North Macedonia

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Introduction

Overview of Education System

According to the Constitution of the Republic of North Macedonia (RNM), everyone has the right to education under equal conditions. Primary and secondary education are free and compulsory. Citizens have the right to establish private educational institutions at all levels of education except primary.

As a multiethnic and multicultural state, the Republic of North Macedonia guarantees protection of the ethnic, cultural, linguistic, and religious identity of members of each community. The official language is Macedonian, which has a Cyrillic alphabet. In addition to the Macedonian language, the official language in the municipalities is the language used by at least 20 percent of citizens.¹ Members of the communities have the right to instruction in their language in primary and secondary education, as well as in some universities. In schools where education is carried out in another language, the Macedonian language is also studied.

State education policies are implemented through the Ministry of Education and Science (MoES),² which is responsible for:

- Upbringing and education of all types and degrees
- Organization, financing, development, and promotion of upbringing, education, and science
- Upbringing and education of the children of citizens of RNM who are temporarily residing abroad
- Verification of professions and profiles in education
- Improving the standards for students and undergraduates
- Investing in information technology and e-education
- Technological development, support for innovation, and technical culture
- International scientific and technical cooperation
- Supervision within its competency and other matters determined by law

The Ministry implements its competencies in cooperation with several educational institutions, including:



- The Bureau for Development of Education (BDE), responsible for monitoring, expert inspection, research, promotion, and development of education; preparation of curricula and syllabi; professional support of schools; professional development of teachers
- The State Examinations Centre (SEC), responsible for organizing and conducting various types of examinations and tests (State Matura, State Testing/National Assessment, international assessments such as Programme for International Student Assessment [PISA], Trends in International Mathematics and Science Study [TIMSS], PIRLS, and Teaching and Learning International Survey [TALIS]); conducting training and examinations of candidates for school principals; conducting professional examination for trainee teachers
- The Vocational Education and Training Center (VETC), responsible for analysis and study of vocational education systems; development of standards of occupations and professional qualifications; curriculum development; support for social partnership; teacher education and counseling
- The Adult Education Center (AEC), responsible for promoting adult education; establishing standards and quality criteria for formal and informal adult education
- The State Educational Inspectorate (SEI), responsible for inspection of the implementation of laws in the field of education; quality control of the education process; implementation of the integral evaluation of primary and secondary schools

The process of decentralization of the education system in RNM started in 2005 to improve the quality and create equal opportunities for citizens and efficiency of the system. Municipalities were given the authority to establish primary and secondary schools, maintain the schools, distribute finances at the local level, appoint school principals, and employ teachers and other school staff.

The education system is divided into four cycles:

- 1. **Preschool education** covers children from the ages of 7 months to 6 years. It is not compulsory and about 40 percent of children attend. Considering the importance of this type of education for further development, the state policy aims to increase the attendance of children in Kindergartens and early childhood development centers through a number of measures to improve the capacity of existing facilities, build new facilities, subsidize socially disadvantaged families, etc.
- 2. **Primary education** is compulsory and covers students from the ages of 5 years and 8 months to 14 years. In academic year 2007–2008, nine-year primary education was introduced, which is divided into three periods (Grades I to III, Grades IV to VI, and Grades VII to IX). From Grades I to V, students attend grade classes covering all subjects, and from Grades VI to IX, they attend subject-specific classes. Teaching is conducted in Macedonian, Albanian, Turkish, Serbian, and Bosnian. Students who attend classes in Albanian, Turkish, Serbian, or Bosnian must also study Macedonian.
- 3. **Secondary education** is compulsory and covers students from the ages of 15 to 17/18. According to the Law on Secondary Education,³ there are four types of secondary



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education: high school education (gymnasia), vocational education, secondary art education, and secondary education for students with special education needs. Secondary vocational education has a two-year, three-year, or four-year duration and postsecondary education. At the end of three-year vocational education, students take a final examination and are not eligible to enroll in university. Students who finish vocational, art, or high school—all of which have a duration of four years—can choose to take the final examination or school graduation examination and get a job or take the State Matura examinations and continue their education at universities. Teaching in public high schools is conducted in Macedonian, Albanian, and Turkish, and there is bilingual teaching (in the mother tongue and in English, French, or German) in some schools.

4. **Higher education** is realized at three levels—undergraduate, master, and doctoral studies—and is in accordance with the Bologna Process and the European Credit Transfer and Accumulation System. Teaching at public universities is conducted in Macedonian and Albanian, and in English at some private universities.

