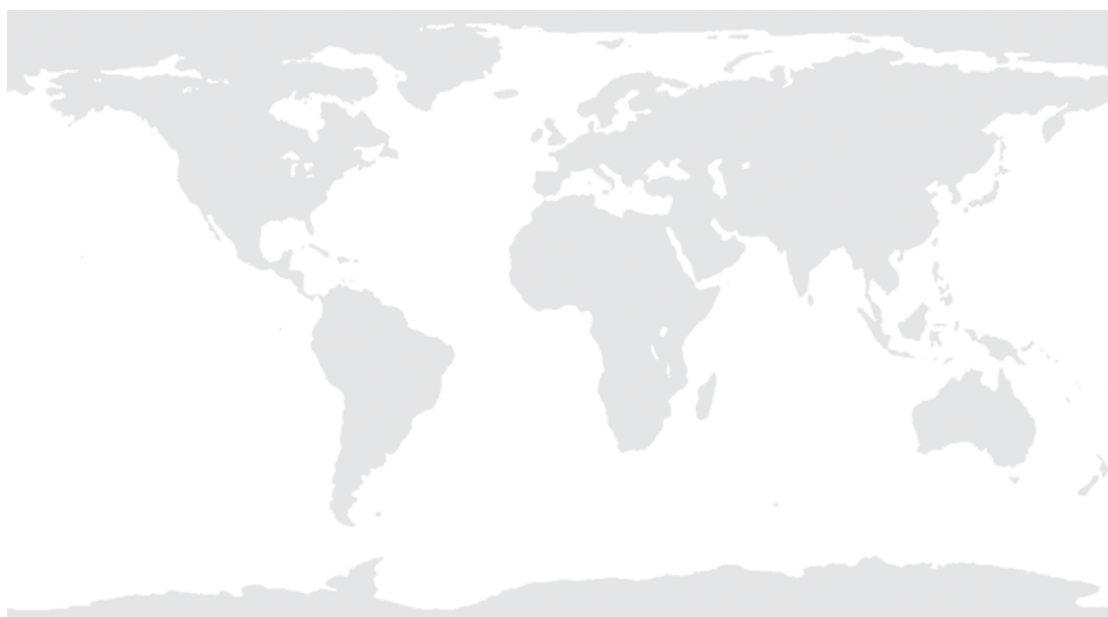




# World Data on Education Données mondiales de l'éducation Datos Mundiales de Educación

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# The former Yugoslav Republic of Macedonia

Updated version, December 2011.

## Principles and general objectives of education

In the spirit of the Universal Declaration of Human Rights, the Constitution of 1991 guarantees the basic freedoms and rights for all citizens, regulates the organization and the character of the new democratic institutions, as well as the basic principles of education.

The education system is aimed at the full development of the personality and the promotion of rights and basic freedoms. Education is based on the generally accepted values of democracy and humanism. The basic principles are applied in order to provide equal educational opportunities to all children, regardless of nationality, sex, social origin or religious beliefs.

The *National programme for the development of education in the Republic of Macedonia 2005-2015* is concerned with the development and promotion of knowledge and the reinforcement of the culture of living of all Macedonian citizens. It is constantly striving to contribute to the realization of sustainable development and improvement of the society and its promotion as an equal and respected member of the European and world environment. The National Programme is striving, in the spirit of such values of modern civilization as knowledge, democracy, fairness, tolerance and humanity, to establish the main directions for the development of education and of the country as a whole. Within the framework of the defined aims for its realization, it is consistently trying to respect the general principles on which the development of education in Macedonia is based. Such principles are quality, civic responsibility, connection with the labour market, and being transparent and capable of integration. (MOES, 2006).

## Laws and other basic regulations concerning education

In September 1995, two new laws were adopted: the **Law on Primary Education** and the **Law on Secondary Education**, which also authorizes the establishment of private secondary education establishments. Both laws have been amended several times since 1995 (the last amendments to the Law on Secondary Education were adopted in 2010).

On the basis of the amendments to the Law on Primary Education adopted on 20 September 2004, primary education is compulsory for all children in the age group 6–15 years and includes: one preparatory pre-primary year, and two four-year cycles (classroom teaching and subject teaching). In accordance with the amendments introduced on 29 May 2007, compulsory primary (basic) education lasts nine years divided into three three-year cycles (Article 4 of the amended Law on Primary Education). According to the changes and amendments to the Law on Secondary Education adopted on 18 April 2007 secondary education is compulsory and free of charge in public educational institutions (Article 3).



The **Law on Textbooks for Primary and Secondary Education** of 2008 stipulates the obligation to publish textbooks in languages of instruction and alphabets different than Macedonian (on the basis of 2002 Census figures, Macedonians constitute 64.2%, Albanian 25.2%, Turks 3.9%, Roma 2.7%, and other minorities 5% of the population). On the basis of the implementation of the Ohrid Framework Agreement of 2001 and the Law to promote and protect the rights of communities of 2008, any community constituting 20% or more of the population of a municipality has the right to all levels of education in their mother tongue or first language.

