

MECHANISMS OF DEVELOPMENT OF CREATIVE THINKING SKILLS OF FUTURE ECONOMIC SPECIALISTS BASED ON INNOVATIVE EDUCATIONAL TECHNOLOGIES

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Annotation

Today, at the stage of globalization and technological armament in the world, the demand for high-quality education, as a result of which, highly educated and intellectual potential economic personnel is increasing. This article discusses the role and importance of effective educational technologies in the training of economists, and provides examples of educational components in Japan, France, Mexico, and the United States. Also, the article presents the classification signs of various innovative methods used in the training of economists in higher educational institutions of Uzbekistan.

Keywords

educational technologies, interactive, pest, swot, pedagogue, economy, innovation, method, education, mechanism.

1. Introduction.

Interest in the use of interactive methods, innovative, pedagogical and information technologies in the educational process is growing day by day. The main reason for this is that while in traditional education, students were taught only to acquire ready-made knowledge, modern technologies teach them to independently study, analyze and draw conclusions about the acquired knowledge. According to the state educational standard, the ratio of classroom (contact) and independent education is set from 40/60 percent to 50/50 percent [1].

In this process, the pedagogue creates conditions for the development, learning and upbringing of the individual, and at the same time performs the functions of management and guidance. Currently, the education system is considered as the main priority sector for all countries. Because we all know that the future of the country is in the hands of the youth. It is the urgent issue facing the education system to provide young people with the necessary knowledge in their chosen fields and to develop their skills. Due to the fact that the country's

support and ultimate foundation is formed in the relations related to money, future economists' abilities to study and find solutions to problems in this field are formed by professors and teachers.

Advanced Western countries see the innovative nature of the economist's professional activity at the initial stage of education. However, education in our country is often focused on the transfer of knowledge from professors to students rather than professional cooperation, modern technologies and creativity. The current situation requires a revision of this approach and a focus on the development of professional independence, creativity and leadership.

2. Literature review.

Educational technology is a multifaceted phenomenon: today, in the theory and practice of educational institutions, there are various options for the large educational process. Each author and performer brings something unique, individual to the pedagogical process, so they say that each author has his own technology [2].

As the educational system has reached a new level, the level of thinking of students is expanding, the possibilities of obtaining information are becoming easier, in such conditions, not using innovative technologies in the course of the lesson reduces the students creative thinking abilities and the effectiveness of the lesson. In the educational process, the professional skills of the pedagogue, the organization of classes with a thorough approach to his profession, has a positive effect on the formation of skills and qualifications of future young personnel [3].

Today, the scope of information has greatly expanded. If the teacher does not work on himself, his previous knowledge is no longer enough. It is possible to make the lesson memorable if the topics of the lesson are connected with the acute events of everyday life, if various innovative technologies are used. It is necessary for the teacher to organize lessons for the students in accordance with the topics covered, using innovative methods [4].

The word innovation (in English) means innovation, innovation, and technology is derived from the Greek words "technos" - art, skill and "logos" - science. Innovative technology means educational forms, methods and means a new approach to methods. Innovative technologies are innovations and changes in the pedagogical process, pedagogue and student activities [5].

Pedagogical innovation is innovation in pedagogical activities, improvement of the content of education and training, and the effectiveness of technologies. Thus, the innovative process consists in developing the content and organization of pedagogical activities. In general, the innovative process is understood as a

complex activity on the creation, development, use and distribution of innovations [6].

In the development of the educational system, innovative processes are carried out in the following directions: the formation of new educational content, the development and introduction of new pedagogical technologies, the creation of new types of educational institutions. In addition, professors and teachers of a number of educational institutions are engaged in the implementation of innovations that have become the history of pedagogical thought [7].

