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## FEATURES OF USING INTERACTIVE METHODS IN THE DEVELOPMENT OF STUDENTS' CREATIVE RESEARCH ABILITIES

**Abstract.** This article examines the importance of modern technologies in the organization of creative, research work of students to enhance educational and research activities and is aimed at the assimilation of new ideas, the formation of flexibility in research and creative activities. Modern pedagogical and psychological methods used in the framework of the development of creative interest open the way to self-development. In the formation of students' activity, communicative qualities are formed from their activities during intellectual games, didactic materials, and business games.

The importance of special technologies and heuristic methods for managing educational creative activities and their creativity is characterized as an intellectual process peculiar to each individual. In addition, creative activities are based on creating problematic situations, using methodological techniques, drawing conclusions, and defining research tasks.

It will teach you how to identify methods of creative search, goal achievement, effective, accessible at a new level of perception of educational material in conducting disciplines, self-education, and the introduction of individual methods into research work.

Innovative learning activities promote mutual continuity, the transition to a developing creative approach, and the formation of inner moral qualities. The emphasis is placed on methodological principles aimed at achieving the highest learning outcomes. During the application of interactive methods, approaches were formulated to the main areas of training organization, indicators of creativity development, and methodological technologies.

Innovative technologies in education and interactive methods contribute to the development of students' creative abilities. Identification of intellectual abilities and the quality of knowledge of future specialists, increasing the effectiveness of creative work.

**Keywords:** interactive, heuristic, creative, innovative, associative - synectic, case technologies.

**Introduction.** The main task of universities today is to train qualified specialists. As the demands of the times changed, so did the demands of society on higher education institutions. In his September Address to the people of Kazakhstan, President K. Tokayev paid special attention to the issues of quality education. Financial motivation and professional development of teachers, support for gifted children, construction of new schools, development of national science – all this needs to be worked out

in order to lay a solid foundation for quality education in Kazakhstan. [1].

In this regard, the university is developing the professional knowledge of future specialists who are able to prove themselves, show deep knowledge, inquisitive, creative in all their activities, creative orientation, using various teaching methods and techniques. Education and training in accordance with the educational space, mastery of skills, personal and professional qualities is a fundamental requirement of society. As a

professionally significant quality of the personality of a future specialist, many scientists have identified the sharpness of thinking, cognitive activity and professional maturity, that is, the actual problems of improving education. In particular; in the creation of theoretical and practical prerequisites for the introduction of active, interactive teaching methods and technologies "theory of educational activity " (D.B. Elkonin, V.V. Davydov), theory of the development of mental actions (P.Ya. Galperin, N.F.Talyzina), providing an outlet to reflexive communication, were guided by works (P.G. Shcherbitsky etc.), problem-based learning (M.M. Levin, A.M. Matyushkin etc.), the construction of mental technical structures (O.S. Anisimov etc.). The problem of the formation of creative abilities and professional skills of a personality is widely considered in the works of many psychologists, such as L.S. Vygotsky, B.G. Ananyev, A.N. Leontiev. It can be noted that creativity has attracted the attention of thinkers from all eras of world culture. Therefore, the main goal of creative pedagogy is the formation of a new consciousness, a spiritual quality worthy of modern society and the search for new ways and solutions. In the works of P.Ya. Galperin, based on a generalized approach to the psychological structure of activity, the elements of professional creativity are considered as:

- to stimulate and arouse the interest of future specialists;
- verification of knowledge and skills necessary for carrying out activities;
- conducting exercises to consolidate knowledge, skills and abilities.

Teacher B.A.Turgunbayev emphasized: it is necessary to establish an educational process that will allow the formation of mental work techniques," emphasizing that the student's creative abilities also develop through his

thinking and practical actions. According to the scientist, only those lessons that teach thinking are recognized as lessons of developmental learning. Pedagogical creativity is an activity characterized by its novelty and originality, which involves the formation of a personality characterized by uniqueness [2, p. 47].

