

NEW MODEL SCHOOLS IN THE REPUBLIC OF MOLDOVA: CURRENT SITUATION AND FUTURE PROSPECTS

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DOI: <https://doi.org/10.36004/nier.cecg.II.2024.18.29>

***Abstract.** The Republic of Moldova has initiated an ambitious national project to create a Network of Model Schools aimed at improving educational quality and equity across the country. This paper examines the current status of the initiative, focusing on the renovation and modernization of 35 general education institutions, with a special emphasis on rural and underserved areas. The project seeks to bridge the gap between rural and urban educational outcomes by providing state-of-the-art infrastructure, modernized curricula, and enhanced digital learning tools. The study highlights the role of international partnerships, such as those with the World Bank, UNICEF, and USAID, in supporting the initiative through financial and technical assistance. A comprehensive analysis of the distances between settlements within Chisinau municipality and a Model School demonstrates challenges related to accessibility for rural students. The findings emphasize the importance of sustained investment, teacher training, and community engagement in ensuring the long-term success of the Model Schools initiative. The project holds significant potential to improve educational outcomes and reduce disparities, aligning Moldova's education system with European Union standards. The article was developed within the framework of Subprogram 030101 „Strengthening the resilience, competitiveness, and sustainability of the economy of the Republic of Moldova in the context of the accession process to the European Union”, institutional funding.*

***Keywords:** Model Schools, educational equity, rural-urban disparity, educational infrastructure, Moldova*

JEL: I21, I25, R58
UDC: 37.014.54(478)

Introduction. In the pursuit of improving educational equity and quality, the Ministry of Education and Research in the Republic of Moldova has launched a national initiative to create a Network of Model Schools. This ambitious project aims to renovate and fully equip 35 general education institutions across the country, with a special focus on increasing access to quality education for students from disadvantaged backgrounds, particularly in rural areas. The initiative seeks to address disparities in educational performance between rural and urban students by developing these schools into educational hubs that will attract students from smaller, less-resourced institutions. The comprehensive upgrades planned for the Model Schools include infrastructure improvements, state-of-the-art digital equipment, modernized curricula, and enhanced teaching materials, all aimed at delivering education that meets the highest standards.

The Model Schools initiative aligns with Moldova's broader goals of advancing its education system in line with European Union standards, as the country moves toward EU integration. By fostering partnerships with international organizations like the World Bank, UNICEF, the United Nations Development Programme (UNDP), and USAID, Moldova aims to implement systemic educational reforms that will strengthen the resilience and quality of its education sector. This project also addresses significant gaps in educational outcomes, highlighted by results from international assessments such as PISA, where rural students in Moldova have shown lower performance compared to their urban counterparts.

With a substantial investment of 70 million Euros, the Model Schools initiative is not only a step towards improving educational infrastructure but also an opportunity to foster a more inclusive and high-quality learning environment that can support Moldova's future generations. This paper examines the current state of the Model Schools project, the challenges faced in its implementation, and the potential long-term impact on Moldova's education system.

Literature review. The concept of Model Schools as a means to bridge the gap in educational equity has been explored in various contexts globally, including in developing nations. Several studies emphasize the importance of infrastructure, teacher quality, and curriculum modernization in achieving educational improvements, particularly in disadvantaged or rural areas. This literature review highlights key findings from existing research related to educational infrastructure improvements, disparities in educational outcomes between rural and urban areas, and the role of international partnerships in education reform. Investments in school infrastructure have been widely recognized as crucial for improving the quality of education. Research indicates that physical facilities—such as well-equipped classrooms, laboratories, and digital learning environments—are closely linked to student engagement and academic performance. Inadequate school facilities can lead to lower academic achievement, and improving these facilities is essential to ensuring that students have an environment conducive to learning.

