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## **CREATIVE THINKING OF STUDENTS IN ADDITIONAL LESSONS IN TECHNICAL DISCIPLINES**

*Annotation: the authors of the article offer some pedagogical methods and techniques for the development of creative thinking among students, when conducting classroom classes in technical disciplines. The article discusses the*

*possibility of freedom to choose the way to solve any technical problem. It is concluded that it is necessary to use interactive teaching methods for the development of creative thinking among students of technical universities.*

**Keywords:** *thinking, creative thinking, fly-by-night method, brainstorming, case study, fishbone technique, consulting, work in syndicates.*

"The true goal of everyone,  
who aspires to be a teacher,  
should not be  
to express my own opinion,  
but to kindle the minds.

Frederick Robertson

All over the world, and in Uzbekistan, there is always a demand for non-standard specialists who have high intelligence and fundamental professional knowledge, and most importantly, creative critical thinking.

The ability of a person to analyze facts, to doubt the information received, to have an opinion is a skill [1], which a person acquires in the process of education and proper training. "Improving the quality of education is the only correct way for the development of New Uzbekistan" (President of the Republic of Uzbekistan Shavkat Mirziyoyev) [2] to join the ranks of competitive specialists.

At the moment, there is no consensus, no clear definition of critical thinking. Until recently, it was believed that the development of mental abilities occurs spontaneously, as a result of planned subject education, that it is enough to give information on subjects in accordance with the curriculum [3]. Today, there are many methods for developing both individual creative thinking and team creative thinking. Consider in this article some methods of working with students to develop creative thinking.

Each student is potentially capable of thinking creatively, but there are internal barriers to unleashing creative thinking. One of the main obstacles is the authority of the teacher, especially with many years of experience. Students usually completely trust the mentor, and it does not even occur to them to deviate from the lecturer's plan. Therefore, for conducting classroom activities, it is better for the teacher to choose a democratic style of communication with students, which will allow students to express their point of view.

The entire system of mass education is aimed at the average level of students [4], in contrast to this, for the development of creative thinking, the main thing is the individualization of the learning process. One-on-one student work stimulates and activates the learning process.

All types of pair work can be attributed to the individualization of the educational process: the leader - the follower, two equal partners and just sitting next to each other. The advantages of pair work are obvious - each mini-union works at its own pace and at its own level, creating its own unique duet. Pair work encourages learning as students enjoy interacting with each other. When working in pairs, as in any teamwork, the social skills of students are formed.

Not only work in pairs, but also any interactive teaching method stimulates the development of creative thinking, for example, brainstorming or the “fly-and-fro” method, fishbone or case studies, work in syndicates or consulting [5].

If a teacher prefers classical teaching methods, for example, in practical classes - this is problem solving, then in order to develop creativity among students, it is better for a teacher to forget about total control and create an atmosphere for creativity. Creativity takes time. If it is enough, then you can allow the respondent to go the wrong way in solving the problem, agreeing with everything that he does. As soon as the student himself reaches the obvious contradictions and realizes them, he can begin to suggest the right path [6].

Starting to prompt, the teacher should not reject everything at once. First, in any wrong decision, there are right fragments. They need to be identified first [7]. Secondly, it is necessary to sort out the controversial points, and only at the very end, the teacher points out the indisputable errors of the decision.

The positive reflection of the teacher, even on the wrong answers, inspires the student, and provides a fertile ground for disclosure [8]. If you immediately and directly point out a mistake to a student, this will cause resistance, as it can hurt a sense of self-worth, and will give the opposite result. According to psychologists, the fear of criticism is one of the main barriers to the development of creative thinking.

Do not exclude the option that the creative thinking of students is impossible because of the limited horizons. Such students can become very valuable, executive employees, with narrowly focused knowledge of their specialty.

The development of creative thinking, a single student, largely depends on the surrounding society. If the group has a high intellectual level, the group has a tradition of critical and analytical perception of information, then each individual student strives to keep up with the others, continuously improving himself.

Most often, there are groups in which there is potential for creativity, but there is no experience, strategy and methods. In this case, the main task of the teacher is to "ignite their minds"

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