According to the **Law on Educational Inspection** of July 2005, educational inspection is obliged to perform an integral evaluation of elementary and secondary schools. Schools are required to implement the recommendations from the integral evaluation report as part of the quality control mechanism. The list of indicators should be available to schools to serve as the basis for self-evaluation. Schools are required to perform such self-evaluation according to the Law on Primary Education and the Law on Secondary Education.

The **Law on Vocational Education and Training (VET)** of 2006, amended in 2008, contains for the first time provisions pertaining to organization of VET for students and defines the rights and obligations of education institutions and employers. The Law provides for certain benefits for those companies participating in student practical training. Employers are entitled to proposing changes to existing VET syllabi and curricula or proposing new ones. For the training period, a training agreement is concluded between the VET institution, the employer and the student. The content, form and procedure for signing the training agreement are defined by the relevant chambers. (ETF, 2010).

The **Law on Adult Education**, adopted in January 2008, regulates for the first time in a comprehensive way the organization, structure, financing and management of the adult education system, within the perspective of lifelong learning. Separate provisions related to primary and secondary education for adults are included in the laws on primary and secondary education. This Law provides for the establishment of the Council for Adult Education and the Centre for Adult Education.

The **Higher Education Act** of June 2000 created a new legal basis for the reform of university and higher education. It stipulated that five-year programmes are to be adopted for the activities and development of State universities and higher education institutions. It also set forth that funds were to be provided by the State and other sources. In the line with the principles of the Bologna process, the **Law on Amending to the Law on Higher Education** adopted in 2003 created a new legal framework for a higher education system based on three cycles of study. The Law on Higher Education was last amended in 2008.

The **Law on Child Protection** was passed in the year 2000 and last amended in 2009.

Article 44 of the Constitution stipulates that everyone has the right to education; education is accessible to everyone under equal conditions; primary education is compulsory and free of charge in public educational establishments. The amended Constitution specifies that members of ethnic minorities have the right to



education in their mother tongue in primary and secondary schools. Macedonian is also taught as a second language in those schools where education is realized in the language of the national minority.

## Administration and management of the education system

All issues concerning the education system fall under the competence of the **Ministry of Education and Science** (MOES, formerly the Ministry of Education and Physical Culture). The Pedagogical Council, the Pedagogical Institute of Macedonia, and the Inspectorate are part of the Ministry. The **State Education Inspectorate** supervises the implementation of the laws and other acts, the provision of quality education, and the implementation of educational standards.

Preschool, elementary and public secondary education curricula and syllabi are prepared by the **Bureau for Education Development** (previously the Pedagogical Institute) in collaboration with the **Pedagogical Council**, which gives its professional advice. Distinguished teachers, academics and other professionals from the faculties, institutes, business and other institutions, take part in their development. Curricula and syllabi for secondary education may also be proposed by the schools themselves, enterprises, institutions and other civil legal entities, for the purpose of meeting their own requirements (re-qualification, acquisition of a higher educational level, etc.). Curricula at all levels of higher education are determined by teachers' councils.

The **Council for Vocational Education and Training** (VET) provides opinions on strategies for development of VET, proposes to the MOES amendments, supplements and new national qualifications and occupational standards, and in cooperation with municipalities submits to the Ministry proposals for the development of the network of VET institutions. The **Centre for Vocational Education and Training** is a professional body mandated to: develop VET to meet the needs of contemporary technological and social development; carry out research of the labour market in cooperation with social partners; participate in accreditation for provision of training programmes; prepare concepts for all types of VET; and define occupational standards and syllabi for all types and levels of VET. The Centre monitors the quality and timeliness of the delivery of services, monitors the results, and ensures that institutions applying for verification for delivering VET meet prescribed conditions. (ETF, 2010).

The **Council for Adult Education** is an advisory body that makes proposals concerning the development and implementation of adult education strategies policies as well as the national qualifications and occupational standards. Among other tasks, the **Centre for Adult Education** (established under the Law on Adult Education) promotes social partnerships at all levels in the process of planning, development and implementation of the adult education; prepares the concept of adult education as well as occupational standards as a basis for adult education programmes; evaluates adult education programmes; and maintain the catalogue of adult education programmes. (MOES, 2008).

The **Ministry of Labour and Social Policy** is responsible for overall coordination of early childhood education. The **Ministry of Health** is responsible for



the health promotion and protection components, and the Ministry of Education and Science for implementation of programmes and standards. In accordance with the Law on Local Self-Government (2002) and the Law on Territorial Organization of the Local Self-Government (2005), the establishment, financing, and maintenance of kindergartens are under the responsibility of the **municipalities**. Municipalities also have oversight of the quality and relevance of VET at the local level. They are mandated to carry out analysis of the labour market needs in their jurisdictions and submit the VET Centre and VET schools.

