

THE PEDAGOGICAL AND PSYCHOLOGICAL IMPORTANCE OF DEVELOPING STUDENTS' CREATIVE COMPETENCE

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Abstract:

This article highlights the pedagogical and psychological significance of the formation of students' ability to think creatively. At the same time, the pedagogical aspects of the development of students' creative competence are: the purpose of learning, the content of learning, teaching methods, the educational environment, the role of the teacher, the psychological aspects of the development of students' creative competence: motivation, cognitive processes, personality traits, socio-psychological factors, the pedagogical aspect of students' creative competence, the development of creative competence in the personal and pedagogical aspect: directed education, problem-based learning approach, interactive and collaborative learning, interdisciplinary integration, The psychological aspect of students' creative competence, motivation and creative freedom, the development of divergent and convergent thinking, emotional intelligence and creativity, and the pedagogical and psychological significance of developing students' creative competence are explained.

Keywords: Creative thinking, diagnostics, modernization, optimization, divergent thinking, interactive and project approach, integration, cognitive competence.

Introduction

The development of students' creative competence is one of the most important tasks of modern education. This process is carried out in the interaction of pedagogical and psychological factors. This article examines the pedagogical and psychological significance of developing students' creative competence.

The methodical part. Pedagogical aspects of developing students' creative competence:

1. The purpose of education:

To develop students' creative thinking skills, generate new ideas, and solve problems.

Teach students to think independently, express their thoughts freely, and analyze critically.

Involving students in creative activities, revealing their creative potential.

To foster such personal qualities as self-confidence, initiative, and responsibility in pupils [1].

2. Content of training:

Inclusion of topics, assignments, projects, case studies aimed at developing creativity within academic disciplines.

To introduce students to different ideas, points of view, and views.

Providing students with the opportunity to choose creative activities appropriate to their interests and capabilities (art, music, literature, technology, science, etc.).

To introduce students to innovative technologies and teach them how to use them for creative purposes [1-2].

3. Teaching methods:

Using interactive teaching methods (problem-based learning, projects, case studies, brainstorming, synesthetic storming, TRIZ, etc.).

Creating situations that encourage students to think independently, create new ideas, and solve problems.

Encourage students not to be afraid to make mistakes, experiment and implement their ideas.

Giving students the opportunity to evaluate their work and express their opinions.

The use of methods such as group work, collaboration, discussion, debate [3].

4. Educational environment:

Creating an environment in an educational institution that stimulates creativity, allowing students to think freely, experiment, and generate new ideas.

Creating the necessary conditions for involving students in creative activities (creative laboratories, workshops, clubs, clubs, etc.).

Organization of exhibitions, contests, and festivals to showcase students' creative work.

Creating an atmosphere of mutual respect, trust, and cooperation between teachers and students [4].

5. The role of the teacher:

The teacher should know and be able to effectively use methods and techniques aimed at developing students' creative thinking.

The teacher should help students choose the types of creative activities appropriate to their interests and capabilities.

The teacher should encourage students to think creatively, generate new ideas, and solve problems.

The teacher should help students not to be afraid to make mistakes in their work, experiment and implement their ideas.

The teacher should give students the opportunity to evaluate their work and express their opinions [4].

Psychological aspects of the development of students' creative competence:

1. Motivation:

To foster students' interest in creative activities.

Encourage students to succeed.

To help students feel satisfied with their creative work.

Teach students to be prepared for critical thinking [5].

2. Cognitive processes:

Develop students' cognitive processes such as attention, memory, thinking, imagination, intuition.

Teach students to collect, analyze, synthesize a variety of information and use it for creative purposes.

Teaching students how to manage their own cognitive processes (metacognitive skills) [5].

3. Personality traits:

To foster students' personal qualities such as independence, initiative, responsibility, self-confidence, perseverance, patience.

To teach students to be stress-resistant, to react correctly to failures.

Teach students to collaborate with others, defend their opinions, and respect the opinions of others.

4. Socio-psychological factors:

Creating a positive psychological climate in the group.

Teach students to provide mutual assistance, cooperate, and support each other.

Involving students in the free expression of their opinions, participation in discussions, and decision-making.

The development of creative competence is the process of forming students' skills in non-standard problem solving, innovation and independent thinking, which depends on pedagogical and psychological factors [6].

1. The pedagogical aspect of students' creative competence:

The development of creative competence in pedagogical terms is based on the following principles:

a) personality-oriented education:

Consideration of the individual characteristics of each student.

Stimulating the interests and creative abilities of students.

b) a problem-based approach to learning:

Give students assignments aimed at solving problems that do not have a clear solution.

"Why?", "How?", "If...?" teach a lesson based on questions such as."

c) interactive and collaborative learning:

Develop creative thinking through a collective project and group discussions.

Using the methods of "brainstorming" (storm of thoughts), "debate", "case study" [7].

d) interdisciplinary integration:

Interconnected learning in mathematics, art, technology and natural sciences (STEM approach).

