

## **Analyse des Reformprozesses im Bildungsqualitätsbewertungs system**

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**Abstrakt:** Dieser wissenschaftliche Artikel beschreibt die laufenden Reformen des Systems der Qualitätsbewertung des Bildungswesens in Usbekistan, das Gesetz, das die Rechtsgrundlage für die Reform ist, die Dekrete des Präsidenten der Republik Usbekistan, die Entscheidungen des Ministerkabinetts. Außerdem werden die durch diese gesetzlichen Rahmenbedingungen im System getroffenen Maßnahmen und deren Ergebnisse dargestellt.

**Schlüsselwörter:** Bildungsqualität, Bildungsqualitätsbewertung, Weiterbildungssystem, PIRLS, TIMSS und PISA, Staatliche Aufsichtsbehörde für Qualitätskontrolle im Bildungswesen, internationale Programme.

## **Analysis of the reform process in the education quality assessment system**

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**Abstract:** This scientific article describes the ongoing reforms in the system of quality assessment of education in Uzbekistan, the law, which is the legal basis for reform, decrees of the President of the Republic of Uzbekistan, the decisions of the

Cabinet of Ministers. Also, the measures taken in the system through these legal frameworks and their results are presented.

**Keywords:** education quality, education quality assessment, continuing education system, PIRLS, TIMSS and PISA, State Inspectorate for Education Quality Control, international programs.

## **Introduction**

Today in our country, certain tasks are being solved to reform the quality and content of education, to further improve its regulatory and legal framework, to strengthen the material and technical base, to increase the efficiency of the content, forms and methods of teaching. The creation of new mechanisms for the development of the system of lifelong education has become an urgent need for modern globalization processes, which in turn requires an improvement in the quality of education, its modernization [1].

In Uzbekistan, where education is undergoing fundamental changes, it is important to study the experience of countries that occupy high places in international rankings, participating in international studies to assess the quality of education, PISA, PIRLS, TIMSS and TALIS.

In particular, in accordance with the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On measures to organize international research in the field of assessing the quality of education in public education", it is planned to organize international research (hereinafter - international research) on the following international assessment programs:

Progress in International Reading and Literacy Study (PIRLS) - to assess the level of reading and understanding of the text by students in the 4th grade of primary school;

Trends in International Mathematics and Science Study (TIMSS) - to assess the level of achievement of students in grades 4-8 in mathematics and science;

Program for International Student Assessment (PISA) - to assess the literacy of 15-year-old students in reading, math and science;

The Teaching and Learning Study International (TALIS) is a study of the teaching and learning environment and the working conditions of teachers in general secondary education.

Although state educational standards are based on a competency-based approach, teaching and assessment methods, as well as textbooks and other educational materials are focused primarily on memorizing and describing information, which prevents the development of critical thinking, skills of independent search and analysis of information. and other skills.

Thus, further improvement of the lifelong education system, increasing the potential of high-quality educational services, continuing the policy of training highly qualified personnel in accordance with the modern needs of the labor market, as well as improving the quality and efficiency of higher education institutions based on the introduction of international standards. implementation by the state of comprehensive measures to improve the system for assessing the quality of education. For this:

First of all, to adopt a regulatory framework in accordance with the requirements of international organizations and assessment programs that regulate the system for assessing the quality of education;

Secondly, to reform the education system in accordance with the requirements of international programs that assess the quality of education. For example, in accordance with the TIMSS program, coordinate the teaching of subjects such as mathematics and logic, as well as natural sciences at the level of foreign developed countries.

Third, to study and analyze the measures taken by foreign countries to improve compliance with international education assessment programs.

It should be noted that in order to fulfill the above tasks, not only state and public organizations, ministries or departments, but also researchers must act responsibly. Activities should begin, first of all, with the analysis and research of the legal framework governing the system for assessing the quality of education in the country, inventory. In this regard, the topic of the scientific article is also relevant and important for making proposals on the above issues.