The **Higher Education Development and Financing Council**, established in October 2003, is responsible for the development and implementation of measures and criteria for financing of higher education. The **National Agency for Evaluation of Higher Education** and the **Higher Education Accreditation Board** are the main bodies responsible for quality assurance in higher education.

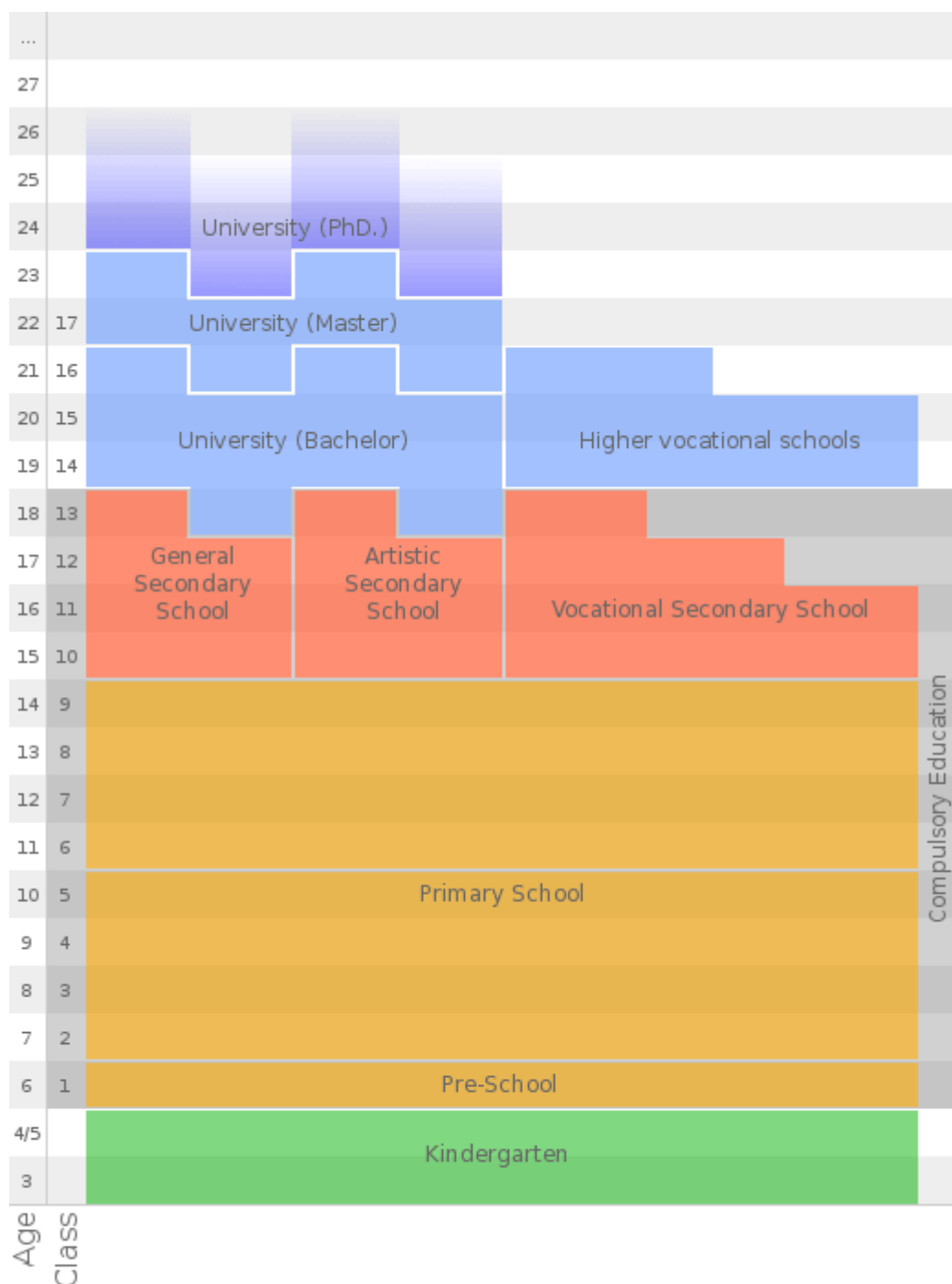
Each kindergarten has a **teachers' council**, headed by the principal. Representatives of the parents and the units of local self-government also participate in the management of the pre-school institutions. To this end, extended membership councils are formed.

On the basis of the laws on elementary and secondary education, the **school board** is the management body of the institution. It is comprised of representatives of teachers and other staff, as well as the founder of the school and the parents. The school board adopts the annual programme, reports, and financial plans; participates in the process of selection and appointment of the principal); adopts the statutes and supervises their implementation. Principals are appointed by the Minister, upon prior opinion of the Pedagogical Institute of Macedonia and of the school boards.



