

**MECHANISM OF METHODOLOGICAL IMPROVEMENT OF STUDENTS ' CREATIVE COMPETENCE INDICATORS ON THE BASIS OF FORSYTH TECHNOLOGIES**

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Abstract

This article is intended for students of the pedagogical academy studying in the direction of undergraduate education and teachers of the pedagogical higher education professor. In the methodological improvement of students ' creative competencies on the basis of Forsyth technologies, pedagogical conditions and quality indicators of the application of innovative organizational and didactic forms of education, information and didactic provision are described. The methodology for improving students ' creative competencies on the basis of Forsyth Technologies, is highlighted on the basis of an innovative approach.

Introduction

In the world, Forsyth is emphasized as promising directions for improving on the basis of technologies and mastering new forms of independent professional development. In particular, in the concept of Universal Education adopted until 2030, the idea of “creating an opportunity to receive quality education throughout life” is given special attention to the development of continuous professional development and creative thinking of specialists. Finland in particular: Finland is known for its forsything and strategic planning centers. For example, the Finnish innovative fund company (Sitra) conducts long-term forsything based on various scenarios of the development of the economy and society. There are several Forsyth centres in Germany, such as the Federal Ministry of research and education (BMBF) active in research and education in forsything, trend analysis and development. The Institute of Technology (British Technology Strategy Board) in the United Kingdom launched the Centre for forsything and innovation. The center is engaged in the forsything of technological trends and the development of strategies for the development of various sectors of the economy. There are various government and industrial Forsyth centers in the United States. The National Intelligence Council (National Intelligence Council) Forsythes global trends based on various scenarios of World Policy Development. Large companies such as IBM and Microsoft also have their own Forsyth centers to plan future technology research and development. Singularity University in Singapore is engaged in Forsyth and research in the field of technological innovation.

To a certain extent, this dissertation study will serve the implementation of the tasks set by the president of the Republic of Uzbekistan in the decision “on the development stpategia of New Uzbekistan for 2022-2026”, PF-60 of January 28, 2022, as well as other regulatory



legal acts related to this activity. In the concept of development of the higher education system of the Republic of Uzbekistan until 2030, the implementation of the following tasks in order to increase the productivity of research work in higher education institutions, to create an innovative infrastructure of science was established: the gradual introduction of the concept of "University 3.0", which implies an inextricable connection of the activities of commercialization; in higher education educational institutions, special attention began to be paid to the relevance of the organization and development of Forsyth centers, technoparks, Centers for the transfer of innovative technologies, accelerators, startups, business incubators. The system of Higher Education, which develops in accordance with social requirements in the system of continuing education developing in our republic, has its own special place. In finding a solution to the problems that arise in this regard, it is first necessary to create the necessary information infrastructure in the introduction of modern technologies into educational processes. Theoretical and methodological issues of the development of the educational system in higher education and the problems of creating an information environment in education R.X.Dzhurayev, H.F.Rashidov, Sh.E.Gurbanov, N.A.Muslimov, U.I.Inoyatov, Sh.S.Sharipov, U. S. Begimqulov, E.A.Seytkhalilov, M.A.Yuldashev, Mamatov D.N. and others. Research related to the issues of theory and practice of the use of Forsyth technologies in higher education, didactic and methodological foundations, prospects foreign scientists Sokolov A.V. Georghiou L., Cassingena Harper J., Keenan M., Miles I., Popper R., Shelyubskaya N.V. Uzbek scientist Rakhimov O.D.va covered in the work of others.

Research on the organization of the information and educational environment of educational institutions and the introduction of information and communication technologies in education A.A.Abdukodirov, N.I.Taylakov, U. S. Begimqulov, J.A.Khamidov, O.X.Performed by torakulov. Research on the introduction of information and communication technologies to remote qualification in higher education in foreign countries I.R.Agamirzyan, Alekseyeva A. D., T.V. Konyukhova, A.D., Alekseyev, T.V. Yejoval, V.S.Yefimov, A.V Lapteva, V.L.Hosted by inozemsev.

