INNOVATIVE EDUCATIONAL ENVIRONMENT AND ITS PEDAGOGICAL AND PSYCHOLOGICAL FACTORS

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https://doi.org/10.5281/zenodo.17132043

Abstract: This article is dedicated to studying the role of the innovative educational environment in the modern education system, discussing the significance of pedagogical and psychological factors. The innovative educational environment serves to improve the quality of education by effectively organizing the learning process, increasing student engagement, and ensuring individualized approaches. Pedagogical factors include teachers' ability to use innovative technologies, modernize lesson content, and improve assessment systems. Psychological factors consider student motivation, emotional climate, stress management, and cognitive development. The article provides practical examples from Uzbekistan's education system, analyzes the interrelationship of these factors, and offers recommendations for creating an innovative environment.

Keywords: Innovative education, educational environment, pedagogical factors, psychological factors, modern technologies, learning motivation, individualized approach.

The development of the information society, its transformations in socio-economic relations, the direct alignment of political systems with global changes, and the growing necessity to equip all spheres of the state system with modern innovative technologies demonstrate that the effective implementation of pedagogical innovations in the country's education system and the training of specialists competent in working with existing technologies is a requirement of our time.

This process demands that higher educational institutions train specialists competent in working with modern technologies, modify the system of organizational conditions in education, and innovatively restructure the methods, means, and forms of managing and organizing the educational process.

The main goal of innovative education is determined by the focus on the comprehensive development of students' consciousness, thinking, and worldview. Moreover, in innovative education, attention is given to the human factor, prioritizing the goals and interests of the student at the center of the educational process. In this educational approach, it is advisable to focus on the content of the studied subject, methods, means, and forms of the educational process, primarily aimed at developing initiative, activity, and striving to achieve valuable goals, as well as pedagogical and psychological approaches necessary for personal development and professional activity.

The innovative educational environment formed in higher education is characterized by the development of pedagogical and psychological factors of professional competence such as critical thinking in specialist training, the ability to accurately assess situations, analyze existing facts, and creatively solve various field-related problems.

In an innovative educational environment, a systematic approach to the learning process is required, encompassing the assimilation of the conceptual foundations of the taught subject, the development of students' individual psychological characteristics, as well as focusing on the sphere of adequate values for the individual and ensuring the coordination of pedagogical and psychological factors that facilitate their socialization.

According to M.V. Klarin's scientific perspective, innovative trends in education within the information society primarily develop in two directions. From his viewpoint, the first direction is the reproductive style of teaching, while the second is characterized by changes to the traditional educational process.[1]

We also agree with this scientific approach. Indeed, today the introduction of innovations, modernization of pedagogical technologies, and improvement of teaching methods within the framework of traditional education, oriented towards the reproductive method of teaching, is a requirement of the times. The creation of an innovative educational environment, the training of specialists with high professional competence, and the achievement of educational effectiveness are achieved, first of all, through the improvement of educational technologies and the algorithmization of this process.

Changing the traditional educational process in the field of education, bringing it into line with innovative educational technologies, reflects the content of personality-oriented individual education and ensures the implementation of an approach to creative activity. From this point of view, the effective use of innovative technologies in the educational process represents the content of a pedagogical approach that develops the individual psychological characteristics of the student.

An innovative approach to education develops the cognitive knowledge sphere of students, forms the competence of critical analysis of information presented in the educational process, discussion in accordance with the specialist's approach, and defense of one's point of view with sufficient and well-founded arguments. Also, the innovative educational environment, developing the individual characteristics of students, serves to form the skills and abilities of purposeful use of brainstorming techniques and synectics in the educational process, and ensures a combination of collective decision-making and coordinated actions towards a single goal.

The organization of innovative education and its pedagogical and psychological factors are characterized by modern teaching methods and educational technologies, non-standard approaches to the educational process, group discussions, analysis of specific life situations, modeling of the educational process, student interaction, development and defense of constructive projects of practical activity, as well as the effectiveness of education based on creativity.

B.J. Kadyrov emphasizes that the organization of innovative education and its pedagogical and psychological factors are characterized by an educational space created on the basis of modern pedagogical technologies, information and communication tools, and interactive methods. From his point of view, the innovative educational environment is an educational space created on the basis of modern pedagogical technologies, information and communication tools, and interactive methods, in which the ability of students to think creatively develops, and the potential for independent activity in educational cooperation increases.[3].

According to Yu.A. Karpova, innovative activity in education is a process aimed at changing the regular means, methods, and technologies of reproductive activity. Before transitioning to innovative activity in the higher education system, it is advisable to implement measures aimed at changing the motivational and semantic sphere of the individual, creating new values, motives, meanings, and goals of activity. This process, increasing the quality and effectiveness of education, leads to the expansion of the pedagogical and psychological boundaries of education and requires a change in the arsenal of innovative educational activities. As a result, innovative activity provides internal coordinated educational activity and stabilizes the professional stability of the subject in constantly changing conditions with internal motivational mechanisms.[4].