## Structure and organization of the education system

### The FYR of Macedonia: structure of the education system (2008)





## Pre-school education

Preschool education is provided in kindergartens and in the reception year groups within primary schools. As from September 2005, the reception (pre-primary preparatory) year became part of compulsory education.

## Primary education

Compulsory elementary (basic) education used to last eight years divided into two four-year cycles, and children who have reached the age of 7 by the end of the calendar year enrolled in the first grade of the elementary (basic) school. In 2004, a new nine-year basic education programme compulsory for all children in the age group 6–15 years has been introduced, consisting of one preparatory pre-primary year followed by two four-year cycles (classroom teaching and subject teaching). According to legislative changes introduced in 2007, basic education lasts nine years, divided into three three-year cycles (classroom teaching in grades 1-5 and subject teaching in grades 6-9). At the end of the programme successful pupils receive the certificate of completed basic education.

## Secondary education

Secondary education is provided in general education or specialized (languages and science-mathematics) gymnasia offering four-year programmes, four-year technical education schools, and four-year art, music, and ballet schools. Vocational education schools offer to basic education graduates two-, three-, or four-year programmes leading to a certificate of technician. At the end of general secondary education students sit the *matura* exam. There are also final exams at the end of three- and four-year vocational education programmes. According to legislative changes introduced in 2007, since 2009/10 secondary education is compulsory and free of charge in public schools (Article 3 of the amended Law on Secondary Education).

## Higher education

Students are required to pass an entrance examination to obtain access to higher education. Tertiary-level professional colleges offer two-year diploma programmes. Before the implementation of the Bologna process, at the universities most undergraduate programmes lasted four years (five years in the case of professional studies, six years in the case of medicine). In 2004/05 some faculties started to adopt the two-cycle pattern, and have also introduced programmes within the first three-year cycle leading to a bachelor's degree. There are also faculties that continue to offer four- or five-year undergraduate degree programmes. Concerning second-cycle programmes, some faculties started offering master's degree programmes lasting one and a half to two years (six to eight semesters), regardless of the duration of undergraduate programmes. Doctoral degree programmes take a minimum of three years to complete.

The school year at the elementary and secondary levels starts in September and ends in June of the following year. At the elementary (basic) level the school year is divided into two terms. Schools operate five days a week and have to provide instruction for 180 days during the year (175 days in grade 9). The academic year is



divided into two semesters (summer and winter) or in three trimesters. Students normally have a one-month winter vacation and a somewhat longer summer vacation.

## The educational process

The Ministry of Education adopts the Concept for Primary Education and on this basis individual subjects' curricula are developed. In primary school, the educational process is organized and carried out according to the official curriculum and syllabi adopted by the Ministry of Education upon proposal of the Bureau for Education Development (formerly the Pedagogical Institute). The primary school curriculum includes compulsory and elective subjects, additional and optional educational activities. The official curriculum also determines the annual and weekly number of classes for compulsory and elective subjects in each grade, as well as the number of weekly classes for additional and optional educational activities. It also establishes the educational aims, contents, basic concepts, activities and methods of teaching, the evaluation of pupils' achievements, and the conditions for implementation.

Secondary education programmes are prepared according to the model programmes adopted by the Ministry of Education on the basis of the proposal of the Bureau for Education Development. Educational standards are proposed by the Examinations Centre and adopted by the Ministry. Programmes may also be proposed by the municipalities, enterprises, institutions and other legal entities.

The Framework for Nine-year Primary Education was prepared by the Bureau for Education Development and enacted in 2007, providing a basis for changes to the curriculum of compulsory primary education (grades 1-9). In 2008, the nine-year primary education curriculum was reformed and aligned to the child-friendly school philosophy and principles. The national child-friendly school framework includes standards in six areas: inclusiveness; effectiveness; safe and protective environment; gender equality; participation; and multiculturalism and child rights. A separate subject (life skills based education) has been introduced in the curriculum. As a compulsory subject in grades 1-9, life skills based education includes contents about environmental education, sex education, child rights, multiculturalism and peaceful conflict resolution. As part of the reform, history of religion was included as an optional subject in grades 7 and 8 replacing the previous religious education that was rejected by the Constitutional Court in April 2009. The revision of the secondary education curricula was planned for 2010.

### Pre-primary education

Preschool education is provided in kindergartens and in the reception year groups within primary schools. As from September 2005, the pre-primary preparatory year became part of compulsory education.

Preschool education is regulated by the Law on Child Protection and related provisions. Care and upbringing of children is a form of child protection that includes care, nutrition, upbringing, health protection and promotion, education, sports and recreational and cultural-entertainment activities, and improvement of the intellectual,



emotional, physical, mental and social development of the child until enrolment in primary education.