Additionally, the provision of modern equipment, such as digital technologies and updated teaching materials, has been shown to improve teaching efficacy and learning outcomes. In the case of the Republic of Moldova, the planned comprehensive upgrades to the 35 Model Schools are aligned with this global research, indicating the potential for significant improvements in educational outcomes once the schools are renovated and fully equipped with modern learning technologies. A critical focus of the Model Schools initiative is addressing the disparity in educational outcomes between rural and urban students. Internationally, rural schools often struggle with resource allocation, teacher shortages, and lower student performance. The Programme for International Student Assessment (PISA) results have consistently shown a performance gap between rural and urban students, with rural students generally underperforming in key areas such as literacy, mathematics, and science (OECD, 2016). In Moldova, similar patterns are evident. According to PISA data, 64% of 15-year-old students in rural schools score lower in science and reading compared to the national average of 46%. Studies in other contexts, such as Brazil and India, have found that interventions targeted at rural schools—such as improving teacher training, providing better educational resources, and modernizing curricula—can reduce the rural-urban performance gap (World Bank, 2019; Muralidharan & Sundararaman, 2011). Moldova’s focus on creating Model Schools in rural regions to serve as educational hubs for students from smaller, resource-constrained institutions is consistent with global best practices for addressing these disparities. The role of international organizations in supporting educational reform has been well-documented in various settings, particularly in low- and middle-income countries. Partnerships with institutions such as the World Bank, UNICEF, and USAID have proven instrumental in improving educational outcomes through financial investment, technical assistance, and policy guidance. For instance, the World Bank’s education projects in Africa and Asia have shown significant positive effects on educational access, equity, and quality, particularly in rural and disadvantaged areas (Evans & Popova, 2016). Moldova’s Model Schools project benefits from similar international support. The World Bank’s involvement in providing financial and technical assistance for the initiative mirrors its successful educational interventions in other countries. UNICEF’s emphasis on child-centered approaches and equitable education aligns with the project’s goal of reducing performance disparities and improving access to quality education. Studies indicate that such partnerships not only provide the necessary resources but also bring expertise in implementing systemic changes in education policy and infrastructure (McGivney & Winthrop, 2016). The digitalization of education has become a critical aspect of modern educational reform, particularly in the wake of the COVID-19 pandemic, which underscored the need for resilient education systems capable of withstanding disruptions. Research by OECD (2020) highlights how the integration of digital tools in education can enhance learning outcomes and make education systems more adaptable to future challenges. Moldova’s Model Schools project, which includes the incorporation of state-of-the-art digital equipment and learning tools, aligns with global trends in promoting the digitalization of education

to improve its quality and resilience. The literature underscores the importance of infrastructure improvements, targeted interventions in rural schools, and international partnerships in addressing educational disparities and enhancing the quality of education. Moldova's Model Schools initiative is consistent with global best practices and has the potential to significantly improve educational outcomes for disadvantaged students. By drawing on lessons from international experiences and incorporating modern digital tools, the project represents a forward-looking approach to creating a more equitable and resilient education system in Moldova.

Materials and Methods. The primary data for this study was sourced from the Ministry of Education and Research of the Republic of Moldova and included GPS-based measurements of distances from various settlements within Chisinau municipality to the Public Institution Republican High School with Sports Profile in Chisinau. This data was compiled to form *Table 2*, which lists the specific distances between the settlements and the school. Additional information regarding the list of schools in the Model School Network was obtained from official government publications, as outlined in *Table 1*. The study focused on the Chisinau municipality, the capital of Moldova.

This area was selected due to its administrative importance, high population density, and significant educational infrastructure. Chisinau serves as a central hub for various national activities, making it an ideal location for analyzing the accessibility of educational institutions.

The analysis involved several key steps:

1) distance calculation - using the provided GPS data, the distances from each settlement within the Chisinau municipality to the target school were calculated and tabulated.

2) average distance calculation - the average distance to the school was computed to provide an overview of the accessibility for students across the municipality.

3) spatial analysis - geographical information systems (GIS) tools were employed to map the locations of the settlements and the school to visualize the spatial distribution of distances and identify any geographical patterns or disparities.

4) descriptive statistics - basic statistical measures such as mean, median, and range were used to describe the data on distances, providing insights into the variability and central tendencies of the school's accessibility.

The study acknowledges several limitations. The accuracy of the GPS data and the subsequent distance measurements could affect the findings. The study does not account for dynamic factors such as traffic conditions and public transportation availability, which could influence actual travel times. The focus on Chisinau municipality might not fully represent the situation in other regions of Moldova. This methodology provides a comprehensive framework for assessing the impact of the Model Schools initiative on educational accessibility within the Chisinau municipality, contributing to broader discussions on educational equity and infrastructure development.