The novelty of a teacher - psychologist in practical activity is manifested in: new methods, forms, techniques, etc. In the process of preparing for the development of professional skills of a future specialist, students develop the results of educational, professional and creative activities - designing, striving for self-knowledge in the reality of human life, searching for the right path in life, the ability to independently make high-quality, reasoned decisions. To develop a person's creative research abilities, prevent their extinction, strengthen his spiritual strength and help him find his place in life.

The integration of new methods and techniques into the learning process, which is currently taking place in the context of updating the content of education, contributes to the formation of creative and research abilities of students. Therefore, in the process of increasing students' creative research abilities, we consider teaching the wide use of interactive methods in the classroom.

**Materials and methods.** In the process of organizing creative activities in the educational process, the teacher's direction forms research abilities, taking into account the student's attitude, thinking and logic. The creative organization of the lesson, the search for modern interactive methods of finding the right solution to learning problems, overcoming difficulties-along with increasing the pace of intellectual development of the individual, self-development. When studying the creativity of a future specialist, the

following basic principles can be distinguished: result, personality and process. Interactive methods are ways of interaction between participants in the pedagogical process and influencing each other, pursuing the same goal. The purpose of the interactive method is not only to present information, but also to orient students towards the formation of independent information retrieval skills, making positive changes in the behavior and work skills of each participant, developing logical thinking skills, and increasing research abilities.

Let's reveal 3 categories of students, according to S.V. Belova.:

- formal interview participants;
- students seeking to prove their opinions;
- students who can really interview and enrich their opinions.

Today, the practice of interactive teaching methods forms the basis not only for direct interaction between students and teachers, but also for interpersonal communication to generate interest in acquiring new knowledge. New information is constantly checked and confirmed by practice, which makes it easier to remember and allows you to see the results during daily activities. Among the scientific and pedagogical works devoted to the definition of the component of creative abilities, A.N. Luk is divided into three groups of abilities: production, search, invention. With the high theoretical and practical value of the lesson content, the development of students' creativity is very effective in the educational process. Accounting, control and evaluation of knowledge, skills and abilities in shaping students' creativity in the learning process are its most necessary component. The teacher's ability to properly organize classes in the system, in many cases, is a positive guarantee of the success of the educational process. To do this, the student must constantly

determine the degree, quality and volume of learning of the educational material [3, p. 233].

Increasing students' interest in the subject is the formation of a teacher's desire for creativity with a rational organization of their work, carried out through activities such as asking questions, performing experimental tasks, discussing thoughts, and cognitive games.

Special technologies and heuristic methods of organizing and managing activities and their creativity are of particular importance in the educational process. They include: special technologies for the development of creativity, technologies for the morphological construction of information, associative-synectical technologies for personality development, portfolio technology, project-based learning and case technology, etc.:

The first stage is the theoretical substantiation of modern teaching technology;

The second stage is the technological implementation of new information provided within the framework of the module, educational and cognitive work, test work, that is, the correspondence of the volume of material learned by students to the current situation.;

The third stage is to expand and enhance their professional knowledge by participating in the design and development of modern learning technologies.

The fourth stage is in the innovative learning process, when specific learning outcomes are established and compared with the planned ones.

The fifth stage is the formation of highly qualified specialists based on the creativity of the teacher through the development of a new learning technology.

In our case, in the environment, the student↔becomes a teacher and sets the topic. Then the students express their thoughts. The external result: - it can be seen, a product that can be used in practice. The internal result is the student's experience (skills, knowledge, competencies, values). Necessary competencies: take responsibility, come to a joint decision, make a choice, analyze, evaluate. Conceptual positions: the position of humanization, solidarity, respect for other people's opinions, responsibility for the result.

Duties of a teacher:

- Deep knowledge of research and search methods and organization of it with students;
- Organization of discussions so that students can freely express their opinions;
- Orientation of students to find a way to solve the problem;
- To teach how to integrate knowledge from different fields of science to solve the problem of the project. If so, let's look at the three main parts of the organization of project work.

In the project part, the teacher must understand the project management method and teach such knowledge and skills so that the group project can be successfully implemented.

In the academic part, the teacher should give students the right direction for the practical implementation of the project to master the subject material.