Care and upbringing of preschool children is realized in accordance with special programmes for different age group prepared by the Bureau for Education Development. The Pedagogical Service then submits the programme for approval to the Minister of Labour and Social Policy. There are several types of programmes: full day, half-day, abridged, pilot programmes and programme for out-of-institution activities. Kindergartens can also extend working hours depending on the needs of the parents. Preschool education is provided in the Macedonian language and in the languages of the minorities (mainly Albanian, Turkish, and Serbian). Kindergartens also provide care and upbringing for children with special needs according to the level of their disability. Parents usually participate covering 30% of the costs and the rest is subsidized by the State.

Physical and health education, introduction to the environment, speech development, elements of mathematics, art and music education are the main subjects of the preschool programme. Greater attention is paid to children in the reception (preparatory) year, in order to facilitate their successful start in the first grade of primary education.

The National Programme for Development of Education 2005-2015 emphasizes the need for increasing access to preschool education and recognizes and promotes the importance of alternative forms of preschool education to be implemented at the local level. (MOES, 2006). The process of developing the early learning and development standards began in 2006 at the initiative of the UNICEF Office in Skopje in cooperation with the Ministry of Labour and Social Policy. The last revision of the Early Learning and Development Standards was carried out at the end of 2008. The standards take into account the following domains: physical health and motor development; socio-emotional development; development of approaches to learning; language development, literacy and communication; cognitive development and general knowledge acquisition. The standards are expectations of what the children should know and be able to do at a given age. Each expectation is indivisibly related to a respective age. The Early Learning and Development Standards refer to the age range of 0-6 years (or 0-72 months), divided in age groups as follows: 0-2 years (0-6 months, 6-18 months and 18-24 months); 2-3 years (24-36 months); 3-4 years (36-48 months); 4-6 years (48-60 months, 60-72 months). The age ranges are determined by the legal provisions which are the basis for the organization of the work of kindergartens and the division of children into respective groups. The values expected to be achieved by the children with the accomplishment of the Early Learning and Development Standards are: independence, creativity, initiative, responsibility toward oneself and toward the own surroundings, to accept and respect diversity, tolerant behaviour and solidarity and respect toward the community and the state as a whole. (Ministry of Labour and Social Policy, 2009).

In 2004, a total of 36,177 children aged up to 7 were enrolled in preschool education, of whom 20,517 in kindergartens and 15,660 in reception year groups within primary schools. It accounted for approximately 20.4% of the total number of children (177,050 aged up to 6). The percentage of inclusion of children in the year before starting school was 82.2% (MES, 2006). In 2005, there were in total 4,065



kindergarten employees (experts, educators, assistants, caregivers). According to the new territorial organization (August 2004), in the country there are 84 municipalities and kindergartens were available in 40 of them. The total number of public kindergartens was 51 (with 184 facilities), out of which 17 were in the municipality of Skopje, the capital.

The results of the Multiple Indicator Cluster Survey 2005 showed that only 11% of children aged 36-59 months were attending preschool in 2005. A higher percentage of boys (15%) compared to girls (6%) were attending preschool. Urban-rural and regional differences are significant: children in urban areas are about ten times as likely to attend early learning activities (the figure is as high as 19% in urban areas, compared to less than 2% in rural areas). Differences by socioeconomic status are also significant: 25% of children living in the richest households attend preschool, while the figure drops to only 1% in the poorest households. There are differences in the attendance rate of children from different ethnic groups: only 2% of Albanian children attend preschool education compared to 17% of Macedonian children. Overall, 76% of children who were age 6 or 7 and attending the first grade of primary school were attending preschool the previous year. The proportion among boys was higher (87%) than girls (64%), while this proportion was almost the same among children living in urban and rural areas. (State Statistical Office & UNICEF, 2007).

## Primary education

The former eight-year compulsory education programme was organized into two stages: grades 1-4 (or classroom teaching), and grades 5-8 (or subject teaching). As mentioned, in 2004 a new nine-year basic education programme compulsory for all children in the age group 6–15 years has been introduced, consisting of one preparatory pre-primary year followed by two four-year cycles (classroom teaching and subject teaching). According to legislative changes introduced in 2007 basic education lasts nine years, divided into three three-year cycles (classroom teaching in grades 1-5 and subject teaching in grades 6-9).

On the basis of Article 3 of the Law on Primary Education, the aims of primary education are:

- the provision of general and applicable knowledge necessary in everyday life or further education, the harmonious, intellectual, emotional and social development of students according to their abilities, the development of the skills of students for understanding, informing and expressing themselves in the Macedonian language and its alphabet or in another language and alphabet of the members of communities who speak languages other than Macedonian;
- the development of students' self-confidence and awareness about their own individuality and responsibility for their acts, fostering mutual tolerance, cooperation, respect of differences, basic human rights and freedoms;
- the development of students' awareness their affiliation to the Republic of Macedonia and nurturing their own national and cultural identity;
- the provision of education in general cultural and civilization values from world traditions, imparting general and applicable knowledge that enables

independent creative action in the social and natural environment and the development of abilities for reasoning and expressing in art and cultural traditions, as well as for research, experimentation and problem solving;

- the development of students' talents in different areas;
- the promotion of a healthy way of life and the protection of the environment.