Current situation of model schools. At the beginning of 2024 an order was issued by the Ministry of Education and Research (MER) of the Republic of Moldova. It concerns the approval of a list of model schools and the concept of a model school. The order is based on the decision of a committee tasked with selecting educational institutions to benefit from investments from the World Bank and the European Union. The document outlines the approval of the list of educational institutions approved as model schools benefiting from World Bank and EU investments (**Table 1**), approval of the model school concept, developed by a working group established by MER. The General Directorate of Education Policies is tasked with informing the selected institutions about this order and coordinating the investment process from the World Bank and the EU. This document formalizes the steps for enhancing educational infrastructure and practices in selected institutions through international financial support.

Table 1. The list of schools from Model School Network

No.	District	Locality	Name of institution
1	SOROCA	SOROCA	PITHS "Petru Rares"
2	ANENII NOI	ANENII NOI	PITHS "Mihai Eminescu"
3	SINGEREI	SINGEREI	PITHS "Olimp"
4	REZINA	REZINA	PITHS "Alexandru cel Bun"
5	UNGHENI	UNGHENI	PITHS "A. Puskin"
6	STRASENI	STRASENI	PITHS "Mihai Eminescu"
7	CHISINAU	CHISINAU	Public Institution Republican High School with Sports Profile
8	CAUSENI	CAUSENI	PITHS "Mihai Eminescu"
9	CALARASI	CALARASI	PITHS "Mihail Sadoveanu"
10	CAHUL	CAHUL	PITHS "Mihai Eminescu"
11	EDINET	EDINET	PITHS "Mihai Eminescu"
12	LEOVA	LEOVA	PITHS "Mihai Eminescu"
13	DUBASARI	COSNITA	PITHS "Ion Creanga"
14	NISPORENI	NISPORENI	PITHS "Mircea Eliade"
15	HINCESTI	HINCESTI	PITHS "Mihail Sadoveanu"
16	CRIULENI	CRIULENI	PITHS "Boris Dinga"
17	ORHEI	ORHEI	PITHS "Onisifor Ghibu"
18	BALTI	BALTI	PITHS "B. P. Hasdeu"
19	OCNITA	OCNITA	PITHS "Mihail Sadoveanu"
20	BRICENI	BRICENI	PITHS "Grigore Vieru"
21	RASCANI	RASCANI	PITHS "Liviu Damian"
22	DROCHIA	DROCHIA	PITHS "Mihai Eminescu"
23	GLODENI	GLODENI	PITHS "Vasile Coroban"
24	SOLDANESTI	SOLDANESTI	PITHS "Alexei Mateevici"

25	ATU GAGAUZIA	CEADIR-LUNGA	PITHS "Mihail Ceachir"
26	BASARABEASCA	village ABACLIA	PITHS "Constantin Stere"
27	CANTEMIR	town CANTEMIR	PITHS "Mihai Eminescu"
28	CIMISLIA	CIMISLIA	PITHS "Mihai Eminescu"
29	DONDUSENI	DONDUSENI	PITHS "Alexei Mateevici"
30	FALESTI	FALESTI	PITHS "Ion Creanga"
31	FLORESTI	FLORESTI	PITHS "M. Costin"
32	IALOVENI	RAZENI	PITHS "Ion Pelivan"
33	STEFAN VODA	STEFAN VODA	PITHS "Stefan Voda"
34	TARACLIA	TARACLIA	PITHS "Ivan Vazov"
35	TELENESTI	TELENESTI	Public Institution Gymnasium "Mihai Eminescu"

Source: <https://mec.gov.md/ro/content/ministerul-educatiei-si-cercetarii-anuntat-lista-institutiilor-care-vor-face-parte-din>

