



METHODOLOGY OF USING PISA TECHNOLOGY IN PRIMARY EDUCATION

Yakubova Manzura Abdurakhmonovna

Associate Professor, Department of Pedagogy and Psychology, Institute of Technology, Management, and Communication

Suyunova Dinara Bakhtiyor qizi

Student of Primary Education, Jizzakh State Pedagogical University

Abstract: This article highlights the scientific and methodological aspects of applying PISA technology in the education system of Uzbekistan. PISA technology is aimed at developing students' logical thinking, problem-solving skills, and independent decision-making abilities. At the same time, its practical implementation and pedagogical effectiveness at the primary education level are analyzed.

Keywords: Uzbekistan education, PISA technology, primary education, problem-solving, education system, application of knowledge in practice, logical reasoning, logical thinking, competencies, innovative approach, development of quality education.

The use of PISA (Programme for International Student Assessment) technologies in primary education is currently one of the priority directions of the education system. Its relevance is not only related to achieving high rankings in international assessments but also to fundamentally improving the quality of education.

The application of PISA technology in primary education is an effective way for students to acquire knowledge actively, logically, and in a practical context. This technology not only prepares students for international educational standards but also develops their problem-solving, independent decision-making, and creative skills. Therefore, implementing PISA technology in primary classes is an actual approach to improving education quality and forming students' competencies.



In the modern world, the flow of information is vast. The PISA methodology develops students' ability to select, analyze, and find the most appropriate solutions from an early age. The education system of the Republic of Uzbekistan has identified the development of competitive and high-quality education as a key objective in adapting to global demands. In this regard, PISA technology serves as an effective tool for developing students' active, logical, and practical skills.

PISA is an international student assessment program developed by the OECD, which evaluates the competencies of 15-year-old students in reading, mathematics, and science. Applying PISA technology in primary education helps children develop problem-solving and practical decision-making skills.

Effective Methods for Implementing PISA Technology in Primary Education

	Real-life examples in mathematics, reading, and science	Application of knowledge in practice, logical thinking
	Tasks based on everyday life contexts	Development of problem-solving skills
	Solving problems collaboratively in small groups	Formation of cooperative and communication skills
		Making learning engaging and interactive
		Development of independent thinking and self-assessment



In primary education, students are often taught to memorize ready-made knowledge. However, PISA technology teaches them to independently analyze problem situations and make decisions. PISA tasks develop competencies such as applying knowledge in practice, drawing logical conclusions, and creative thinking.

PISA results allow comparison of education quality among schools worldwide. Introducing PISA methodology in primary education prepares students for future international assessments and competitions. Since PISA methodology is based on interactive, visual, and group activities, it increases students' motivation and interest.

Scientific Foundations of PISA Technology

- **Constructivist Approach:** According to constructivism, learners build knowledge through independent activity. Scholars like Vygotsky and Bruner emphasize that knowledge is formed through active and social interaction.
- **Competency-Based Approach:** Education quality is no longer based solely on memorizing facts but on forming competencies that enable students to apply knowledge in real-life situations.
- **Problem-Based Learning and Assessment:** PISA tasks present students with problem situations that require analysis, decision-making, and solution finding.

To enhance the global competitiveness of Uzbekistan's education system, it is necessary to align with international assessment criteria from the early stages. Although PIRLS (reading literacy) and TIMSS (mathematics and science) are mainly used in primary education, PISA technology represents the logical continuation and ultimate goal of this process.

Teachers need new methodologies that require interactive and creative approaches beyond traditional textbooks. PISA technology helps to:

- Organize lessons in the form of engaging projects;



- Encourage students' independent learning;
- Introduce transparent and international assessment criteria.

PISA methodology develops students' abilities to analyze, compare, generalize, and solve problems. These competencies are applicable not only in academic subjects but also in real-life situations. Assessment is based not only on test questions but also on real-life contexts, evaluating practical knowledge.

Comparison of Traditional and PISA-Based Education

The introduction of PISA technology in primary education is essential and актуал for Uzbekistan. It develops students' logical, problem-solving, and practical thinking skills, making them competitive in the international educational arena.

Based on the analysis above, the following recommendations are proposed:

1. Improve teacher qualifications through specialized PISA training programs;
2. Update lesson plans by incorporating problem-based and contextual tasks;
3. Modernize the assessment system by introducing tools that evaluate practical skills;



4. Apply innovative technologies, including interactive and multimedia methods.

Conclusion

In today's global education landscape, the Republic of Uzbekistan aims to develop high-quality and competitive education. In this context, PISA technology serves as an important tool for schools. PISA, developed by the OECD, evaluates the competencies of 15-year-old students in reading, mathematics, and science.

Applying PISA technology in primary education helps students develop problem-solving and practical decision-making skills. Its importance lies in preparing children for real life. Through this methodology, we educate not only knowledgeable students but also competent individuals who can successfully apply their knowledge in practice.

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