

ORGANIZING THE PEDAGOGICAL PROCESS FOR THE FORMATION OF CREATIVE AND CRITICAL THINKING SKILLS IN STUDENTS MECHANISMS

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Abstract

In this article, the conditions and features of organizing the pedagogical process that trains students to think creatively, didactic situations related to the formation of creative thinking skills in students, their unique aspects, the sources of the formation of creative thinking skills, the role of educational content in the formation of creative thinking skills in students, the nature of tasks, creative aspects of thinking related to mental processes, and specific directions are discussed in detail. The views of educators and psychologists in this direction are described. This article can be widely used by the scientific and pedagogical communities, science teachers, doctoral students, and basic doctoral students.

Keywords: Creative thinking, reflection, sources of creative thinking, educational content, pedagogical situations, cognitive abilities, cognitive perception, creativity, assessment, self-development, pedagogical support, students, parents, and teachers.

Introduction

The sources of pedagogy, psychology, and sociology discuss the philosophical, psychological, and pedagogical foundations of intuitive imagination and creativity. In order to organize a pedagogical process based on creativity, it is necessary to study the social, physical, and historical roots of the problem.

Creativity is a phenomenon directly related to students' feelings, experiences, and inner world. And in the experiences of students, their personal qualities are embodied. This, in turn, ensures that students express themselves as subjects of the creative process. A person with creative skills tends to perform many types of

creative activities. Students' creativity tendencies can be determined using the methods of activity available to them. D. Murodova, B. G. Ananev, A. G. Kovalev, V. A. Krutetsky, A. N. Leontev, and G. Yusupova have shown in their studies that creative thinking skills have their own didactic description. The well-known expert B.G. Ananev showed four levels of creativity in his research. In turn, S.L. Rubinstein also did extensive research on creativity.

Students with creative thinking skills tend to express their potential. As a result, they try to create their own creative results. It is of special pedagogical importance to convey to the minds of students that the results of the creative activities of students in educational institutions should be productive and serve for the development of the individual and society. The things created as a result of students' creative activities create a basis for their development. Students who have creative thinking skills tend to develop themselves emotionally, spiritually, morally, intellectually, and physically, and seek this purpose.

The main goal of organizing a developmental educational process is to realize students' creativity and rapidly form their creative thinking skills. Creative thinking skills develop as a result of students' pursuit of independent learning. As a result, their talents and creative abilities begin to show. The development of students' creative thinking skills has been the subject of many studies.

The development of students' creative thinking skills within the active approach is one of the most promising areas of pedagogy. As a result of creative thinking, students perform a series of creative actions. As a result of creative thinking, students' mental states also change qualitatively. In particular, students' motives, feelings, experiences, and creative character. As a result, they perform creative activities.

As a result of creative thinking, students gain experience in creative activities. Assessment of students' creative thinking skills is also one of the problems waiting to be solved. They strive to create new things as a result of creative thinking. As a result of creative processes, students are able to develop intellectually. This issue has attracted the attention of researchers for many years.

For example, V.P. Zinchenko's views on the mechanisms of perceptual activity, V.V. Davydov's method of consistent learning of knowledge, A.N. Leontev and O.K. Tikhomirov's theory of harmonizing the educational process, Ya. A. Ponomarev's conceptual views on movement methods, A.A. Leontev's methods of expressing

thought through speech, A.M. Matyushkin's didactic approaches to knowledge motives, and M.I. Makhmudov's unique aspects of creative nature can be examples of this.

It can be seen that the development of creative skills in students requires effective use of creative technologies in the educational process. The student's creative thinking skills are the result of productive educational activities and serve to further their comprehensive development. Students' thinking skills allow them to complete educational tasks using heuristic methods. In the Mazur process, students should work on educational materials and educational tasks of a developmental nature in order to demonstrate their creative thinking skills.

S. L. Rubinstein first addressed the issue of expanding the possibilities of creative activity of students. S. L. Rubinstein and his followers tried to research the level of creativity of a person. S. L. Rubinstein and his followers evaluated creativity as the main form of human activity. Because creativity is directly related to humanity and serves the interests of the individual and society.

According to D.V. Reut, a person who has the ability to think creatively develops the experience of creative activity. In addition, creative thinking is the main source of initiative in students.

The student's creative thinking skills encourage him to creatively cooperate with others and develop himself regularly. In most cases, students try to independently organize the process of self-development and freely choose the methods of activities carried out in it. Such independence creates motivations for deeper mastery of creative methods in students.

Students with creative thinking skills organize their activities independently. They are not limited by the results they have achieved; they strive to increase their achievements. The fact that students have the ability to think creatively is also shown through their attitude toward the learning process and their performance of educational tasks.

