the basis of the School programme, a basic document prepared and drawn up by all teachers and adopted by the Teachers' Council and the School Board. The school programme is prepared on the basis of the official curriculum and syllabus prescribed by the MOE. Religious or civic education was introduced in the year 2001 as a facultative subject; in the year 2004, it became a



compulsory-optional teaching subject. Civic education conveys the knowledge and skills needed for active participation in society on the basis of democratic principles, respect of child and human rights and intercultural education among others. Two foreign languages are compulsory. The first foreign language is taught from the first to the eighth grade and the second from grade 5 to 8. The following languages are offered: English, Russian, German, French, Italian and Spanish. (MOE, 2008).

At the primary and secondary levels, the monitoring of pupils' and students' performance and assessment process is carried out every day. The assessment is carried out at least two times during one term and at the end of the school year when the overall evaluation and final grades are given. If the subject syllabus includes several fields, or theory and practice, the performance and progress of students are monitored in each field separately and, at the end of the term and school year a unique, final mark is given. The students' overall achievement is calculated on the ground of the arithmetical mean of non-failing marks in compulsory subjects. The marks given for student's behaviour and optional subjects do not make a part of the student's general achievement. Students who achieve exceptionally good results can progress faster than others.

Besides assessment during regular instruction, students are also assessed at examinations. Examination contents depend on the type of examination and the syllabus concerned. The examinations can be: the catch-up exam in the subject in which the student failed to achieve a sufficient mark; the class exam in subjects in which the student has not received any grade; the remedial exam in the subject in which the student failed to achieve mastery; and the final exam at the end of schooling. Each of these examinations is taken in the presence of the commission appointed by the school principal; this commission includes at least two members who are experts in the subject in which the examination is taken.

Pupils progress to the next grade in case they have non-failing marks in all the compulsory subjects and foreign language as the optional one. Pupils in grades 1-4 are promoted even in case they have failing mark in no more than two compulsory subjects. The decision on this matter is made by the teachers' council. The drop-out rate is particularly high in rural zones among girls. Pupils who turn 15 without completing primary education can continue their education in primary education schools for adults.

According to the 2007 Living Standards Measurement Survey, 97.5% of the children of the relevant age attended elementary school, while 0.6% of children were enrolled in special education schools. The greatest percentage of out-of-school children was found among Roma (21.6%), poor families (11.8%), and poorly educated families (4.4%). (MOE, 2008).

The results of the Multiple Indicator Cluster Survey 2005 showed that the majority of children of primary school age were attending school in 2005 (98% of children that are to turn 7 to 14 in the observed calendar year). The rate of primary school attendance among Roma was significantly lower (at 74%). On average, there were no significant differences between boys and girls in regard to elementary education attendance excepting Roma children, where 76% of boys compared to 71% of girls were attending primary school. Among Roma children, the child's age has a



strong influence on the school attendance rate. The attendance rate is lowest in the first grade. The maximum is reached between the ages of 8 and 10, and after that, a serious drop is visible at the age of 11 with girls, and at the age of 12 with boys. Nearly all children starting grade 1 will eventually reach grade 5. The only exception is Roma children from Roma settlements (i.e. 97% of Roma children entering first grade will eventually reach grade 5). At the time of the survey, 91% of children of primary completion age (14 years) were attending the last grade of primary education. A significantly lower percentage of Roma children (28%) attended the last grade of primary education. (Statistical Office, SMRA & UNICEF, 2007).

According to the Statistical Office, in 2007/08 there were 3,545 regular primary schools (including incomplete and satellite schools) and the total enrolment was 606,991 pupils (of whom 295,267 were girls). The total number of teachers was 48,509 (of whom 34,643 were female teachers). In addition, there were 248 schools for children with special educational needs with 7,112 pupils enrolled (of whom 2,890 were girls). The total number of teachers was 1,790 (of whom 1,482 were female teachers). A total of 244 regular primary schools with about 3,200 teachers were providing education to 31,253 ethnic minority pupils (160 schools with 21,774 pupils enrolled were in the territory of Vojvodina). In 2007/08, the percentage of the relevant age group covered was estimated at 98.8% and the completion rate at 99.5%. (Statistical Office, 2009).

## Secondary education

The general and vocational knowledge and abilities for further education and preparation for work, based on the scientific, technological, cultural and artistic achievements, are provided in secondary schools. The ethic and aesthetic values are fostered; the physical and spiritual individual abilities are developed; the awareness about humanistic values, personal and social responsibility is developed, and the health protection cherished.

