



DEVELOPMENT OF CREATIVE THINKING IN THE PROCESS OF LEARNING IN HIGHER SCHOOL

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Received: October 11 th 2021	This article deals with the development of creativity among students of higher educational institutions of the Republic of Uzbekistan. Attention is focused on the need for an integrated approach to the development of creativity, including the use of new ways of organizing educational material in the educational process, the creation of an open educational space on the basis of an educational institution, and the formation of internal motivation for creativity. The author of the article identifies and reveals the technological aspects of the integrated development of creativity among students of a higher educational institution.
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The global step in the development of modern society, which occurred as a result of technological progress, poses new challenges for the education system in the formation of a competitive specialist in any industry. At the same time, the main task is to develop and organize non-standard approaches to solving problems and situations that arise in the process of professional life. At present, the task of developing the creative abilities of the bulk of students is a social order of society, which causes a shift in emphasis from the transfer of predominantly ready-made subject-disciplinary knowledge to students to the organization of their joint active cognitive activity in study and work. "We will educate young people as people who think independently and logically on the basis of modern knowledge and experience, national and universal values and possessing good qualities. Our great thinker and poet Mir Alisher Navoi once turned to young people and wrote: "If you want the sun, improve your profession" [1].

Based on the definitions of leading psychologists and educators in this field, we have highlighted our understanding of the term creative thinking. By creative thinking we mean the ability to think not in a formulaic way, without using banal ideas, while the thinking process should occur as a result of the emergence of an internal motive and have a personal interest in solving the problem that has arisen.

The formation of creative thinking is possible in the process of creative activity, that is, when cognitive interest is in demand and practical actions are carried out with the aim of realizing a personal need or

solving a professional problem that contains personal meaning.

Becoming students, former schoolchildren find themselves in a completely different world of requirements and organization of the educational process. During the first semester, most students successfully adapt to the new environment. It is important for teachers that students maintain a desire to develop creative thinking. To do this, in the learning process, you can use certain tools and technologies. Despite the fact that the main task of universities is the professional training of students, a creative component in this process is necessary. Such development makes it possible to achieve the following results: analytical skills are improved, logical processes are improved; a basis for finding new solutions to old problems is being created; the horizons are broadened; the risk of professional burnout is reduced due to the use of different approaches to solving the assigned tasks; a more comfortable environment is created in the learning process; the opportunity to meet the needs of different levels is provided; psychological tension is removed and the climate in the educational collective of students improves. For the application of creative thinking in the educational process, individual tasks, their blocks or small exercises in the course of regular classes can be assigned. What is creative thinking? It is no coincidence that the issues of improving creative thinking have arisen. After all, it is part of self-development and self-study. This assumes that it will require an activity to use it. An effective component allows you to use more memory and increase the degree of assimilation of educational material in the



learning process. The main features of creative thinking, the development of which is rarely carried out during the student years, are: orientation towards creating a new solution to a problem, a discovery or an idea; reliance on imaginative thinking; breadth and flexibility of thinking; vision of a different function of a familiar object or object; independent transfer of knowledge and skills to new soil; development and application of intuition; generalized and indirect reflection of reality; the ability to see alternatives [3]. Any other kind can become creative thinking: visual-effective; figurative; verbal-logical, etc. The product of the creative thought process can be both the new solution itself and the method of obtaining a previously known result. Creativity is inherent in any person from birth. But if you do not resort to it, then the development remains at a minimum level. The individual gets used to thinking in patterns, standards and is no longer able to stand out among other specialists. In order not to leave the previously mastered competencies in students, one should continue to stimulate this type of cognitive activity. Creative or creative thinking doesn't have to be taught. For many, this type of cognitive activity is naturally better developed. The main abilities that allow you to quickly apply a creative approach in educational and professional activities are: the ability to evaluate different ideas or tasks; high development of analytical skills; the ability to synthesize information; the ability to combine various functions, multitasking; quick capture of the essence of an idea, process, subject; originality in thinking; desire for independent discoveries. It is believed that the main contribution to the development of creativity in the activity of the individual is made by divergent thinking, which includes flexibility and fluency. The main technologies that are used in the process of teaching students, which can lead to the development of creative thinking, are: problem-search; research; group [5]. The teacher must, together with the students, create conditions that would stimulate the development of this type of thinking in students. Lectures or seminars aimed at the development of such mental activity are most often problematic in nature. The teacher's task is to build the educational process and set the task in such a way that students have a desire to independently find a solution to the problem or get to the bottom of the problem. This process is often accompanied by an adrenaline rush, because motivation has a bright emotional color and partly sports interest. The main forms of work used in this regard: problem lecture; lecture-discussion; provocative lecture; business games; solution of cases;

defense of reports, abstracts or presentation of one's own research, etc. Knowledge of methods for the development of creative thinking can diversify the educational process of students. Especially when doing independent assignments or the practical part. The groups of methods can be distinguished as follows: task or structural-logical, which imply a forward movement when mastering the material. At first, easier tasks are offered for students, and then difficult ones. The transition to practice is possible only after mastering the theory. Trainings allow to work out algorithms for different types of professional activities so that students have an idea of how they will perform similar actions in real life; gaming. In an accessible form, it is proposed to solve certain problems, which ensures the development of a whole range of competencies. These methods include business games and professional fights, as well as themed brain-rings and other activities. Scientists have proven that the improvement of this type of mental activity is in direct proportion to the level of speech development. Therefore, the teacher should give students the opportunity to communicate and express themselves in the learning process. To prevent the student audience from "sitting out" behind someone's back, you can give assignments that involve self-preparation before the start of classes. The method of empathy, related to the game, is very popular in the development of technical, legal, economic, political disciplines. He assumes that the individual must identify himself with a well-known person or character, and on his behalf, come up with a solution to the problem [4].

