INTERNATIONAL ASSESSMENT RESEARCH: THE TEACHING OF PISA AND PIRLS MATERIALS IN GENERAL SECONDARY SCHOOLS, SCIENTIFIC METHODS

Abstract: In this article, it was tried to cover the issues of the scientific methodological basis of the teaching of international evaluation studies PISA and PIRLS materials in secondary schools. PISA is a program carried out to assess the achievements and shortcomings of students in the field of education, the main purpose of which is to increase the literacy of 15-year-old students, to increase their mathematical potential, as well as to assess the level of knowledge in the Natural Sciences in the form of various tests. In 2021, our country will participate in this program for the first time. To prepare for this process, it is necessary to adapt our training program to it. The article will dwell on similar issues in detail.

Key words: International Assessment studies, scientific methodological bases of teaching in secondary schools in general, international assessment programs for the quality of Education, PISA, PIRLS, curricula.

Language: English


Scopus ASCC: 1203.

Introduction

At a time when our country is developing rapidly in the direction of innovative development, it is necessary to support the young people who are the continuation of our future in all aspects of their creative ideas and creativity, to formulate their knowledge, skills, and skills, as well as to improve the evaluation system based on advanced foreign experience, international criteria and, it is important to cooperate closely with research institutions. Today, Wide Opportunities and conditions for education are created in our country. A group of 20 people, consisting of specialists of the state administration for quality control of Education under the Cabinet of Ministers of the Republic of Uzbekistan, the Ministry of public education and its regional departments, the Republican Education Center and the National Center for quality assessment of Education, participated in a seminar-training in Moscow intending to study the Russian experience.

In cooperation with the World Bank and the Russian Training Center, seminars on the topic “international comparative studies in the system of assessing the quality of Education - as a mechanism for improving school education” were held in Moscow on 18-22 February this year, where lectures and round tables were organized by well-known specialists in the field of Education Quality Assessment and international.

So what is the benefit of this seminar to the participants? What topics were put forward during the workshop? Head of the National Center for quality control of the education of the state oil company of the Republic of Azerbaijan (SOCAR), Ismoilov said that during the period of global changes in the seminar, the trends in the development of the system of assessing the quality of education of different levels, Russia's participation in international comparative studies on assessing the quality of education, opportunities to increase the capacity of the educational system, Essex analysis of the results of international comparative studies on assessing the quality, meaningful lectures and trainings were conducted on the evaluation of mathematical and creative thinking literacy, the use of

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international research methodology and evaluation criteria in the creation of national educational-methodical and measurement materials, strategic directions of assessing the quality of education in the Russian Federation and other interesting and relevant topics. It should be noted that since the educational system of Uzbekistan is the first time involved in the International Studies of PISA and PIRLS on the assessment of the quality of education, there are different concepts and concepts among teachers and students about the essence and control-test instruments of this research. In turn, the more correct formation of these imaginations is an important factor in effective preparation for research, which is planned to take place in the 2021 year.

The peculiarity of the seminars was that the participants were able to get acquainted with the instruments of PISA, PIRLS research, as well as to see their practical support. In addition to providing participants with comprehensive information about the content of PISA and PIRLS research, it has also been tested in the practice of testing instruments in computer and paper-based processes, serving to develop participants’ understanding of the processes of computer-based research. This, in turn, has played an important role in the implementation of these studies by putting itself in place of the students, while at the same time having a broader idea of the aspects that particular attention should be paid in the successful preparation for future studies.

During the Seminar, attention should be paid to the separation of international experts and specialists into categories that take into account, such as their specialization, location in the study of the rating of schools, the quality of education depends not only on the teacher-reader relationship, but also on the environment and conditions, the need to set goals that develop the skills, not to punish schools with low performance on the results of International Studies, but rather to support students in obtaining analytical information that will help them to carry out reforms in the educational system afterward, not only to provide students with a good result in exactly the tests of PISA and a particular program but also to, it was noted that the achievement of improving the quality of education through the rotation of school directors and teachers from time to time, focusing on the weak aspects of the education system in the process of preparation for international studies, should not neglect and appreciate its strengths, as well as other points of view.