As mentioned, secondary education is provided in high schools (including gymnasia), vocational schools and art schools. Access to the different types of secondary education depends on the results of the entrance exams. General education and specialized high schools (science-mathematics and languages) offer four-year programmes. Secondary vocational schools offer general and vocational (theoretical and practical) education programmes lasting two, three (in principle, without direct access to higher education) or four years, and prepare students for work and/or further education. Vocational schools programmes cover among others the fields of construction, mechanical engineering, agriculture, forestry, health, economy, catering, and trade. Art schools offer four-year programmes in the fields of music, visual arts and ballet. At the end of secondary education (four-year programmes) students sit the *matura* examination. The vocational *matura* examination consists of two parts, theoretical and practical, and assesses general, vocation-related theoretical knowledge and skills, while the practical part tests proficiency in practical vocational skills.

Secondary school curricula are defined and approved by the Ministry of Education. The curriculum includes compulsory and optional types of educational activities. The compulsory types of activities include: additional work; remedial work; practice and practical activities; preparatory and social work. Optional subjects

include: languages of the national minorities with elements of national culture for students belonging to national minorities; second (or third) foreign language; subjects necessary for further education; vocational training or personal development. The following optional subjects are also available for students in Form 4: astronomy; descriptive geometry; art; music; history of art; pedagogy; developmental psychology; ethics; drama; demography; geology; classical Greek; general linguistics. According to legislation, a student can have four optional lessons per week. The weekly lesson timetable for high schools implemented in 1998 is shown below.

**Secondary education (grammar school): weekly lesson timetable by stream (1998)**

Subject	Number of weekly periods in each form											
	General				Humanities-Languages				Science-Maths			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
Serbian language and literature	4	4	4	4	4	4	5	5	4	3	3	4
Foreign language I	2	2	4	4	2	3	5	4	2	2	2	2
Foreign language II	2	2	2	2	2	2	2	2	2	2	2	2
Latin	2	2	–	–	2	2	–	–	2	–	–	–
Constitution and civic rights	–	–	–	1	–	–	–	1	–	–	–	1
Sociology	–	–	–	2	–	–	–	3	–	–	–	2
Psychology	–	2	–	–	–	2	–	–	–	2	–	–
Philosophy	–	–	2	3	–	–	2	3	–	–	2	2
History	2	2	2	2	2	2	3	3	2	2	2	–
Geography	2	2	2	–	2	2	2	–	2	2	2	–
Biology	2	2	2	2	2	2	2	–	2	2	3	3
Mathematics	4	4	4	4	4	3	2	2	4	5	5	4
Physics	2	2	3	2	2	2	2	2	2	3	3	5
Chemistry	2	2	2	2	2	2	–	–	2	3	3	2
Computer studies	1	–	1	1	1	–	1	1	1	–	–	1
Computer practice	1	–	–	–	1	–	–	–	1	–	–	–
Music	1	1	–	–	1	1	1	1	1	1	1	–
Art education	1	1	–	–	1	1	1	1	1	1	1	–
Physical education	2	2	2	2	2	2	2	2	2	2	2	2
<b>Total weekly periods</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>31</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>31</b>	<b>30</b>

Each teaching period lasts 45 minutes.

In high school, students cannot have more than 30 lessons per week, except when they receive instruction in the languages of national minorities (up to 32 lessons). The student repeats the grade in secondary school if he/she, at the end of the school year, has at least three failing marks in compulsory subjects and in case he/she does not take the catch-up examination or class examination or fails to pass them. At the end of each form, the student who has non-failing grades is awarded a certificate on successfully completed schooling for that grade.

Secondary vocational education schools offer students general and vocational (theoretical and practical) subjects and prepare them for work and/or further education. Three- and four-year secondary vocational education programmes consists of an average of 30-32 lessons per week.



According to the European Training Foundation, the main problem with the secondary education system is that it is structured around educational profiles and course contents that now correspond to an obsolete economy. Vocational schools are under-funded, have old equipment and teachers are not up-to-date with their technical and didactical skills. Student orientation is very limited. In addition, the content and quality of skills and knowledge that the education system transfers to young people is consistently criticized by employers due to a lack of problem-solving skills, entrepreneurial spirit, excessive theoretical knowledge and inadequate general and specific technical skills. (ETF, 2006).