In an innovative educational environment, the readiness of the student for innovation requires coordination with the factors of development of the ability to understand changes in themselves, and the effectiveness of learning depends on the attitude of the individual to achieving success in educational activity and the level of motivational aspiration. From this point of view, if the attitude, motivation, and aspirations of the student towards professional success are the basis of his general inclination in educational and cognitive activity, then the level of readiness of the teacher for innovation is explained by how effectively he uses innovative technologies in teaching students.

The author's definition is based on the fact that the innovative educational environment is a process that serves the formation of teachers' skills in using innovative technologies and creates harmony with the pedagogical and psychological factors of providing effective knowledge to students.

This process involves coordinating the motivation and possibilities of achieving educational goals with modern technologies for the development of students' creative and research abilities, increasing knowledge and skills in the specialty.

The motivation for achieving success in the educational and cognitive activity of the higher education system is connected with the long-term goals of the student, such as thorough mastery of professional knowledge, manifestation of creative activity in practice, gradual improvement of social status in professional and personal activity, and encourages them to thoroughly master professional knowledge in all aspects. This educational process increases students' opportunities to familiarize themselves with innovative technologies for acquiring professional knowledge and skills, serves to form students' competence in the purposeful use of innovative technologies not only in the field of education, but also in any human activity, and serves to stimulate the motivation to achieve success in the combination of socio-academic knowledge and social mobility.

From a motivational point of view, the innovative approach in the higher education system requires the provision of conditions that encourage students to thoroughly study the educational process, self-education, and self-development. This process expands the deasphere of students' educational activities by creating an innovative environment in higher education, strengthens the field of communication between the student and the teaching subject with "colorful and bright" communicative factors, ensures interdisciplinary integration, and takes the cooperation of educational subjects to a new level.

The need, interest, and aspirations of educational subjects to increase the effectiveness of their activities are explained by the achievement of pedagogical success and the targeted and effective application of innovative technologies in practice.

According to V.M.Allakhverdov, the content, methods, and means of pedagogical innovative activity are explained by the training of professional specialists. He also asserted that to assess the limits of intellectual ability, one must possess an intellect beyond capability, which is not given to anyone[4].

Agreeing with this scientific opinion, we can emphasize that the introduction and application of innovative pedagogical technologies in the education system should be carried out on the basis of certain boundaries and norms. Because in many cases, through the use of innovative technologies, there is a high probability of jeopardizing the national values of the state and society, as well as the nation, formed over millennia and serving its future. As V.M.Allakhverdov noted, cases of deviation and exceeding the limits of intellectual abilities can be observed.[5]

Scientific considerations regarding this approach were also put forward by N.J.Eshnaev. From his point of view, an innovative approach to the educational environment and the analysis of scientific literature show that in the early stages of the globalization process, due to a lack of understanding of its true essence, the youth of society believed that globalization is a positive phenomenon that removes obstacles to a prosperous life, the priority of democratic principles, free trade, and consolidates the entire national economy. However, this process did not occur as they claimed, but penetrated all spheres of society, influencing its national values, lifestyle, as well as beliefs and psychology. Globalization benefits developed countries, and it turns out that it has mechanisms that direct third-world countries, that is, developing countries, in particular, countries with low economies and insufficient competitiveness in the world arena, towards crisis. Globalization accelerates the pace of creative destruction, which is the national wealth of society, causes aggression towards the adaptation of people and society as a whole to new forms of life, and excludes the ideals, values, and traditions that prevail in society. It is proposed to replace it with "modern" "ideals and values" that do not serve the state and society, the nation and the people.The reality of the information society requires us all to approach today's changes from the point of view of conscious and rational factors, and the relationship between the views, concepts, ideas and ideologies, individual and social opinions of nations, peoples, states, and humanity as a whole about spiritual life is extremely complex, and in some cases even contradictory.[6]

Today, a comprehensive in-depth study from a scientific point of view of issues related to the spiritual and cultural mobility, consciousness, and thinking of young people in our society, the creation of a socio-psychological mobile "isolation" mechanism capable of protecting against external influences, remains a requirement of the times.

From the point of view of the priority of the globalization trend in the information society, it should be noted that in preparing teachers for innovation in the higher education system, it is advisable to identify their individual psychological characteristics based on psychodiagnostics, as well as to introduce practical pedagogical and psychological services for the selection and practical application of innovative technologies corresponding to their psychological characteristics.