The following factors can be noted that the higher education system negatively affects the effective organization of education: the conflict between the current system, which is not sufficiently ready to respond to the changes taking place with the rapid renewal of the educational system; the lack of development of methodological support; it shows that the creation of an integrated information and educational environment and the improvement of human resources training processes on the basis of modern information and communication technologies remain a source of a number of problems awaiting a solution that is not fully researched pedagogically. Analysis of the process of improvement of students 'creative competencies on the basis of Forsyth technologies, clarification of pedagogical conditions, content development of information and didactic provision of preparation of students' creative competencies on the basis of Forsyth technologies, justification of pedagogical conditions and didactic possibilities of organizing the process of improvement of students ' creative competencies on the basis of Forsyth technologies; modeling the improvement of students 'creative competencies on the basis of Forsyth technologies, developing the training



of pedagogical personnel of the higher education system, assessing the level of improvement of students' creative competencies on the basis of Forsyth technologies, processing results, developing methodological recommendations.

Information and didactic provision of improvement of students' creative competencies on the basis of Forsyth Technologies is developed in content on the basis of the synthesis of andragogical and personal-active approaches through such functions as the formation, modeling of an information-educational environment; improving the qualification level of the personnel of the higher education system by generalizing such models as Delphi-method of improving students' creative competencies on the basis of Forsyth technologies (two-stage expert surveys), SWOT-analysis, mental attack, scenario creation, technological roadmaps, interaction analysis, modeled on the principles of purposefulness, openness, activity, humanity, optimality; a methodological model based on a networked model of the main effectiveness of students' creative competencies in the formation of horizontal networks, platforms for a systematic discussion of general problems in the field of Forsyth technologies, developed in the integrity of systematic, personality-oriented and androgical approaches and targeted, meaningful, process and diagnostic-consequential components; as a planned and organized systematic process in Forsyth's research and a set of interconnected tasks and a sequence of mutual projects in the formation of ideas development methodology improved on the basis of systematization of such functional features of networked distance learning as conceptual, technological, evaluation-control; tools for assessing the level of improvement of students' creative competencies on the basis of Forsyth technologies and mechanisms for complex assessment of knowledge of participants in the information and educational environment of distance education are improved on the basis of differential-integral, inductive and deductive methods.

Improving the qualification level of the personnel of the higher education system by generalizing such models as Delphi-method of improving students' creative competencies on the basis of Forsyth technologies (two-stage expert surveys), SWOT-analysis, mental attack, scenario creation, technological roadmaps, interaction analysis of the principles of purposefulness, openness, activity, humanism, optimality the content of concepts to educational programs;

pedagogical conditions and quality indicators, information and didactic supply of the application of innovative organizational and didactic forms of Education have been developed in the improvement of students' creative competencies on the basis of Forsyth technologies;

The implementation of the tasks set out in the "concept of development of the higher education system of the Republic of Uzbekistan until 2030" requires the use of the most modern pedagogical and digital technologies in the educational system. It is also necessary that our national cadres, which are being prepared in higher education, can see the future, be flexible in a rapidly changing competitive environment, be able to put the principles of sustainable development into practice. Because, at a time when the process of development of the educational sphere is accelerating, the correct improvement of educational strategies in the future will form the basis of sustainable development. In the current era of

globalization, major problems in the world, region, state or educational spheres (electronic information exchange, socio-economic, technological, political, etc.) the most effective and acceptable option is the use of Forsyth technologies in the development of strategic plans, road maps and concepts regarding the solution. On the basis of Forsyth, a long-term development program (5 to 30 years) or concept is created on the basis of data based on short-term concrete evidence, that is, the future strategy is planned on the basis of clear, high-level evidence. In developed countries, Forsyth is also widely used within a separate organization or enterprise, with the help of Forsyth technology, the future strategic plan of the enterprise is developed, which technologies need to be improved, road maps are developed to achieve the goal. For this reason, Forsyth technologies are widely used in the training of pedagogical specialist personnel in the system of higher education of developed countries, in the teaching of e-learning theory and methodology, pedagogy, creative pedagogy, and in educational programs it is the Forsyth-specific disciplines that are envisaged. Forsyth was considered a relatively new term, and thus no perfect definition of it has been developed so far. On the basis of Forsyth Technologies, Global (based on international cooperation) problems related to the education of the electorate, including on the basis of cooperation, it is important to develop this area more widely and improve Forsyth technologies. Starting in the 1990s, Forsyth Technologies began to be widely used by several economically developed countries in the United States, Europe, Asia, Latin America in determining long-term prospects. On the basis of the results of Forsyth projects, large-scale international research programs have been developed, including budget expenditures of the EU's VI and VII scientific research and technology development program of 17.5 and 54 billion. It is desirable to conduct research on the basis of these Forsyth technologies that the euro was established, the last Forsyth project of the Swedes cost about 3.6 million euros, and in Turkey-about 2 million euros. EFMN (the European Foresight Monitoring Network) - an example of the activities of the European Forsyth research monitoring system, FISTERA - a system of projects in the field of an informed society. EFMN is funded by the European Union and is part of the "European knowledge exchange platform". It includes organizations such as ARC-SA, VDI, PREST, TNO, CKA, Atlantis, Fhg-ISI, Dialogik, Louis Lengand & Associates, Technology Centre Prague. The EFMN monitoring portfolio of data for 2006 includes data on about 1,000 Forsyth studies performed in EU member states and in Japan, the United States, Canada, China, the Republic of Korea, and Brazil. Since the practice of developing electronic information networks, including long-term strategic plans, concepts and promising road maps from the field of Education, has not been established in Uzbekistan on the basis of Forsyth technologies, multiple production in our republic is one of the main problems facing enterprises and organizations. The process of development of high-tech projects lies in the fact that it is carried out without taking into account the development of market and technological trends. The underdevelopment of cooperative processes in the innovation sector led to a slow approach to the issue of introducing scientific achievements into production and insufficient evaluation of conducting research on the theory and methodology of electro education. Therefore, in the educational process of higher