In the organizational department, the teacher acts directly as a project assistant and supports students in communicating with institutions.

Today we have seen that the development of every branch of science is inextricably linked with the development of new information technologies. The realization and disclosure of creative research abilities fully embodies the virtuous qualities of a personality, firmly occupies a place in every person's life, has its own influence

on his thoughts and behavior, and the learning process. T.A. Hartung emphasized in his work that creativity is the creative capabilities (abilities) of a personality as a whole, manifested in thinking, feelings, communication, certain types of activities [4, p. 23].

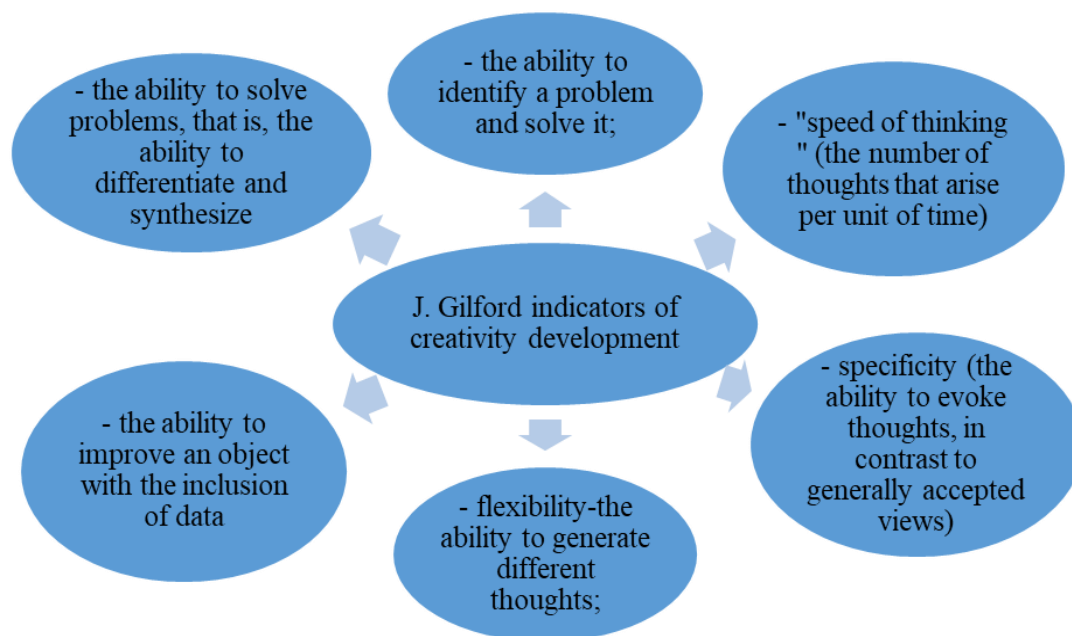
Through creativity, a person can strive and seek self-knowledge in the reality of life, report on their affairs and be critical of their shortcomings. If this is the case, then the formation of creativity and creative independence of a future specialist is a very important, complex and multidisciplinary issue, thereby contributing to the development of personal abilities and preventing their extinction, will help strengthen a person's spiritual strength.

The indicator of creativity development, defined by J. Gilford, is shown in picture 1.

The definition of a problem based on the indicator of the development of creativity is the way to solve it, the organization, and it should be based on the rational direction of strengthening harmonious, favorable knowledge. Thus, the application of general heuristic methods in the process of developing students' creative activity provides ways to solve cognitive tasks with a creative purpose. Now that the age of information technology has arrived, it is very important to use new technologies and interactive methods in the educational process. For the same purpose, we decided to highlight the technology of project education. Project-based learning depends on real-life events. When performing such work, their special qualifications are formed. Project-in latin PROJECTU -means "in advance" (D. Dewey, V. Kilpatrick, S. Shatsky), "a thought that speaks forward, forward. "Recently, there has been a lot of talk about "project-based learning" and "student project activities". Design differs from research in that design is experience-oriented. The person

implementing the project solves not only a new, but also a real problem facing him. A project is a system of actions organized by a teacher and implemented by students to solve a problem on their own. The main idea of the design

technology is the educational and cognitive activity of the student, aimed at the result. The result should be a solution to an important practical or theoretical problem.



