PEDAGOGICAL ASPECTS OF TEACHING PRIMARY SCHOOL STUDENTS TO WORK CREATIVELY IN MATHEMATICS LESSONS

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ANNOTATION
This article provides information on the actual importance of pedagogical aspects of teaching primary school students to creative work in mathematics lessons. Foreign experiments were studied and partial examples were given. In addition, the classification of the development of comprehensive scientific and methodological training of the teacher, full and effective use of the above mentioned opportunities of mathematical education, was cited.
KEYWORDS: *creativity, logic, ability, mathematical education, uniqueness, systematism, internationality, jealousy.*

DISCUSSION

According to the decree of the president of the Republic of Uzbekistan № PD-4708 of May 7, 2020 "On measures to improve the quality of education in the field of mathematics and develop scientific research", mathematics in our country is defined as one of the priority areas of science development in 2020, further improvement of the system of teaching mathematics at all stages.

It follows from the above mentioned issues that the ability to fully and effectively use the above mentioned opportunities of mathematical education is in many ways conducive to the comprehensive scientific and methodological preparation of the teacher, thorough knowledge of his science and curriculum, perfectly mastered the general and private methods of education without incessantly working on his own, creative approach to any educational human intelligence is characterized not only by the volume of acquired knowledge, but also by the ability to apply it in practical activities: application, comparison, classification and conclusion. The commonality of such skills is the formation of the "logical component" of the human mind, that is, its logical thinking ability.

The issue of the development of logical thinking in the process of teaching mathematics is covered in a number of works devoted to the formation of mathematical thinking of schoolchildren.

A.Y.Hinchin believes that the main educational issue of mathematical education is to educate students on the full justification. There can be no semi -proven and almost proven confirmations in mathematics, nor can there be any discussion about the correctness of the confirmation that the evidence is being proved, nor can there be any discussion about the correctness of the confirmation that the proof is being proved, nor can there be any justification at all [1].

A struggle for the excellence of proof of the truths a general principle laid down by A.Y.Hinchin as a basis for the education of correct (logical) thinking of students. In the process of intellektual development of students, this principle will have a number of specific different views, and the most basic of them are:

1) fight against illegal generalization. This means the habit of educating a careful habit to check the legality of any generalization, strictly keeping in mind that personal laws on the basis of personal observations and experiences (at least many) are not necessary for all circumstances;

2) fight against unreasonable similarities. Conclusions on the similarity serve as a normal and legal way of creating new laws, both in experimental science and in everyday life. The conclusion on analogy in mathematics can only serve as a substantive force, under certain conditions (in particular, in the establishment of isomorphism or gomorphism between comparable entities). In order to increase the culture of thinking of students in the teaching of mathematics, it is necessary to educate in them a critical attitude to the conclusions made on the analogy;

3) struggle for the completeness of dizyunksiya (dizyunksiya - division). Taking into account all possible types of the situation under

review, the desire for completeness of the design is not only a mathematical, but also a necessary sign of any correct thinking;

4) struggle for completeness and consistency of classification. The completeness of the classification demand is a requirement that it is necessary to list all types of concepts of some kind. The condition for the consistency of the classification is that it must be performed according to a single principle, a single sign. Thus, it becomes clear that the issue of the development of special abilities cannot be considered without paying attention to creativity. These are two sides of the process of forming the ability of a person to a particular type of activity.

One of the important conditions for the development of logical thinking of schoolchildren is the development of the culture of speech (oral and written) in the process of teaching mathematics. A.Y.Hinchin, B.V.Gnedenko, S.I.Shvarsbord emphasized this side of the task of developing logical thinking.In their works, they gave valuable general instructions on teaching schoolchildren a logical healthy mathematical language[3].

Methodological aspects of the task of logical thinking and tilni development in the teaching of mathematics by schoolchildren in a special study of J.Ikromov [4]. Based on the results of a theoretical analysis of the laws governing the development of logical thinking and language of schoolchildren in the teaching of mathematics, he developed a scientific and pedagogical principle of improving the school's mathematical terminology based on its quantitative and structural characteristics:

1. uniqueness: each concept must be defined by a single term;

2. one value: one term must correspond to one concept. The principles that arise from the qualitative characteristics of the school mathematical terminology include the following:

1) systematism: terms must reflect concepts in relation to other gender concepts;

2) clamp: the terms should be short and convenient to use;

3) internationality: like any science, mathematics is International; therefore, terms from the nationality of its terminology should be short and easy to use;

3. internationality: like any science, mathematics is International; therefore, its terminology should be understandable to everyone, regardless of nationality.

The book shows the principle of the same terms, taking into account the characteristics of the terms contained in these terms, how this principle can be implemented in connection with difficulties in translation into other languages, in particular Uzbek.

The author developed methodological methods for working with the main components of

the mathematical language: word, phrase, symbol, sentences, text. Among the proposed methods include the etymological analysis of the word - term, the analytical - synthetic method of studying complex terms. The use of audiovisual tools to acquaint students with historical - hereditary data in mathematics, to show the evolution of the definition of concepts in the historical development of mathematics, etc.

On the basis of developed methods of teaching mathematics, conceptual - terminological analysis of educational materials is proposed a variety of works aimed at the development of mathematical Thinking and the integration of the language of students. Reading these mathematical expressions; moving from oral writing to symbolic and vice versa performing issues; bringing counter examples; mathematical dictators; performing logical exercises; restoring missing words in sentences; playing with mathematical terms, performing issues of a logical-linguistic character; increased research load of issues; work on the definition of concepts; work with a textbook.

As the study of J.Ikramov showed, the idea of mathematical thinking and the development of the students language in unity and interdependence was very effective: theeksex approach to thinking and halex approach to the solution of teaching tasks allowed to reveal new laws in the development of the mathematical culture of students and accordingly, to develop effective methods of educating their logical thinking.

In the methodological work devoted to the development of logical thinking in the teaching of mathematics in schoolchildren, mainly private methodological aspects of the issue are considered. Based on the examples of the analysis of the most important and difficult topics of the program, which require subtle logical concepts and reasoning, methodological systems are created, aimed at determining the logical form of mathematical thinking, concrete methods are created that facilitate the acquisition of the necessary logical knowledge and skills to students.

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