education, it is a modern requirement to provide future educators with information about Forsyth technology, its content, the use of Forsyth methods, as well as the widespread use of this technology as an innovative pedagogical technology in the educational process and the improvement of students' creative competencies on the basis of Forsyth technologies. Forsyth technology in the field of education in Uzbekistan is a new technology, therefore, it is one of the urgent problems for child educators that there is no Forsyth research in the field of electronic network and in the field of electron education theory and methodology, scientific dissertations on Forsyth technology are not defended. The above analysis shows that on the basis of Forsyth, a sheep's definition of creative competence of students was developed.

"Creative competence of students on the basis of Forsyth technology, which is the correct understanding of the long, medium and short – term future of specialists in the field of e-learning theory and methodology in the field of ICT, forecasting, strategic planning, timely rapid decision-making on the implementation of plans and achieving the specified result it is a set of personal characteristics aimed at obtaining creative knowledge, qualifications and skills and skills in the provision, control and evaluation, creative knowledge, skills and skills specific to creative competence based on Forsyth in the process of pedagogical activity". Based on Forsyth technology, creative competence is an integral part of professional competence, so it can also be described as targeted competence.

In the current conditions, one of the main priorities of the reform in the field of theory and methodology of education of Uzbekistan elektron is the development of theoretical and scientific points of view of the creative educator, which are especially used in the theory and methodology of e-learning and in our practical activities. This is not a blind transfer of the experience of technologies of developed European countries, but rather a new solution of template acquisition, creative search. Creative approach-it consists in introducing students to the general problems of methodological and theoretical knowledge of creative pedagogy in the process of education, the role of creative pedagogy in the teaching and education of a harmonious personality, its sources, goals and objectives, subject, factors. It consists in the development of knowledge, practical skills of students to influence educational development, electronic content, digital essence, didactic and educational capabilities. It is necessary to improve the idea of Creative Digital Pedagogy as one of the directions of pedagogical science and practice, to develop creative pedagogical knowledge, skills and qualifications of practical importance.

In the process of education, it is considered a requirement of the time to carry out work through creative thinking of students, to thoroughly know Forsyth technology in the development of new creative thinking in the process of pedagogical education, to have the competence to predict the long-term 20-30-year future of any OSM on the basis of Forsyth technology, including if "Forsyth technology" Creative competence on the basis of Forsyth technology is characterized by the fact that students have developed their willingness and ability to predict the future of an educational institution in their professional and scientific–reflexive activities. Student;positive aspects of the AR in choosing a pedagogical specialty as indicators of assessment of creative competence based on Forsyth technology, knowledge



of a set of specialist disciplines, experience in reflexive professional activity, pedagogical culture, preparation for the effective solution of pedagogical issues, thorough knowledge and implementation of Forsyth technology, and the ability to independently increase its professional creative competence, self-development and assessment skills can be included. It is important and necessary for the OSM to have the knowledge and experience of pedagogical institutions, excellent knowledge of Forsyth technology and the skills of practicing Forsyth technology. The high level of development of students' creative competence in Forsyth technology has a positive effect on the development of society on the basis of the education policy of our state, in addition to ensuring the implementation of the DTS and concepts and program for training personnel.

In the research process, methods such as analysis of scientific and educational-methodological literature, pedagogical observation, comparative analysis, generalization, pedagogical experiment-testing, mathematical-statistical analysis were used. Research results and discussions. The content of creative competence on the basis of Forsyth technology consists in improving the model of future career development using methods of predicting prospects in future educators. At the OSM, Forsyth is a promising technology with a high degree of technology learning.

