

PEDAGOGICAL CONDITIONS FOR THE DEVELOPMENT OF METHODS AND APPROACHES TO TEACHING PRIMARY CLASS STUDENTS ON THE BASIS OF THE PISA AS AN INTERNATIONAL ASSESSMENT PROGRAM

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Abstract. *The essence and content of the development of methodological training of future primary school teachers based on the PISA international assessment program, pedagogical conditions, tasks, conditions of technical support, the educational process with the necessary educational information for international studies are described in the article. The provisioning mechanism is developed.*

Keywords: *future primary school teachers, PISA, student, teacher, methodological training, pedagogical conditions, mathematical and scientific literacy, international studies, task, mechanism, strengthening of knowledge, formation of thinking.*

Special attention is paid to the radical reform of the education system in our country, a lot of work is being done to acquire modern knowledge and professions by children at the level of world standards, to become physically and spiritually mature people, to reveal their abilities and talents, intellectual potential, to educate in the hearts of the younger generation a sense of devotion to the Motherland and self-sacrifice. The Decree of the President of the Republic of Uzbekistan dated February 7, 2017 No. PB-4947 "On the strategy of actions for the further development of the Republic of Uzbekistan" defines tasks for improving the social sphere, in particular education and science, as well as in the Message to the Oliy Majlis dated January 24, 2020-appropriate preparation for the processes of international assessment in 2021. Today, there are reputable international organizations that conduct research to assess achievements in the education system of countries around the world, as well as assist in carrying out reforms. Uzbekistan's participation in these studies and their results are universally recognized in the world community, providing education to the younger generation with new innovative methods based on international experience, as well as the ability to apply the knowledge gained in practice.

Nowadays, the use of innovative pedagogical technologies in the educational process, interest in them, and attention to them are increasing. While earlier in traditional education, students were taught to acquire only ready-made knowledge, nowadays, thanks to modern technologies, students can independently search for knowledge that they need to learn, study independently, analyze and even draw conclusions on their own. "In this process, future primary school teachers create the pedagogical conditions necessary for the education, upbringing and development of students."

The use of modern pedagogical technologies in the educational process in the development of methodological training of future primary school teachers on the basis of the Pisa international assessment program improves the quality and effectiveness of teaching, helps teachers to form students' independent thinking skills. In the process of studying subjects, it increases the student's

enthusiasm and interest in the subject, forms skills, the ability to consolidate, assimilate knowledge, freely use them in practice.

Improving the methodological training of future teachers on the basis of international assessment programs also requires an integrated approach to the educational process. In the process, it was concluded that, firstly, it is advisable to ensure integration between educational programs for the training of future primary school teachers, secondly, pedagogical programs of higher education and subjects taught in primary classes, and, thirdly, international assessment programs (for instance, PISA).

In order to improve the methodological training of future primary school teachers on the basis of the international PISA assessment program, first of all, it is necessary to improve pedagogical conditions, in connection with which every future primary school teacher should apply an innovative approach to the education system using modern pedagogical technologies.

"Innovative education is an education that creates an opportunity for a student to create new ideas, norms, rules, to form advanced ideas created by other individuals, qualities, competencies related to the natural adoption of norms, rules." Pedagogical technology is understood as the art and ability to carry out an educational function, which is the basis for the development of knowledge, skills and abilities of students based on very accessible methods.

"Today, improving the effectiveness of teaching and popularizing best practices using modern pedagogical, innovative and information technologies in all secondary schools is becoming a requirement of the time." "In order to create the necessary pedagogical conditions for improving the methodological training of future primary school teachers, the main tasks of innovative and information technologies in primary education have been developed and formulated":