Upon completion of primary education, students shall: be able to express themselves and write in their mother tongue; be able to express themselves and write in Macedonian; recognize and accept the universal and specific societal values and be able to live in a pluralistic and democratic society; have developed critical thinking and problem solving skills; possess communication skills; be familiar with other cultures and civilizations, and be fluent in two foreign languages, one of which shall be English; be aware of the importance of science and technology in modern society; have basic knowledge in different scientific areas; be IT literate; have developed a sense and ability for expression in the area of arts, according to their potentials and predilections; have developed their motor skills through sports, games and activities, understand their responsibility regarding their own health, healthy lifestyle, and safe and healthy environment. (MOES, 2006).

The weekly lesson timetable of the former eight-year programme is presented below:

**First stage of elementary (basic) education: weekly lesson timetable**

Subject	Number of weekly periods in each grade			
	I	II	III	IV
Macedonian language	5	5	5	5
Macedonian for pupils of other nationalities (Albanian, Turkish or Serbian)	–	–	2	2
First foreign language	–	–	–	2
Mathematics	5	5	5	4
Nature and society	2	2	2	–
Nature	–	–	–	2
Society	–	–	–	2
Art education	2	2	2	2
Music	1	1	2	2
Physical and health education	3	3	3	3
<b>Total weekly periods</b>	<b>18</b>	<b>18</b>	<b>19(21)</b>	<b>22(24)</b>
Facultative subjects:				
Vlachs or Roma language	–	1	2	2
Ecology, handwork	–	–	2	2
Supplementary teaching	2	2	2	4
Free school activities	1	1	1	2

Source: MES, 2001. Each teaching period lasts 40 minutes.

**Second stage of elementary (basic) education: weekly lesson timetable**

Subject	Number of weekly periods in each grade			
	V	VI	VII	VIII
Macedonian language	4	4	4	4
Macedonian for pupils of other nationalities (Albanian, Turkish or Serbian)	3	3	2	2
First foreign language	3	3	3	3
Second foreign language	–	2	2	2
Mathematics	4	4	4	4
History	2	2	2	2
Geography	1	2	2	2
Physics	–	–	2	2
Chemistry	–	–	2	2
Biology	1	2	2	2
Art education	2	1	1	1
Music	2	1	1	1
Technical education	2	2	–	–
Physical and health education	2	2	2	2
<b>Total weekly periods</b>	<b>23(26)</b>	<b>25(28)</b>	<b>27(29)</b>	<b>27(29)</b>
Optional subjects:				
Technical education	–	–	2	2
Computer studies	–	–	2	2
<u>Facultative subjects:</u>				
Vlachs, Roma or other language	2	2	2	2
Computer studies	–	2	–	–
Art education, music, sports, ecology or other subject	1	1	1	1
Supplementary teaching	4	4	4	4
Free school activities	2	2	2	2

Source: MES, 2001. Each teaching period lasts 40 minutes.

The new curricula are focused on principles, aims, topics, activities and expected outcomes. They introduce a new approach in the planning and organization of the teaching-learning process, adjusted to the developmental and educational needs of students in real life, together with their social, economic and cultural needs. The most important change in the development of the programmes has been the shifting of the focus of the educational process from content-based planning and programming towards goal- and content-based programming. The main advantages of this approach are the following: using content matter and methods which connect learning to pupil's experience; flexible organization of the lessons; encouragement of individual activity; and changes in the organization of the classrooms, which is expected to promote socialization and cooperation in learning. (MOES, 2004). In 2008, the nine-year primary education curriculum was reformed and aligned to the child-friendly school philosophy and principles.

Evaluation is a continuous process throughout the entire school year, while final grades are given at the end of the year. Pupils' achievement is assessed in the different subjects of the curriculum, and their behaviour is evaluated as well. School certificates contain marks for each subject separately using a 5-point grade scale: 5 to



2 are pass grades (excellent, very good, good, sufficient), while 1 is a failing grade. In the first cycle (grades 1-3) the evaluation is expressed only in a descriptive way, while in the other two cycles (grades 4-6 and 7-9) is both descriptive and numerical. For the overall evaluation the marks in individual subjects covered by the curriculum for the relevant level are taken into account. The overall evaluation is expressed in descriptive terms. In principle, pupils in grades 1 to 5 should not repeat the grade. In grades 7-9, students with a failing grade in two subjects have to sit the catch-up exam; students with a failing grade in more than two subjects shall repeat the year.