The conceptual approach to the evaluation of educational achievements is to take into account the trend of changes in the evaluation of educational characteristics, that is, from the evaluation of knowledge, skills, and skills to the evaluation of literacy and competence, to change the boundaries of the conceptual evaluation and its criteria, to increase the amount of meaningful text and structured assignments, to change, such views as changing the priority in education go, developing functional literacy go are also expressed by the speakers.

Information was given about the projects aimed at the development of the Russian national education system, increasing the international competitiveness of Russian education, including the project “Modern School”. This project is aimed at introducing various educational technologies, new methods of teaching and learning education in the general secondary education system, increasing the interest and motivation of students towards learning. This project is attended by all regions of the Russian Federation, and based on the new project, it is planned to build, reconstruct schools, strengthen the material and technical base, support the development of social infrastructure in rural areas, at the same time update educational standards. It was noted that special attention should be paid to the requirements of international advanced experience, including modern research, in improving educational standards.

Based on the studied international experience, it is planned to conduct propaganda based on conducting seminars, round tables in the regions of Uzbekistan, to provide comprehensive information to the teams of schools on preparation for international research.

In cooperation with the Read program of the World Bank, it is planned to visit Uzbekistan in April of this ear a group of Russian experts on the directions within the framework of international studies, to support their activities by providing training courses for creative groups developing educational and control test materials, providing methodological assistance and providing advice on the professional development of pedagogical

In recent ears, as a result of the reforms carried out in our country, huge economic growth indicators are being achieved, the demand for qualified personnel and mature specialists in all spheres is increasing.

This in itself requires an increase in the characteristics of our students’ interest in the lessons and an increase in the attention of teachers to an all-round education. The fact that the above requirements are very important for the education system means that, like most foreign countries, it is necessary to involve in the field of advanced experiments aimed at improving the quality of education by assessing and monitoring the development of education and science.

In the resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated December 8, 2018, № 997 “on measures for the organization of international research in the field of assessing the quality of education in the system of Public Education”, the following tasks were taken:

- To make changes and additions to the content of state educational standards, educational programs, and educational literature in the subjects of study,
mathematics and natural direction based on the results of International Studies;

- Creation and integration of a national database of questions on the direction of the PISA assessment program;

...to systematically conduct tests aimed at creating a national system of assessing the literacy of students and assessing the formation of practical skills in 2019-2021 ears.

For this purpose, preparatory work is carried out in our country for this event.

The Cabinet of Ministers decision No. 997 noted the organization of international research on the following international evaluation programs:

- Progress in International Reading and Literacy Study (PIRLS) — to assess the level of reading and understanding of the text by Elementary 4th graders;
- Trends in International Mathematics and Science Study (TIMSS) — to assess the level of students’ proficiency in mathematics and Natural Sciences in Grades 4 and 8;
- The software for International Student Assessment (PISA) — to assess the literacy level of 15-year-old students in reading, mathematics, and Natural Sciences;
- The Teaching and Learning International Survey (TALIS) — for the study of the environment of teaching and learning of managers and pedagogical personnel in general secondary educational institutions as well as the working conditions of teachers.

What international programs will the Republic of Uzbekistan participate in in 2021: (PISA) — assessment of the literacy level of 15-year-old students in the subjects of study, mathematics and natural direction, (PIRLS)-an assessment of the level of reading and understanding of the text for elementary 4-graders.

In this regard, what does participation in international studies on "quality assessment of Education" give to Uzbekistan? our answer to the question "", is as follows:

1. The results obtained from the studies make it possible to conclude the quality of education in the country and its role, taking into account international standards;
2. It is used to reform the national education system, improve the content of education, programs for training and professional development of pedagogical personnel, as well as to create a new generation of textbooks by specialists;
3. International studies have a positive impact on the quality of National Research in the field of Education:
4. It makes it possible to create a national assessment system based on high economic efficiency at the level of international standards.