From this point of view, pedagogical and psychological services play an important role in the formation of an innovative educational environment. They increase the student's motivation, psychological stability, and creative activity, while prioritizing the human factor and not neglecting the technological aspects of organizing the effectiveness of education.

When applying innovative technologies based on this psychological approach in the higher education system, it is necessary to carry out pedagogical activity in accordance with the F. Herzberg principle. In this case, it is necessary not to adapt teachers to work, but to adapt the work to the person, that is, to the teacher.

The essence of F. Herzberg's theory of motivation lies in the fact that hygiene and motivating factors have an equal impact on the satisfaction and productivity of the team. Hygiene factors ensure working conditions and the atmosphere in the team, and prioritize the focus on technological aspects related to employee occupational safety.[7]

In our opinion, the formula of this motivational two-factor theory, corresponding to innovative principles, manifests itself in practice as follows. Higher education environment and working conditions + incentives = state of satisfaction. If the environment and working conditions of higher education are not coordinated with stimulating factors, the effectiveness and result of approaches related to the introduction of innovative educational technologies are explained by zero.

From this point of view, in ensuring the pedagogical and psychological factors of the organization of an innovative environment in education and its full-fledged operation, the implementation into practice in accordance with the formula we recommended above creates the possibility of maximizing the use of general and specific aspects of innovative educational technologies.

The theory of two-factor intelligence is a theory of intelligence created by Charles Spearman, whose main characteristic feature is that all intellectual activity is influenced by two factors of intelligence: general ("G") and specific ("S").[8]

In an innovative higher education environment, the targeted use of Charles Spearman's two-factor intelligence theory is of great importance. The only thing that unites the success of students is their overall mental energy, and the coordination of its pedagogical and psychological factors is of great importance. Also, this theory serves the creation of a hierarchical model for the further development of students' competence in working with innovative educational technologies. The application of this theory in the practice of innovative education, the development of students' mechanical, arithmetic, and linguistic abilities, as noted by Spearman, creates "group intelligence factors" that ensure a combination of theoretical and practical knowledge in students.

In an innovative educational environment, the pedagogical and psychological approaches of the educational subject are explained by the effectiveness of professional activity, an acceptable level of intellectual development of students, increased thinking, activity, high reaction time, lability, emotional stability, and a high level of self-control[9].

According to the scientific views of V.A.Krutetsky and N.V.Kuzmina, the innovative educational environment puts forward the approach that the success of activity is similar to Charles Spearman's two-factor intelligence theory and is explained by the general and special abilities of the teacher. From their point of view, a teacher working in an innovative educational environment should have the following professional abilities: didactic, academic (having high professional competence in the field of the subject he teaches), possessing deep professional perception (ensuring the mobility of the process associated with enriching and perceiving the world of students' imagination), the complete absence of rigidity of thinking in professional activity (speech fluency, creativity in pedagogical organizational approaches, emotional and voluntary pedagogical influence on students), communicative skills and a high

level of distribution of attention to students in the pedagogical process, as well as the formation of empathic abilities, i.e., projective (gnostic, design, constructive) abilities[10].

Scientific and theoretical views on the possibility of the influence of national and ethnic values among students of the pedagogical higher education system on the goals, content, methods, and forms of organizing an innovative educational environment are put forward in the scientific reflections of Yu.R.Povarenkov.

According to his scientific approaches, it is important to pay attention to such important factors as creativity in the innovative educational environment, in particular, in the introduction of innovative technologies into the educational process of students of pedagogical universities. [11]

Innovative technologies introduced into the educational process, based on the creation of an innovative environment based on mutual cooperation of educational subjects and sustainable communication, determine the content of professional values that can be implemented in the future professional activities of future teachers and serve to improve the quality and effectiveness of national education. This process ensures a combination of pedagogical and psychological factors to ensure that students experience a sense of professional satisfaction, emotional comfort, and an optimistic mood.

Coordination of the innovative environment in the higher education system and the use of innovative technologies are characterized by the introduction of pedagogical and psychological factors of creative research and a creative approach to the process of students' learning. Also, this process increases the ways and possibilities of students to implement methods and means of obtaining new knowledge based on the use of scientific methods of cognition based on new pedagogical technologies. The innovative educational environment creates the possibility of implementing such approaches in the educational process as analysis, synthesis, comparison, classification, generalization, abstraction, concretization, modeling, extrapolation based on technologies.

In the conditions of innovative education, interactive technologies and pedagogical-psychological methods used in the educational process, such as generalization, abstraction, concretization, modeling, increase the activity of students and play an important role in the formation of professional knowledge and skills[12].