Picture 1. Indicators of creativity development.

By teaching a future specialist in innovative technologies, students contribute to improving the quality of education by creating professional skills, skills, search and contributing to creative work. As you know, one of the indicators of any educational institution is the quality of education. Well, education, of course, depends on the professional skills of the teacher.

The effectiveness of a lecture, traditionally given to students, depends only on the skill of the lecturer. For this:

- Extensive use of lecture material is necessary;
- During the lecture, interactive techniques should be used to identify its various significant places.;
- The student should be able to use appropriate materials based on the main characteristics of the audience.

The program "developing critical thinking through reading and writing",

which uses modern technologies, is of great help in the educational process.

**Research and discussion.** The questionnaire on the creative inclinations of a person is designed to identify the propensity for creativity in everyday life. This methodology helps to evaluate creativity as a personality trait.

For the first time, the translation of this survey is presented for the work of teenagers in O.I. Motkov (1993). However, the survey text is mainly aimed at adults. Although such tests were used for self-assessment purposes in the works of G. Davis devoted to the topic of creative thinking, the original of this particular version has not yet been determined.

#### **Issues covered:**

1. I think I'm a neat person, I like that everything is in order.

2. I want to learn more about everything that is happening in the world.
3. As a child, I loved visiting new places with my parents, rather than walking alone.
4. I try to be the best at what I do.
5. As a child, I didn't really like sharing my toys or treats with others.
6. If I can't bring my work to perfection, I'll be disappointed.
7. I'm trying to understand how the world works.
8. I wasn't a very popular student at school.
9. Sometimes I like to be childish.
10. If I decide to do something, I will persistently act to achieve my goals.
11. I like working in a team, and I don't want to work alone.
12. I know exactly what to do and what to do.

13. If others disagree with me, I'll try to change my mind, even if I'm sure I'm right.
14. I get very worried and worried if I'm doing something wrong.
15. Sometimes I get bored, not knowing what to do.
16. When I grow up, I feel like I will become a famous and important person.
17. I like to look at beautiful things.
18. I prefer to play familiar games rather than learn new ones.
19. I like to experiment, to explore what happens when I do something.
20. When playing games or doing something, I try not to take risks as much as possible.
21. I believe that having a good memory in life is more important than imagination.