On January 25, the first official meeting on the participation of the head of the state administration for quality control of Education under the Cabinet of ministers Ulugbek Tashkenbayev and the director of the International Association for the Evaluation of educational achievement Andrea Netton in Amsterdam was held.

Recall that the state party for quality control of Education under the Cabinet of Ministers of the Republic of Uzbekistan reached an agreement on participation in international assessment studies, including international assessment studies PISA-2021 with the OECD.

PIRLS (Progress in International Reading Literacy Study) is an international assessment system that evaluates the quality of text reading and comprehension levels of young people studying in Primary schools in different countries. This type of test is designed to be conducted once every 5 ears, according to the results of its latest 2016-2018 research, the Russian Federation is leading.

The International Association for evaluation of educational achievement is an international partner of national research institutes, research agencies, scientists and analysts who work to evaluate, understand and improve education worldwide. More than 60 countries and more than 100 educational institutions are participating in the network of this non-profit and independent organization. Since 1958, the IEA has been distinguished from other international organizations by measures to eliminate shortcomings in the educational system in the process of assessing the literacy of students in mathematics, natural sciences and the potential for reading, as well as by creating acceptable recommendations.

At the 25th Yanvar meeting, it was noted that the initiative of Uzbekistan to participate in the research of the PIRLS program for 2021 was greatly welcomed by the IEA and that all necessary assistance and recommendations would be provided by the organization. Also at the meeting, organizational issues related to participation in PIRLS-2021 research, namely the conditions of participation, the stages of carrying out research, the guidelines for the effective organization of research and many other tasks, were discussed in detail.

At the end of the meeting, it was agreed to ensure the participation of Representatives of Uzbekistan in the expanded meeting of the IEA leadership and to sign an official agreement.

It is known that during the period of changes, the educational system is subject to a rapid development due to social processes. Through education, a new generation is formed, which can perform future tasks in society.

Taking into account this, special attention is paid to strengthening the material and technical base of secondary schools and pre-school educational institutions, creating the necessary conditions and opportunities for the comprehensive knowledge of the
younger generation. As a result of such reforms carried out in our country, huge indicators of economic growth are being achieved, which is an impetus for the further increase in demand for qualified personnel and mature specialists.

The satisfaction of such a demand is, in turn, the need to increase the nature of the interest in reading and classes among young people and the realization of the attention of teachers to comprehensive education through modern social innovations.

Specialists of the Independent Institute for monitoring the formation of civil society, taking into account that such requirements are very important for today's educational system, have studied some advanced experiments aimed at improving the quality of education by assessing and monitoring the development of education and science in most foreign countries.

In particular, there are several international programs such as PISA (international program for assessing students’ achievements in education), PIRLS (international study that determines the level of Reading and understanding of the text), TIMSS (international monitoring of the quality of mathematics and Exact Sciences in the school), which determine the quality, level, and level of education in the world, and they are widely used.

PISA is an international program for assessing students’ achievements in the field of education, in which the test assesses the knowledge of schoolchildren in the world countries and the skills of applying them in practice. The main objective of the program is to evaluate the ability of 15-year-old students to use the knowledge and experience they receive in education sight to solve various life tasks that they encounter in social relationships and human activities. This test is conducted every three years. Only adolescents under 15 ears of age participate in the test. The PISA program, aimed at monitoring the quality of education in the school, is conducted in three main areas: reading, mathematics and social science literacy.

Only in 2015, more than 70 countries took part in the test of the PISA international program. In general, the PISA program will have a significant impact on the policies of the states in the field of Education. Each state based on the results of the research conducted sees its position concerning other states by objectively identifying its strengths and weaknesses in the field of education and determines its directions and strategies in improving the educational process in educational institutions.

In the PIRLS survey, more than 50 countries are reaching. The purpose of this international study is to determine and evaluate the specific characteristics of Primary School students in the educational system which is composed of the different educational systems as well as the preparation of the text for reading and acceptance as well as the various achievement of the students. Of course, such research is of great importance to workers, scholars, Methodists, teachers, parents and community representatives in the field of public education.

