

**THE RESEARCH ABILITIES
AND SKILLS ELEMENTS FORMATION
AT THE JUNIOR SCHOOLCHILDREN
IN THE MATHEMATICS
TEACHING PROCESS**

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Many methodological challenges solution in the mathematical preparation and the training system in the primary and the high school is being assumed the pupils' mental and the intellectual development the defined and the specified level obligatory formation. This kind of level will have to be provided the pupils' active cognitive – educationally activity, to be promoted the succession realization in the teaching. And it, moreover, will have to be the basis for the future research practical activity. In this connection, it is quite possible to be spoken on the purposeful and the well – directed formation task significance at the pupils in the mathematical preparation and the training process, such the fundamental intellectual operations, as the analysis, the synthesis, the abstracting, the generalization, the comparison, the classification, having been the research abilities and the skills basis.

As it is generally known, the research abilities and the skills formation will have to be carried out, simultaneously, with the knowledge mastering and the linear learning. The things and the phenomena essence cognition is being carried out, by means of the mental work and the intellectual activity methods, which are underlay of the research abilities and the skills basis. And, that is why, they will have to be entered into the education content. But in the school practice, the mental work and the intellectual activity methods are not being acted, as the academic subjects special mastering and the academic disciplines special learning, their formation is being on, spontaneously, in the process of the separate academic subjects and the separate academic disciplines study. So, the actions by the pattern organization is being left widely – spread in the traditional primary education, that is not being promoted the independence development and the thinking activity, but, consequently, and the research abilities and the skills formation.

The psycho – educational works content analysis, having devoted to the pupils' thinking development theory and the practice, has been shown, that, on the one hand, the many researches results are already able to be served, as the basis for the following conditions development, having

provided the formation challenge successful solution at the pupils of the research abilities and the skills elements secondary educational school in the mathematics teaching process. On the other hand, the formation challenge at the pupils of the research abilities and the skills elements junior forms and the grades, at the mathematics lessons, is being left insufficiently completely solvable, as in the didactic, well as in the methodological schemes.

In our opinion, the researched challenge is being characterized by the following contradictions, which are emerged:

1) between the psychologists' researches results and the research abilities and the skills elements pupils' mastering and the linear learning real level;

2) between the requirements, having made for the mental and the intellectual activity methods formation, having made the research abilities and the skills basis, the psycho – educational sciences, the documents on the school, and the mathematics teaching methodology;

3) between the research abilities and the skills elements formation means, having suggested by the psychologists, the teachers at the junior schoolchildren and the thinking development means, having used by the junior forms and the grades teachers in their work.

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The work was submitted to the All-Russian scientific conference «The Science and Education Contemporary Challenges», (Moscow), 16–18 February, 2010. Came to the editorial office on 17.03.2010.