Students' creative thinking skills are first manifested in their inquisitiveness. In this process, it is important that students are given creative tasks and that they strive to find new information in order to complete these tasks. As a result of the development of creative thinking skills, negative behavior in students is eliminated. They contain experiences of positive behavior, material existence, and a positive

attitude towards people around them. As a result, they begin to perform productive activities of a creative nature.

Creative thinking skills are effectively combined with students' motivations for creative activity. A bright manifestation of creativity is expressed in the imagination and fantasies of students. Pupils' thoughts and imaginations are creative. Students with creativity are distinguished by their imagination, imagination, brilliance, vitality, originality, unexpectedness, richness of fantasy and imagery. The thinking of students with creativity is of particular importance due to its speed, flexibility, and uniqueness.

Creative thinking skills ensure the regular enrichment of human thinking. Heuristic tasks that encourage students to think creatively have a unique didactic nature. They are:

1. Tasks aimed at studying, analyzing, and reacting to the characteristics of a specific event. In this case, students' creative thinking skills help in the formation of independent research motives.
2. Students with creative thinking skills express their experiences and feelings through creative activities. In this process, their creative activities, feelings, and upbeat moods are evident.

While Eastern thinkers created a unique school for the development of students' creative thinking skills in the 9th–15th centuries, by the second half of the 20th century, research devoted to the development of students' creative skills was carried out in developed Western countries. In this direction, Gilford, Taylor, and Mednik carried out preliminary research. The following approaches to the formation of students' creative thinking skills have been specially recognized:

1. Creativity that develops students' levels of creative thinking. This means enriching students' creative information and social experience with new information and activities.

2. Innovative creativity that serves to develop students' creative thinking skills. In this case, as a result of the formation of students' creative thinking skills, mastered creativity activities appear as mechanisms for evaluating the creative character of methods.

3. Creativity of an aesthetic nature, which serves to form students' creative thinking skills. In this process, effective use of educational tasks with artistic and aesthetic content is envisaged, which help to form the qualities of creativity in students.

4. Creativity of a dynamic nature, which is the basis for the formation of creative thinking skills in students. In this process, favorable pedagogical conditions are created for the regular development of students' creativity, and effective didactic tools are used.

5. Creativity of a problematic nature in expanding the opportunities to develop students' creative. Thinking skills with the help of a number of problem assignments and didactic situations, students' creative skills and methods of creative activity are systematically formed.

6. Creativity improving selected objects as a result of developing creative thinking skills. In this process, students try to create something better and more perfect than the existing object. In this process, the teacher organizes pedagogical situations that are convenient for creativity, gives instructions on how to improve existing objects, and shows students how to approach them creatively.

Differentiating the unique aspects of creative skills in students offers special pedagogical opportunities. In order to form students' creative thinking skills, teachers and students should carry out creative actions in cooperation. Creative thinking means new, original thinking. Creative thinking also means changing and developing the lives of society in a creative way.

Specialists who have carried out research in the field of the formation of creative skills in students approach this goal-oriented pedagogical process as a unique phenomenon. When forming students' creative skills, it is necessary to pay attention to the following:

- a) Taking into account the specific aspects of the didactic process aimed at forming creative thinking skills;
- b) Evaluating the results of creative activity;

- c) to understand the characteristics of a student with creative thinking skills;
g) such as creating a favorable pedagogical environment for the formation of creative thinking skills in students.

All of them are important for the formation of creative skills in students. Therefore, it is required to implement them step by step. We reflect on their unique didactic potential below.

The following has been defined about creativity:

1. Taking into account the specific aspects of the didactic process aimed at the formation of creative thinking skills. It is important to achieve success in this direction. In this process, didactic goals, tasks, actions, and methodical support for the process are carried out, which serve to expand the possibilities of students' creative ways of thinking to react to the surrounding events. As a result of these didactic actions, the social experience of students is enriched, and the activity of creative thinking increases. In this process, students are able to consciously exercise their creative thinking skills.

2. Evaluation of the results of creative activity As a result of creative thinking, students perform creative activities of a creative nature. As a result of this activity, a creative product is created. It is important for teachers to appropriately evaluate the results of each student's creative activity in order to encourage and support their creative activities in the future. As a result of such support, the mental capabilities of students expand, independent performance of creative methods, initiative, and creativity skills improve.

3. Understanding the characteristics of a student with creative thinking skills. Students with creative thinking skills have a number of unique qualities, and in specially organized pedagogical processes, teachers should improve these qualities in students, work on raising them to a new level, determine the level of these qualities using diagnostic methods, and give specific recommendations on filling gaps.