For example, to show the relationship between mathematics and music, or biology and design.

2. The psychological aspect of students' creative competence:

Psychological factors play an important role in the formation of creative thinking:

a) motivation and creative freedom:

Creating a favorable environment for the reader to freely express their ideas.

Don't be afraid of mistakes and encourage innovation.

b) the development of divergent and convergent thinking:

Divergent thinking is the search for multiple solutions to a single problem.

Convergent thinking is the application of existing knowledge to new situations [8].

For example, give exercises such as "Find 5 different solutions to a problem" or "find the most effective method for one solution."

c) reducing stress and fear:

Do not put excessive pressure on students in the process of creative thinking.

Presenting mistakes as opportunities for development.

d) emotional intelligence and creativity:

Develop students' ability to perceive and express their emotions.

For example, encouraging creative thinking through storytelling, art therapy, or musical improvisation [7-8].

3. Methods of implementing the development of creative competence:

Conducting experiments and preparing projects;

"What can happen? ask hypothetical questions such as ";

Using game and interactive lesson methods;

Attracting digital technologies and media.

The issue of developing students' creative competence is very important and requires an integrated approach. From a pedagogical and psychological point of view, this process serves to increase the intellectual and creative potential of students, as well as to form their ability to think independently, solve problems and express their thoughts in an original way [9].

Pedagogical significance:

The development of creative competence helps to shape students' personality.

Through the use of innovative approaches in the teaching process, students' motivation to acquire knowledge increases.

Creative methods play an important role in encouraging students to explore various topics in depth.

Psychological significance:

Teaching students creative competence increases their self-confidence.

This develops students' ability to cope with stress and apply innovative approaches to problem solving.

Personal development and creative thinking skills have a positive effect on the psychological state of students [9].

Recommendations for the development of students' creative competence:

Teachers should attend courses aimed at improving their skills in the field of creative development.

Prerequisites for the development of creativity should be created in educational institutions.

Parents should help students develop their creative abilities.

Government programs aimed at developing creativity in the education system should be developed and implemented.

It is necessary to conduct scientific research on the development of creative abilities.

International experience in the development of creativity should be studied and popularized.

These recommendations will help to make efforts aimed at developing students' creative competence more effective.

Conclusion

The development of students' creative competence is a multifaceted and complex process. This process is carried out in the interaction of pedagogical and psychological factors. Teachers should effectively use methods and techniques aimed at developing creativity in the learning process, develop students' motivation, cognitive processes and personal qualities, create an educational environment, and cooperate with parents.

Pedagogical and psychological approaches should be harmoniously used in the development of students' creative competence. Focusing the learning process on the creative environment and giving students the opportunity to try out new ideas are the main factors in the development of creative thinking.

References

1. Ergasheva M.T. Methodology of using assessment programs in monitoring students' natural science literacy (on the example of PISA, TIMSS).: Abstract of the dissertation of the Russian Academy of Sciences (PhD). - Tashkent: 2023. 77-b
2. Shernazarov I. E. Methodology for the development of natural science literacy of future chemistry teachers based on international assessment studies.: Dis. p.f.d. (DSc). Tashkent. -2023. 376-b
3. Shernazarov I.E., Iskandarov A.Yu., Khasanova S.G. The Pisa contextual set of chemistry assignments for secondary school students//textbook for students aged 13-14 years. 2021. - B. 298.
4. Shernazarov I.E., Iskandarov A.Yu., Khasanova S.G. Collection of chemistry assignments for improving natural literacy. For students of secondary schools aged 14-15 years // textbook. 2021. - B. 324.
5. Makhmudova D.M., Shernazarov I.E., Karakhanova L.M., Khudzhanov E.B., Avci D.E., Ashmamatov I.A. Fundamentals of international assessment / / textbook for students of the educational field biology of the Faculty of Natural Sciences of higher educational institutions. Tashkent, 2022. - B.299.
6. Shernazarov I.E., Berdykulov R.Sh , Karakhanova L. M., Akbarova S.R. International assessment studies (development of functional literacy among modern teachers using the example of biological science)//handbook for students of the biological direction of the Faculty of Natural Sciences of higher educational institutions. 2023. -B. 200.
7. Shernazarov I.E., Ismailov S.A., Salikhova M.Q. International assessment studies / / handbook for students of the chemical department of the Faculty of Natural Sciences of higher educational institutions. 2023. -B.260.
8. Shernazarov I.E., Avci D.E., Iskandarov A.Yu., Tilyabov M.U., Yakubova M.F. Interdisciplinary integration in chemistry. Tashkent.: IMPRESS MEDIA LLC. 2024.197-b
9. Shernazarov I.E., Tilyabov M.U., Asadullayeva G.A., Yusupova N.A. The use of international assessment methods in chemistry teaching. Tashkent.: IMPRESS MEDIA LLC. 2025.375-b.