THE EXPERIENCE OF ASIAN COUNTRIES IN IMPROVING THE QUALITY CONTROL OF MATHEMATICS KNOWLEDGE OF PRIMARY CLASS STUDENTS

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At the present stage of social development, the education system is the cornerstone in the policy of any state and one of the most important and dynamic elements of the infrastructure. Education, being a leading factor in socio-economic development, is currently being actively reformed in the developed countries of the world. Especially the experience of Asia countries to improve the quality control of mathematical knowledge among primary school students, for example, in 2022, Japan adopted a new State standard for school education, which will radically change the education system in Japanese schools. The planned comprehensive reform of Japanese primary education reflects global trends, and its results may have significant consequences for the further development of the world community.

The experience of Asian countries in improving the quality control of mathematical knowledge of primary school students in the field of implementation of the state educational policy is poorly studied in Uzbekistan, and in this paper, for the first time, an attempt is made to comprehensively consider the upcoming changes in the system of primary school education using the example of Asian countries.

For example, school education in Japan, Mongolia and Indonesia consists of three levels: primary education (primary schools, 6 years of education), lower secondary education (secondary schools, 3 years of education), and upper secondary education (high schools, 3 years of education). Upper secondary education in Japan, Mongolia and Indonesia are not compulsory, however, according to statistics, more than 95% of Japanese enroll in high school, as high school education qualifies for the Centralized University Entrance Examination.

Graduates have the opportunity to choose several subjects for delivery from seven categories corresponding to the five main academic disciplines: basic / specialized mathematics, native and foreign languages, basic / specialized natural sciences and humanities [3]. Regardless of the subject, the exam consists exclusively of tasks for choosing an answer from the proposed options. This examination format, which has not changed for several decades, has caused the

formation of negative trends in Japanese school education. First of all, this is due to the excessive orientation of education towards solving test tasks, which does not allow students to adequately develop the ability to reason, logical and abstract thinking.

It is important to note the following factors indicating the need for reforms:

First, studying at universities is rapidly depreciating and losing its prestige due to the simplification of admission to the desired university. This is due to the adaptation of school education to the format of the Centralized Entrance Examination, which often allows you to earn results that do not correspond to real knowledge and hinders fair admission to the university.

Secondly, due to shortcomings in the education system, they are not competitive at the level of foreign English-speaking workers, who are already hired by more than 1/3 of Asian companies. In order to improve the quality of the workforce and bring it to the international level, it is necessary to reform the system of teaching foreign languages, as well as ensure the development of communication skills among students in Asian schools.

Thirdly, the situation on the labor market is negatively affected by the introduction of robots and artificial intelligence. Already in the coming years, according to forecasts, this factor will significantly reduce the need for personnel engaged in work within a clearly defined range of tasks. It becomes necessary to educate a new type of human resources - "capable of independently detecting a problem and most effectively implement what was conceived, adapting to circumstances and using them".

Based on these factors, in many Asian countries, starting from 2022, it is planned to implement a reform of primary school education in the field of mathematics and other sciences, which will include three main areas:

- Reform of mathematical education based on modern teaching technologies;
- Reform of the curriculum and entrance examinations;
- Reform of digitalization of education: introduction of the learning model "1 student - 1 tablet".

Thus, active learning and quality control of mathematical knowledge among primary school students is aimed at motivating students for independent, proactive and creative mastering of educational material. With active learning, lessons are held not in the form of lectures, but in the form of communication between the teacher and students, which ensures the involvement of the entire class in the process of mastering new material. As part of active learning, the teacher is invited to initiate discussions and work in a group, invite students to

find an independent solution to the topic of the lesson, conduct an observation/research and share its results with others [2].

Educational programming is a method of organizing the educational process in Japanese schools, aimed at the development of "program" thinking and consisting in the analysis of the educational material of various educational disciplines from the point of view of programming. So, for example, in the process of studying the topic “nature of electricity” in elementary school, children will be shown the principles of operation of household appliances and the design of the electricity consumption control programs embedded in them. Then students will learn how to write similar programs on their own. In arithmetic lessons, children will program graphs and diagrams to illustrate the rules and patterns they are learning; in music lessons - to compose electronic melodies in audio editors. Thus, programming training will “permeate” all primary education, organically intertwining with various academic disciplines. By following this learning plan, children will learn how to solve simple problems using programming at the end of elementary school - then, in high school, move on to solving more complex problems that require logical thinking and creativity. High school graduates will be expected to be able to "use computer technology to solve real-world problems".

The adoption of the concept of student competencies - cognitive, applied and personal - will radically change the teaching methods in primary schools in Asian countries, which will now be aimed at motivating students to independently and proactively master educational material (“active learning”), as well as developing the skill of “programming” thinking through the interdisciplinary study of programming based on mathematics. Developing meta-subject competencies of students and involving them in solving actual problems using computer technology.

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