In January 2001, the Ministry of Education launched the reform of vocational education and training (VET). The strategic priorities for VET reform encompass: (i) decentralization and democratic school management; (ii) aligning VET with future needs of the economy; (iii) innovating curriculum delivery and pedagogy (critical thinking, team-work, creative application of knowledge); and (iv) devolving education management to local governments. The basic functions of the National Centre of Vocational Education are to develop and improve vocational education in Serbia. The Centre prepares various models of vocational education for both the formal and non-formal sectors; processes and analyzes the results of pilot programmes; and attempts to link secondary vocational education to developed European systems.

In 2007/08 there were 214,925 students (representing 76% of the total secondary school enrolment) in 339 vocational schools with approximately 15 000 teachers and trainers. Secondary vocational education, provided through around 250 profiles in the three- or four-year programmes, is undergoing the reform process since 2002. In total, 58 new profiles were created and implemented in 164 schools. The new curricula were developed in cooperation with employers and reflect their needs for new or improved knowledge and skills. Tracer studies in mechanical engineering and agriculture showed that 70-80% of graduates from the VET pilot programmes found jobs within three months, the rate of completion increased to 88% and both graduate and the employer perceptions of pilot programme outcomes were positive. However, the outcomes of the VET projects have not been properly evaluated as yet. Moreover, according to Ministry of Education data, only 15% of vocational students are currently in the new profiles. (ETF, 2010).

The results of the Multiple Indicator Cluster Survey 2005 showed that 84% of children of secondary school age were attending secondary school in 2005. Of the remaining 16%, 1.5% were attending primary school, while the rest were out of school. The proportion of children attending secondary school among the Roma population was drastically below average, at 10%. Among Roma, gender differences are significant: the proportion of boys in secondary school is twice as high as the proportion of girls (14% and 6%), which is the complete opposite of the rest of the population, where the percentage of girls in secondary school is slightly higher. Secondary school attendance is influenced by household wealth. About 64% of children from the poorest households are attending secondary school, while that is the case with 94% of children from the richest households. Children from urban areas are more likely to continue their education after primary school. (Statistical Office, SMRA & UNICEF, 2007).



According to the Statistical Office, in 2007/08 there were 480 regular secondary schools (including 141 gymnasias) and the total enrolment was 283,309 students (of whom 143,471 were girls). The total number of teachers was 29,092 (of whom 18,292 were female teachers), including teachers in special secondary education schools. In addition, there were 40 schools for students with special educational needs with a total enrolment of 1,578 students (of whom 600 were girls). A total of 44 regular secondary schools with 1,276 teachers were providing education to 9,885 ethnic minority students (40 schools with 6,764 students enrolled were in the territory of Vojvodina). In 2007/08, the percentage of the relevant age group covered was estimated at 81.8%. (Statistical Office, 2009).

### **Assessing learning achievement nationwide**

The first assessment of students' achievement was conducted in 1989. The sample consisted of 2,800 grade 8 pupils in 28 primary schools. Another assessment was conducted in 2000 within the "Comprehensive analysis of the primary education system in the Federal Republic of Yugoslavia", involving a sample of 1,300 pupils in 18 schools.

The assessment conducted in May 2004 tested a representative sample of 4,887 pupils in the third grade in 19 schools. This test was aimed at providing reliable information on the knowledge and skills acquired by pupils in the Serbian language and mathematics after three years of education, in order to help in the definition of knowledge standards in Serbian and in mathematics for the lower grades of primary school, determine the factors which impact learning achievement, and start a regular monitoring of the quality of teaching activities. The national test of fourth grade pupils conducted in May 2006, involved a sample of 5,120 students in 125 schools. The main goal of the survey was to collect relevant data on the existing teaching-learning practices and to gain an insight on the learning achievement of pupils and the factors which affect it, in order to identify measures for improving the education system.

Serbia also participated in the 2003 and 2006 PISA (Program for International Student Assessment) and in the 2003 TIMSS (Trends in International Mathematics and Science Study). (Website of the Institute for Education Quality and Evaluation, August 2007).

Concerning TIMSS 2003, Serbian students performed above the international average in mathematics, and Serbia scored eighth out of 12 participating countries in the region. In science, Serbia scored below the international average and scored third to last in the region. (UNICEF, 2008).

In PISA 2003 the country ranks quite low in terms of reading capacity and proficiency in mathematics of 15-year-olds students.

Serbia's participation in PISA 2006 made it clear that the country continues to face serious challenges with regard to the learning outcomes. In mathematics, Serbia scored 41st out of all 57 participating countries and 12th out of the 17 participating countries in the region. In reading, Serbia performed more poorly than it did in mathematics, scoring 44th of all countries that participated, and 13th of the



participating countries in the region. In science, Serbia scored 40th among all countries and 9th out of the participating countries in the region. However, Serbia did outperform three of the four participating countries in its sub-region (Bulgaria, Romania and Montenegro) in both science and mathematics. In reading Bulgaria surpassed Serbia's score. (UNICEF, 2008).

