

ACTUAL PROBLEMS OF MODERNIZATION AND INTERNATIONALIZATION OF EDUCATION IN QAZAQSTAN

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Abstract

Education in Kazakhstan is currently undergoing significant transformation. At all levels of education, from preschool through secondary and higher education, modernization processes are taking place: standards are changing, concepts are being developed, and new models of teaching and upbringing are being introduced. The aim of this article is to present to the global educational community the features of education development in Kazakhstan and to familiarize international colleagues with the specifics of the countrys educational policy, which combines both domestic and global resources. The authors of the article focus primarily on reforms in secondary education. Using specific examples, the authors demonstrate the results of their research on evaluating the schools educational environment.

Keywords: *Education, higher education, modernization, international cooperation, development, relationship.*

1. Introduction

Kazakhstan is the largest country located in the center of the Eurasian continent. Its territory spans between Asia and Europe, with approximately 15% in Eastern Europe and 85% in Central Asia. Kazakhstan ranks ninth in the world in terms of land area and shares borders with major countries such as China, Kyrgyzstan, Russia, Uzbekistan, Azerbaijan, and Turkmenistan. The climate in Kazakhstan is sharply continental, with clearly defined seasons. This remarkably beautiful country, situated in the heart of Eurasia, has no direct access to the world's oceans. However, this does not hinder its integration into global economic, social, and educational processes.

The countrys educational reforms are aimed at the development of early childhood organizations, schools and school culture, and universities. For example, the "Bolashak" program (Bolashak – Center for International Programs) supports the development of higher and postgraduate education. By participating in the competition, young people can win an international scholarship from the government and study at the worlds leading universities. Today, over 900–1,000 young people from Kazakhstan are studying abroad. Most of them, approximately 704 individuals, are enrolled in masters programs, as well as pursuing doctoral studies and internships. In recent years, 2,607 young people have completed their studies. Over the 30 years of the program, 12,731 young people have obtained masters and PhD degrees, averaging about 425 graduates per year. According to surveys, the most popular countries among scholarship recipients are those with universities ranked in the QS Top 250 (THE Academic Ranking of World Universities), including Singapore, Japan, the USA, the UK, and other nations. Among American universities, particularly popular are prestigious institutions such as the University of Illinois, Columbia University, New York University, and the University of Southern California. Among UK universities, scholarship recipients most often choose the University of Warwick, the University of Sussex, and Queen Mary University of London.

The most important factor determining the long-term development of society in all spheres of life, the main competitive advantage of the state - is the quality of higher Education the teachers in particular. The Government of Kazakhstan is promoting the internationalization of higher education. Through the "Visiting Professor" program, renowned foreign scholars are invited to the country, and branches of world-class universities, such as Sorbonne, Lorraine, and others, are being established.

In the field of general secondary education, the “Children of Kazakhstan” Concept for 2026–2030 is unique. This document establishes a unified strategic approach to state policy in the area of protecting children's rights and ensuring their well-being (Official Information Source of the Prime Minister of the Republic of Kazakhstan, 2026).

Today, approximately 6.9 million children live in Kazakhstan, accounting for 34% of the country's population. Over the past 10 years, the number of children has increased by 1.5 million. These demographic changes require a shift toward long-term, comprehensive, and measurable solutions in the field of childhood. For the first time, digital tracking of a child's life journey is being implemented, while measures to ensure online safety, promote inclusion, and develop accessible child-focused infrastructure in the regions are being strengthened. Expansion of the network of medical and rehabilitation institutions is also planned.

Domestic digital platforms are being introduced in schools in Kazakhstan to improve the quality of education within the framework of the “Qazaq Digital Mektebi” project. For example, the mathematics platform Qalan incorporates elements of gamification and artificial intelligence. The main goal of the “Qazaq Digital Mektebi” project is to teach subjects in the natural-mathematical and social-humanitarian fields using artificial intelligence technologies while developing students soft skills. The use of such solutions enables students to independently master the learning material and fosters an active attitude toward the educational process.

2. Design

The study is based on a thorough analysis of Educational Reforms in Kazakhstan, the internationalization of Educational processes and their integration into Global changes.

3. Objectives

To substantiate important areas of modernization and internationalization of Education in Kazakhstan, to talk about reforms and their role in the Global Educational space.

The authors of the article presented the results of a project-based study on measuring and evaluating the educational environment of Kazakhstani schools, which they conducted during 2023–2025 as part of the project “Theory and Technology of Comprehensive Psycho-Pedagogical Assessment of the Developmental Potential of the School Educational Environment Using International Sakers Scales (Modified Version)” at Abai Kazakh National Pedagogical University (Kosherbaeva et al., 2024). The experiment proved to be effective and confirmed that the administration and staff of schools of various statuses strive to develop their institutions to meet global standards, employing advanced methodologies, best innovations, and educational technologies.