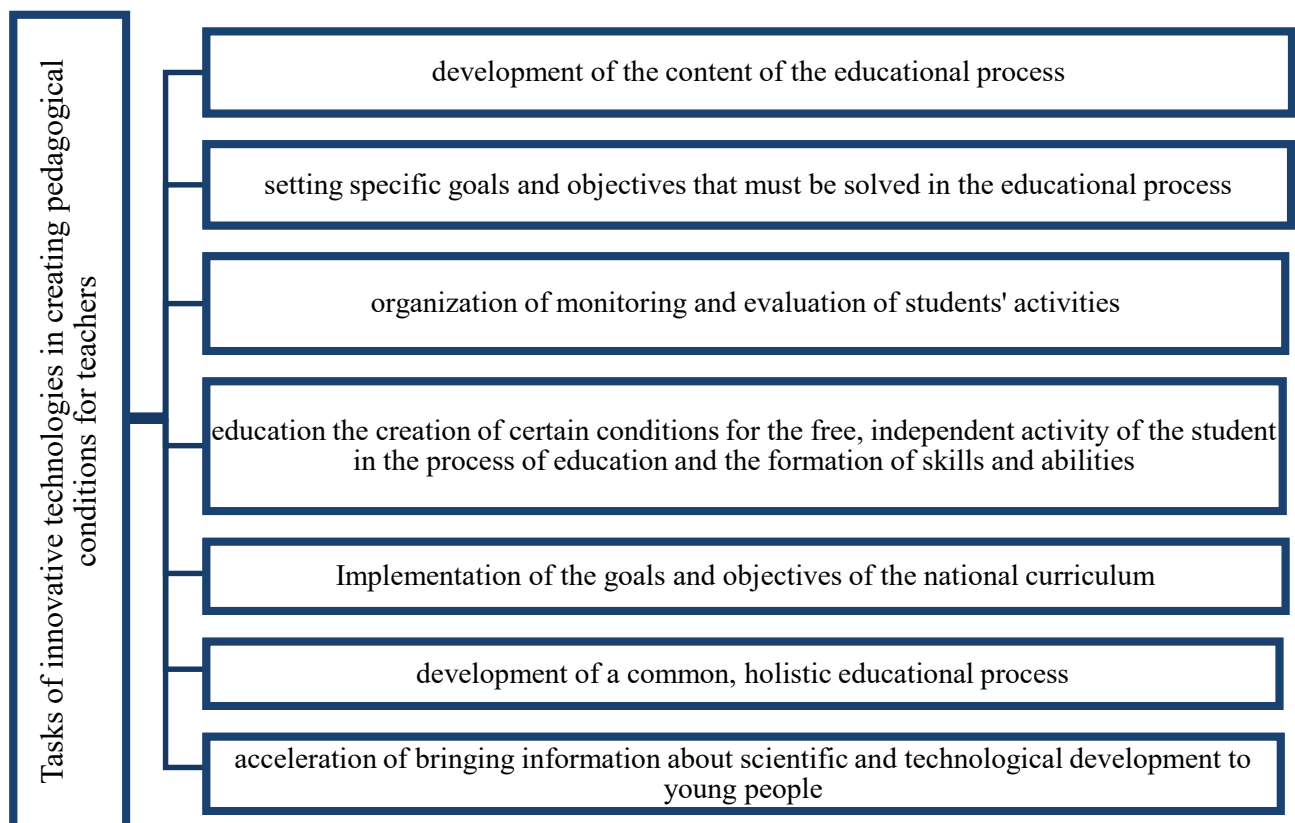


Figure 1. Challenges of innovation and information technology in primary education

The active implementation of advanced pedagogical technologies in the educational process, improving the effectiveness of teaching, analyzing and putting them into practice is one of the most important tasks of today. "Since primary education is the main link of secondary schools, it is necessary to pay more attention to ensuring that the student's personality develops perfectly in this process." The responsibilities of primary school teachers are limitless. They teach students who have just crossed the threshold of school to school life, opening the way for them to acquire modern knowledge. It is during this period that children's attitude to learning and their mental abilities are formed. It also shows that the task of primary school teachers is responsible. The effectiveness of teaching will develop further if, in the process of fulfilling this duty, future primary school teachers will improve their methodological training using innovative technologies. The use of innovative and information technologies in primary schools in accordance with the created pedagogical conditions for the development of methodological training of future primary school teachers on the basis of the international PISA assessment program provides the following opportunities:

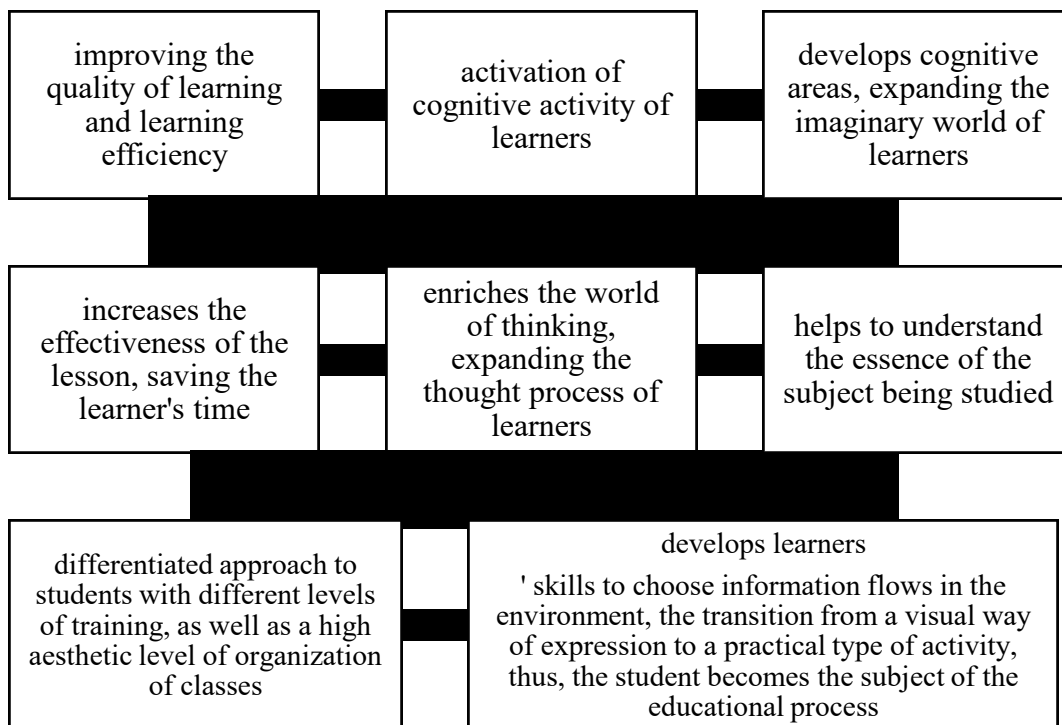


Figure 2. Opportunities achieved in innovative and information technologies used in the development of methodological training of future primary school teachers

The priority direction of state educational activity is the development of methodological training of future primary school teachers, modernization of content, introduction into the educational process based on best practices in the use of innovative pedagogical and multimedia electronic educational resources, attaching great importance to building the potential of future primary school teachers to use innovative pedagogical technologies.

This multimedia electronic information resource contains information about the PISA international assessment program, PISA assignments, international trends, PISA questionnaires, episa assignments and problem solving, the volume of PISA-2019, as well as instructions for using PISA assignments in math and science lessons in 4th grade. Also on our multimedia electronic information resource, interesting educational games and PISA tasks are presented at math and science lessons in the 4th grade in order to increase the activity of students and ensure their

assimilation through thinking. With their help, students develop oral and written mathematical speech, thinking, attentive memory, the ability to reason, skills of applying the acquired knowledge in practice, as well as ideas about mathematical concepts. Assignments on this resource allow students to think independently, explore, draw conclusions and increase students' interest in mathematics and natural sciences.

The developed multimedia electronic information resource provides future primary school teachers with the following opportunities in the development of their methodological training and in preparation for training sessions and conducting a lesson (Fig.3).

The use of multimedia electronic educational resources, modern information and communication technologies in mathematics and science lessons of the 4th grade, along with improving the effectiveness of teaching, forms the process of independent thinking of students, motivates students, develops their passion and interest in knowledge, serves to bring the acquired knowledge to the level of automatism and the formation of skills and abilities for independent use in life situations.