In 2009 the Law on the Foundations of the Education System set a new legal framework for teaching and learning processes, aiming in particular at inclusive education, better learning outcomes and the professionalization of teachers. As a quality assurance mechanism, all schools are obliged to start self-evaluation and development planning, while external assessment of teaching and learning quality is being revised according to this Law. One of the current national initiatives helping to make this happen is the School Quality Monitoring in Serbia project implemented by the Institute for Education Quality and Evaluation assisted by the Dutch Inspectorate of Education. The project is developing and testing a national framework for school quality and evaluation, with standards and indicators of achievement in seven quality domains: curriculum, ethos, school management, pupils' attainment, resources, support for pupils, and teaching and learning. (ETF, 2010).

## Teaching staff

Since 1993, the former pedagogical academies (tertiary-level teacher training schools) were phased out, and two-year preschool teacher training colleges/schools and four-year university programmes for primary school teachers (grades 1-4) were introduced. Grades 5-8 primary school teachers and secondary school teachers are trained at universities. University teaching staff must hold a postgraduate degree. Both graduate and postgraduate degree holders can teach at the non-university education level. The faculty of special education (children with special needs) at the Belgrade University trains specialists who deal with children and adults with impaired hearing, speech or vision, physically disabled persons, mentally retarded persons. The duration of the programme at the undergraduate level is four and a half years, i.e. nine semesters.

In accordance with the 2005 Law on Higher Education, and within the framework of the implementation of the Bologna process, the two-year tertiary level schools have been transformed into universities/faculties for professional (applied) studies offering 180-credit programmes (i.e. three-year programmes). With the implementation of the two-cycle pattern of the Bologna process, university degree programmes follow a 3+2 or a 4+1 scheme.

Prospective school teachers must spend one year of teaching practice under the supervision of a mentor. After the one-year practice, all teacher candidates must pass the state examination in order to become certified teachers. The examination consists of three parts: methodological approach to teaching subjects, pedagogy and psychology, and school legislation.

Teacher training curricula encompasses three basic groups of disciplines: (i) disciplines in the field of academic education; (ii) disciplines concerning initial vocational education; and (iii) pedagogical and psychological disciplines (pedagogy, psychology, methodology of vocational subjects).

The number of lessons and scope of disciplines differs from one higher education establishment to another. The curriculum in teacher training colleges includes the following subjects: general pedagogy (90 teaching hours); school and family pedagogy (120 teaching hours); developmental psychology (120 teaching hours); didactics (180 teaching hours); methodology of pedagogical research (90 teaching hours); sociology of education (90 teaching hours); seven methods with practical work (1,155 teaching hours). Out of the total number of 3,940 teaching hours (not including optional subjects), 2,025 hours (51.4%) are reserved for pedagogical-psychological and didactic-methodological training.

At faculties providing pre-service education for prospective teachers (faculties of philology, philosophy, sciences and mathematics) there are significant differences concerning the number of teaching hours provided for pedagogical-psychological and methodological disciplines, as well as the subjects offered. Most of the syllabi include pedagogy, psychology and methodology. At some faculties there are specific subjects referring to these disciplines, such as genetic and pedagogical psychology. Most study groups include methodological training (with demonstration classes and practical lessons) but with different numbers of teaching hours.

As all public employees, the working week of teachers consists of 40 hours. Teachers' workload varies depending on the level of education. Primary school teachers have 24 hours of direct teaching and other curricular activities (elective subject instruction, preparatory and remedial classes, sport and cultural activities, meetings, school-community cooperation, etc). Sixteen hours are dedicated to keeping school records, cooperation with parents and professional development. Secondary school teachers have 20 hours of teaching or theoretical instruction with practice, i.e. 24-26 hours of practical teaching, except for native language teachers, teachers of mathematics and foreign languages (some 18-19 teaching hours per week). Extracurricular activities are almost the same as in compulsory education. Professors and assistants at public universities must have at least four hours of teaching per week. In addition, they have individual or group consultations with students, mentoring, research, exams, teacher in-service training (at teachers' faculties), and professional self-development.

The changes in the education system, as well as the overall condition of education (in particular during the 1990s) have had a negative impact on the status, role and engagement of teachers at all levels. The lack of financing and poor working conditions, the insufficient number of teaching materials and aids, and the increasing number of students (particularly refugees and low-income students), have undermined the morale of teachers. Many teachers have left their profession, searching for better paid jobs, in particular teachers of mathematics, English language and computer science. In 1995/96, a large number of young assistants and professors in postsecondary schools left their profession.