### **Literature review**

The system of assessing the quality of education is important for countries with developed and developing economies in the 21st century. For this reason, a huge number of scientists who have dealt with this subject comprehensively.

In particular, the study of Shoir Baimuradovna Babaeva and Anastasia Nikolayevna Alimova on this issue says: “PIRLS is an international comparative analysis for primary school graduates, which allows to determine the quality of reading and understanding of the text. The countries were recognized as the leading experts in this field and the results were carefully analyzed. The survey has been conducted regularly every five years since 2001. This analysis considers two types of reading - literary reading and reading to obtain and apply information. That is, reading skills are learned in two stages - through practical and test tasks ”[3].

According to the research of V.S. Mullis and Michael O. Martin, TIMSS and PIRLS, which are widely used in education quality assessment, are trend studies that regularly track changes in academic performance, and assessment is an effective tool for examining performance gains or decreases following the introduction of a new or updated education policy. Once an event or problem has been identified and corrective action taken, subsequent evaluations can be used to help determine the impact of specific reform efforts [4].

P. Plavchan conducted an empirical study on the topic [5] to calculate the arithmetic mean of the PIRLS and TIMSS results using the results of the PIRLS ratings in 2006, 2011 and 2016, as well as the TIMSS results for 2007, 2011 and

2015. A significant correlation was found between the arithmetic mean scores of students on the PIRLS, TIMSS and PISA tests.

Political and professional decisions at school affect the early years of school attendance. This is largely reflected in the fact that they will receive education at all stages of their future schooling. The results of this article support the hypothesis about the impact of student achievement and the need to take action to improve education in schools.

According to research by N.R. Rakhmonov, when determining the level of quality and ranking of universities in the higher education system of our country, the practice is based on various specific quality assurance standards in the higher education system of developed countries. In this regard, US and EU universities have their own standardization system. In particular, the norm of words and symbols (1000-50,000) is included in the final qualifying works and Ph.D. theses, and is also regularly published on websites. In addition to Bundfn, reputable US higher education institutions use tests such as TOEFL, IELTS, SAT, GMAT through grades, IQs, and credits that are publicly posted online.

Poor grades in higher education are also a problem with serious implications for students, teachers, government and society. The lack of a clear and comprehensive concept of assessment quality can lead to difficulties in ensuring the quality of assessment [6].

As mentioned above, the volume of scientific work on this topic is large, but the strength of the legal basis for assessing the quality of education and its impact on the results of the PIRLS, TIMSS and PISA ratings and their results are small.

In this regard, the topic is relevant and suggests that economists should also study it.

### **Analysis and results**

According to the agreement signed between the State Inspectorate for Education Quality Control and the OECD and IEA, Uzbekistan has participated in the

International Student Assessment PISA-2022 (formerly PISA-2021) and the International Student Literacy Assessment Program PIRLS-2021 [7].

Through participation in TIMSS and other international studies, Uzbekistan will have the opportunity to apply the experience of developed countries in the education system of Uzbekistan, to compare their results with the results of other countries.

To improve the quality of education and provide students with modern knowledge, the Ministry of Public Education is working to create a modern national educational program based on best international practices. Textbooks with modern design and content will be gradually developed on the basis of the national education program. In this regard, it is planned to disseminate the experience of Presidential schools in teaching STEAM subjects [8].

Improving the position of the country's education system in international assessment programs requires, first of all, the adoption and improvement of the legal framework in this area.

Reforms to establish modern trends in the evaluation of the education system in Uzbekistan have begun to be implemented in the framework of the "Strategy for further development of the Republic of Uzbekistan" for 2017-2021. According to him, based on the radical improvement of the quality of general secondary education, in-depth study of foreign languages, computer science and other important and demanding disciplines such as mathematics, physics, chemistry, biology, the introduction of international standards for quality assessment of education and training. goals such as increasing efficiency and gradually increasing the quotas for admission to higher education institutions [9].