Note: PITHS - Public Institution Theoretical High School

The document of Model School Concept outlines the strategic framework and operational guidelines for the establishment of model schools in Moldova. Half of the students in Moldova do not meet minimum competencies in reading, math, or science. There are disparities in student performance between larger urban schools and smaller rural schools, often lacking sufficient teaching staff and resources, highlighting the need for model schools. The model schools aim to bridge educational disparities and provide high-quality education that prepares students for a global and interconnected economy. They are envisioned to serve as exemplars in educational practices, fostering critical and creative thinking, and holistic development. The concept is built around principles that reflect contemporary educational philosophies and pedagogical practices, responding to the evolving needs of students. These include leadership development, educational equity, digital inclusion, and student-centered learning approaches. Pedagogical strategies emphasize collaborative learning, emotional and social skills, personalized learning paths, interdisciplinary approaches, and active learning strategies to engage students fully in their educational journey. The model schools prioritize the development of critical thinking and real-world problem-solving skills, connecting theoretical knowledge with practical applications. They aim to ensure an open and inclusive environment where students, teachers, and parents can actively participate in decision-making processes relevant to school life. The curriculum and teaching methods are designed to foster adaptability and lifelong learning, integrating continuous learning and resilience into the educational experience. A strong emphasis is placed on integrating technology into the educational process, ensuring digital literacy among students and teachers and using digital tools to enhance learning outcomes. It also emphasizes environmental awareness and sustainability by incorporating environmental education and sustainability into the curriculum, promoting eco-friendly practices within the school community and a global perspective by encouraging cultural exchange

education and extracurricular opportunities. These institutions serve not just the city but also surrounding settlements, making a geographical analysis relevant. The city has the most developed transportation network in the country, allowing students from neighboring settlements to commute. Examining the distances helps in understanding the reach of this network and its efficiency in connecting students to specialized schools. The economic importance of Chisinau and the varying socio-economic conditions of its surrounding areas make it an ideal case for studying the effect of accessibility to educational institutions on social mobility, education, and sports development. These factors make Chisinau a representative and critical case for understanding educational access in Moldova, especially regarding sports-oriented institutions like the Republican High School with Sports Profile.

The **Table 2** shows the distance from various settlements within the Chisinau municipality to the Public Institution Republican High School with Sports Profile in Chisinau. Chisinau itself is listed with a distance of 0 km, indicating that the school is located within the city proper.

Table 2. The distance from settlements of Chisinau municipality to Public Institution Republican High School with Sports Profile in Chisinau, km

CHISINAU			
	Public Institution Republican High School with Sports Profile		
Bacioi	12.0	Durlesti	11.6
Bic	3.5	Fauresti	22.5
Braila	12.0	Frumusica	13.3
Bubuieci	10.1	Ghidighici	16.2
Budesti	17.2	Goian	21.1
Buneti	15.4	Goianul Nou	19.6
Ceroborta	19.5	Gratiesti	14.4
Cheltuitori	12.2	Hulboaca	18.0
Chisinau	-	Humulesti	14.4
Ciorescu	19.5	Revaca	16.3
Codru	6.4	Stauceni	13.9
Colonita	13.2	Straisteni	10.7
Condrita	30.4	Singera	13.9
Cricova	18.3	Tohatin	13.2
Cruzesti	16.6	Truseni	17.4
Dobrogea	19.9	Vadul lui Voda	23.6
Dumbrava	12.4	Vatra	14.4
		Vaduleni	27.6

Source: Calculated by authors based on GPS data

Several nearby settlements, such as Bic (3.5 km), Codru (6.4 km), and Durlesti (11.6 km), are close to the school. These areas may have quicker and easier access to the school. The most distant settlements are Condrita (30.4 km), Vaduleni (27.6 km), and Vadul lui Voda (23.6 km). Schoolchildren from these areas may have longer commutes. The distances between these settlements and the school can indicate potential challenges related to transportation for schoolchildren from these areas. Most settlements fall in the 10-20 km range, with distances such as Revaca (16.3 km), Gratiesti (14.4 km), and Singera (13.9 km). While not extremely far, these distances might still present logistical challenges for schoolchildren. The average distance across all settlements can be calculated to assess the general accessibility of the school from different parts of the municipality. The average distance from the settlements in Chisinau municipality to the Public Institution Republican High School with Sports Profile is approximately 15.45 km. This suggests that, on average, schoolchildren from various settlements need to travel about 15 km to reach the school. The variance in distances highlights potential disparities in accessibility, with some settlements being much closer while others are farther away, possibly impacting schoolchildren's ease of commute.