In-service training programmes generally focus on: children and developmental psychology; methodology and didactics; teaching methods; pedagogical psychology; methods of pedagogical work; informatics; application of new teaching technology and scientific field important for certain subjects; social psychology; etc. Faculties, postsecondary schools, primary schools, pre-school



establishments, professional societies and scientific and professional organizations offer in-service training programmes and organize their delivery.

Professional development of teachers, educators and services providers is regulated by the Guidebook on Continuous Professional Development and Knowledge Acquisition for Teachers, Educators and Professional Services Providers of 2005. Among other things, these rules provide for an obligation to complete at least 100 hours of professional education programmes chosen from the annually published Catalogue of Programmes approved (accredited) by the Institute for the Improvement of Education.

Teachers' salaries decreased dramatically during the 1990s, reaching an average of US\$1 per day in October 2000. Since then salaries have increased on a monthly basis to reach a net US\$265 per month for primary school teachers and US\$291 for secondary school teachers by the end of 2003, and becoming above-average compared to the workforce employed in the social sector. The policies developed after 2000 along with the 2003 legislation introduced a career advancement scheme for teachers. According to this scheme, teachers can progress through four career steps: advisors, mentors, instructors and senior advisors, and a salary increase is linked to the progression. (Kovács-Cerović, 2006).

## References

European Training Foundation (ETF). *ETF country analysis 2006: Serbia*. Torino (Italy), 2006.

European Training Foundation (ETF). *Serbia. Review of human resources development*. October 2010.

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

Federal Republic of Yugoslavia. Yugoslav National Commission for UNESCO. *Development of education in the Federal Republic of Yugoslavia 1994-1995*. Presented at the 45th session of the International Conference on Education, Geneva, 1996.

Government of Serbia. *National report on the development and state of the art of adult learning and education*. Belgrade, April 2008.

T. Kovács-Cerović. "National Report: Serbia." In: P. Zgaga (ed.), *The prospects of teacher education in South East Europe*. South East European Educational Cooperation Network (SEE-ECN), Center for Educational Policy Studies, University of Ljubljana (Slovenia). 2006.

Ministry of Education. *The education system in the Republic of Serbia*. Beograd, 1997.



Ministry of Education. *Inclusive Education: Roadmap. National report of the Republic of Serbia*. Presented at the 48th session, of the International Conference on Education, Geneva, 2008.

Ministry of Education and Sports. *The development of education. National report of the Federal Republic of Yugoslavia (Serbia)*. Presented at the 46th session, of the International Conference on Education, Geneva, 2001.

Ministry of Education and Sports. *Development of education in Serbia, 2001-2004*. Presented at the 47th session of the International Conference on Education, Geneva, 2004.

Ministry of Education and Sports; Department for Strategic Education Development. *Quality Education for All: Challenges to the education reform in Serbia*. Belgrade, 2004.

Statistical Office of the Republic of Serbia. *Statistical Yearbook 2009*. Belgrade, 2009.

Statistical Office of the Republic of Serbia; Strategic Marketing Research Agency; UNICEF. *Serbia. Multiple Indicator Cluster Survey 2005. Final report*. Belgrade, May 2007.

UNICEF. *Education in Serbia. Country profile*. 2008.

## Web resources

Accreditation and Quality Assurance Commission: <http://www.kapk.org/> [In Serbian and English. Last checked: November 2011.]

Institute for the Improvement of Education: <http://www.zuov.gov.rs/> [In Serbian. Last checked: November 2011.]

Institute for Educational Quality and Evaluation: <http://www.ceo.edu.rs/> [In Serbian. Last checked: November 2011.]

Institute for Educational Research: <http://www.ipisr.org.rs/> [In Serbian. Last checked: November 2011.]

Ministry of Education: <http://www.mp.gov.rs/> [In Serbian. Last checked: November 2011.]

National Council for Higher Education: <http://nsvo.etf.rs/> [In Serbian. Last checked: November 2011.]

National Education Council: <http://www.nps.gov.rs/> [In Serbian. Last checked: November 2011.]



Quality Assurance of National Exams Project: <http://www.okni.edu.rs/> [In Serbian and English. Last checked: November 2011.]

Vocational Education and Training Reform Programme: <http://www.vetserbia.edu.rs/> [In Serbian and English. Last checked: November 2011.]

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