# METHODOLOGY OF DEVOLOPING STUDENTS` CREATIVE ABILITIES BASED ON INNOVATIVE EDUCATIONAL TECHNOLOGIES

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Abstract. The latest advances in science and technology have brought significant changes, innovations and modern teaching tools to the field of education along with production. The penetration of these achievements into the field of education made it necessary to make significant changes in its traditional tasks. In this context, the problem of creating the necessary pedagogical conditions and creative environment for understanding and realizing the essence of educational reforms has arisen.

*Keywords:* competence, internationalization, modernization, innovation, investment, economic competitiveness.

In recent years, specific goal-oriented measures have been implemented for the innovative development of the sectors of the republic's economy and the social sphere, comprehensive support of science and scientific activities, and increasing their effectiveness.

A strategic program aimed at including the republic in the list of 50 advanced countries in the global ranking in the field of innovation was approved, new mechanisms for financing scientific projects were introduced, and additional conditions were created for financial stimulation of highly qualified personnel in the field of science. The large-scale reforms implemented at the modern stage of the country's development indicate the need to improve the mechanisms of state management in the field of science and innovation, increase transparency in the formation of state programs related to scientific activity, and accelerate the introduction of scientific achievements and innovative technologies in economic sectors and regions.

Today, the modern directions of the development of pedagogic science have been defined as the modernization of the objective foundations of the existing educational paradigm and the means of ensuring the development of production. To increase the creative competence of the teaching staff, to create creative education, to create modern methodical support of design works, to achieve professional results in students. Considering this issue, it shows the need to further improve the pedagogical mechanisms of developing students' creative abilities based on the internationalization and modernization of the content of modern professional education based on leading foreign experiences, the formation of an innovative educational environment, and the wide application of interactive teaching methods and technologies in practice. In this place, the need to create a paradigm based on the criteria of acquiring new knowledge, creativity and thinking of learners is shown, and it shows that it brings educational problems to the fore as a particularly urgent issue, reflecting aspects such as methods of educational content, organizational forms, personnel supply. This created the requirements for a modern teacher who independently organizes the educational process, manages the creative and intellectual development of each learner by humanizing the relationship between "teacher and learner" in the educational process and focusing on the individual. The pedagogical influence of the teacher is considered one of the main and leading factors in the educational process, and the social demand for a new professional pedagogue is increasing in modern education [1].

In contrast to the careful development of the methodical development of the lesson that motivates the teacher to perform effectively, the educational technology is oriented towards the students' activities, and it serves to create the necessary conditions for the independent mastering of the educational materials, taking into account the individual and joint activities of the students. This, in turn, shows the need to organize innovative educational technologies in education. Lexically, the concept of "innovation" when translated from the English language ("innovation") means "introducing something new". The concept of "innovation" represents a specific situation in terms of content. Innovative education (see "innovation" - innovation, invention) - education that creates an opportunity for the learner to create new ideas, norms, rules, qualities and skills related to the natural acceptance of advanced ideas, norms, rules created by other people. One of the most important aspects of modern education is the achievement of an innovative nature of the pedagogue's activity. In developed foreign countries, the issue of achieving an innovative nature of pedagogic activity has been seriously studied since the 60s of the last century. In particular, H. Barnett, J. Basset, D. Hamilton, N. Gross, R. Carlson, M. Miles, A. Havelock, D. Chen, R. Edem, F.N. Gonobolin, S.M. Innovative activity, innovative approach to pedagogical activity, grounding of innovative ideas and their effective implementation in the works carried out by researchers such as Godnin, V.I.Zagvyazinsky, V.A.Kan-Kalik, N.V.Kuzmina and V.A.Slastenin, by learning about pedagogical innovations created in foreign countries and in the republic, the content of practical actions regarding their active use in the activities of the pedagogue is highlighted. By essence, innovation is considered a dynamic system of innovation in an attitude or process. Innovation as a system in itself represents the internal logic of a relationship or process, and secondly, the consistent development of the introduced innovation over a certain period of time and its interaction with the environment. Today, it is important for pedagogues to have innovative skills and qualifications. In order for pedagogues to master the skills and competencies of innovative activity, they must have an innovative approach. By its essence, innovative activity by pedagogues takes place on the basis of the acquisition of skills and competences, based on their decision to adopt an innovative approach. [2].

The professional and social necessity of organizing innovative educational processes allows to analyze the existence of the need for creative activity, improvement of professional training, effective aspects of interactive education and teaching models and classification.

The person is an important pillar of the development of the society, and the scientific conclusions about the further development of the creativity and intellectual capabilities of the person under the influence of his independent and creative activity serve as the basis for the formation of a new paradigm of modern pedagogy with a person-oriented content. Also, in the new direction of modern pedagogical research, attention was paid to the issue of directing education to the individual and personal creativity, creating an educational environment based on innovative teaching methods and technologies.

Eastern thinkers, in their views on education and in their works, mentioned the need to create conditions for human development to achieve happiness and development. In this regard, in the interpretation of Alisher Nawai, Abu Nasr Farabi, Abu Raikhan Beruni, Abu Ali Ibn Sina,

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Husain Vaiz Koshifi, it is imagined as related to the work of the teacher on the way to enlightenment, spiritual freedom, and perfection.