Use and Impact of PIRLS

The Republic of North Macedonia participated in the first two cycles of the PIRLS study in 2001 and 2006, and after a break of several years, rejoined the fifth cycle of PIRLS in 2021. The country's first participation in each of the international studies TIMSS in 1999, PISA in 2000, and PIRLS in 2001⁴ were new and useful experiences for all professionals in the field of education and for the creators of education policies. For the employees of the SEC (an Assessment Unit within the BDE at that time), these experiences motivated conducting a National Assessment in 2001 and 2006 that applied all the knowledge and practices from international studies. National reports were prepared for the international studies, and reports on the results of all schools were prepared for the National Assessment. Events were organized to promote the results, as well as trainings for teachers to learn how to apply this knowledge in their teaching. However, continuation of the National Assessment was not included in the prevalent Law on Primary Education and after this period ceased to be implemented. RNM participated in international studies with occasional breaks.

After many years of discussions about the low results of RNM's students in international studies (usually below the international average), the need for objective perception of students' achievement, and the modernization of education in line with world trends, the new Law on Primary Education⁵ was adopted in 2019. The Law explicitly states that RNM will participate in international studies and will organize State Testing (National Assessment) to improve the quality of education. After the adoption of the Law, *The Concept of National Assessment for Primary Education*⁷ and new curricula were prepared in 2020,⁶ and in 2021, a new *Concept Note on Primary Education*⁷ and new student achievement in PIRLS, special emphasis is placed on language literacy in all documents, and the mother tongue curricula are expanded with the aim to improve reading comprehension.



The Language/Reading Curriculum in Primary Grades

In primary education in RNM, the mother tongue is taught five hours per week (180 hours per year) in Grades I to V and four hours per week (144 hours per year) in Grades VI to IX. Students who study in the Albanian, Turkish, Serbian, or Bosnian language are required to study the Macedonian language two hours per week (72 hours per year) in Grades IV to IX.

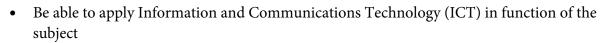
Students who participated in the PIRLS 2021 assessment in academic year 2020–2021 attended classes in mother tongue according to the mother tongue curriculum adopted in 2007, which determines the learning outcomes, basic concepts, activities and methods in teaching, standards for assessment of student achievements, and standards for teaching staff.

Special curricula for all languages taught in fourth grade (Macedonian, Albanian, Turkish, Serbian, and Bosnian) were adopted in 2007, but all have the same structure and differ only in those parts that are specific to the respective language. According to the curriculum,⁸ teaching the mother tongue allows students to develop an interest in learning and applying the mother tongue as a basic means of communication, artistic expression, and learning the language as the most characteristic feature of national identity. Through learning the mother tongue, students become acquainted with the structure and system of the standard language and develop the skills of listening, reading, writing, oral and written expression, comprehension, experience, and interpretation of literary and other texts.

The curriculum defines the goals of teaching the mother tongue for fourth grade, according to which the student should:

- Distinguish vernacular (dialects) versus standard language
- Read different texts with understanding
- Use the correct order of words in a sentence
- Use nouns, adjectives, main numbers, and verbs in oral and written expression in a given sentence context
- Use elementary grammatical and spelling norms in reading and writing
- Read and narrate works of folk and artistic literature appropriate to the age
- Be able to narrate orally and in writing in a standard language
- Use different forms of written expression (for example, text for a greeting card or an invitation)
- Compose questions after given answers
- Participate in a conversation in which he or she articulates experiences, feelings, and facts
- Enrich their vocabulary
- Develop a sense of belonging to oneself and respect for other cultures
- Be able to follow information from different media and communicate short information from them





The goals are specified in four program areas with several subareas:

1. Language

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- Grammar
- Spelling
- 2. Reading literature and assigned reading
 - Reading
 - Literature—Prose
 - Poetry
 - Selected titles and texts—Assigned reading
- 3. Expression and creation
 - Oral expression
 - Written expression
- 4. Media culture

In 2018, the Government of RNM prepared the Education Strategy for 2018–2025 and Action Plan, according to which the primary vision and commitment is to provide "comprehensive, inclusive and integrated education aimed at the student, with modern programs that enable future generations to acquire knowledge, skills and competencies in accordance with the needs of a democratic multicultural society, the labor market and new challenges in the global science and technology environment."⁹ One of the key reforms that emerged from this Strategy is the *Concept Note on Primary Education*, implementation of which began in academic year 2021–2022 in Grades I and IV. Together with the Concept, National Standards for Student Achievement at the End of Primary Education and completely new curricula for Grades I and IV were developed.