Prospects of model schools. The prospects of the Model Schools initiative in Moldova are promising, particularly as the country continues to strive for enhancements in educational standards and equity. This initiative not only aims to refurbish and equip schools with modern facilities but also to address longstanding disparities in educational access and quality between urban and rural areas. Model Schools are envisioned to set a high standard for educational quality through improved infrastructure, state-of-the-art technology, and modernized curricula. This can lead to enhanced learning environments that foster better academic performance and student engagement. By focusing on rural and underserved areas, the initiative is likely to reduce the gap between urban and rural education systems. This can contribute to more equitable educational outcomes across the country, ensuring that students from all backgrounds have access to quality education. The improvements in facilities and teaching methods could make public schools more attractive to students and parents, potentially increasing enrollment rates and reducing dropout rates. This shift can also alleviate some of the pressures on urban schools by redistributing the student population more evenly across the country. Education is a critical factor in economic development and social mobility. Model Schools can serve as catalysts for local development, providing young people with the skills needed to contribute effectively to the economy. This could lead to broader economic benefits, including increased innovation and a more skilled workforce. The involvement of international partners such as the World Bank, UNICEF, and USAID offers opportunities to integrate global best practices in education within the Moldovan context. This collaboration can also lead to further funding and support for scaling the initiative. Model Schools emphasize not only academic learning but also the development of social and emotional skills, preparing students for the complexities of the modern world. This holistic approach

can enhance students' overall well-being and their ability to navigate future challenges. The initiative's focus on sustainability, including the incorporation of environmental education and the use of green technologies, positions Model Schools as forward-thinking institutions that can adapt to future educational needs and challenges. While the prospects are favorable, the success of the Model Schools initiative depends on several factors. Sustained financial investment is crucial to maintain the high standards set by the Model Schools. Equipping teachers with the skills and knowledge to effectively use new technologies and pedagogical strategies is essential. Involving parents, local communities, and other stakeholders is key to ensuring the initiative's relevance and sustainability. Regular assessment of the initiative's impact will be necessary to make adjustments and ensure it meets its educational goals. The Model Schools initiative holds significant potential to transform the educational landscape in Moldova, offering a pathway towards an inclusive, high-quality, and sustainable education system.

Conclusions. This study aimed to analyze the accessibility of the Public Institution Republican High School with Sports Profile within the Chisinau municipality, providing insights into the reach and impact of Moldova's Model Schools initiative. Several conclusions can be drawn from the research. The distances from the settlements to the school range significantly, from as close as 3.5 km to as far as 30.4 km. This variance indicates that while some students have relatively easy access to the school, others face substantial barriers due to distance, potentially impacting their daily commute and overall educational experience. The findings underscore the existing disparity between urban and rural access to specialized educational facilities. Urban areas, particularly those closer to the city center, enjoy better proximity to such institutions compared to rural settlements, which are often significantly farther away. The strategic location of the school within the capital and the improvement of its infrastructure are likely to enhance educational outcomes for students. However, for maximum effectiveness, these upgrades need to be complemented by improved transportation links that can mitigate the challenge of distance for rural students. The Model Schools initiative is a pivotal step towards modernizing education in Moldova, especially in terms of infrastructure, curriculum, and pedagogical approaches. This project not only aims to elevate educational standards but also strives to equalize opportunities for students from diverse backgrounds, particularly those from underprivileged rural areas. Based on the analysis, it is recommended that future educational initiatives consider incorporating more comprehensive transportation solutions to facilitate easier access to Model Schools. Additionally, there should be a continued focus on developing educational hubs in rural areas to reduce travel burdens and ensure equitable access to quality education. The long-term success of the Model Schools initiative could serve as a blueprint for other regions within Moldova and similar contexts globally. By addressing both the infrastructural and accessibility issues, Moldova can significantly enhance its educational landscape, making it more inclusive and aligned with European Union standards. The involvement of international organizations such as the World Bank, UNICEF, and the UNDP has

been crucial in providing the necessary financial and technical support for this initiative. Continued collaboration with these entities will be essential to sustain and expand the impact of the Model Schools initiative. In conclusion, while the Model Schools initiative has made significant strides in enhancing the quality of education in Chisinau, addressing the challenges of accessibility and equitable distribution of educational resources remains crucial. The study highlights the need for ongoing efforts to bridge the urban-rural educational divide and ensure that all students, regardless of their geographical location, have access to high-quality educational opportunities.

Acknowledgments. *The article was developed within the framework of Subprogram 030101 „Strengthening the resilience, competitiveness, and sustainability of the economy of the Republic of Moldova in the context of the accession process to the European Union”, institutional funding.*

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