

ON THE BASICS OF EDUCATION OF MATHEMATICAL THINKING IN THE MODERN COURSE OF GEOMETRY IN A COMPREHENSIVE SCHOOL

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ABSTRACT

The article focuses on the development of mathematical thinking in students and students of the Pedagogical University, based on the solution of a system of various geometric problems. The ability to create (restore) geometric images used in design is one of the features of functional and mathematical thinking, synthesizing solutions of complex geometric problems that require advanced stereographic imagination from the simplest mental imagery and operations. It also discusses a contemporary methodological issue, namely, the problem of the advanced development of visual thinking. In the current state of mathematical education, this issue has many shades in pedagogical practice one of them is the upbringing of figurative thinking and operational efficiency. Visual thinking is used from kindergarten to mathematics students of pedagogical and technical universities. Another issue posed at the beginning of the last century by the American teacher, psychologist J. Dewey - the possibility of educating thinking and its method - currently has verification in the world pedagogical experience. Works of psychologists, philosophers, lecturers: Pavlova I.P., Bertrand Russell, Bekhterev V.M., Vygotsky L.S., Ilyin E.P., Leontiev A.N., Rubinstein S.L., Luier A.R., Davydova V.V., Korchak Y., Galperina P.Ya., Gessen S.I., Shatalova V.F., Elkoina D.B. and many others elucidated, to one degree or another, the indicated issue, especially interesting in terms of applications to the development or discovery or education of mathematical abilities. This article describes the method of “end-to-end” teaching of mathematicians in a pedagogical university based on issues in geometry.

Keywords: Education, development, mathematical thinking, verbal-figurative thinking, figurative-verbal thinking, figurative logical thinking, abstract-figurative thinking, abstract-logical thinking, stereographic thinking, concrete thinking.