During the development of the National Standards, the key competencies for lifelong learning included in the Recommendation of the Council of the European Union from 2018 and the European Qualifications Framework were considered. The competencies that students should acquire at the end of primary education are adapted to the age of the students, the context of Macedonian society, and previous experiences with primary education in RNM.

The National Standards refer to eight fields around which the competencies are grouped: Language Literacy; Use of Other Languages; Mathematics and Natural Sciences; Digital Literacy; Personal and Social Development; Society and Democratic Culture; Engineering, Technology, and Entrepreneurship; and Artistic Expression and Culture.

The field of Language Literacy includes "competencies that enable the identification, understanding, expression, creation and interpretation of concepts, feelings, facts and opinions orally and in various written forms, using visual, audio and digital materials in various disciplines



and contexts." These competencies relate to the mother tongue (i.e., the language of instruction) and include "knowledge of reading and writing and a solid understanding of written texts, mastery of certain vocabulary and grammar and knowledge of the functions of the language, as well as the ability to use the main types of verbal interaction in oral and written form."¹⁰

In the new mother tongue curriculum in fourth grade,¹¹ the application of which started in academic year 2021–2022, the introduction lists the competencies in the field of Language Literacy that students would acquire by achieving the expected learning outcomes, as well as certain relevant transversal competencies from the fields Digital Literacy; Personal and Social Development; Society and Democratic Culture; Engineering, Technology, and Entrepreneurship; and Artistic Expression and Culture. The main emphasis in the curriculum is on the learning outcomes, i.e., the abilities that students are expected to acquire by the end of fourth grade, in three areas (see Exhibit 1).

Area	Number of Hours of Instruction	Learning Outcomes
Language and Communication	80	 Narrate heard and read texts and dialogues that are different in content and length
		 Discuss a certain topic after hearing a text
		 Read texts of various functional styles and with different reading difficulty aloud fluently at an age-appropriate speed
		 Interpret data presented in nonliterary texts
		 Distinguish vernacular (dialects) from standard language
		 Compose texts (oral and written) for various communication needs in a standard language, using adopted vocabulary and respecting the adopted grammatical and spelling rules
Literature and Creation	90	 Distinguish literary works and explain their differences
		 Analyze and interpret a literary text at the content level and use citations to support the analysis
		 Narrate literary texts, narrate events (orally and in writing), and create texts on a given and free topic
Media Literacy and	10	 Search, extract, and use information from different media
Media Culture		 Understand and convey the message of a cultural event (visited or announced)

Exhibit 1: Language Literacy Learning Outcomes in Three Areas for Fourth	Grade Students
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For each of the three areas, the curriculum includes content (terms), evaluation standards, and examples of activities that are listed in addition to the learning outcomes. Additional basic information also is listed regarding the curriculum (number of hours, necessary equipment and resources, teaching staff standards, etc.); guidelines for assessing student achievement, respecting inclusiveness, and respecting gender equality/sensitivity; and intercultural and interdisciplinary integration in teaching activities.



Given that the changes in the curriculum in the mother tongue, among other things, are based on current achievements of students in national and international assessments, it is expected that these changes will contribute to higher student achievement on future tests.

Professional Development Requirements and Programs

A teacher in a grade class (Grades I to V) must have obtained at least a university diploma of 240 credits from one of the pedagogical faculties or the faculties of general pedagogy. The education of the grade teachers lasts four years, during which they acquire education for all subjects that are taught in the grade classes, as well as general knowledge in the fields of pedagogy and psychology.

In the first year of employment, teachers are trainees and teach with mentoring support from experienced mentor teachers. After completing this period and acquiring the necessary competencies, the trainee teachers must pass the professional examination for teachers conducted by the State Examinations Centre. By passing the professional examination, the trainee teacher acquires the title of teacher. After meeting the appropriate professional standards and completing a number of years of work experience, teachers can advance in the titles of teacher-mentor and teacher-advisor.

Ongoing professional development is a right and obligation of all teachers. Professional development is achieved through accredited training programs, projects approved by the MoES, internal professional development in the school, interschool learning teams, and individual forms of learning. According to the Law on Teachers and Professional Associates in Primary and Secondary Schools,¹² teachers are required to devote at least 60 hours of training over three school years, with at least 40 hours of participation in accredited training programs. This type of training is funded by the BDE budget, municipalities, and education projects approved by the MoES. In addition to the mandatory training determined by the MoES and schools, teachers have the right to initiate their own professional development according to personal aspirations in areas where they want to improve.

