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New Trends Principles and Skills to Teach Students to Non-Standard Thinking in Pedagogical Institutes

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ABSTRACT: This article discusses the scientific basis of the peculiarities of creativity, which is a high level of ability to think non-standard, to develop students' worldview, to provide the right solutions in different situations.

KEYWORDS: non-standard thinking, creativity, creativity, mental ability, maladaptation, cognition, convergent, divergent, factors, components, levels and definitions.

Today, attention is paid to improving the content of the system of training in educational institutions of the country based on the prospects of social and economic development of the country, the needs of society, scientific and technical achievements. It was noted that the development of the potential and talent of non-standard thinking youth, the introduction of technologies based on innovative approaches to the content of modified education. The term creativity was first defined in 1922 by D. Simpson as a non-standard way of thinking. On the study of creativity in Russia A.M.Matyushkin, A.V.Petrovsky, M.G.Yaroshevsky, V.N. Scientists like Drujinin have been working. He pointed out that there are 3 theories in psychology that explain the relationship between intelligence and creativity.

Non-standard thinking is the ability of a person to create new ideas, to make unique, original decisions that go beyond the traditional scheme of thinking. Non-standard thinking is formed on the basis of intellectual abilities, which include the sensitivity of the individual, the strength and integrity of perception of the subject, extensive knowledge about it, flexibility and agility of thought (fast, diverse, specific), logical and literate reasoning, systematic action, synthesis analysis -synthesis, the ability to express creatively, generalize and summarize, to have their own opinion, to get the job done, diligence, the ability to communicate their knowledge to others, is a set of not only high creative development, but also an important factor in personal development collateral, communication with people, is a factor of success in daily activities.

Creativity is not about adapting a person to life, but about changing it. Activities aimed at developing creativity, that is, cognition, creative preparation of information materials, their socialization in different places, were important for learners, it was a necessary learning activity that meets their needs. Young people with formed intellectual and creative skills are characterized by a strong sense of cognition, creative activity, formed intellect, creative potential, aspiration to social-communicative activity, intellectual development, aspiration for improvement. They develop not only creative and intellectual, but also communicative skills such as communication, aspiration to social activities, interest in the media, national and world culture, sharing their knowledge.

In these abilities, emotional, intellectual, and volitional qualities such as foresight, planning, responsibility, perseverance, self-control, and control are activated. When the necessary conditions are met, it can be seen as "self-esteem, individuality and uniqueness". So, the composition of creativity, aesthetic taste, spiritual-moral worldview; the need for social activism; active participation in various events; there is a growing need for recognition and approval.

It is known that the main factor of creativity is the maladaptation of man, that is, the inability to adapt him to the environment and social environment. Some scholars have described a person's creative trait as isolation from the outside world and people. It is precisely the person who has a maladaptation to the real world, that is, who is unable to adapt, who seeks to create and innovate in order to overcome the loneliness within himself. A. Adler's description of human creativity as a means of filling the existing set of imperfections can also be recognized as a manifestation of the unusual form of creativity. Empirical research has shown that people with creative abilities face serious problems in the personal and emotional realms. Studies can show that the results achieved by these abilities in educational institutions are below their capabilities.

As one of the criteria of creativity is non-standardity, E.P. Torrance pointed out that unique and original answers do not always fit in essence. Often there is a situation of unjustified confusion of the content of concepts: creative ability is considered to be the same as non-standard, non-standard is interpreted as originality, and originality is interpreted as exactly the unique answers in the group of subjects. Non-standard is a broader concept than originality.

Intellectual tests require convergent thinking from the individual. Creative tests, on the other hand, require divergent thinking.

Sternberg and his colleagues were able to develop 5 components of creativity.

1. The multifaceted nature of knowledge in the individual. The knowledge gained was the basis for the abundance of ideas. The more worldly knowledge, the more divisions in the psyche. The more knowledge you have in solving problems in life, the easier it will be to solve it.

2. Imaginative thinking allows us to re-see things and events, recreate them and connect them. It is necessary to imagine the main element of the problem, master it and take it to a new level.

