

*A. Svintsitska,  
Student,  
O. Zymovets,  
Lecturer,  
Zhytomyr Ivan Franko State University*

## **PEDAGOGICAL CONDITIONS FOR THE DEVELOPMENT OF PRIMARY SCHOOL STUDENTS' INTELLECTUAL ABILITIES IN MATHEMATICS LESSONS**

**Statement of the problem.** In the modern world, more and more attention is paid to the development of intellectual abilities of children in primary school, because the level of knowledge and scientific achievements of our society is constantly increasing. The problem of mental development of children has always been relevant and required proper scientific research. This is due to the fact that the education system is increasingly becoming the object of growing demands, which requires focusing attention on the key aspects of education that ensure students' personal development, support their progress and success in education, develop their potential [1].

The main prerequisite for intellectual development is mental activity – a system of mental processes that contribute to students' mastering the elements of science, culture and social experience. Such mental processes as perception, memory, thinking and imagination are key to successful human activity. The intelligence of each individual is an individual system of his mental abilities and is expressed in skills that are reflected in activities. The intellectual development of the individual is based on cognitive activity, which contributes to the development of thinking processes based on sensory perception and a conscious attitude to knowledge.

In the concept of mathematics education in Ukraine, one of the main goals of teaching mathematics is to promote the mental development of children, form positive personality qualities, increase mental activity and cognitive independence, develop self-regulation skills, promote a creative approach in educational activities, etc. [5].

**Analysis of recent research and publications.** The problem of intellectual development of personality is one of the priorities in psychological and pedagogical science. In-depth studies done by D. Bohoiavlenskyi, P. Halperin, V. Davydov, L. Vygotskyi, D. Elkonin, S. Zhuikov, A. Zak, L. Zankov, O. Zaporozhets, and N. Zavhorodnia are dedicated to revealing the essence of intellectual abilities and the ways of their formation.

**The purpose of the article** is to highlight the conditions for the development of primary school students' intellectual abilities in mathematics lessons.

**The main outline of the material of the article.** A child's intellectual abilities are the abilities to learn, understand and use for practical purposes the knowledge and skills that are developed in the process of education and upbringing. They are manifested in the form of attention, memory, receptivity to new things, logical thinking, creativity, speech and spatial abilities, etc. One of the important tasks of a modern school is to provide students with comprehensive support in revealing their abilities, developing initiative, independence and creative potential.

N. Zavorodnia defines intellectual (mental) abilities as the ability to perform intellectual work that requires long-term cognitive stress [2]. It requires intensive attention to the objects of observation, memorization, analysis, generalization, etc. The development of abilities in the context of the organization of mental activity means the performance of various types of work in compliance with conditions that can ensure maximum productivity with the least expenditure of energy [5].

As V. Sukhomlynskyi noted, education should not be limited to accumulating knowledge, memorizing without understanding and cramming, which leads to neglecting children's health and mental development. Instead, it is necessary to create in children a diverse intellectual life related to creativity, so that they can become explorers, inventors and creators in their lives [7].

Recently, various complexes of pedagogical conditions that contribute to the development of intellectual abilities in primary school have been actively investigated in pedagogical research. V. Lozova, I. Malafik, O. Nozdova and T. Osypova single out the following systems of pedagogical conditions:

- specially selected content of the learning process with a focus on mental operations;
- the unity of motivational, substantive and operational components of training;
- the unity of the reproductive and productive character of students' cognitive activity;
- gradual increase in the degree of independence of younger schoolchildren in mastering mental operations (pedagogical conditions that stimulate the development of intellectual abilities of students in mathematics lessons allow to ensure the development of independence and creativity of students);
- motivational activity of the teacher [6].

During the selection of educational material for the exercises, I. Zaichenko suggests taking into account the following pedagogical conditions:

- continuity in the mental training of younger schoolchildren;
- systematic and purposeful work;
- using specially developed system of tasks, which contributes to the assimilation of material designed for the mental development of schoolchildren, and its application in new conditions in the process of studying various educational fields [3].

Psychologists who investigated the issue of the most optimal conditions for the development of intellectual abilities in the educational process (S. Z Abramna, N. Kabanova-Meller, I. Pogoretska, etc.) established that the most important condition is the purposeful and systematic formation of logical techniques, the organization of such an educational process, during which these techniques become the object of special training [4].

It is necessary to use interactive teaching methods and ICT, which contribute to increasing motivation to study and improve the quality of assimilation of educational material. The following conditions are also of great importance:

- creating a favorable psychological climate in the lesson, which ensures the concentration of students' attention and the development of their creative activity;

- using a variety of methods and techniques that allow students to see mathematical objects in different contexts and feel their practical significance;
- using interactive teaching methods that contribute to the involvement of students in active participation in the educational process;
- providing individual approach to each student, taking into account his needs and capabilities;
- constant expansion of students' horizons, ensuring the availability of information and selecting it according to the level of students' maturity;
- using innovative technologies and materials in the lessons, which give students the opportunity to expand their knowledge and skills;
- ensuring constant monitoring and evaluation of students' educational achievements, which allows to adjust the educational process and develop the individual abilities of each student.

**Conclusions.** Therefore, the use of pedagogical conditions in mathematics lessons that contribute to the development of the intellectual abilities of younger schoolchildren will contribute to the improvement of the quality of education and the preparation of students for further successful studies. Under such conditions the maximum development of cognitive functions is improved, the students' competences are formed, the motivation to study and the effectiveness of the educational process are increased, the independence and creativity of students are developed. Therefore, compliance with the pedagogical conditions for the development of intellectual abilities of students in mathematics lessons is necessary for successful learning and development of students in primary school.

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