



The Role Of Pisa, Timss International Comparative Programs In Teaching Mathematics At Primary Schools

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ABSTRACT

Today, PISA and TIMSS are widely used as a criterion for further improving the quality of education around the world. PISA and TIMSS are international programs for assessing student achievement in education and tests the knowledge and level of education in mathematics and social sciences of schoolchildren and their application in practice and assesses acquisition skills in countries around the world. In this article, I will discuss the role of PISA, TIMSS international comparative programs in teaching mathematics at primary schools in our country.

KEYWORDS

PISA, TIMSS, teaching mathematics, testing, primary schools, competence, literacy, education, mathematics and social sciences, school children;

INTRODUCTION

Today, international evaluation of a new monitoring system for assessing the quality of education is being formed in our country. Assessing the quality of education based on studying of international experience in the field, comparative and comprehensive analysis

of the existing system with international and foreign organizations, agencies, research institutions cooperation, implementation of international projects on quality assessment of education and modern requirements are important to improve an appropriate national

evaluation system. In this regard, 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 made agreement for the participation in the International Student Assessment Program (PISA) in our country in 2021. Let's have a brief look at PISA research.

MATERIALS AND METHODS

What is the PISA system? In particular, PISA International Assessment Program (Student Achievement in Education), which determines the quality and level, PIRLS (Text Reading and Comprehension International) research), TIMSS (International Research on the Quality of Mathematics and Exact Sciences in Schools) monitoring) and a number of international programs, such as those in developed countries. It is widely used as a criterion for further improving the quality of education. PISA is an international program for assessing student achievement in education and tests the knowledge of schoolchildren in countries around the world and their application in practice assesses acquisition skills. The main goal of the program is to educate 15-year-old students' knowledge and experiences encountered in social relations and human activity and to assess the ability to use it in solving various vital tasks. The PISA program which aims to monitor the quality of education in schools, is one of the three main ones in the field of reading, mathematics and social sciences. This program was introduced in 1997 and is held every three years. The first it was held in 2000 and students from 43 countries tested their knowledge. In terms of years, 41 countries participated in 2003, 55 countries were in 2006, 75 countries were in 2009-2012,

65 countries were in 2012, 71 countries were in 2015 and 78 countries participated in 2018. We can see that students from different countries participated. In general, the PISA program has a significant impact on the education policy of states will hold. Each country has its own field of education based on the results of research identifies its strengths and weaknesses objectively and sees its position in relation to other states and their directions in improving the educational process in educational institutions and determines the strategy.

TMSS is also widely used in the education system of the world. TMSS software International Association for the Evaluation of Achievements in Education IEA (International Association for the Evaluation of Educational Achievements) and this study 4 and 8 quality, level of education in mathematics and social sciences among students of the class, his attitude to science determines his interest. It is conducted in every 4 years. These projects contribute to the creative and critical thinking of young people to assess their ability to apply them in life and then develop these skills motivation.

RESULTS AND DISCUSSIONS

Mathematical literacy is the formalization of an individual's mathematics in different contexts the ability to make, apply and interpret. He understands, explains and predicts events to do mathematical reasoning, mathematical concepts, methods, takes into account aspects such as the application of facts and tools. Mathematical literacy is necessary for a constructive, active and thinking citizen helps to make judgments and decisions. For the organization of mathematical literacy assessment, the following three interactions

are based on the organization of mathematical literacy assessment related aspects include:

- A set of mathematical concepts used in assignments (content);
- The context in which the problem is presented;
- To relate this context to the mathematics required to solve a given problem
- Mathematical mental processes that describe student activity;

The result is the following three verbs to describe the activity in problem solving suggested use: expression, application, and interpretation. Pupils represent three processes of thinking that arise in solving:

- Mathematical expression of the situation;
- Apply mathematical concepts, facts, ways of thinking;
- Interpretation, use and evaluation of mathematical results.

Below, we look the definitions adopted by the authors of the PISA-2012 Assessment.