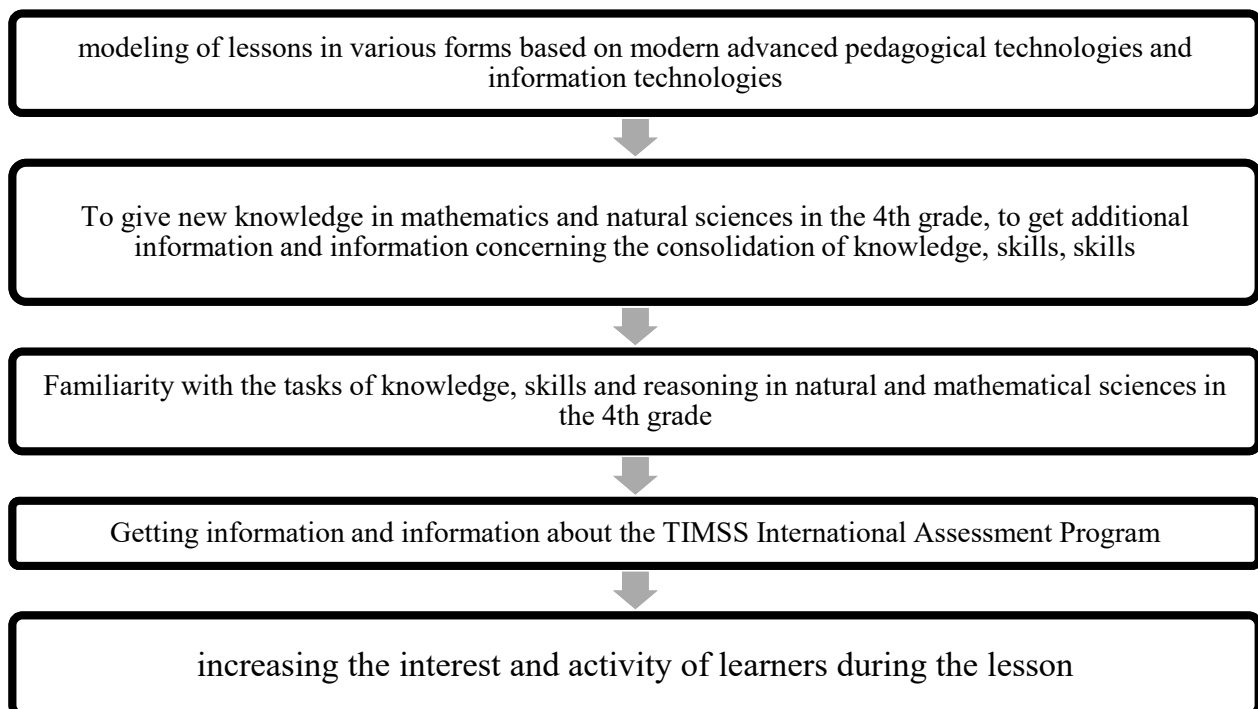


Figure 3. The possibilities of a multimedia electronic information resource created on the basis of the PISA international assessment program

In multimedia e-learning resources, students strive to learn about events taking place on a computer monitor by seeing and hearing them and thinking. With the help of the senses, the reader begins to perceive events and phenomena occurring on the screen. Because their properties and properties are displayed on the screen.

The use of multimedia tools in the learning process is one of the most convenient ways of learning, improving the quality and effectiveness of learning.

Multimedia is a modern computer information technology that allows you to combine text, sound, video, graphics and animation (multiplexing) into a single computer system.

As a result of the introduction of modern teaching methods and tools into practice, 4th grade students develop a positive attitude to learning, as well as skills such as mathematical

literacy, working with various information, logical and creative thinking, self-control, reasoning, creative thinking and the organization of educational activities.

The advantage of the created multimedia electronic educational resource for teachers: it allows teachers to work on themselves regularly. They will always be ready for the lesson. They organize classes in an unconventional manner. The efficiency of learning by students increases. Helps to fill in the gaps with empty wizards. Provides opportunities for collaboration with the teacher's parents, as well as for obtaining information about international assessment programs and preparing 4th grade students for the PISA international assessment program during the lesson.

Advantage for students: the interest in mathematics and natural sciences increases, academic performance increases. Does not have difficulties when doing homework, allows you to master a new topic even if you miss a lesson, can apply the knowledge gained in practice, reasoning, and teaches you to think independently, freely. At the next stage, his motivation for learning increases, interaction with adults and peers improves.