### The results of the study

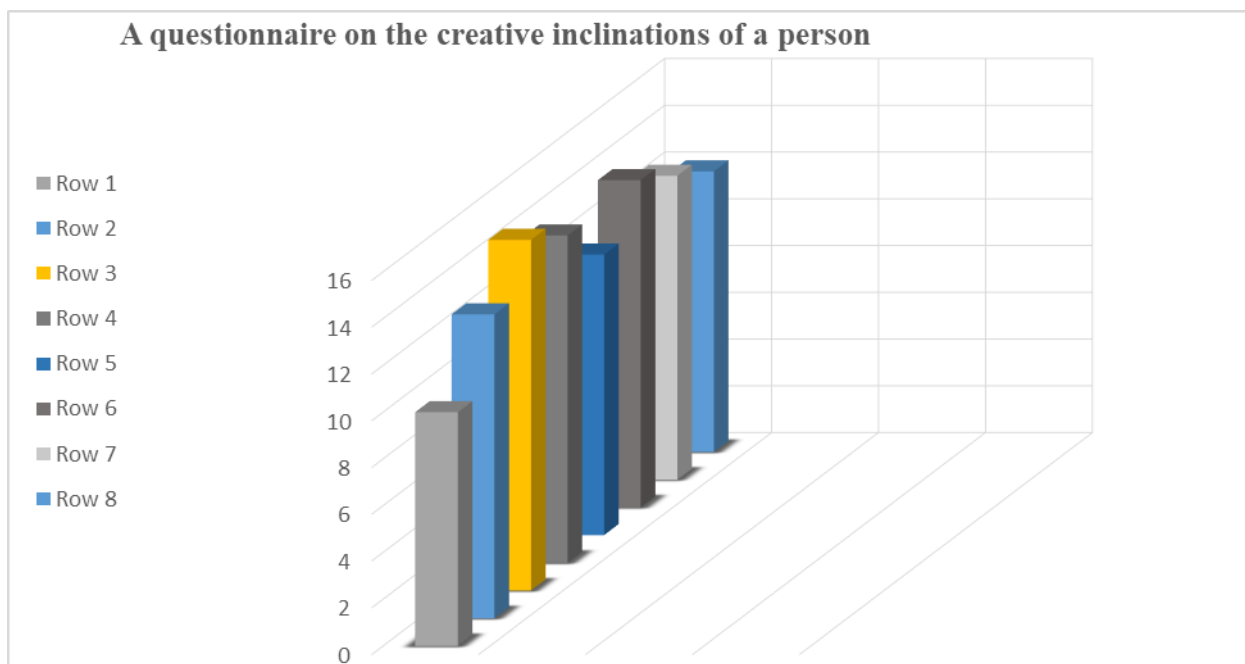


There are many factors that influence classes to be interesting, informative, and productive according to the innovative teaching methods and philosophy used. Namely; (to cause motivation or arouse interest, one's own attitude and suggestions) [5]. The teacher's ability to properly organize classes in the system, in many cases, is a positive guarantee of the success of the educational process. To do this, the student must constantly determine the degree, quality and volume of learning of the educational material [6, p. 62].

When classifying innovations in education, it should be borne in mind that innovations are the most important in human activity. In the process of

learning, we work on innovative processes in scientific literature, the following stages:

- Implementation of an idea or concept of innovation.
- The period of invention, that is, the creation or discovery of any discoveries.
- The stage of introducing novelty, when the invented innovation is actually put into operation and recycled. The result of the introduction of creative learning methods is a high degree of student involvement in the learning process and their ability to understand the place of independent personal subjectivity and develop creative potential and intellectual capabilities [7, p 111].



Picture 1. The results of the survey of creative inclinations of the individual.

The interactive methods that we use in the lesson involve students in search and research. For a high-quality lesson completion:

1. creating favorable opportunities for students;
2. Accepting different ideas and opinions;
3. Be critical of the criticism made by each student.;
4. be able to evaluate them correctly.

Mastery of modern technologies has a beneficial effect on the formation of intellectual, professional, moral, spiritual, civic and many other human abilities of a teacher. The education systems of the developed countries of the world are going through a period of changes over the past 20 years. These changes are described as follows:

- teaching knowledge, skills, and values in thinking, creativity, and the formation of personal competencies;
- from substantive goals to complex goals;
- from education and upbringing-assistance in education, the ability to apply it;

- transition from administration to cooperation.

This fact forms a new pedagogical mentality and makes the transition to a technological approach relevant. In this regard, it is noted that at present, in the theory and practice of education, scientific research, it is necessary to develop the creative potential of teachers in the context of advanced training, a new organization of the learning process, increased educational work for an academic degree and pedagogical influence on the development of each person as a specialist [p. 8.27].

Among the many innovative trends in modern didactics, we find the importance of interactive teaching methods in developing students' creative research abilities. The reasons are as follows:

- interactive teaching methods and modern pedagogical technologies can be easily applied in the educational process, without the need to change state standards and programs;
- interactive teaching methods and modern pedagogical technologies provide solutions to such problems as

humanization, democratization, and personal development in the modern field of education;

- active teaching methods and technologies enhance the intellectual, creative level and shape the individuality of students;
- the use of interactive methods and technologies contributes to the improvement of teachers' professional skills, creative development and professional competence.

