



Importance And Significance of International Student Assessment Programs Pisa and TIMSS in Education

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Abstract: This article reflects information about the importance of the international assessment programs PISA and PIRLS, which are foreign experience, in improving the quality of education and achieving efficiency.

Keywords: Assessment, PISA, PIRLS, TIMSS, TALIS, international assessment program, foreign experience, image quality.

The main international studies of the quality of educational research are carried out by the International Organization for Economic Cooperation and Development OECD (Organization for Economic Cooperation and Development) and the International Association for the Evaluation of Educational Achievements IEA (International Association for the Evaluation of Educational Achievements).

The three main international comparative studies of the quality of general education - PISA, TIMSS and PIRLS complement each other. The simultaneous conduct of these three studies provides more complete information about the education system, evaluating its various aspects. Comparison of the results of the PISA, TIMSS and PIRLS surveys makes it possible to identify the features of teaching reading, mathematics and science subjects in primary, secondary and secondary schools and to assess the quality of general education in terms of educational priorities developed by the international community. Let us consider in more detail the main international programs for studying the quality of education.

PISA is an international program for the assessment of educational achievements (Programme for International Student Assessment), the study is



conducted under the auspices of the OECD. As part of the program, students of 15 years of age are examined:

- mathematical literacy; natural science literacy;
- reading literacy; problem solving and financial and computer literacy.

The study is carried out in cycles every three years. In 2018, the seventh cycle of the PISA study took place, in which 70 countries participated.

In the PISA study, testing is carried out on a computer basis, an additional direction for assessing financial literacy is included, as well as a new direction “global competencies”.

It should be noted that no international comparative study of the quality of education has had such an impact on the education of countries as the PISA program.

The main goals and directions for the development of the Concept for the Development of the Public Education System of the Republic of Uzbekistan until 2030, which is the theoretical basis for the fundamental reform of the education system of the Republic of Uzbekistan, are:

- PISA (Program for International Student Assessment), aimed at assessing the level of literacy of students in the field of reading, mathematics and science in order to organize international studies in the field of education quality assessment in the public education system, the creation of a national education quality assessment system;
- Ensuring the regular participation of the Republic of Uzbekistan in international programs and studies to assess the quality of education (PISA, TIMSS, PIRLS, etc.) in assessing the level of knowledge of students in the public education system

In the 21st century, we are witnessing the emergence and introduction of many new innovative technologies in the global education system. These include television, radio, personal computers, networks, the Internet, mobile communications, satellites, space, and more. Many processes are currently organized using computers and information systems, and opportunities for improving quality and efficiency are expanding through their use in managerial, production, educational and other processes. It has become a tradition for people to communicate on social networks and various instant messengers. The reforms carried out in our country in recent years have further increased the need for qualified personnel and qualified specialists in all areas. This, in turn, requires increasing the interest of students in the lessons and strengthening their focus on comprehensive learning.



Research in the education system of the Republic of Uzbekistan is aimed at studying international experience in determining, analyzing and implementing the quality of education, the role and significance of foreign research in determining the priorities of the national education system. The application of foreign experience in the education system is one of the most pressing issues today.

What does it mean for Uzbekistan to participate in international studies to assess the quality of education? It will be used to reform the national education system, improve the content of curricula, train and improve the skills of teachers, and create a new generation of textbooks for professionals. The results of the study allow us to draw conclusions about the quality of education in the country and its role, taking into account international standards. International research has a positive impact on the quality of national education research. This makes it possible to create a national assessment system based on high economic efficiency at the level of international standards. Participation in international research with the involvement of leading experts from various organizations in Uzbekistan will help bring the quality of education assessment in line with international standards. To date, there are a number of international assessment programs that are widely used as criteria for further improving the quality of education in developed countries. Allows the development of control materials in assessing the quality of domestic education at the level of the quality of control materials used in international studies.

Decree of the Cabinet of Ministers of the Republic of Uzbekistan dated December 8, 2018 No. 997 "On measures to organize international research in the field of assessing the quality of education in the public education system" includes:

- make changes and additions to the content of state educational standards, curricula and textbooks in reading, mathematics and natural sciences based on the results of international research;
- Create a national database of questions on the PISA assessment program and integrate it into the curriculum;
- Create a national student literacy assessment system and conduct systematic tests to assess the formation of practical skills in 2019-2021. Resolution of the Cabinet of Ministers No. 997 provides for the establishment of international surveys for 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 primary school students;