TMS - is also widely implemented in the education system of world countries. The TMSS program was established by the International Association for the Evaluation of Educational Achievements (IEA), the International Association for the Evaluation of Educational Achievements, this study will determine the quality, level, attitude, interest of mathematics and social science education among 4 and 8 graders. Every 4 ears, a is taken. This study, like the PIRLS study, will conduct additional questionnaires among students, school administration and teachers and will identify the major which is hindering the field of science. This makes it possible to compare the standards of education developed in that country and the effectiveness of education with that of other countries. According to the results of the 2015-ear study of the TMSS, the education system of such countries as the United States, Singapore, Hong Kong, the Republic of Korea, Japan, Russia, Great Britain occupied the highest figures. It should be recognized that in these states, special attention is paid to the high-level acquisition of Exact Sciences with the aim of mastering, industrialization and high-level development of high-tech, in which the number of students in the group or class is determined not to exceed 16 people in terms of continuous work on them and teaching of specific subjects Such experience is also available in the US, and since 1999, taking into account that one teacher can give knowledge and education to 16 children during 40-minute lessons, the number of students in groups in educational institutions is set to 16 by the presidential decree.

—Literacy question refers to the success of students in the implementation of their plans in the future, that is, the acquisition of knowledge, preparation for labor activity, the acquisition of literacy skills as the main tool for participation in social life and labor. The essence of the concept consists in understanding, analyzing, thinking, observing, applying to live the signs that characterize it.

—When writing text, we mean texts that are printed, handwritten, depicted on the display, used natural language. Such texts can consist of visual images in the form of diagrams, pictures, cards, tables, graphics. Except for films, TV shows, multipliers, the introduction of unconditional pictures, because they require a different way of perception. When visual images are inserted, the texts can be divided into holistic (without such images) and non-holistic (with images) texts. At the same time, visual images (visual texts) can also be given separately independently.

It is impossible to categorize texts perfectly. For the study, the following general characteristics of the texts were found to be very important:

<table>
<thead>
<tr>
<th>Impact Factor:</th>
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<tbody>
<tr>
<td>ISRA (India)   = 4.971</td>
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<tr>
<td>SIS (USA)  = 0.912</td>
</tr>
<tr>
<td>ICV (Poland)  = 6.630</td>
</tr>
<tr>
<td>IS (Dubai, UAE) = 0.829</td>
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<tr>
<td>PHHH (Russia) = 0.126</td>
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<tr>
<td>PIF (India)   = 1.940</td>
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<tr>
<td>GIF (Australia) = 0.564</td>
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<tr>
<td>ESJI (KZ)     = 8.716</td>
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<tr>
<td>IBI (India)   = 4.260</td>
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<tr>
<td>JIF           = 1.500</td>
</tr>
<tr>
<td>SJIF (Morocco) = 5.667</td>
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<tr>
<td>OAJI (USA)    = 0.350</td>
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- clarity and consistency of the statement;
- their reality;
- Fast characterization without analysis (scientific, practical and other texts) and texture;
- artistry (artistic publicists and other texts) is their holistic and unique feature.

The study uses all types of texts, including texts that do not fit into any category.

In general, it is precisely in our country that there is no participation of such international programs in the evaluation and monitoring of the educational system, or that the “national program” for the evaluation or monitoring of the level of youth knowledge of the pupil has not been created, which limits the possibility of determining the quality of the level of mastering as well as, the fact that the level of training in primary and secondary schools, in general, is lagging behind the pace of reform will bring about a shortage of qualified personnel shortly.