In accordance with this strategy, the Republic of Uzbekistan has adopted the Concept for the Development of the Public Education System until 2030. According to this document, the Republic of Uzbekistan is planned to be among the top 30 developed countries in the world by 2030 in the ranking of the International Student Assessment Program PISA (The Program for International Student Assessment). As a

result of the adoption of this document, the competence of students of the country's schools in critical thinking, independent search and analysis of information will increase.

Within the framework of the Action Strategy, the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On measures to organize international research in the field of quality assessment in public education" was adopted, according to which it is planned to organize international research on international assessment programs. When this legal framework is fully operational in practice, the national system for assessing student literacy will be improved (Table 1).

**Table 1. Legal basis of the education quality assessment system**

The name of the legal basis	Planned activities	Expected results
CONCEPT of development of the public education system of the Republic of Uzbekistan until 2030 [10]	To make the Republic of Uzbekistan one of the top 30 countries in the world by 2030 in the ranking of the international student assessment program PISA (The Program for International Student Assessment);	STEAM will introduce general education programs and new state educational standards that meet the requirements of a modern innovative economy, with a special emphasis on the development of competencies and skills in science and critical thinking, independent search and analysis of information;
On measures to organize international research in the field of quality assessment of education in the public education system [11]	qualitative updating of the content of the system of continuing education, as well as training, retraining and advanced training of professionals;	Regular participation of the Republic of Uzbekistan in international programs and research to assess the quality of education (PISA, TIMSS, PIRLS, etc.) in assessing the level of knowledge of students in the public education system;
About approval of the Concept of development of higher education system of the Republic of Uzbekistan till 2030 [12]	improvement of teaching methods, gradual application of the principles of individualization in the educational process, etc.	Accession of the Republic of Uzbekistan to the leading international associations for accreditation of educational programs and institutions is provided;
On the organization of basic schools in the public education system, aimed at preparing for international research in the field of quality assessment of education [13]	Organization of international research (hereinafter referred to as international research) on the following international assessment programs:	new generations of didactic materials and multimedia products for in-depth study of foreign languages, computer science, mathematics, physics, chemistry, biological sciences, etc. will be prepared.



Assessment of reading and comprehension of primary school students (PIRLS), assessment of 4th and 8th grade students' mastery of mathematics and science (TIMSS), assessment of literacy of 15-year-old students in mathematics, science and science (PISA) , in order to develop the duration of teaching and learning in general secondary education and the working conditions of teachers (TALIS) in accordance with the directions of international research (reading literacy, mathematical literacy, literacy in natural sciences, creative thinking), the Ministry of Public Education On the organization of the activities of basic schools in the education system, aimed at preparing for international research in the field of quality assessment of education. Based on this Resolution, a group of trainers from experienced specialists in the system will be formed on the basis of basic schools in accordance with the directions of international research PIRLS, TIMSS, PISA, TALIS ("Reading Literacy", "Mathematical Literacy", "Literacy in Natural Sciences", "Creative Thinking"). The National Center for International Research on Education Quality Assessment has identified 348 basic schools in the country, and by 2021 it was planned to train more than 6,000 teachers.

According to the agreement signed between the State Inspectorate for Education Quality Control and the OECD and IEA as a result of the effective implementation of the legal framework and organizational measures, Uzbekistan International Student Assessment PISA-2022 (formerly PISA-2021) and the International Student Literacy Assessment Program PIRLS- In 2021, in accordance with the “Official Invitation to Participate in International Mathematical and Scientific Research (TIMSS) 2023 Trends”, Uzbekistan began its participation in the TIMSS program in 2023 for the first time [14] (Table 2).

Cooperation has been established with the World Bank to participate in and prepare for international research.

All costs associated with the participation of a team of experts from 14 regions of the Republic of Uzbekistan and the Inspectorate and the National Center in preparation for international research in February 2019 in the Russian Federation, as

well as an international seminar for representatives of the public education system  
The cost of 6 international experts for the workshop on research preparation was covered by the World Bank's international READ program.

