



## Section 2. Pedagogy

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### THE IMPORTANCE OF THE LATERAL METHOD IN THE DEVELOPMENT OF RESEARCH COMPETENCE OF HIGH SCHOOL STUDENTS

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#### Abstract

Research activities aimed at the effectiveness of intellectual development of the individual serve to increase the logical and creative abilities of students, free thinking, activity and independence, in a word, cognitive activity. Conducting small studies develops in children logical thinking, the ability to calmly solve incorrect situations in the process of searching for a reasonable answer, and the ability to treat a problem impartially. As a result, students develop the skills of attentiveness to the question, accuracy, objective assessment of events in difficult situations, and creativity. The article talks about the lateral method that develops students' learning activities and its specific aspects.

**Keywords:** *lateral thinking, "lateral thinking", "hat method", "substitution method", "random effect" and "creative pause", creative thinking, research competence*

#### Introduction

The features of the lateral thinking method develop the educational and cognitive activity of students. The introduction of this method is mainly associated with the name of the German teacher Edward de Bono. He founded the theory of lateral thinking. In the sources, the scientist's approach to educational tasks is explained mainly by the fact that it is based on the peculiarities of human thinking. Below are recommended ways to apply a number of E. Bono's methods aimed at deviating from the usual directions

of thinking. The method of lateral creative thinking proposed by the scientist is considered a creative approach to the educational process and serves to develop the thinking abilities of students. The English word "Lateral flow test" translated into Uzbek means "Lateral flow test". "Lateral thinking is deliberately different from "vertical" or logical thinking (the classic way of solving problems: solving a problem step by step based on available information) or "horizontal" thinking (having many ideas but not paying attention to their detailed implementation).

... the brain must learn more to be creative and find better solutions to known problems.

### Materials and Methods

The lateral method is an important complement to the expansion of vertical thinking, which gives priority to “out-of-the-box thinking,” “horizontal thinking,” changing perspective, and refining ideas. Synonyms for this concept include methods such as “Thinking outside the box,” “Hat Method,” “Substitution Method,” “Random Effect,” and “Creative Pause.” In this case, an illogical idea is put forward and students are asked to continue it. Characterized by the ability to come to intelligent decisions from seemingly illogical thoughts while moving from unusual thoughts to new ideas. Researcher Ergashev (2014), emphasizing an important aspect of E. Bono’s teaching, comments on it: if “provocative” ideas are allowed to be evaluated, then thinking immediately rejects them due to their inconsistency with the standards found in experiments. To develop creative thinking, it is necessary to evaluate such ideas, and not to determine how much they fit within the limits of personal experience; it is necessary to achieve a transition to the next new ideas that arise from these ideas.

Goals of the method: The didactic goal is mainly to develop the creative abilities of students through the study of problematic issues.

The methodological goal is to promote alternative, creative, unusual ideas from traditional ones in data processing. Analogues: methods “Brainstorming” and “Collection of ideas”.

The theory of movement by the lateral method is described as follows:

1) obtaining and synthesizing information is carried out by preferred/usual process methods;

2) creative thinking – deviation from preferred/usual ways of processing information and searching for non-standard solutions;

3) comparison of vertical and lateral thinking.

Methods of lateral thinking are necessary, first of all, to search for ideas and submit ideas for a new educational product. The “Hat” method is mainly used as a general condition in debate, while the “Random Effect” and “Exchange” methods are mainly effective

in the cases of “no ideas”, “deadlock situation” or “zero point situation” (Olimov M., 2013). There are certain conditions and stages of using the method, which have a number of features. For example, under the guidance of creative teams and trained moderators/negotiators, identifying problems or shortcomings, forming teams to organize exhibitions, as well as identifying suitable methods, collecting ideas, proposing solutions, processing ideas, selecting promising ideas, evaluating solution options, implementing a planned development process stages. Visual thinking, dividing a problem into small parts, recreating them into a single whole, establishing priority views and lines of thought, choosing different ways of looking at problems, finding another analogue of the situation, focusing on a lower side than the protruding aspects. ways of targeted application of the lateral method.

### Results and Discussions

The “idea search” method involves replacing a simple way of solving a problem with another. The content of the “Random Effect” technique, aimed at developing a number of creative thinking features in a child, includes the sequence of finding a word – a random concept that is completely unrelated to the task, the comparison of “word – task”, and the creation of connections between them. A “creative pause” is a short stop to create distance, that is, to look back.

The hat method is designed so that students wear hats of different colors, quickly switching between different ways of thinking. Tasks are assigned based on the content of each color: In particular: “White is neutral and objective. White hat is all about objective facts and figures.

Red represents anger, passion and emotion. Little Red Riding Hood makes an impression. Black – dark and denier. The black hat makes excuses for a flaw – why something doesn’t work. Yellow is a sunny and positive color. The yellow hat implies optimism and is associated with hope and positive thinking. Green is the color of growing grass. A green hat signifies creativity and new ideas. Blue – cold; moreover, it is the color of the sky above all else. The blue hat is responsible for organizing and controlling the thought process, as well as the use of the other hats.

In this case, a condition is established for the constant replacement of hats. For example, speaking about Miryokuba, the hero of Cholpon's novel "Night and Day," as a new psychological type in literature, it is appropriate to use the "Hats" method in the lesson, which allows you to learn more about his personality, experiences, and thoughts. This method allows for group work, where each "header" has its own color and a specific search function. Based on the above, it will be possible to divide the tasks as follows:

1. Group "White Hats": search for problems raised in the novel.
  2. To the "Little Red Riding Hoods" team: expressing your point of view on the actions of the hero: identifying the means of artistic expression in the work: responding to the image of the portrait, details and features of speech.
  3. To members of the "Black Hats" group: a critical analysis of the activities of Miriocube, contradictions in its actions.
  4. To Team Yellow Hats: In response to Miriocube's positive work.
  5. To the "Green Caps" group: offer the hero ways out of the situation.
  6. For the participants of the "Blue Hats": search for reasons and a way out of problematic situations in which the hero finds himself.
- It focuses on the following aspects: white hatters are asked questions about what information they have about the object being

studied (character, detail), what important information about it they need and how they can be found; Red Caps are asked to express their feelings and intuitive thoughts without any reason; Black hats are required to think critically, approach issues with caution, find flaws, avoid mistakes, adhere to pre-agreed conditions and not spoil the idea. Yellow hats will have the opportunity to achieve success based on the implementation of their plans; Greencaps, who are required to think creatively and search for new ideas, are asked questions about how to solve problems differently or redefine them; Blue hats, in turn, will be able to identify topics, objectively monitor and examine their thinking methods, provide guidance in the thinking process, and accelerate the activities of other hats.

### Conclusion

Such research activities, organized in literature lessons, can be combined with relatively new pedagogical ideas. The essence of it is to create a creative research project to analyze the work. The rule of thumb for creative exploration is homework. During exploration, students will be required to demonstrate associative understanding of the information they observed, saw, or read. In other words, the task is to create an essay that combines theoretical knowledge and color samples to work with learners in teams.

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