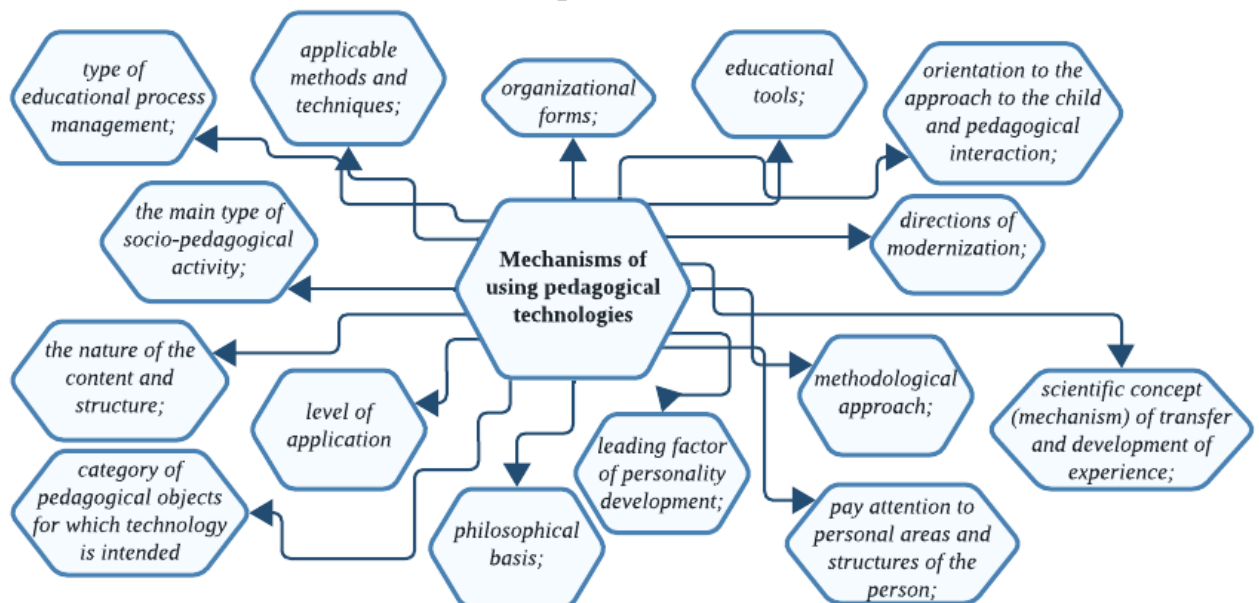
3. Research methodology.

Tables, infographics and pest and SWOT analyzes are presented in the form of a diagram in order to fully explain the topic as a research method. Educational technologies of developed countries are also analyzed.

4. Analysis and discussion of results.

It is necessary to take a broader view of the educational process, including the universal interest and the maximum development of human potential. The objective reality of the world economy is that a sports car financed by Japan uses high-precision electronic components designed in Italy, assembled in Mexico, France and developed in the USA. The days of single country products and technologies are over and the same is true for corporations and industry in general. In this case, the main wealth of the nation lies in the skills and creative potential of its citizens.

A scientific approach to this phenomenon should be based on classification - an orderly variety of existing technologies on a common basis and specific, important and accidental, theoretical and practical and other features.



Infographic 1. We base the integration of the most technologies into classrooms on the main aspects and features [8]

University education in economics at the bachelor's level in the UK is a broad set of disciplines organized into an independent field of knowledge, which provides the student with an understanding of the boundaries of knowledge, as well as some of the main areas of its application. The main task and challenge of an economist during his work is to be able to perform previously performed work in a new innovative way in the future. The working principles of the economist cannot be correctly interpreted without a foundation (real knowledge of the fundamentals of economics), so it is not a question of priorities, but of balance, which gives conceptual understanding to students - future economists.

Each class includes several groups of pedagogical technologies that are similar in this respect. This series forms the horizontal structure of this class of technologies; sometimes includes homogeneous elements, sometimes represents a certain scale of varieties (models).