Under the Early Childhood Development Support Project (US \$ 59.5 million), implemented in partnership with the World Bank and the Ministry of Preschool Education of the Republic of Uzbekistan, \$ 4.9 million has been allocated to establish a national education quality assessment system.

**Table 2. Research conducted by the National Center for International Research on Education Quality Assessment for 2019-2021**

№	Naming	Duration	Form of transfer	Coverage						
				Class Ўқувчилад	District (city)	Schools	Students	Teachers	Director	Parents
1	Assessment of Student Literacy based on PISA requirements I-National Survey	April 8-19, 2019	Paper	9	187	191	4873	-	-	-
2	National Research Experimental Test for Human Capital Index [15]	October 13, 2019	Paper	5	7	9	286	-	-	-
3	National Survey for Human Capital Index [16]	November 25-28, 2019	Paper	5	112	150	3922	-	-	-
4	II National Research Experimental Test to Assess Student Literacy Based on PISA Requirements [17]	November 17-18, 2020	Paper	9	9	10	277	-	10	-
5	II National Survey of Student Literacy Assessment based on PISA requirements [18]	December 10-16, 2020	Paper	9	119	150	3444	-	150	-
6	REDS is a study of responses to learning gaps [19]	March 9-11, 2021	Online	8	105	150	2919	2575	150	-

7	PIRLS - International Program for the Assessment of Reading Literacy of Primary School Students [20]	October 19-23, 2020	Paper	5	11	28	1417	54	28	1417
8	PIRLS - Basic Study of the International Program for Assessing Reading Literacy of Primary School Students [22]	April 5-14, 2021	Paper	4	107	180	5847	221	180	5847
9	PISA - International Student Literacy Assessment Program Trial [23]	April 22 – May 18, 2021	Offline	7-11 (15 6m)		83	4574	-	83	-

Improving the national assessment system if we look at the research conducted to assess student achievement, we can see that most stages of general secondary education are covered by these studies. For example, the PIRLS program, a national survey for the Human Capital Index, a national survey on student literacy based on PISA requirements, and others have played an important role in assessing students in basic secondary education.

However, full compliance with and compliance with the requirements of international evaluation programs requires the elimination of some shortcomings in the system. Including:

- The material and technical base of 348 basic schools identified for the preparation for international research does not meet the requirements. Of the 348 basic schools identified in preparation for international research, 221 (63.5%) were equipped with electronic whiteboards, while the remaining 127 (36.5%) were not. Of the total 7,227 modern computers available in primary schools, 1,786 (26.1%) did not meet the requirements of the PISA survey 134 (38.5%) basic schools in the country are not connected to the Internet via fiber-optic lines. There are 12 such schools in Navoi region (75%), 19 in Kashkadarya region (65.5%) and 12 (60.0%) in Jizzakh region and 13 (56.5%) in Bukhara region;

- Teaching PISA in general secondary schools in the field of international research (mathematics (61.2%), physics (59.0%), chemistry (50.4%), biology (53.3%), mother tongue and literature (54.2%) subjects) low level of knowledge of teachers;

- Of the 9942 schools in the country, 302 (3%) do not have separate classrooms for physics, 522 (5.2%) for chemistry, and 1164 (11.7%) for biology. Of the 9,640 physics laboratories, 950 (9.8%) and 1,333 (14.2%) of the 9,420 chemistry laboratories are not equipped at all.

**Table 3. Ranking web of universities, as of July 2021 [25]**

University	Rating in Uzbekistan	World ranking	Universities in Uzbekistan Rankings & Reviews [26]
National University of Uzbekistan	1	3836	1
Andijan State Medical Institute	2	5192	6
Tashkent State University of Economics	3	5251	4
Jizzakh State Pedagogical Institute	4	5269	4
Tashkent State University of Information Technologies	5	6338	3