According to national data, in 2001/02 there were 1,010 primary and lower secondary schools, of which 342 central school and 668 satellite schools in small villages and communities (505 satellite schools offered only grades 1-4). The total enrolment was 242,707 students and the number of full-time teachers was 12,912. (MOES, 2006).

The results of the Multiple Indicator Cluster Survey 2005 showed that of children who were of primary school entry age (age 7 at the time of the survey), 95% were attending the first grade of primary school in 2005. No significant differences were found between boys and girls, urban and rural areas and regions. In the richest households, the proportion was around 98%, while it was 86% among children living in the poorest households. Roma children had the lowest levels with only 63% attending the first grade of primary school. Ninety-five percent of children that attended the last grade of primary school in the previous year were found at the time of the survey to be attending the first grade of secondary school. There was virtually no difference between urban and rural children, or boys and girls, however Roma children were significantly less likely to transition to secondary school (only 27%) than other children. (State Statistical Office & UNICEF, 2007).

The State Statistical Office reports that in 2009/10 there were 990 primary and lower secondary schools (including satellite units) with a total enrolment of 280,980 students (of whom 101,150 were girls). The total number of full-time teachers was 14,983, of whom 9,855 were female teachers. In addition, there were 44 special education schools with 1,075 students enrolled (of whom 377 were girls) and 230 full-time teachers (of whom 195 were female teachers). A total of 729 schools provided instruction in Macedonian (133,468 students enrolled), 289 in Albanian (69,034 students), 62 in Turkish (6,062 students), and seven in Serbian (416 students). (State Statistical Office, 2011).

## Secondary education

As mentioned, secondary education is provided in four-year gymnasias, technical education schools, and art, music, and ballet schools. Vocational education schools offer to basic education graduates two-, three-, or four-year programmes leading to a certificate of technician. At the end of general secondary education students sit the *matura* examination. There are also final exams at the end of three- and four-year vocational education programmes. According to legislative changes introduced in 2007, since 2009/10 secondary education is compulsory and free of charge in public schools (Article 3 of the amended Law on Secondary Education).

Gymnasia offer three types of programmes giving access to higher education: general education; science and mathematics; and languages. The school-leaving examination consists of the defense of a theme prepared by the students in the course of the fourth year, a written exam in the mother tongue and literature, and an oral exam in a given subject (e.g. mathematics, foreign language, etc.) included in the curriculum. Classes are held five days per week for 38 weeks a year (35 weeks in the last year of secondary school). In technical education schools classes may be held for 42 weeks per year. Lessons usually last 45 minutes, while for practical education lessons are 60 minutes long.

Technical and other vocational schools prepare technicians for different occupations and professions. In some fields, such as construction, agriculture, building mechanization, etc., there are programmes with a shorter duration (from several months to three years). The network of schools is well-developed, except for the technical courses, agriculture, economics, medicine, food-stuff, and textiles. The curriculum of four-year vocational education institutions covers general education, vocational-theoretical subjects and practice sessions, with 35-40% of time allocated to general education subjects and 60-65% to vocational education and training. Four-year vocational education and training education ends with a final exam that is both written and practical. The resulting diploma gives students the option of sitting the entrance examinations at the relevant faculties, universities and colleges.

Art schools (music, ballet, applied arts) offer a four-year course. In these schools, students acquire general and vocational education in the relevant field of art. Students enter these schools by sitting an entrance examination, the purpose of which is to test their skills. At the end of the studies, students sit a final examination and, if successful, are entitled to enrol in the university.

As in the case of elementary education, evaluation is a continuous process throughout the entire school year, while final grades are given at the end of the relevant school year. Students' performance is evaluated for the different subjects established within the curriculum, and their conduct is evaluated as well. In addition, students are also evaluated for other accomplishments achieved in the on-the-job practice (school workshops, enterprises and stores).

Students receive certificates at the end of each school year. In the diploma awarded at the end of secondary education, the type of education and the level of vocational skills are stated. The certificate of completed four-year secondary education provides students with the right to access to higher education.

In 2002/03, there were 37,059 students enrolled in gymnasia, 9,292 students in three-year vocational schools, 46,259 students in four-year vocational schools, and 916 students in art schools.

The results of the Multiple Indicator Cluster Survey 2005 showed that overall, 63% of children of secondary school age (ages 15–18 at the time of the survey) were attending secondary school. This percentage was the lowest in the South East region (37%) and among the children of the Roma population, only 17%. In urban areas, 71% of children attended school compared to 56% in rural areas. The attendance of secondary school is strongly determined by the socio-economic status of the



households. It ranges from 34% in the poorest quintile to 90% in the richest quintile. Seventy-four percent of Macedonian children of secondary school age attended secondary school, while the figure was only 17% among Roma children. There was a higher proportion of girls (68%) age attending secondary school than of boys (59%). (State Statistical Office & UNICEF, 2007).

