

**PEDAGOGICAL CONDITIONS FOR THE DEVELOPMENT OF
METHODOLOGICAL TRAINING OF FUTURE PRIMARY SCHOOL TEACHERS
BASED ON THE TIMSS INTERNATIONAL ASSESSMENT PROGRAM**

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Abstract

This article describes the pedagogical conditions for improving the methodological preparation of future primary school teachers based on the TIMSS international assessment program.

Аннотация: В данной статье описаны педагогические условия совершенствования методической подготовки будущих учителей начальных классов на основе международной программы оценивания TIMSS.

To this day, many people are interested in the question, "What purpose does the idea of creating the foundations of the Third Renaissance represent?" It is extremely important to correctly understand the essence of such urgent issues and their solutions, which are inextricably linked with the large-scale processes taking place in our country. At the same time, it is an honorable and at the same time, extremely responsible task to take our dear homeland - Uzbekistan, to the ranks of the most developed countries, to create more opportunities for the development of our people and a decent way of life. Building a new democratic society and building the foundation of the future undoubtedly requires each of us to be determined and efficient, to think in a new way, and to work in a new way. Teachers are entrusted with the task of educating young people, who are our future successors, to make them into perfect individuals.

It is known that the foundation of knowledge given to students is given in primary education. The knowledge that is the basis for the development of a person's consciousness and worldview is also given at this stage. Accordingly, the spiritual, moral, and professional maturity of primary school teachers is important for the development of well-rounded individuals of the students they educate [4].

The innovative task of forming a teacher's high-level methodological skills is to destroy existing negative stereotypes in the teacher's professional activity, restructure thinking and activity, and form analytical skills that allow deep penetration into the essence of the teaching process of schoolchildren. depends. In the conditions of the development of modern education, it is extremely important for the teacher to understand the importance and necessity of the innovative processes taking place in the school, to know the innovative technologies of teaching, the experiences of international research and to know how to implement them in the educational process. It should be noted that as a result of the conducted research, we can see

that additional motivation for learning has appeared among students through the use of innovative technologies, especially ICT in the school system[6]

Eliminating the difficulties that arise in the work of a teacher requires the following strategies:

- 1) professional development (constructive strategy);
- 2) psychological protection (protection strategy);
- 3) professional deformation (destructive strategy).

Challenges for skilled educators are closely related to overcoming barriers to innovation. Obstacles encountered in pedagogical activity are often manifested in the form of limiting the activities of the pedagogue. It is advisable to use more than one strategy to solve the difficulties that arise in connection with this typology. For example, the difficulties that arise in the work of young teachers, first of all, gradually improving their professional development, providing them with psychological support in solving problematic situations related to professional activity, and establishing a sense of self-confidence and responsibility. and requires strategies to successfully navigate changing situations.

Development of methodical training of future primary school teachers based on the TIMSS international assessment program is one of today's urgent issues. Below we will touch on the aspects that educators should know about TIMSS:

The Trends in International Mathematics and Science Study (TIMSS) is an international comparative study that measures trends in mathematics and science achievement at the 4th and 8th grades every 4 years[5]. TIMSS is designed to align broadly with mathematics and science curricula in the participating education systems and, therefore, to reflect students' school-based learning. The United States has participated in every administration of TIMSS since its inception in 1995, and the study provides valuable information on how U.S. students compare to students around the world[1].

In 2019, a total of 64 education systems participated in TIMSS at the 4th grade, while 46 systems participated at the 8th grade. Most of these education systems are member countries of the International Association for the Evaluation of Educational Achievement (IEA), the group that sponsors TIMSS internationally; a small number at each grade are nonmember subnational entities that have joined TIMSS as "benchmarking participants." Both groups are included in the discussion of results and counts of education systems[2].

As the 2019 TIMSS results show, the United States had higher average scores than most participating countries in both mathematics and science at both the 4th and 8th grades. However, in 2019, the United States had relatively large score gaps between the top- and bottom-performing students in both TIMSS subjects and grades. In 8th-grade mathematics, only 1 of the 45 other education systems (Turkey) had a larger score gap between the top-performing (90th percentile) and bottom-performing (10th percentile) students than the United States[3]. Moreover, except in grade 4 science, the U.S. score gaps increased from most prior administrations of TIMSS, related in part to drops in the 2019 performance of the bottom

performers from the prior two administrations. Gender differences in the United States in 2019 were not consistent, and while boys outperformed girls at the 4th grade in both mathematics and science, there were no gender differences at the 8th grade in either subject.

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