Along with ensuring the continuity of the education system in Uzbekistan, one of the strategic goals is to improve its quality. But without improving the system of pre-school education, without adapting school education to international programs, it is impossible to develop higher education institutions and make them among the top 100 or 1000 universities in the world. For this reason, it is expedient to improve the system of quality assessment of education at all stages of education. The country has also adopted a concept for the development of higher education in the Republic of Uzbekistan until 2030, according to which by 2030 at least 10 higher education institutions in the country will be included in the ranking of internationally

recognized organizations (Quacquarelli Symonds World University Rankings, Times Higher Education or Academic Ranking of World Universities). It is planned to include the first 1,000 places in the list of higher education institutions, including the National University of Uzbekistan and Samarkand State University in the list of the first 500 places. But if we analyze the indicators of the Ranking web of universities-2021, we can see that none of the top 10 higher education institutions in the country was ranked in the top 1000 (Table 3). This situation can be explained by the fact that students studying in schools according to the new standards have not yet reached the age of entry into higher education institutions. Students who study at the school on the basis of international standards will have the opportunity to modernize the higher education system by gaining a new outlook, both as a student and as a prospective staff.

### **Conclusion and recommendations**

The regulatory, organizational and methodological framework for the preparation of international assessment programs and their implementation in secondary schools of Uzbekistan has been created. A system of basic schools has been created to promote the importance of these programs and to experiment with new ideas. There are the necessary financial and human resources to prepare for the research and to support its organization.

However, in order to improve the country's position in the above-mentioned international programs and to abandon the values of the education system, which has become "traditional" for us, and to accelerate the introduction of modern international trends, we need to:

- First of all, to increase the knowledge and experience of school teachers. To do this, send them to schools in countries where they are active in foreign education quality assessment programs;
- Introduce a mechanism for the implementation of teacher training in accordance with the requirements of scientific and technological development, changes in the field, as well as taking into account their individual needs;

- Creating conditions for independent training of teachers: creation of electronic platforms in the field of science; organization of targeted training courses on ICT literacy for teachers; to develop practical skills in the field of international research with the broad involvement of students in after-school clubs;

- Improving the material and technical base of basic schools in preparation for international research: inventory the level of Internet access and provide them with Internet access via high-speed fiber-optic communication lines; provision of modern computer classrooms, rooms of natural and exact sciences with multimedia tools (electronic board, projector, etc.) and physical-chemical-biological laboratory equipment and reagents; take measures to gradually repair and equip in accordance with the requirements of the "Modern School";

- Bringing the quality of sciences and educational literature (in particular, reading, mathematics and logic, natural sciences) in line with international requirements;

- Adoption and implementation of short- and medium-term legal frameworks aimed at supporting Uzbekistan's participation in international programs for the evaluation of the education system. The implementation of such a system will allow for a quick adaptation to the world's evolving education system.

### **References**

1. Toshtemirova S. A. (2020) Quality of education and its democratization as a scientific problem // *Sovremennoe obrazovanie (Uzbekistan)*. 2020. №1 (86). URL: <https://cyberleninka.ru/article/n/talim-sifati-va-uni-demokratizatsiya-ilmiy-muammo-sifatida> (data obrashcheniya: 22.12.2021).

2. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On measures to organize international research in the field of assessing the quality of education in the public education system" // 08.12.2018 997-coh//<https://lex.uz/docs/4097073>

3. Baymuradovna, B. S.& Nikolaevna, A. A. (2021). Content of Practices for Reading Quality in the Pirls International Comparative Research. International

Journal of Culture and Modernity, 11, 54–57. Retrieved from <https://ijcm.academicjournal.io/index.php/ijcm/article/view/111>

4. Ina V.S. Mullis and Michael O. Martin. (2012). “Using TIMSS and PIRLS to improve teaching and learning”, *Recherches en éducation* [Online], 14 | 2012, Online since 01 September 2012, connection on 24 December 2021. URL: <http://journals.openedition.org/ree/5835>; DOI: <https://doi.org/10.4000/ree.5835>

5. Karin J. Gerritsen-van Leeuwenkamp, Desirée Joosten-ten Brinke, Liesbeth Kester. (2017) Assessment quality in tertiary education: An integrative literature review, *Studies in Educational Evaluation*, Volume 55, Pages 94-116, <https://doi.org/10.1016/j.stueduc.2017.08.001>.