3. Risk - the search for new impressions. This can be seen in two senses, risk and persistence in overcoming the problem. Individuals with this trait tend to prefer to have a new experience rather than go back.

4. Intrinsic motivation creates in a person a sense of interest and satisfaction in solving a complex problem rather than a compulsion. The creative person does not think about the duration of the issue, its income and candidates. He focuses all his attention on the feeling of satisfaction and stimulus in solving the problem. (When Isaac Newton was asked, "How did you solve such a complex problem?", He replied, "I have been thinking about this problem day and night.")

5. The creative environment helps to support the creative ideas in the individual. A positive relationship with colleagues and their support will motivate the person to develop ideas. However, it should be noted that in some studies, the state of the negative impact of the social environment on the individual has also been observed. For example, when American students were asked to write an essay, they were warned in advance that their essays would be reviewed by their classmates. The other group was told to write only an essay. According to the results, the essays of the warned group are poorly written, in which case the negative impact of the social environment on creativity can be clearly seen.

When thinking about mental creativity, we mean the non-standardity of thinking, its independence and "creativity". The separation of creativity was driven by the information that there was no connection between traditional tests of the mind and the success of problem solving. This quality essentially depends on the ability to use the information given by the mind, the quick way to solve the set tasks, and in different ways.

There are many ways to solve any problem. When most people are faced with an issue, they focus on the ways in which the issue has been resolved before them, and choose the one that works best for them. Because our pedagogy has educated us in this way for many years. However, in addition to what has always been known so far, there are other ways to solve any problem. Only people who think unusually and find their way will find them. The new path you find in solving a problem may not be the most acceptable, but it will be valuable because it belongs only to you and is new.

While the newly found path leads to success in business with fewer competitors in this area, it is valued in science for serving to expand the boundaries of science that humanity has achieved. Finding new ways is done with one's ability to make assumptions. Einstein considered the ability to make assumptions to be the highest level of knowledge, believing that it was impossible to discover something without hypotheses.

So, what methods and tools should be used in our pedagogy today to teach young people to think non-standard? In this regard, we recommend the following:

1. The teacher should refrain from asking students to think the same way, encouraging them to think the same way;

2. give students the opportunity to think;

3. accepting different ideas and opinions, focusing on explaining the essence of the problem rather than memorizing and memorizing existing knowledge in the teaching process;

4. Definition of scientific terms and concepts, emphasis on understanding not only memorizing laws and rules, but also understanding their content and essence. In this case, the method of analysis (analysis) and synthesis (description) of a specific definition, rule and law is useful in explaining its essence to students (it is necessary to explain as an example a popular definition on the subject of mother tongue);



5. To create conditions for students to understand the events and the essence, cause and effect, to understand the interrelationships, relationships and balances within the science and interdisciplinary, to compare, compare and draw logical conclusions on each subject, if necessary;

6. Encourage students to look for new ways to get to the essence, explaining to students that it is natural for them to make mistakes and not to be afraid of them;

7. Convincing students not to laugh at new ideas;

8. the use of methods aimed at solving a problem in several ways rather than solving several problems in one way;

9. Encourage all forms of creative thinking in students;

10. Ensuring the active participation of students in the learning process;

11. To instill in each student a sense of confidence that they are capable of critical thinking, and so on.

In fact, each of these suggestions requires the teacher to research and carefully prepare for each lesson. I would therefore say that teachers should look at each lesson as a creative process and not be limited to using existing methods and tools in preparation for it, but should not be afraid to use any methods, tools and forms that help convey the topic to students. Therefore, it can be concluded that it is advisable to apply non-standard thinking to all types of activities in the classroom.

In conclusion, we can say that the role of both heredity and environment is important in the formation of mental abilities. In the early stages of human development, genetic factors appear to be more prevalent, but over the years, the environment has shown its influence, especially on the development of mental abilities. Its subsequent development or extinction will depend on the environment. There are sexual differences in mental ability, and it can be seen that women's memory is stronger than men's. In men, mathematical and spatial skills were found to be well developed.

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