Abu Nasr Farabi [3], known in the East as "Muallimi Sani" ("Second Teacher"), is considered to be the scientist who defined education for the first time. Great thinkers put forward the idea that if the theoretical foundations of all sciences are studied in education, moral and ethical rules and standards of manners will be inculcated in the students, and professional skills and abilities will be formed. They say that this important task is performed by experienced educators using various methods of education.

In the scientific research of researcher Sh.S. Sharipov, creativity was interpreted in connection with the concept of creativity, and the researcher revealed the pedagogical conditions for the formation of creativity in students on the example of specialists who are majoring in labor and vocational education [4].

In order to teach students to think creatively, to be able to form creative thinking in them, it is first necessary for the teacher to be a creative person. If the teacher himself is a creative artist, the creativity of the students will also develop. It is not necessary for a teacher to be creative and creative, but to organize lessons in the spirit of creativity, to try new ideas in the educational process. According to Patti Drepreau, in the lessons, the teacher moves in the following 4 directions according to the "creativity road map", and the actions in them are considered signs of creativity of the pedagogues.

1. Demonstrating creative thinking skills;

- 2. To be able to use strategies that encourage students to study subjects with interest;
- 3. Innovative approach and creative approach to finding solutions to pedagogical issues;
- 4. Expected result.

Creative thinking can be evident in any field. The teacher's creativity is reflected in his creative approach to the organization of professional activities organized by him. [5].

In the framework of scientific research, the theoretical foundations of the formation of inventive creativity in future teachers, the possibilities of using new modern information technologies in this process, and the use of programmed education in this process were highlighted. The author emphasizes that inventiveness is a type of creative activity aimed at developing a new technical solution approved by relevant authorities with patents. Inventive creativity is interpreted as a general description of this process related to creative qualities such as intelligence, ingenuity, creativity and critical thinking in a person.

Targeted, consistent use of methods, tools and technologies that develop creative qualities in students, as well as creative use of information technology opportunities in organizing pedagogical activities; if students' creativity skills are encouraged and the teacher creates conditions for students to work actively in pairs and small groups, independent, creative, critical creative thinking skills are developed. Students can fully express their creative thinking skills in a comfortable environment. If a student has a fear of failure, if he is afraid of expressing his opinion incorrectly, if he is afraid of criticism, in such a situation it will not be possible to effectively form or develop creative thinking skills. It is possible to successfully form creative thinking skills in students only by making creativity a habit. In this process, the methods and tools used by them in the assessment of the thorough understanding of the content of the subject and creative thinking skills are of great importance. When a student studies special subjects at a higher educational institution, it helps them to acquire theoretical and practical knowledge, skills formation, turn

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these skills into qualifications in the process of pedagogical practice, and further increase their creative abilities when starting their professional activities.

Currently, technical students do not have complete information about the important pedagogical, technical and technological features of technology and technological processes. Society's acute need for creative and qualified personnel, on the other hand - the decrease in the level of creative activity, the lack of interest in the educational activities of students during adolescence; violation of the optimal ratio of the state of reproductive and production activity caused by the increase in knowledge; Development of forms, methods and tools of an innovative approach to solving problems related to intellectual and emotional personal qualities expressed by excessive growth in the intellectual development of students, solving problems related to the accumulation of knowledge, as well as developing creative abilities of students and should be implemented. When a student studies special subjects at a higher educational institution, it helps them to acquire theoretical and practical knowledge, skills formation, turn these skills into qualifications in the process of pedagogical practice, and further increase their creative abilities when starting their professional activities.

## Conclusion

Based on the above, it can be concluded that it is necessary to systematically study the pedagogical needs, interests, and directions of special importance of students, to organize their creative activities and to determine their effective ways. Also, organizing the teaching process on the basis of ideas, concepts and advanced pedagogical experiences that serve to satisfy the creative interests and needs of students serves to form a meaningful and active approach to the development of creativity. Based on the development of students' creativity skills, it is desirable to pay special attention to the development of their specialized, i.e., pedagogical creativity competence, in which the wide use of modern information and communication technologies, innovative strategies, interactive educational methods and technologies is appropriate. Experts say that it is necessary to develop reproductive, creative-research and creative-oriented educational programs for the development of students' creative abilities in higher education institutions and evaluate the changes in the development of students' creative skills and abilities. Improvement of teaching programs and technologies aimed at continuous development of creative competence of pedagogic personnel of higher education institutions, as well as creation of modern informational and methodical support that serves to develop students' creative abilities, serves to increase the efficiency of the process.

## REFERENCES

- 1. Ismailova Z.Q., Makhsudov P.M., Ergashev O.K., Matkarimov K.J., "Methodology of teaching special subjects" training manual. Tashkent-2018. page 7.
- 2. Innovative educational technologies / Muslimov N.A., Usmonboeva M.H., Sayfurov D.M., Toraev A.B. - T.: "Sano Standard" publishing house, 2015. - 150 p.
- 3. Theory and history of pedagogy. Theory of pedagogy. Part 1./ M. Tokhtakhojaeva et al. T.: Economy-finance, p. 200-379.
- 4. Sharipov Sh.S. Continuous development of students' creative abilities in vocational e/ducation. Monograph. Tashkent, Science, 2005-140 p.
- 5. Drapeau Patty. Development of student creativity (practical methods of developing innovative thinking and problem solving). Alexandria Virginia, USA: ASCD, 2014