All interactive methods, recognized as effective, determine the student's research, curiosity, his own thinking, reasoning and, as a result, the formation of skills for making the right decisions. The formation of self-confidence, mutual respect, understanding of personality with the transformation of the lesson, the possibility of its improvement is a great opportunity in the competence of the teacher. In the process of applying the methods underlying the formation of the future specialist's creativity, interests, inclinations, and needs began to manifest themselves. Introducing students to creativity increased their motivation for knowledge, aroused interest, taught them to apply their knowledge in practice, and improved their logical thinking. Creative and research work was organized to enhance educational and research activities, modern technologies and interactive methods were widely used. Based on the experience gained to date, it is possible to observe the development of research and creative abilities in their educational and research activities. The methodology "research of the motive of the educational activity of a future specialist, proposed by A.A. Rean and V.A. Yakunin on the basis of research methods", the method of making an incomplete sentence, scientist M. Rock. "We tried to describe the methods of value orientation"

A special feature of creative activity is the subjective novelty of the product

of activity. Depending on the objective essence, the "novelty" of students can be either unique, unique, or realized with the help of a teacher. Complex research methods were used to solve the main tasks. In the course of the work, test questionnaires were conducted. In relation to educational activities, the interest of students in the specialty was taken into account. Thanks to systematic training, students began to increase their creative and research abilities.

**Conclusion.** The current socio-economic situation in the country not only requires the development of various types of education systems that meet the different requirements of society and individuals, but also encourages the creation of a systematic method of goal-setting in high-quality education. Creativity is considered as an integral part of the conditions of a person's spiritual and personal self-development. When creativity is understood as a process that has a certain specificity and leads to the creation of a new one, then creativity is considered as an internal human resource [9, p. 131-136].

For the purposes of our study, E., who considers creativity as "the ability to respond to adaptation to the needs of a new lifestyle." Chitsaz, M. Tajpour, E. Hosseini, H. Khorram, S. Zorrieh's position is important. The authors identify one of the most important abilities applied to professional and pedagogical activity [10, p. 158-161].

Creative works contributed to the students' worldview, the development of their search abilities, and their formation as individuals. As well as creating favorable conditions for independent thinking, decision-making, correct speech, competent writing, and improving language skills. Intellectual games during classes complement the emotional level of a person and form cognitive qualities through the realization of mental capabilities. Being one of the most basic elements of the



learning process, which contributes to the depth of knowledge, skills, and knowledge acquisition, being an active participant in the learning process through self-development, the student learns and masters skills that he can transfer with concrete evidence.

Teachers teaching in higher education institutions require the introduction of various trainings, business games, discussions, new learning projects, i.e. new thinking, cognitive activity of a future specialist in the introduction of interactive technologies that will contribute to the formation of a knowledge base among students. Due to the careful solution of this problem, we decided to present the main tasks of the teachers in the following order.

- to achieve high professional skills of the teacher himself;

- creating conditions for the development of the abilities and capabilities of each student's personality;

-formation of a well-rounded personality capable of thinking flexibly, possessing knowledge, and exchanging ideas in the language being studied. The use of innovative technologies in education (personality) It promotes a high level of development of the student's cognitive abilities, changes in his activity and constant self-improvement[11, p. 73].

Therefore, in an effort to use interactive methods through creativity, he is looking for, can report on his affairs and be critical of his shortcomings. The formation of students' unique research, intellectual qualities inherent in each person, for the development of creative research abilities, improving the quality of knowledge, adapting to knowledge and creating new ones.

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#### **ОСОБЕННОСТИ ИСПОЛЬЗОВАНИЯ ИНТЕРАКТИВНЫХ МЕТОДОВ В РАЗВИТИИ ТВОРЧЕСКИХ ИССЛЕДОВАТЕЛЬСКИХ СПОСОБНОСТЕЙ СТУДЕНТОВ.**

**Аңдатпа.** В данной статье рассматривается значение современных технологий в организации творчества, исследовательской работы студентов с целью повышения

эффективности учебно-исследовательской деятельности и направлена на усвоение новых идей, формирование гибкости в исследовательской и творческой деятельности. Современные педагогические и психологические методы, используемые в рамках развития творческого интереса, открывают путь к саморазвитию. В формировании деятельности студентов формируются коммуникативные качества в ходе их работы с использованием интеллектуальных игр, дидактических материалов и деловых игр.

Значение специальных технологий и эвристических методов управления учебно-творческой деятельностью и ее творчество характеризуются как интеллектуальный процесс, свойственный каждому индивидууму. Кроме того, творческая деятельность основывается на создании проблемных ситуаций, использовании методических приемов, формулировании выводов и определении исследовательских задач.