Currently, the country has public, private, and elite schools. The “Keleshek Mektepteri” – School of the Future program has been launched. This is a large-scale state initiative in Kazakhstan aimed at modernizing education through the construction of new, comfortable, and technologically advanced schools. These institutions create equal opportunities for both rural and urban students by providing modern laboratories, IT zones, and enhanced safety. The national project aims to eliminate dilapidated schools and triple-shift learning, as well as to address the shortage of student places.

4. Methods

The main research method was the study of domestic and foreign literature on school-related issues. Of particular scientific and practical interest were the works of Thuściak-Deliowska A., Dernowska U. (Thuściak-Deliowska, Dernowska, & Gruenert, 2017), Kosherbayeva A. (Thuściak-Deliowska, Dernowska, & Kosherbayeva, 2023), Surovitska U. (Surovitska, 2019), Talibekova G. T. (Talibekova, G. T., 2020), and Kukubaeva A. H., Yushchenko V. (Kukubaeva & Yushchenko, 2021). In the next stage, Kazakhstani school organizations that agreed to participate in the measurement and evaluation of their educational environment were selected. Before the experiment began, a seminar was held with school administrators and teaching staff, during which the international SACERS scales were presented, the history of their development was explained, and newly developed supplementary tools were introduced. Expert evaluations were then conducted in the selected experimental schools using 47 SACERS scales. The main source of information on the quality of the educational environment in these schools was our expert observations of current practical activities, carried out over a three-hour period. The expert observations covered the schools infrastructure, the furnishing of classrooms with appropriate school furniture and teaching materials, student relationships with each other and with teachers, the quality of meals in the cafeteria, and other key indicators of the school environment. The collected data were processed both through a specialized program and manually. Based on the results, experts provided recommendations for improvement on certain indicators.

5. Discussion

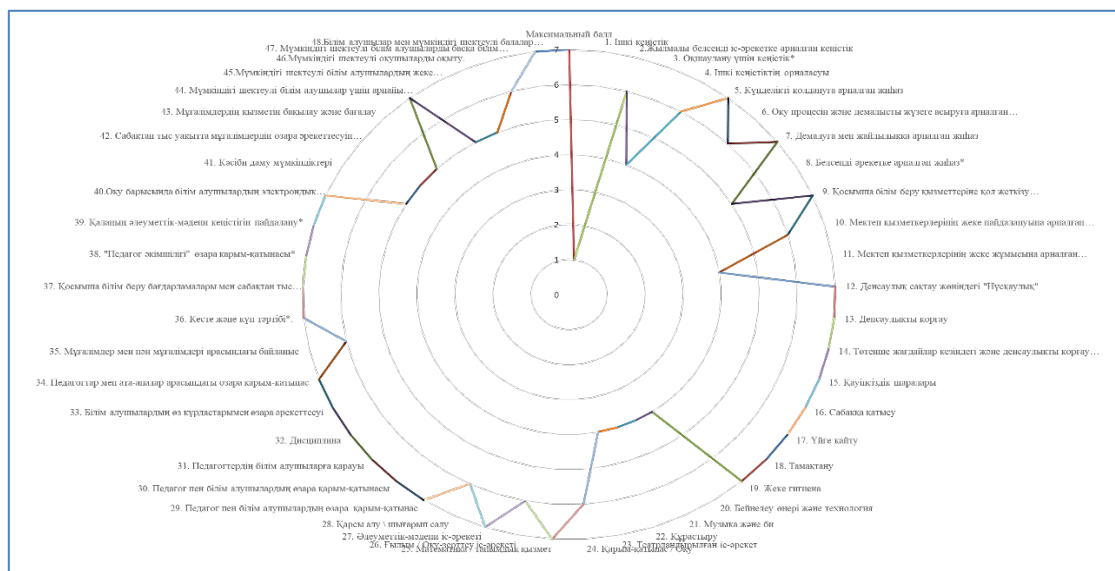
Thus, to measure and evaluate the educational environment of Kazakhstani school organizations, we used the tools of the international SACERS scales, which are widely known in many European countries. The SACERS scales were first published in 2013 by Teachers College Press, Teachers College, Columbia University, New York, New York, USA. The original SACERS scales were authored by Thelma Harms, Ellen Vineberg Jacobs, and Donna Romand Hite. Frank Porter Graham and colleagues from the Frank Porter Graham Child Development Institute at the University of North Carolina are also considered developers of the SACERS scales.