Advantages for parents: they get the right idea of how parents help their children around the house and improve their studies. They learn about the Pisa Surveys and develop their own skills by getting acquainted with the surveys of parents in the Pisa Surveys. The presentation of educational tasks to students with the help of multimedia means creates certain convenience. Because multimedia tools serve to ensure the independent activity of students. Encourages each student to engage in dialogue, cooperate with the teacher and classmates. In such situations, multimedia tools perform a special didactic function.

A multimedia electronic information resource has been created for primary school students, but there is no electronic information resource for preparing 4th grade students for the Pisa International assessment program. This multimedia electronic information resource covered the following topics: "Information about PISA", "Achievements in mathematics and natural sciences", "PISA surveys", "PISA coverage-2019", "ePISA and examples of tasks on problem solving", "Solving PISA tasks", "Data visualization methods", "Fractions", "Flat and spatial forms", "Questions of motion", "Units of surface measurement", "Graphs", "Scales", "Earth is a planet in the Solar system", "Planets", "Plant world" (Flora), "Animal world" (Fauna), "Seasons day and night", "The moon is the natural death of the Earth", "The Earth and its shape. Globe".

From this multimedia electronic information resource, which prepares 4th grade students for the PISA international assessment program, more than 100 animations, classification of the PISA international assessment program, test type formats, instructions for solving ePISA tests, more than 20 videos, more than 50 exercises to consolidate the knowledge gained, about 200 PISA tests, 14 tasks for each class, 100 tasks for included interesting facts about the lesson, 10 logical questions, 122 thematic drawings aimed at improving the creative thinking of students, 14 audio lessons.

When preparing 4th grade students for the PISA International Assessment program, we must first explain to them by giving them enough information about the PISA international assessment program so that if all the information is displayed on the screen, it would be easier for the teacher to inform the students about the PISA international assessment program, and at the same time the teacher uses time efficiently. Students can use the PISA International Assessment Program and study subjects together with their parents at home.

Based on the above underlined, we must determine what the preparation of 4th grade students for the PISA international assessment program will look like, so that the 4th grade in

mathematics and natural sciences, on the one hand, can become a unique event for each student, become a source of true emotional excitement, imagination and content, able to compensate for the lack of communication, to make the world more holistic. at the same time, it will be necessary to ensure the possibility of forming the national and cultural abilities of students in relationships.

REFERENCES

1. Decree of the President of the Republic of Uzbekistan dated February 7, 2017 No. PD-4947 "On the strategy of actions for the further development of the Republic of Uzbekistan".
2. Decree of the President of the Republic of Uzbekistan dated April 29, 2019 No. PD-5712 "On approval of the concept of development of the public education system of the Republic of Uzbekistan until 2030".
3. Gustafsson J.E., Hansen K.Y., Rosén M. PISA and PIRLS: Relationships among reading, mathematics, and science achievement at the fourth grade -Implications for early learning PISA & PIRLS International Study Center, Boston College.2018. 432B.
4. Ismailov A.A., O'quvchilarning ta'limdagi yutuqlarini baholash tizimini xalqaro talablar asosida takomillashtirishning nazariy va institutsional asoslari, Ta'lim va innovatsion tadqiqotlar (2022-yil №2).
5. Wardat Yousef, Belbase Shashidhar, Tairab Hassan. Mathematics Teachers' Perceptions of Trends in International Mathematics and Science Study (PISA)-Related Practices in Abu Dhabi Emirate Schools. Sustainability; Basel Tom 14, Izd. 9, (2022): 5436. DOI:10.3390/su14095436.
6. Ganiyeva, M. (2023). THE MAIN DIRECTIONS OF DEVELOPING THE LOGICAL THINKING OF FUTURE ELEMENTARY SCHOOL TEACHERS (IN MATHEMATICS LESSONS). Science and innovation, 2(B3), 30-33.
7. Ganieva, M. (2023, June). EMPOWERING LOGICAL THINKING IN PRIMARY SCHOOL STUDENTS THROUGH TIPS TECHNOLOGY. In Academic International Conference on Multi-Disciplinary Studies and Education (Vol. 1, No. 12, pp. 62-63).