4. Creating a favorable pedagogical environment for the formation of creative thinking skills in students. This process is extremely responsible for the teacher and requires the creation of didactic conditions, the use of convenient tools, and the

formation of creative situations that serve to ensure the independent creative activity of students. Students' creations, which are the product of creative thinking, come in many forms. For example, pictures, illustrations, models of various items, projects, examples of artistic creations, poems, stories, etc.

As a result of creative thinking, unusual creations are created. Teachers should support the creativity of students and properly evaluate the examples of creativity created by them. In addition, it is important to be able to motivate students in time to effectively develop their creativity. The teacher, first of all, is required to ensure that pedagogical processes aimed at forming students' creative thinking skills are processes that support their developing independence. Experts have emphasized that creative processes have the character of independence.

P.L. Meituv and V.I. Butorin put forward two different approaches aimed at developing students' creative skills: a) the thinking process formed by students during a certain period of time; b) the criteria used to evaluate the thinking process, problem situations, and creative activity results arising in connection with social relations between people. Creative thinking skills arise in connection with the daily, educational, and social activities of the student.

According to F. Barron, the basis of creative thinking is various imaginary symbols. This is the main measure of creative thinking and serves to evaluate it as an internal process. As a result of creative thinking, various models and symbols are created. Students with creative thinking skills have a broad outlook and a rich imagination. Students' creative thinking skills are demonstrated through their modeling activities. The relationship between the components of the model is learned by students through reflection. Because,

1. Creative thinking skills serve to accelerate analytical activities.
2. Goal-oriented actions are also important components of creative thinking.
3. One of the important elements of creative thinking is the transfer of acquired knowledge from one state to another, that is, the implementation of knowledge transformation.

In the process of creative thinking, a product of creative activity is created. Because creativity is an internal, mental ability of the student, which ensures the realization of creative learning activities, Certain things that are considered creative phenomena for others are not considered creative phenomena for a student with creative thinking skills. Creative thinking does not exist only in examples of



creativity. The criteria for determining the manifestation of creative thinking skills can also attract the attention of teachers. Non-standard thinking is also a product of creativity in students. Non-standard answers given by students to specific questions are of particular importance as they encourage people to think. The student's creative ability is the basis for his ability to make non-standard decisions in certain situations. There is a correlation between non-standardity and naturalness. Non-standard situations and non-standard responses are broad phenomena, and non-standard responses include responses that are considered natural and especially novel. The student's creativity, first of all, expands his thinking capabilities.

The student's creative thinking process is wide-ranging; it includes a sensitive approach to problems, the desire to independently search for and learn the knowledge necessary to justify a certain phenomenon, the nature of the relationship between different concepts and information, the determination of causal links between them, setting specific problems, finding an independent solution to them, carrying out purposeful actions, putting forward hypotheses, checking evidence, and having a clear idea about the variability of evidence. There are specific pedagogical directions and laws for describing creativity in students. It should be emphasized that creativity is a unique opportunity and a natural human need. It develops with the help of certain pedagogical conditions. Creative thinking skills help students manifest their creativity and expand their creative processes. Everything that is a product of creative activity is analyzed and evaluated based on creative thinking. A creative thinker will have the ability to understand reality, see its specific aspects, make a proper assessment, see the mistakes made in time, and take corrective action.

Creativity is the most convenient measure of thinking. Encouraging students to think creatively through poetry and music, the organization of exhibitions, artistic evenings, and reading events. The results achieved as a result of such activities develop students' creative thinking as well as their ability to perform creative activities. Accordingly, it is of particular importance to distinguish between the types of productive activity and methods of activity that arise as a result of creative thinking. Students use the method of comparing events and objects in the process of creative thinking. With the help of comparison operations, interrelationships are established between thought processes. Including, turning the thoughts and new ideas into skills and competences with the help of activity methods, the mutual

integration of creative activity methods, and ensuring the connection between creative thinking and activity methods.

Specialists approached the problem of forming students' creative thinking skills from different points of view. Our thinker ancestors Abu Raikhan Beruni, Abu Ali ibn Sina, Farabi, Alisher Navai, and Muhammad Zahiriddin Babur approached the development of creativity skills in a person in a unique way. In order to develop creative, independent, and logical thinking in students in schools and madrasas, they paid special attention to the use of debate, discussion, analysis, and reading as heuristic teaching methods as well as their acquisition of creative methods. As a result, the number of creative people in Central Asia expanded, and literature, art, and painting developed. Eternal monuments have been created. In particular, due to the creative environment in the Timurid palace, most of the princes were engaged in poetry, music, and the visual arts, sought to master the secrets of science and enlightenment, and carried out extensive research.