Currently, the use of innovative educational technologies aimed at such a creative competence is the main goal of the strategy of higher educational institutions in the field of competitive training in the labor market. In the educational direction of the "creative educator", specialist subjects are required to use Forsyth technology in training, to focus on project activities and scientifically-creatively independent thinking. And it is important to organize independent education on the basis of e-learning resources. The development of "creative competence on the basis of Forsyth technology" in future pedagogues is described by understanding the strategic planning capabilities of Forsyth-pedagogue, that is, the responsibility of the educator for his decision, and is a management methodology. Forsyth technology methodology is an outline of Strategic Management and helps to create a future in a strategic plan, taking into account the competitive advantages of the educational institution. Forsyth was the first to use the concept of technology in the field of Economics. Determining the profile of creative competencies is important in the planning and development of the career of the pedagogical specialist. On the basis of Forsyth technology, creative competence can be viewed as a set of knowledge and skills in the field of strategic creative management of the human resource. Competence is formed from several components and is associated with personal knowledge, skills, practical experience and qualities. It is worth noting that the concepts of "competence" and "competence", in addition to their widespread use in pedagogical theory and practice, are a controversial issue among scholars. The term "competence" is more commonly used in the United Kingdom and assesses the result of the work performed by the professional. The term "competence", on the other hand, is used in the United States to refer to a specialist's character-determining abilities as well as his personal prejudices. This provides for which personal characteristics and abilities of a specialist ensure his successful career in his field. These scholars treat these terms as complementary terms, defined as the end result of training in the relevant



field as well as the characteristics of the individual that have developed throughout the various personal and academic pursuits. From the analysis of R & D, which reveals the essence of the terms "competence" and "competence", it can be concluded that these terms are terms that complement and represent each other.

"On the basis of Forsyth technology, the creative competence of students, this is a set of personal characteristics of educational specialists aimed at correctly predicting the long, medium and short-term future at the OSM, making timely quick decisions on strategic planning, implementation of plans and ensuring, controlling and evaluating the achievement of the specified result, gaining knowledge, qualifications and skills, these categories are aimed at

Forms of training consist of problematic lectures on the traditional educational Ridge, practical and seminar classes, educational and research work, qualification practices. And the flow tools consist of e-learning resources and a pedagogical simulator. Forsyth we divide the evaluation-consequential component of competence and the main indicators that determine their character into 5 groups in Aries:

1. To have theoretical knowledge of prediction based on Forsyth technology (to master Forsyth technologies, to use them in practice, to have long, medium and short-term predictive abilities based on Forsyth).
2. Strategic plans and road map development (gaining strategic plans, road map development skills based on prediction results).
3. Development of the development of creative competency on the basis of Forsyth technology in future educators.
4. Forsyth technology foundation of targeted creative competence.
5. The development of Forsyth technology indicators, which are aimed at using in the professional activities or entire life activities of a child educator. forecasting, strategic planning, timely rapid decisions on the implementation of plans, as well as ensuring their melting to the specified result.

Innovative approaches: practice, personal activity, principles of research-oriented education: Systematic, Active, variability, practice-oriented. In the first place in the effective functioning of future educators is the issue of achieving the planned result, other factors of creative competence based on Forsyth technology (knowledge, qualifications, abilities, etc.) are auxiliary components in relation to the result achieved. The algorithm of activities of the future educator will be complex, variable and focused on the student's personality. The Forsyth competence of students develops depending on his theoretical knowledge, qualifications and abilities on the use of Forsyth, personal professional characteristics, psychological characteristics (melancholic, choleric, sanguine and phlegmatic), as well as professional experience. The most important thing also depends on the approach to self-development and self-assessment, as well as the ability to use one's skills in practice. This is also consistent with the principle of "reading for the rest of a person's life". As a conclusion, the component that determines creative competence based on Forsyth technology with the main components that determine professional competence in future educators. It is advisable to use Forsyth technology in teaching specialist subjects



at the pedagogical academy and to achieve the development of “creative competence on the basis of Forsyth technology” in future educators. In the training of competitive personnel in accordance with world standards at the pedagogical academy in all educational areas, especially in the field of Pedagogy, Information Technology, informatics, services, providing students with sufficient information about Forsyth technology, introducing Forsyth-related subjects into the block of competitive subjects of educational plans, improving the methodologies of teaching these subjects is a modern requirement.

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