ResearchBib IF-2023: 11.01, ISSN: 3030-3753, Valume 1 Issue 9/

# FORM, METHOD AND MEANS OF DEVELOPING MENTAL THINKING OF PRIMARY SCHOOL STUDENTS THROUGH CHESS

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### https://doi.org/10.5281/zenodo.14253831

**Abstract**. Education of a comprehensively mature personality is a complex and diverse process that depends on intellectual, emotional and volitional influences. There is no doubt that the practice of teaching chess requires a special set of rules as a guide for the teacher. The article discusses the forms, methods and means of developing students' mental thinking through the game of chess.

**Keywords:** chess, method, tool, principle, methodology, technical methods.

## ФОРМА, МЕТОД И СРЕДСТВА РАЗВИТИЯ УМСТВЕННОГО МЫШЛЕНИЯ МЛАДШИХ ШКОЛЬНИКОВ ПОСРЕДСТВОМ ШАХМАТ

Аннотация. Воспитание всесторонне зрелой личности — сложный и многообразный процесс, зависящий от интеллектуальных, эмоциональных и волевых влияний. Несомненно, что практика обучения шахматам требует особого свода правил в качестве руководства для учителя. В статье рассматриваются формы, методы и средства развития умственного мышления учащихся посредством игры в шахматы.

**Ключевые слова:** шахматы, метод, инструмент, принцип, методика, технические приемы.

The methodology of assessing the ability to learn chess based on psychological tests. The main content of the mental development of a school student is the formation of internal actions. But they do not appear by themselves, but appear as a result of the "inside" of external, practical actions. Have you ever watched how children play at the age of 5?

From this age, they can function without a partner, and sometimes even without visible actions from the outside. This transition of the "inner" game is an important stage in the child's mental development, which determines the emergence of the ability to mentally transform reality.

Chess is one of the tools to facilitate this transition. One of the methods is aimed at determining the ability to analyze.

The second - "drawing the wall" - is obtained from a set of neuropsychological examination methods and allows to identify deficiencies in the motor area, such as thinking inertia and difficulty switching activities.

ResearchBib IF-2023: 11.01, ISSN: 3030-3753, Valume 1 Issue 9/

The third method diagnoses the child's ability to act mentally. The fourth method ("emotional state of the person" - a modification of the Lusher - Dorofeeva color test) allows studying the psychophysiological state of the child, which determines the level of emotional mood and internal activity during the test. This block of methods makes it possible to determine the chess playing ability of elementary school students with a very high diagnosis. Children who show high results in this test are more ready to learn to play chess and maintain a stable interest for a long time, and this makes it possible to create very stable educational groups for children who do not know how to play chess.

The first method is aimed at determining the ability to analyze. It is based on the tasks of A. Z. Zak, a Russian psychologist, doctor of psychological sciences. Figure 2 shows three examples of tasks offered to the child. Job requirement. Circles are drawn in three squares. In two squares, they are located exactly the same, and in the remaining square, one circle is located differently from the other two. Find this box and put a check mark on it.

You will have the answer to your task. If you solved the problem with circles, then you should do the same with sticks and crosses.

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Analysis of the result. If all the tasks are solved correctly, this shows that the child is in accordance with the age standard of development. If one or two tasks are completed correctly, the child has attention problems. This is usually typical of children who are impressionable or very emotional. If our tested child did not perform any tasks, then it can be assumed that he has a low level of development of the ability to compare objects. In this case, chess lessons are recommended for the development of analytical skills, but under reduced load conditions.

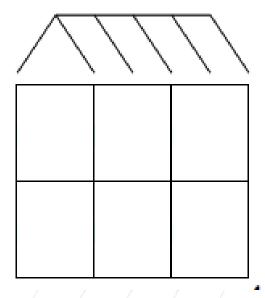
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The second technique "drawing the wall" is taken from the set of neuropsychological examination methods and allows to identify deficiencies of the motor area such as difficulties in switching from one program to another as stereotyped movements. Job requirement. You will see the beginning of the hidden wall ahead. Take a pencil and continue in the same way. At the same time, the pen cannot be pulled from the paper. Draw at the end of the sheet.