Taking into account this, we consider it permissible to implement the following proposals:

1. To study in detail the issue of Uzbekistan’s participation in international education quality assessment programs and ensure its participation in these programs;
2. To create a “national program” for assessing or monitoring the level of youth knowledge of students based on international experience;
3. Considering the most advanced results of scientific achievements and the publication of literature in English, consider the issue of the introduction of various foreign programs teaching English in schools;
4. To determine the qualification requirements of specialists responsible for the provision of education in preschool educational institutions by specific criteria and to establish the full responsibility of children in the direction of general education by law;
5. To determine the maximum and minimum indicators of the number of pupils in groups and classes in preschool and general secondary educational institutions based on the methods tested in international experience;

With the help of psychological tests, the organization of specialized classes in each school for 8-9-year-olds, separating talented children from primary classes.

To determine the differences in the ability of students to read different types of texts does not fall within the objective function of the study. The purpose of the study is to find out the results that are common and significant to them by offering more used texts in life so that students can understand what they are reading.

The general summary classification of texts based on the study is as follows:

**Holistic texts:**
- Description (statement) artistic and technical assignments 13%
- Storytelling (story, Report, reportage) 22%
- Explanation (understanding) giving, essay, description, explanation, summary (resume), interpretation (interpretation) 13%
- Dalil lash (commentaries, scientific justification) 13%
- Instruction-manual (instruction for doing work, rules, statutes, laws) 5%

**Non-holistic texts:**
- Charts -11%
- Diagrams -3%
- Tables -11%
- Cards -3%
- Document samples - (tax documents, visiting papers, questionnaires) -3%
- Information papers and announcements 2%

When evaluating literacy, the following five aspects are taken into account:

1) to understand the general orientation of the text content and its logical integrity (20% of assignments).
2) identification of data (20%)
3) interpretation of the text, interpretation (30%)
4) analysis of text content, observation (15%)
5) thinking over the style of the text (15%) all aspects of Reading Literacy are interrelated with each other.

The successful discharge of the second aspect depends on the correct execution of the first. A full understanding of the text presupposes the level of in-depth knowledge of each aspect of the reader.

To determine what the content of the text is aimed at and to understand its meaning integrity, it is necessary to determine the general purpose of the main topic or what is the purpose for which the text is intended. To do this, the reader himself must be able to think up a title to the text, draw up a thesis that represents the general meaning of the text, explain the order of the lines shown in the text, determine from what the main components of the graph or tables are examples, determine the meaning of the card or picture. Tasks such as determining the purpose are assigned.

Assignments aimed at determining whether one understands the text in general or not can be given to readers to determine the compatibility between the part of the text and the general idea in the form of a question, the compatibility between the part of the text and the specific interpretation given by the author.

Among the given definitions of the idea of the text, the proposal to choose a generalized, predicate indicates the skill of the reader to distinguish the main idea from the second.

To perform tasks, the reader must know the structure of the text, the features of the genre, notice the subtleties of the meaning in which the word is expressed, understand the author's opinion, and be
able to distinguish between the proverb that the author gives to the described event and the proverb that is described. Assignments that show the understanding of the style of the text-critical analysis of the work activity, the appropriateness of the image to the idea that the author thought, or the assessment of the appropriateness of the text as a stylistic interpretation, and other methods.

—The term literacy is used to emphasize the skill of students to apply the acquired knowledge to everyday life.

For example, functional reading (service, work) implies the ability of the reader to receive information and evaluate it, to read diagrams, to find links (links) in the text, to interpret, interpret, to conclude. Literacy of reading is the ability to perceive the forms of written language that are required by society and respected by people and to apply them in practice.

Also, students will be able to master the content of the texts through various forms as well as figures.

Students first of all study to gain knowledge. They also study to participate in everyday life, as well as to occupy a worthy place in society. Pisa and PIRLS programs are considered to be important in terms of students’ knowledge, World outlook on growth and development. At the same time, he is, directly and indirectly, involved in the rapid development of the quality of Education. Currently, several developed countries are conducting such evaluation systems among students. In particular, in Uzbekistan, this assessment system will be conducted among schoolchildren in 2021. The main purpose of this project is to further develop the minds of the students, expand their worldview, as well as to provide the children worthy of our state, that is, mature personnel.

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