The BDE is responsible for the professional development of teachers and for the accreditation of teacher education programs. The work of the teachers is supervised by school principals and counselors in the respective subjects from the BDE and the VETC.

Monitoring Student Progress in Reading

Students' progress in reading is assessed as part of the mother tongue curriculum. Teachers monitor and assess progress and achievement through formative and summative assessment, and this information is collected during the school year through various procedures and methods (essays, tests, quizzes, problem solving assignments, projects, etc.). The tests usually are created by the teachers at the class level or at the school level and are nonstandardized.



In the first period of primary education (Grades I to III), student achievement is expressed in descriptive grades. In later primary and secondary education, descriptive and numerical grades are used (from 1 to 5, where 5 is the highest grade, and 1 is the lowest and nonpassing grade).

External measurements of student achievement are conducted by the State Examinations Centre through state and international assessments in certain subjects. The State Testing (National Assessment) checks the actualization of the standards of achievement during primary education. Although the results do not affect grades (i.e., the general success of students), students are obliged to participate in the State Testing according to the Law on Primary Education. The State Testing is conducted at the end of Grades III, V, and IX in a representative sample of schools and students. The main emphasis is placed on language and mathematical literacy—i.e., achievements in the subjects of mother tongue (Macedonian and Albanian language) and mathematics are evaluated. If necessary and with the approval of the Minister of Education and Science, the State Testing can be extended to other subjects and languages of instruction.

International assessments provide education policymakers with insights into RNM students' achievement compared to internationally defined levels of achievement. The results of these assessments also do not affect the grades of individual students. The only external assessment in which students receive grades is the State Matura, which is conducted at the end of the four-year secondary education, has a certification role, and is used for selection when enrolling in universities. The mother tongue is a mandatory examination in the State Matura.

The strengths and weaknesses of formative and summative assessment, as well as the need for regular national and international assessments, are presented in detail in *OECD Reviews of Evaluation and Assessment in Education: North Macedonia*,¹³ and some of the recommendations already have been implemented in the education system of RNM.

Special Reading Initiatives

Considering students' poor results in reading comprehension on various national and international tests, RNM has participated in several initiatives and projects to improve student achievement over the last two decades, including:

- United States Agency for International Development (USAID)'s Primary Educational Project (2006–2012). The project aimed to improve teaching and learning to enable students to acquire critical thinking skills, improve school-based assessment to stimulate and reinforce quality learning, etc.
- UNICEF's Early Literacy and Early Numeracy Programme for Grades 1 to 3 (2009–2015).
- USAID's Readers are Leaders Project (2013–2018). The project introduced two assessment instruments for students in Grades 2 and 3 in primary education: the Early Grade Reading Assessment (EGRA) and the Early Grade Mathematics Assessment (EGMA).



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 - British Council's 21st Century School Programme (2018–2021). The program is designed to equip students ages 10 to 15 with critical thinking and problem solving skills.
 - Ongoing trainings organized by the Bureau for Development of Education to improve reading comprehension (2020-present). BDE conducts regular trainings for grade teachers to improve the quality of teaching in the mother tongue in the area of reading comprehension. Released items from PIRLS also are used as examples in the trainings, which focus on methods of teaching and assessing reading comprehension.

Response to COVID-19 Pandemic

Teaching and Learning During the COVID-19 Pandemic

The COVID-19 pandemic significantly changed the way teaching was organized in schools in RNM in 2020 and 2021. Institutions had to make quick and efficient decisions. On March 11, 2020, the Government of RNM suspended classes with physical presence in all educational institutions, and the MoES published free digital platforms, applications, and content for home learning on its website. On March 16, 2020, the National TV Service (MRTV) started broadcasting an educational program ("TV classroom") with content prepared by teachers in different subjects. After declaring a state of emergency in the country, the Government issued a Decree to organize teaching through distance learning, and on March 24, 2020, the National Platform for Support of Distance Learning, Eduino, was promoted.¹⁴

The MoES, in cooperation with the Commission for Infectious Diseases, prepared laws and bylaws for the realization of teaching in academic year 2020–2021, which started on October 1, 2020. The *Plan for Teaching in Primary and Secondary Schools* was adopted, according to which a combined teaching model was applied. Students in Grades I to III attended classes with physical presence, while all other students attended classes online. In some schools and with the approval of the Commission established by the Government of RNM, classes were organized with physical presence for students from other grades in primary and secondary education if the conditions for teaching with physical presence were met. Guidelines in *Health Protocols for the Realization of Teaching with Physical Presence* and *Algorithm for Action* were adopted in occurrences of a student with symptoms of COVID-19.