It should be noted that the methodology of the international SACERS scales has been continuously updated and supplemented by researchers and practitioners from various countries. For example, Thelma Harms wrote in the preface to her publication: in Canada, we received assistance in creating the updated edition of the scale from the works The School-Age Child Care: Quality Assurance Project (Harms, T., Jacobs, E. V., & White, D. R. (2013)

In the edition intended for general education schools in Kazakhstan, the authors preserved the overall concept and structure of the original SACERS scales. However, additional modifications were made to reflect the country's educational policy and the national characteristics of Kazakhstani schools. Fourteen areas of the SACERS scales were modified, including "Health and Safety" and "Emergency and Health Protection Procedures." Indicators were supplemented to account for the local mentality and the needs of Kazakhstani students. For example, the "Nutrition" scale, item 18, was expanded with the following wording: "The menu includes traditional Kazakh dishes (boursaki, zhent, ayran, etc.)." National specifics were also reflected in the scales "Active Activities and Leisure", "Science and Research Activities" (26), and "Communication" (30). In the "Educational Process" scale, indicators were introduced with elements of patriotic and civic education. For example, school lessons begin daily with the performance of the national anthem of the Republic of Kazakhstan, and the start and end of lessons are accompanied by the national melody, kyui (36). An evaluation sheet was added in the area "Creating Special Conditions for Students with Special Educational Needs (SEN)" (44), as well as in the "Interactions" scale, which is valuable for the work of school psychologists, social educators, and tutors (Kosherbaeva et al., 2024).

The following figures present the results of the experiment on the quality index of several schools.

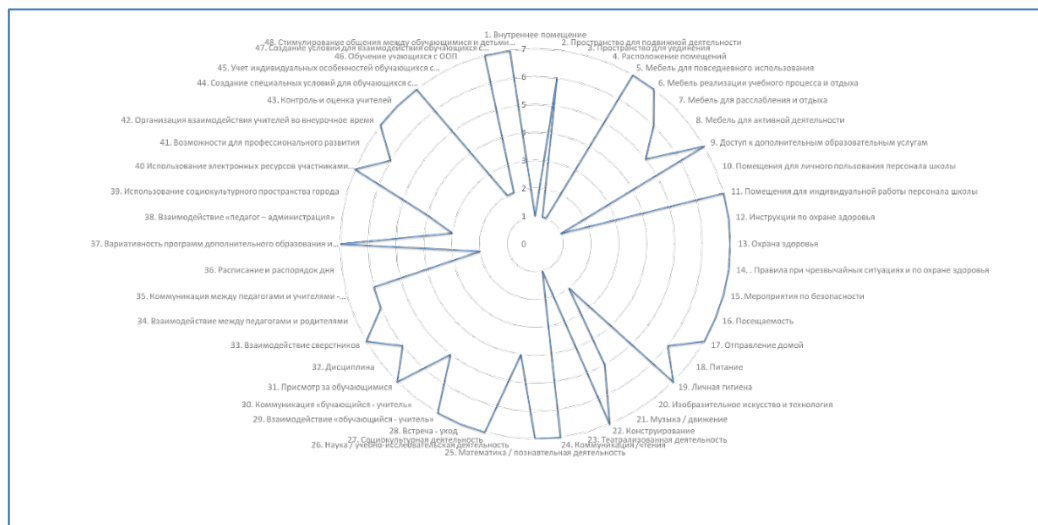
Figure 1. Overview of the Educational Environment at School-Lyceum No. 173, Almaty.



According to Figure 1, the index of School-Lyceum No. 173 on the scale is 6.07. Overall, this is a good result. Priority areas include classrooms and smart panels, inclusion specialists, health and nutrition, and the presence of discipline. Weak points include limited student access to equipment.

The quality index of General Education School No. 19 is 4.70. Priority areas include the availability of sports facilities, safety systems, and cafeteria quality. Weak points include insufficient classroom space, lack of first aid skills among teachers, a shortage of additional developmental spaces, limited indoor space in the gym, teachers need for professional development, and a shortage of school psychologists. Figure 2 presents the results of the SACERS assessment at Gymnasium No. 46.

Figure 2. Overview of the Educational Environment at Gymnasium No. 46, Almaty.



The overall quality index of Gymnasium No. 46 is 5.56. Priority areas include sports facilities, safety systems, cafeteria quality, and creative and leadership clubs. Weak points include limited space, lack of movable rest areas, insufficient gym space, and the need for professional development of teachers.

Thus, according to the results of the study, the overall quality index in schools in Almaty varies across different levels. In some schools, sports facilities and safety systems, as well as the quality of services in the school cafeteria, are well developed. However, it is necessary to expand spaces and organize additional areas to develop teacher's professional skills. To ensure the effective functioning of schools, it is crucial to address the shortage of supplementary developmental spaces. To enhance teachers' professional development in the field of measuring and evaluating the educational environment, special programs and training should be established.

6. Conclusions

The modernization of education in Kazakhstan, aligned with global trends, creates new economic, cultural, and scientific opportunities. Through a critical analysis of the ongoing processes in Kazakhstan, it is possible to draw meaningful conclusions, compare them with other national contexts, and explore new perspectives for integrating global educational practices.

The education system of Kazakhstan is focused on international cooperation. For the solution of problems are developed strategic direction:

- creation of new system of professional development;
- modernization of the content of professional development on the basis of the best Kazakhstan and international experience;
- development of innovative system of professional development of teachers of pedagogical specialties of higher education institutions and colleges;
- creation of conditions of effective functioning of system of the professional development, providing quality of education.

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