Mathematical formulation of situations are convenient to determine the possibilities of application and to process the situation mathematically expression in form, such as creating a mathematical model that reflects important aspects of the situation including skills. (See "Pizza", "Rock Concert" tests). Employing mathematics generates a solution or two mathematical concepts, facts, methods, rules of reasoning and including the ability to apply tools. This activity is a mathematical solution involves performing the mathematical procedures required to obtain the results (e.g. with algebraic expressions and equations or other types of mathematical models

performance, analysis of mathematical diagrams, graphs and other types of data, working with geometric shapes in space). Working with models, laws and sizes determine the relationship between and create mathematical proofs. (See "Gardener" tests).

An issue given in the context of the real world Areas of Mathematical Content: Numbers and Quantities, Data and Uncertainty, change and connections, space and shapes.

Real world contexts: personal life, educational professional activity, social life and science activity.

Mathematical reasoning and activity

Mathematical concepts, knowledge and skills Fundamental Mathematical Skills: Informing; to present; strategies development; mathematicalization; reasoning and arguing; symbolic, use of formal, technical languages and practices;

To use of mathematical equipment Cognitive processes: expression, application, interpretation and evaluation Interpreting mathematics An idea of a mathematical solution or outcome thinking, including the ability to interpret and evaluate them in the context of a real problem received. This activity is a mathematical solution obtained, moving the mathematical solution into the context of a real problem and evaluating the feedback as appropriate to the context of the problem. (See the "Household Waste" test) worked on student response tasks and analysis. In creating assignments and analyzing student responses, researchers are there in his view, the basis and mathematics in the three thought processes adopted in the study 36 seven

fundamentals that are an important component of literacy.

The PISA toolkit includes:

- Test with assignments brochures;
- Questionnaires for students of educational institutions;
- Educational institutions management surveys;
- A guide for the person conducting the test and survey;
- Organize education a guide for the delivery coordinator;
- Test assignments, data entry and retrieval performance appraisal guide.

CONCLUSION

In conclusion, I can say that PISA TIMSS international assessment programs play big role in assessing our pupils' academic achievement in education and test their knowledge and level of education in mathematics and social sciences and their application in practice and assess their acquisition skills in countries around the world including in our country.

REFERENCES

1. Assessing Reading, Mathematics and Scientific Literacy: A framework for PISA 2009. OECD, 2009
2. A. Ismoilov, D. Norboyeva, K. Kucharova, Z. Qosimova, N. Aminova. International assessing the literacy of primary school students in research. (textbook) - T.: Sharq NMAK, 2019. - p.94
3. A. B. Panjiyev, A. A. Ismoilov, J. R. Narziyev, X. P. Ahmedov, G. O. Togayeva. International Student

Literacy Research Program. (manual) - T.: 2019. -p.62

4. Aliyev, N. (2020). Methods of teaching students to classify mathematical problems. ACADEMICIA: An International Multidisciplinary Research Journal, 10(6), 297-300.
5. Komiljanovna, D. T., & Muhtarovich, T. S. (2020). Shaping Mathematical Thinking Skills In Primary Schools. The American Journal of Social Science and Education Innovations, 2(10), 157-160.
6. Toshpulatova, D.(2019). РОЛЬ МЕНТАЛЬНОЙ АРИФМЕТИКИ В ПОВЫШЕНИИ МАТЕМАТИЧЕСКОЙ ГРАМОТНОСТИ В НАЧАЛЬНОЙ ШКОЛЕ. Theoretical & Applied Science, (12), 184-186.
7. Ikromova, G. (2019). Some phonetic features of Sharof Boshbekov's dramas. Scientific journal of the Fergana State University, 2(1), 132-134.
8. Abduvalieva, N., & Ikromova, G. LEXICAL-SEMANTIC PECULIARITIES OF PERSIAN-TAJIK WORDS USED IN THE GHAZELS OF ALISHER NAVOI. Zbiór artykułów naukowych recenzowanych., 168.