Trends in International Mathematics and Science Study (TIMSS) - to assess the level of knowledge of students in grades 4 and 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 International Study on Teaching and Learning (TALIS) is a study of the teaching and learning environment and working conditions of teachers in general secondary education. How well do 4th and 8th grade students in Uzbekistan compare to their peers in other countries in mathematics and science? Are math and science interesting for grades 4 and 8? How does the family help children learn math and science? How is the process of teaching mathematics and natural sciences organized in our country today? Is the process of teaching mathematics and science in Uzbekistan unique to other countries, and if so, in what ways? How do the methods of teachers of mathematics and science in our country differ from the methods of teachers in other countries? major issues such as Continuous participation in the study every four years will allow us to monitor the performance of our country's education system on a global scale. These programs also serve to improve the quality of geographical education by improving the national assessment system of the Republic of Uzbekistan and introducing a competency assessment system. According to the Decree 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 system of public education", the introduction of international studies TIMSS, PISA, PIRLS and TALIS in Uzbekistan. To conduct this study, the National Center for International Research on Education Quality Assessment was established under the State Inspectorate for Education Quality Control. Most importantly, on November 12, 2018, the State Inspectorate for Quality Control in Education under the Cabinet of Ministers of the Republic of Uzbekistan and the Organization for International Cooperation and Development agreed to participate in the Agreement on Participation in the International Student Assessment Program (PISA) 2021, an agreement was reached.

The answer to the question "What does participation in international studies on the assessment of the quality of education provide for the education of our country?" is:



- the results of the study allow us to draw conclusions about the quality of education in the country and its role, taking into account international standards;
- used to reform the domestic education system, update the content of education and create a new generation of textbooks by professionals;
- International research has a positive impact on the quality of national research in education:
- allows you to create and compare a national assessment system based on high economic efficiency at the level of international standards.

Here is a brief overview of TIMSS, PISA, PIRLS, TALIS and STEAM projects and programs.

TIMSS - Trends in International Studies in Mathematics and Science. International system for monitoring and evaluating the quality of mathematics and natural sciences. This study aims to conduct a comparative study of the level of mastery of students in the 4th grade of basic school and 8th grade of primary school in mathematics and science in different countries of the world, and according to the results obtained, each of them recognizes the unique features and achievements of the country's education system.

PISA - the science literacy test reveals the ability to use academic knowledge to solve personal, local / national and global problems - both modern and historical, requiring an understanding of issues of science and technology; understanding of the surrounding world, basic facts, ideas and theories that form the foundation of scientific knowledge: knowledge of nature and technology (knowledge of the content), knowledge of the methods of obtaining knowledge (knowledge of procedures);

TIMSS is an international monitoring study of the quality of mathematics and science education (Trends in Mathematics and Science Study), which is conducted by the international association for the assessment of educational achievements IEA. Every four years, this study evaluates the performance of students in grades 4 and 8 in mathematics and science, as well as students in grade 11 in advanced courses in mathematics and physics. The four-year cycle of the study makes it possible to carry out monitoring comparisons of the results of achievements when fourth-graders become eighth-graders, as well as to record changes in the mathematical and natural science training of students during the transition from elementary to basic school.



PIRLS - the international project "Studying the quality of reading and understanding of the text" (Progress in International Reading Literacy Study) allows you to compare the quality of reading and understanding of the text by 4th grade elementary school students in different countries. The studies are carried out every five years, starting from 2001. It is implemented under the auspices of the IEA. All responsibility for the organization of international research is entrusted to the Boston College of Chestnut Hill (Massachusetts, USA).

Research examines the reading quality of students completing the 4th grade, since it is the fourth year of schooling that is considered an important milestone in the development of children - by this time students should master reading to such an extent that it becomes a means of their further education.

TEDS - international study on teacher education (training of teachers of mathematics), (The Teacher Education and Development Study in Mathematics). The study assesses the preparation of students of pedagogical universities of the 5th year in mathematics and teaching mathematics.

ICCS is an international study of the quality of civic education. The IEA is being implemented. The main goal of the project is to organize and conduct an international comparative study of the quality of civic education

ICILS - International Computer and Information Literacy Study. The main purpose of the study is to assess the computer and information literacy of students.

PIAAC is an international study of the skills and competencies of adults of working age ("The Program for the International Assessment of Adult Competencies").

The TALIS (Teaching and Learning International Survey), the OECD's international study of the teaching corps, is the first international comparative survey focused on the conditions in which teachers work and the learning environment that exists in schools.

Participation in the international study TALIS corresponds to the tasks of improving the system of teacher training that are relevant for domestic education.

Conclusion. Summing up the review of international studies of education quality assessment, it can be noted that the richest analytical material of programs, textbooks and requirements for educational achievements of schoolchildren in the countries of the world contributes to the dissemination of international



standards for the quality of pedagogical measurements, the formation of a culture of monitoring research.

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