What prevents the development of creative thinking in the student environment? The reluctance of one or another side of the educational process to apply appropriate technologies is the main problem on the way to the development of creativity. In addition, students may have difficulties in this direction if: only ready-made templates and algorithms are offered; new, albeit erroneous, ideas are criticized; conditions are created when a feeling of fear of failure develops; in the learning process, alternative points of view on the problem are not presented and are prohibited; lack of interest in knowing more than the teacher gives in lectures; typical tasks for independent work or its complete absence; lack of retrospective in the creation of scientific knowledge, as well as the prospects for the movement of theory; insufficient amount of information on the issue under study, lack of experience, since there may not be data that would allow the formation of new hypotheses and ideas; uninteresting attitude to work on the part of the teacher; the student's conviction that



he will not be engaged in a profession, and he only needs a diploma. Attention! The teacher should not give the opportunity to criticize the ideas expressed by the student. He must create conditions so that students themselves come to the incorrectness of the proposal. Many students are convinced that in their professional activities, the inclination to be creative will remain unclaimed. Therefore, the main task of the teacher in the learning process is to show how important it is to be able to form new knowledge, where it can be useful in practice. It is not necessary to conduct serious debates to activate the creativity of the student audience. You can limit yourself to periodically interspersed small exercises into educational activities: five plus five. The essence of the exercise is that for any professional concept, the student must name any 5 appropriate epithets (adjectives), and then 5 that do not combine in any way. For example, a scalpel. Appropriate: sharp, dull, medical, metallic, cold. Out of place: seductive, melting, upright, frenzied, quartz clips. Within three minutes, you are invited to come up with possible options for using a paper clip. In the range of 10 to 20, normal people come up with. Over 20 are creative individuals. It is possible to complicate the task if the functions are to be related to the profession; 54 crosses. A short game exercise assumes that a matrix of 54 crosses is created (6 horizontally and 9 columns vertically). It is proposed to finish these crosses. Pictures should not be repeated. You can invite listeners to play in an hour of silence outside of the learning process. This option assumes that in the process of communicating with other people for any questions they can only answer "yes" or "no" [2]. This is great for training different kinds of thinking at the same time.

For the improvement of creative thinking to be at the level of the individual, it is necessary to load the student more with individual tasks. It is important not to provoke rejection of tasks, that is, not to use them often. The teacher must also take care of the diversity of the process of independent creative learning. The goals of organizing independent work in such a process: systematization of knowledge; consolidation of the material, mastering professional competencies; the formation of creative initiative, organization; creating a basis for research work, which is important for the development of postgraduate or graduate studies in faculties; motivation for professional development. Students will be interested in performing tasks during training if, in addition to studying theoretical material, they require: the use of personal experience; observing yourself or others; organizing and conducting tests,

experiments; stimulation of responsibility for the result; emotional involvement. Grading for independent work is not the only desired result for all creative people. In order to achieve success in teaching creative thinking to the student audience, the teacher himself must train these skills [6].

Having conducted a survey among teachers, in order to identify the activities of students, as a result of which the manifestation of creative thinking occurs, and analysis of students' responses to the question of which educational activity will most require an independent non-standard solution, we revealed that this is a research activity or an activity containing research forms. Thus, the best tool for the formation of creative thinking in students is research activity. Research activities are activities aimed at solving creative and research problems that need to be solved in one or more research operations.

When carrying out research activities aimed at the formation of creative thinking, the teacher is the organizer of thought activity. This means that the teacher in the process of research activities must create situations and conditions for the activation and demand for creative thinking among students. Let's highlight some of the requirements for the organization of such research activities:

1. It is necessary that in the process of activity the student consciously make efforts to put forward new and original ideas.
2. If a student is mistaken at the first attempt, then it is necessary to reasonably analyze his erroneous opinion and offer to consider other options or try new ways of research.
3. It is necessary to create conditions for discussion, to remind of the motto "in a dispute, the truth is born."
4. Remind you of a critical approach to evaluating your ideas and an objective approach to evaluating ideas belonging to a specialist in this field of research.
5. It is necessary to create conditions for practical verification of the assumptions and actions to solve the proposed problem.
6. If in the process of activity the student gets an unplanned result, then it is necessary to draw his attention to the search for an explanation or error that could occur as a result of the activity or in the process of making an assumption.
7. It is necessary to focus the student's attention on the correspondence of the obtained and expected research results.



REFERENCES:

1. Message from President Shavkat Mirziyoyev to the Supreme Parliament and the people of Uzbekistan from 30. 12.2020
2. Altshuller GS Theory of inventive problem solving - 88 (reference) / G. S. Altshuller [Electronic resource] Access mode: http://books.rusf.ru/unzip/add-on/xussr_av/altovg28.htm
3. Brushlinsky, A.V. Subject: thinking, learning, imagination / A.V. Brushlinsky. - M., 2003.
4. Mushroom OO, Rib IV, Mokretsova I.S. Formation of creative thinking among students in the process of research activities // Successes of modern natural science. - 2012. - No. 5. - S. 98-99;
1. URL: <http://natural-sciences.ru/ru/article/view?id=30149> (date accessed: 17.12.
5. Meerovich M.I. The technology of creative thinking: practical guidelines / M.I. Meerovich, L.I. Shragin. - Minsk: Harvest, 2003 .-- S. 15-19.
6. Ivanova, I.P. Development of students' creative thinking in the context of problem-activity learning / I.P. Ivanova. - Stavropol, 2002.