This process serves as the basis for the pedagogical factors of the manifestation of typological features, such as teaching in accordance with the model of students' educational and research activities, transferring most of the pedagogical activity carried out under the guidance of the teacher to independent learning, and on its basis, individual work of students and independent strengthening of their professional activity, self-development, and the manifestation of creative qualities. This approach is also a pedagogical and psychological prerequisite for such factors as the coordination of the topic of scientific research by us, that is, the innovative educational environment and the activities of students with the effectiveness of innovative education.

In our opinion, education, purposefully organized, coordinated with long-term plans and harmonized with innovative projects, determines the future of the state and society, and also revealed the essence of mistakes and shortcomings made in the past. From this point of view, the innovative development of modern education and the individual development of the individual is a pressing problem of education management.

According to O.P. Filippov, the only factor that can change the negative trends in the development of modern society is the educational process. It is education that can revive moral ideals and priorities of human life. Education is the future.[13]

New standards in the education system of the information society require teachers to possess modern pedagogical and psychological professional competencies in carrying out activities in an innovative educational environment, as well as the phased introduction of interactive and project-based educational technologies into practice and attention to factors related to ensuring its dynamic stability.

The innovative educational environment defines the essence of modern educational activity and represents a set of new knowledge combined with the field of knowledge about its organization and management of innovative processes.

Pedagogical innovation is a field of science that studies the development of new technologies and new educational practices, manifested in coordination with the content of modern teaching and upbringing and factors of effectiveness. All goals of innovative activity in the field of education are aimed at preparing the student's personality for the new reality surrounding him.

The innovative educational environment, modern information technologies introduced into the educational process, allow teachers to convey material in a more convenient and diverse way and form new qualities in students, such as a creative approach[14].

According to the scientific opinion of M.V. Kuzmina, the innovative educational environment is characterized by: obtaining high-quality knowledge; increasing the speed of information exchange; forming an information and educational community; creating modern educational conditions for students and providing opportunities for their effective use in professional activities, as well as the formation of professional competencies[15].

Teachers of specialized disciplines of higher educational institutions must possess the competencies necessary for the use of innovative educational technologies in the educational process, constantly master and apply the latest scientific achievements, new methods and technologies. For this, it is important to develop the professional competence of teachers of specialized disciplines in an innovative educational environment. The professional knowledge, skills, and abilities of a trained specialist largely depend on the quality of teaching specialized disciplines[16].

According to the scientific opinion of A.M. Novikov, an innovative educational environment is a coordinated process of factors of cooperation of educational subjects at a new level, directly or indirectly influencing the educational process and serving to improve its quality and effectiveness[17].

From the point of view of E.A. Shmeleva, the innovative educational environment is characterized as "an environment aimed at the development of innovative potential necessary for the production of new ideas, the creation of new products, technologies, and the development of fundamental and applied research in various fields, including pedagogical ones"[18].

The innovative educational environment and its pedagogical and psychological factors are characterized by bringing modern cooperation between educational subjects in the higher education system to a new level, and its content is expressed in ensuring the orientation of a specialist with high professional competence, fully manifesting themselves in professional activity, to various spheres of the state and society.

The most important conditions for increasing the effectiveness of the use of innovative technologies in the educational process of higher education should be characterized by the following. At the same time, first of all, it is necessary to combine approaches to strengthening the knowledge of teachers working in the higher education system about the psychological and pedagogical foundations of the implementation of innovative education with modern factors. It is also important to pay attention to increasing the competence of teachers in the free use of computer technologies and the formation of skills in the targeted use of the global network system. Timely and effective implementation of organizational issues related to stimulating teachers who achieve positive results in their professional activities and widely use innovative technologies in the educational process, as well as ensuring their participation in scientific and theoretical conferences, is required.

Generalization for the analysis of results on the problem of introducing innovative technologies into the educational process of higher education through the formation of the psychological and pedagogical foundations of preparation for innovation is of great importance.

At the same time, priority is given to such aspects as professional self-awareness in innovative activity, achieving professional success, increasing creative potential, paying attention to the aspects of "arming" each teacher with individual technologies for the formation of pedagogical and psychological professional "immunity," which are associated with the formation of elements of flexibility in their personality in a constantly changing pedagogical situation, providing practical assistance in defining a professional strategy, developing in their personality the compliance of effective individual characteristics with modern requirements in accordance with the innovative process, as well as developing communicative competence. It should be noted that the process of mastering innovative technologies in the education system, along with the individual characteristics of the individual, is characterized by a change in the ideological positions of their knowledge and understanding of the modern educational process.

Thus, psychological and pedagogical cooperation between the innovative educational environment and the subjects of the educational process plays an important role in the development of professional competencies of educational subjects operating in the higher education system. Psychological and pedagogical cooperation in an innovative educational environment further develops the intellectual and creative activity of educational subjects, ensuring the emergence of the opportunity to demonstrate the talent necessary for themselves and their professional activities

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