In September 2020, a national platform was developed that enabled two-way interaction and communication between teachers and students, e.g., organization of content in the form of e-classrooms, online teaching with the help of Microsoft Teams, conducting online tests, and so on.

Many students from socially vulnerable families were provided with free internet as well as computer equipment. For students who did not have online learning devices, in addition to the educational television program, schools and teachers were required to regularly provide them with printed materials to be in constant communication with them and their families, and to monitor the mastery of the teaching material.



The teaching in academic year 2021–2022 was realized with the physical presence of students by respecting the health protocols for the schools.

Impact of the Pandemic on Student Learning

To understand the situation regarding the changes in the teaching process caused by the COVID-19 pandemic, the MoES, in cooperation with UNICEF, BDE, and Reactor, conducted research on "Experience and Attitudes Towards Distance Learning Introduced During the COVID-19 Pandemic."¹⁵ The research was conducted in two phases and comprised 10,000 respondents from primary and secondary schools (principals, teachers, parents, and students). The results of the first phase of the research for academic year 2019–2020 were the basis for planning and preparation for academic year 2020–2021. The results of the second phase indicated that all participants in the education process reported that distance learning was better organized in academic year 2020– 2021. The key changes were the consistent organization of teaching according to the schedule of classes and the use of a platform for video conferencing for the realization of lectures and classes. In addition, principals and teachers gave higher marks for the clarity of the directions they received for organizing distance learning.

Policy and Practice Changes

Experiences from 2020–2021 have shown that RNM should continue to improve the distance learning system, as well as the conditions in schools.

In September 2020, the *Concept for Development of a Distance Education System in Primary and Secondary schools in RNM* was developed,¹⁶ which is a framework for organizing distance learning that offers guidelines for establishing a distance learning system in terms of education policies, organization, and implementation of distance learning. The Concept is the basis for establishing a national platform for distance learning and its application at the national level. This national platform, except in times of crisis, will be used in the daily work of schools to combine regular teaching with e-content, offer different sources and approaches to learning, check student achievement, as well as monitor and evaluate the education process by the competent educational institutions.

The national distance learning support platform Eduino is still operational and complemented by video lessons, games, and other materials and activities for preschool and school-age children.

In parallel with these processes, the MoES continues to work on providing a stable and fast internet connection for schools, as well as computer equipment for schools and students.

Impact of the Pandemic on PIRLS 2021

During the period when the main assessment for PIRLS 2021 was administered, all fourth grade students attended online classes. However, this did not cause any significant problems and the testing was conducted on schedule in May 2021. Only small organizational adjustments were made



to comply with the health protocols for protection from COVID-19 that were used for teaching with physical presence. Classes with a large number of students were divided into groups with a maximum of 12 students and were tested in separate rooms. Schools were asked to hire more test administrators. In the manuals for school coordinators and test administrators, a special section was added for compliance with health protocols (division into groups of maximum 12 students, rules for movement through schools, persons who have permission to contact students, mandatory use of disinfectants, ventilation of the premises, etc.).

International assessments in RNM are legally regulated and are part of the regular activities of schools. Therefore, under normal circumstances, the SEC does not require parental permission for students to participate in these assessments. However, according to the protocols for online teaching, parents had to give permission for the physical presence of their children in the school during the assessments. After consulting with the TIMSS & PIRLS International Study Center, school coordinators were instructed to use code A on the Student Tracking Form for students who were absent due to any other illness and code P for students without parental permission due to the COVID-19 pandemic. Lack of parental permission for some students caused the student response rate to be lower than usual (i.e., it was below 90 percent in many classes). However, it was not possible to arrange a makeup session since the same students would again not have received parents' permission.

A few days after the assessment, the SEC contacted school coordinators, who confirmed that there was no case of infection with COVID-19 as a result of students' participation in the assessment. This information indicates that the employees of the SEC, together with the collaborators from the schools, successfully conducted the main data collection for PIRLS 2021 without disturbing the health of the students, which is a top priority in every occasion.

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