If the child continues to draw only one element, for example, angles, this shows inertia of thinking. If there are platforms between the elements, this indicates that the transition in the activity is difficult. Towards the end of the row, we see that the child's fatigue increases when the size of the elements increases. This may also be indicated by the reduction of wall pattern elements. Identified deficiencies have a negative effect on the effectiveness of mental activity in chess lessons and slow down the learning process. Overcoming these difficulties of the child should become a serious concern of the parents, because they cannot be overcome only by doing chess exercises.

The third method of determining the ability to learn chess was developed by T. A. Ogneva. It diagnoses the child's ability to act mentally and is called "architect and builders". A picture of a material house and a series of symbols (Fig. 4). House project.



Job requirement. The picture shows a house. Calculate how many floors it has.

ResearchBib IF-2023: 11.01, ISSN: 3030-3753, Valume 1 Issue 9/

That's right, 2 floors. Let's mark the number of floors in the house with the number 2 with a horizontal line: Now calculate how many entrances there are in this house.

You know, of course, the windows of the apartments with the same entrance are located on top of each other. That's right, this house has 3 entrances. Let's represent the total number of entrances in the house with a series of 3 with a dashed line:. These signs with numbers and dashes of floors and entrances are called the project of this house.

Complete the following task:

It is necessary to draw houses according to the given projects.

1 project -3 – and 2 |

2 projects -4 – and 3

Project 3 - 2 -and  $1 \mid$ 

Practice shows that children who have completed this task successfully master the game of chess. Even completing a task or two is a good predictor for learning chess.

If the child did not draw a task correctly, but only copied the sample, then this may indicate a reproductive style of activity (there is a tendency to repeat the actions of adults without independent analysis of the conditions of the proposed task).

If the child refuses to complete the task or replaces the task with an arbitrary drawing of parts of the house, we can predict a poor development of search activity. Such children can learn the rules of the game of chess, but at the same time they have a low learning ability. This is also reflected in not transferring the knowledge gained in chess lessons to your own game. The fourth method is called "Emotional position of the person". It is a modification of the Lusher-Dorofeyeva color test, which allows studying the child's psychophysiological condition.

The methodology determines the emotional state and level of internal activity during this test. To make it happen, each child should have three colored pencils: red, blue and green. The test material consists of two rows of three identical squares.

Tests that develop attention, concentration and shifting of attention. Tests aimed at the development of attention, concentration and focus are based on the following quality indicators:

- level of mastering analytical and synthetic operations, including generalization and abstraction;
- the level of flexibility of thinking and the ability to respond to changing conditions with the appropriate restructuring of mental operations;

ResearchBib IF-2023: 11.01, ISSN: 3030-3753, Valume 1 Issue 9/

- lack of close connection or sufficient connection between concrete or abstract components of mental activity.

Individual differences are also evident in mental operations such as analysis and synthesis. It is known that the understanding of the essence of the phenomenon or object under study occurs only when the processes of analysis and synthesis take place together.

The flexibility of thinking is determined by three main indicators:

- 1) approach the task as a problem; appropriate change of movement patterns;
- 2) ease of reconstruction of knowledge or skills and their systems in accordance with changed conditions;
  - 3) the ability or ease of transition from one mode of action to another.

These criteria, which are the basis of student differentiation, help to reveal the most important common feature of the student - learning ability - "learnability".

Analysis and interpretation of diagnostic results As mentioned, the comprehensive assessment of the ability to learn chess consists in determining the psychological, intellectual, creative, physical, spiritual and moral qualities of the student.

Below is a table showing the personality traits and diagnostic tools tested and the level of development.

Based on the recommended tools (tests, chess game, solving problems), numerical indicators are determined and entered into the table.

The ability to play chess largely depends on the individual characteristics of the player and includes mental processes such as memory, attention and thinking.

In order to fully evaluate the potential of elementary school students to learn chess, a comprehensive methodology is proposed, which includes the assessment of the ability to learn chess in 5 areas: psychological qualities, physical qualities, mental qualities, creative and spiritual and moral qualities.

This development provides a methodology for assessing the psychological, creative and intellectual qualities of the student. Evaluation is based on the use of test methods. The experience of using this complex of methods is not only to determine children's chess learning abilities, but also to identify some difficulties in children's development, with their subsequent correction, in a timely manner, greatly benefits the child's overall development.

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ResearchBib IF-2023: 11.01, ISSN: 3030-3753, Valume 1 Issue 9/

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