В статье рассматривается, как выявлять методы творческого поиска, достижения целей, эффективности, доступности на новом уровне восприятия учебного материала при проведении дисциплинарных занятий, самообразовании и внедрении индивидуальных методов в исследовательскую работу.

Инновационная учебная деятельность способствует взаимной преимственности, переходу к развивающемуся творческому подходу и формированию внутренних моральных качеств. Основное внимание уделяется методологическим принципам, направленным на достижение наивысших результатов обучения. В ходе применения интерактивных методов были сформулированы подходы к основным направлениям организации обучения, показателям развития креативности и методическим технологиям.

Инновационные технологии в образовании и интерактивные методы способствуют развитию творческих способностей студентов. Выявление интеллектуальных способностей и качества знаний будущих специалистов, повышение эффективности творческой работы.

**Тірек сөздер:** интерактивный, эвристический, творческий, инновационный, ассоциативный - синектический, кейс-технологии.

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### **СТУДЕНТТЕРДІҢ ШЫҒАРМАШЫЛЫҚ ЗЕРТТЕУ ҚАБІЛЕТТЕРІН ДАМУДА ИНТЕРАКТИВТІ ӘДІСТЕРДІ ҚОЛДАНУ ЕРЕКШЕЛІКТЕРІ.**

**Адатпа.** Бұл мақалада білім беру және зерттеу қызметінің тиімділігін арттыру мақсатында студенттердің шығармашылық және зерттеу жұмыстарын ұйымдастырудағы заманауи технологиялардың маңыздылығы қарастырылады. Ол жаңа идеяларды игеруге және зерттеу мен шығармашылық жұмыста икемділікті дамытуға бағытталған. Шығармашылық қызығушылықты дамыту үшін қолданылатын заманауи педагогикалық және психологиялық әдістер өзін-өзі дамытуға жол ашады. Студенттердің коммуникативтік дағдылары интеллектуалды ойындарды, дидактикалық материалдарды және бизнес модельдеуді пайдалану арқылы дамиды.

Білім беру және шығармашылық қызметті, шығармашылықты басқару үшін мамандандырылған технологиялардың және эвристикалық әдістердің маңыздылығы әрбір жеке тұлғаға тән интеллектуалды процесс ретінде сипатталады. Сонымен қатар, шығармашылық қызмет проблемалық жағдайларды жасауға, әдіснамалық әдістерді пайдалануға, қорытындыларды тұжырымдауға және зерттеу мақсаттарын анықтауға негізделген.

Бұл мақалада пәндік сабақтарда, өзін-өзі оқытуда және зерттеуде жеке әдістерді енгізу кезінде оқу материалын түсінудің жаңа деңгейінде шығармашылық ізденіс, мақсатқа жету, тиімділік және қолжетімділік әдістерін қалай анықтауға болатыны қарастырылады.

Инновациялық білім беру іс-әрекеттері өзара сабақтастықты, дамып келе жатқан шығармашылық тәсілге көшуді және ішкі адамгершілік қасиеттерді дамытуды ілгерілетеді. Негізгі назар оқудың ең жоғары нәтижелеріне қол жеткізуге бағытталған әдіснамалық қағидаттарға аударылады. Интерактивті әдістерді қолдану арқылы білім беруді ұйымдастырудың негізгі бағыттарына, шығармашылықты дамыту көрсеткіштеріне және әдіснамалық технологияларға тәсілдер тұжырымдалды.

Білім берудегі инновациялық технологиялар және интерактивті әдістер студенттердің шығармашылық қабілеттерін дамытуға ықпал етеді. Олар болашақ мамандардың интеллектуалдық қабілеттері мен білімдерін ашады және шығармашылық жұмыстың тиімділігін арттырады.

**Тірек сөздер:** техникалық, эвристический, жобалық, инновациялық, ассоциациялық - синектический, кейс-технологиялық.

*Received 30.06.2026*

*Accepted for publication 1.07.2026*

***Cite the article:***



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