(<https://www.sciencedirect.com/science/article/pii/S0191491X17300366>)

6. Plavčan, P. (2020). The comparison of pirls, timss, and pisa educational results in member states of the european union. *Proceedings of CBU in Social Sciences*, 1, 191-195. <https://doi.org/10.12955/pss.v1.70>

7. <https://yuz.uz/news/ozbekiston-xalqaro-timss-tadqiqotida-rasman-qatnashishga-kirishdi> (Date of application: 22.12.2021)

8. <https://www.uzedu.uz/uz/maktablarda-talim-sifati> (Мурожаат қилинган сана: 22.12.2021)

9. Decree of the President of the Republic of Uzbekistan “On the Strategy of Actions for the Further Development of the Republic of Uzbekistan” // February 7, 2017, No. PF-4947 // <https://www.lex.uz/acts/3107036>

10. Decree of the President of the Republic of Uzbekistan "On approval of the Concept of development of the public education system of the Republic of Uzbekistan until 2030" // PF-5712 dated 29.04.2019 // <https://lex.uz/docs/4312785>

11. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On measures to organize international research in the field of assessment of the quality of education in the system of public education" // No. 997 of 08.12.2018//<https://lex.uz/docs/4097073>



12. Decree of the President of the Republic of Uzbekistan "On approval of the Concept of development of the higher education system of the Republic of Uzbekistan until 2030" // PF-5847 dated 08.10.2019 // <https://lex.uz/docs/4545884>

13. Resolution of the Ministry of Public Education of the Republic of Uzbekistan "On the organization of the activities of basic schools in the system of public education aimed at preparing for international research in the field of quality assessment of education" dated 08.05.2020.

14. <https://yuz.uz/news/uzbekiston-international-timss-research-and-participated-in-participated> (Date of application: 22.12.2021)

15. Experimental and experimental process of the head of the State Inspectorate for Quality Control in the "Human Capital Index - 2019" survey conducted in general secondary schools in order to ensure the recognition of the Republic of Uzbekistan as a full member;

16. A survey conducted by the head of the State Inspectorate for Quality Control in the Secondary Education Institutions to ensure the recognition of the Republic of Uzbekistan as a full member in the 2019 Human Capital Index. ;

17. Letter of the State Inspectorate for Quality Control in Education No. 03-311 of November 11, 2020;

18. Order No. 180 of 30 November 2020 of the Head of the State Inspectorate for Quality Control in Education "On conducting a National Survey on Student Literacy Assessment in accordance with the requirements of the PISA Guidelines";

19. Order No. 4 of 11 January 2021 of the Head of the State Inspectorate for Quality Control of Education "On the organization of the REDS international survey";

20. Joint letter of the State Inspectorate for Quality Control of Education No. 01-143 of March 4, 2021 and the Ministry of Public Education No. 02-02 / 3-698 of March 4, 2021;



21. Order No. 146 of 8 October 2020 of the State Inspectorate for Quality Control in Education “On the organization of a high-level experimental process in the framework of the PIRLS 2021 study”;

22. “On the organization of high-level assessment of students' knowledge in general secondary schools selected for the basic research of the International Program PIRLS 2021” of the State Inspectorate for Quality Control of Education - the decision;

23. Order No. 62 of the State Inspectorate for Quality Control of Education of 21 April 2021 “On the organization of the experimental process in accordance with the international requirements of the PISA-2022 Guidelines”;

24. The National Center for Educational Quality Assessment under the State Inspectorate for Education Quality Control conducts international research on the organization of international research in the field of quality assessment in the public education system.

25. <https://www.webometrics.info/en/asia/uzbekistan> (Date of application: 24.12.2021)

26. <https://www.universityguru.com/universities--uzbekistan>(Date of application: 24.12.2021).