The State Statistical Office reports that in 2009/10 there were 110 (upper) secondary schools with a total enrolment of 94,284 students (of whom 45,725 were girls). The total number of full-time teachers was 6,001, of whom 3,404 were female teachers. In addition, there were four special education schools with 305 students enrolled (of whom 91 were girls) and 65 full-time teachers (of whom 34 were female teachers). A total of 99 schools provided instruction in Macedonian (65,599 students enrolled), 35 in Albanian (26,028 students), 10 in Turkish (1,476 students), and seven in English (1,181 students). (State Statistical Office, 2011).

### Assessing learning achievement nationwide

The country participated in the 2003 PIRLS (Progress in International Reading Literacy Study) and 2006 TIMSS (Trends in International Mathematics and Science Study) exercises. Of all the countries in the region that participated in these two assessments, the former Yugoslav Republic of Macedonia scored last on both tests. The country ranked below the international average in both literacy and mathematics achievement. Teaching is thought to be largely ineffective because of outdated methodologies that concentrate on rote memorization and because of low teacher support in schools. Studies and reports call for the introduction of basic learning standards for pre-primary and primary schools to ensure that students leave school with basic competencies and that children who are in need of special assistance are identified and serviced. (UNICEF, 2010).

## Teaching staff

Since 1995, newly employed teachers and associates have to sit an examination, in accordance with the programme approved by the Ministry of Education upon proposal of the then Pedagogical Institute. The initial education of all teachers (except for practical classes) has been raised to the university level (four-year programmes leading to a bachelor's degree). (MOES, 2006).

Preschool and classroom (grades 1-5) teachers are trained at the pedagogical faculty (faculty of education). General secondary school teachers are trained at the faculties of philosophy, philology, natural sciences and mathematics, arts and physical culture; those of vocational-theoretical subjects are trained at technical and other faculties, such as: electrical engineering, mechanical engineering, technology, economics, etc. Teachers who do not have relevant pedagogical education must sit additional exams. Special education schools employ teachers with college or university qualifications, as well as teachers with professional qualifications in different subjects and training in special education.

Teachers in state primary and secondary education have the legal status of public servants. The teacher recruitment procedure is through a public call for staff. In



primary schools, the school principal makes the final decision following a proposal by the school board. In secondary schools, the public concourse or announcement leads to a proposal by the concourse commission before the school principal makes the final decision. All employees should pass the exam for public servants after one year of work on probation as part of the recruitment process. (ETF, January 2010).

Professional in-service training for preschool, primary and secondary school teachers is organized at the following levels: (i) national or regional, most often by the local offices of the Bureau for Education Development, depending on the aim of the in-service training or the number of participants (training in curricula and syllabuses, education technology, projects or didactical and curriculum innovations); (ii) schools and educational institutions as professional organizations of teacher groups (of class-based teaching, subject teaching, general education, a group of vocational subjects) or school teams (mainly within a given project); (iii) professional gatherings, panel discussions, symposiums (individual participation or as school representatives). (MOES, 2006).

In recent years, the Bureau for Education Development accredited a set of innovative programmes for in-service training within the framework of the Education Modernization Project. In 2009, a new professional development programme was implemented to improve mathematics and literacy instruction in the country. The programme was developed as a result of the underperformance of students in international mathematics and literacy tests. (ETF, January 2010).

According to national data, in 2003/04 at the primary level 4,929 teachers had higher education; 8,570 teachers had tertiary-level, postsecondary education; and 820 teachers had completed secondary education. In the same year, at the secondary level 5,712 teachers had higher education; 244 had postsecondary education; and 73 teachers had completed secondary education. Concerning faculty staff, 1,420 were PhD degree holders; 567 were master's degree holders; 177 were specialist's degree holders; and 463 were bachelor's degree holders. (MOES, 2004).

Concerning teachers' workload, in 2004/05 the situation at the primary level was as follows: 83.3% of the teachers teach 18-24 hours per week; 78.5% of the teachers teach only one subject, 18% two subjects and 3.7% three or more subjects; 91% of the teachers work in one school only, 8% in two and only 1% work in three or more schools. At the secondary level: 20% of the teachers teach 18 hours per week, 71.5% teach 18-24 hours and 8.5% teach more than 24 hours per week; 74.6% of the teachers teach only one subject, 11.8% two subjects and 13.6% three or more subjects; 89.6% of the teachers work in one school only, 9.2% in two and 1.4% in three or more schools. (MOES, 2006).

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## Web resources

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State Inspectorate for Education: <http://dpi.mon.gov.mk/> [In Macedonian. Last checked: December 2011.]

Vocational Education and Training Centre: <http://www.csoo.edu.mk/> [In Macedonian, Albanian and English. Last checked: December 2011.]

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