Creative thinking has the character of individuality. Because each person has his own point of view and opinion, The cultural, educational, and creative environment in the educational institution, as well as the educational materials of artistic and aesthetic content that are presented to students in a systematic way, serve as the main source of creative thinking to form the motives of creativity in students. Students with creative thinking differ from other students in their behavior and activities. Students' ability to think creatively is determined by their psychological identity. For students with creative thinking skills, self-development, striving for regular education, artistic perception of events, independent thinking, awareness of active beauty, the ability to show their inner potential, and the basis for showing their creative potential are among the characteristics. Self-awareness is characteristic of students with creative thinking skills, which ensures that they have a positive view of the world around them.

The didactic materials provided for the formation of students' thinking skills should mutually enrich each other in terms of content. Only then is it possible to ensure logical consistency in the creative thinking process of students. In order to develop creative skills in students, it is first necessary to influence their intellectual spheres.

a) to create conditions for students to regularly perform generalization operations, to perform the necessary actions for students to cognitively perceive problems;

b) to expand students' opportunities for reflexive activity, to encourage them to put forward new hypotheses;

c) to create favorable conditions for students to master the methods of creative activity, to understand the essence of the hypotheses they put forward and explain it.

Students are able to demonstrate critical thinking and intellectual activity as a result of reflection. As a result of generalization, students are able to propose new hypotheses. The results of such activities serve to accurately assess the students' creative thinking capabilities. As a result of the systematic development of students' creative thinking skills, mutual information exchange, discussion, active participation in didactic games, construction, design, conducting small research, and modeling activities among them will develop rapidly. Students are required to acquire the necessary knowledge, information, concepts, and methods of activity that are the basis for creative thinking. Students' creative thinking skills have their own individual style. In order to effectively develop creative thinking skills in students, their motivational inclinations toward creativity are important. The student learns the motives of creative activity within the framework of his interests. Teachers and parents are required to support creativity in students and create favorable conditions for its manifestation. In order to effectively develop creative thinking skills in students, it is necessary to form the necessary knowledge, skills, and vocabulary. Students' creative abilities and creative thinking skills will be revealed only when they are supported in time.

The manifestation of creativity is directly related to the mental state and experiences of students. It is important to enrich and regulate students' worldviews and experiences in order to develop their creative thinking skills. Worldview is the basis for the expansion of imagination in students.

Students' creative thinking skills embody the following elements characteristic of their worldview:

- 1) to be able to protect one's creative thoughts;
 - 2) such as distinguishing aspects that are characteristic of one's worldview.
- Pupils' aspirations for creative thinking arise in connection with their motives. Students' levels of creative thinking are reflected in their behavior. As a result, students understand the essence of creative action.

Students' acquisition of creative thinking motives expands their possibilities for cognitive acceptance of educational materials. As a result of their cognitive acceptance of educational materials, pupils develop creative thinking tendencies. These tendencies serve to form the following:

- 1) the desire to learn about events, the presence of interest in acquiring creative thinking skills, showing creative activity, increasing the need to acquire knowledge, mastering new ways of creative thinking, showing intellectual activity, carefully approaching processes, asking specific questions, and looking for answers to them;
- 2) to feel a sense of satisfaction from the new things created by the ideas put forward by him;
- 3) appropriate assessment of the results of one's creative activity, recognition of the achievements of teammates, etc.

The main tool that motivates students to think creatively is the educational content. Educational content plays an important role in the formation of creative thinking in students. Intellectual abilities of students play an important role in the cognitive mastery of educational content. It embodies creative and heuristic thinking skills. It embodies the intellectual abilities of students in its composition:

- 1) comparison and analysis of events and objects;
- 2) dividing various objects into components;
- 3) distinguishing the main objects from the secondary ones;
- 4) describing events and mental processes and expressing one's thoughts in a logical sequence;
- 5) an objective assessment of events, comparing them with each other and describing their different and unique aspects;
- 6) such as explaining, clearly stating, distinguishing the main points, and justifying one's opinions.

The creative, heuristic, and thinking abilities of students can include the following:

- 1) the emergence of concrete thoughts of a creative nature;
 - 2) to have imagination;
 - 3) to be able to perceive the interconnection between parts of creative tasks;
 - 4) implementation of knowledge transformation in the process of creative thinking and the ability to make correct decisions in non-standard situations.
- Students will be able to express their views clearly as a result of creative thinking. Students' creative thinking activities are shown in a way that is combined with their

reflexive skills. Reflective activity encourages students to search and think creatively.

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