The proposed classification is not exhaustive, so some series remain open, allowing for additions. Globalization in education creates a number of problems:

- 1) education and personnel training are becoming the main means of increasing the country's economic competitiveness;
- 2) the need to expand post-university education and professional retraining in order to form the knowledge, skills and qualifications of the population and workforce.

Modern technologies have become an integral part of our lives, and their impact on the lifestyle of the younger generation is becoming more significant year by year, and their transformative nature applies to the entire society, including the field of education. The enthusiasm for the use of mobile devices, wireless networks, cloud storage and social networks in the educational process is related to the great opportunities they offer to change the educational process and increase its effectiveness.

Table 1

Methods of effectively organizing educational activities [9]

Technology of training sessions	Interactive methods and educational strategies	Graphic organizers
Lectures are educational technology	Free writing. Reasoned essay	Cluster. B-B-B drawing T-drawing
Workshops are educational technology	Brainstorming. FSMU Blist-request. Blist game	Venn diagram. Conceptual table

Practical training educational technology	Teaching guide. Written and oral discussion	Insert table. “Why” diagram. “How?” diagram
Independent educational technology	Definition of concepts	Fish skeleton
Case-study technology of education	Compose a text based on concepts	Classification table
Design education technology	A sequence of confused logical chains	Lily flower

Technology is increasingly linked to innovative, cost-effective solutions to stay ahead of the forces driving change in HEIs around the world. Combining modern technology-based learning tools with sound pedagogical practices can benefit both students and universities as a whole, but it also entails major changes in the educational ecosystem. Therefore, such reallocation must begin with broad strategic planning that takes into account human, technological, and pedagogical factors. In particular, the purchase of new equipment is carried out along with the creation of a structure for supporting, informing, motivating and improving the skills of professors, as well as a reward system to encourage the introduction of this equipment into their pedagogical activities.

The life cycle of the competition “Innovations in education through new technologies” begins with a request to the teaching staff to submit their proposals and includes six stages:

1. Technical and economic analysis. At this stage, proposals are accepted and undergo a preliminary review process to ensure that they are relevant to the stated topic. Proposals should include clearly defined objectives, expected results, evaluation steps and a scale for measuring the results achieved, as well as an implementation plan with expected results. The proposal must include all software necessary to implement the project, as well as technical support. The commission selects projects that have the greatest potential for improving the educational process. These projects will go to the next stage.

2. Design and development. This stage is related to the organization of the project and the elimination of obstacles that prevent the development of the project. In this phase, new equipment is purchased, software is installed and configured, which should make the project ready for launch.

3. Initial placement and evaluation. At this stage, a pilot project is launched, and teachers test the work of the new technology in terms of its impact on the educational process. The new technology is used in the test mode in the educational process, data is collected and analyzed, the effectiveness and importance of the

project in achieving better results in the educational process is determined. Student feedback is also taken into account in the final evaluation of the project.

4. Exchange of results and impressions. Each teacher who participated in the pilot project and used the new technology in their classes gives a detailed opinion about the pilot project, showing the impact on the learning process and the final result. In a collective discussion, teachers share the results of practical teaching activities on the introduction of new technology.

5. Wider use. In Phase 4, successful projects are more widely accepted and applied across a range of disciplines, generating new data to better evaluate the proposed approach. If the positive evaluations are confirmed within the scope of wider use, the project becomes a candidate for approval.

6. Full-scale implementation. If the project proves its effectiveness on a multidisciplinary basis, it will become a standard educational technology and recommended for use by all teachers.

Thus, the central component of the competition “Innovation in education through new technologies” is the involvement of teachers in the study and evaluation of new technologies in education. Wide use of new technologies in the educational process is becoming a necessary condition for the long-term development of an educational institution.

Any specialist working in the economic sphere affects the company’s activities. Future professionals are increasingly focusing on PEST analysis as the most effective tool for strategic analysis of the company’s activities [10].

The PEST analysis is aimed at analyzing the four types of factors that are exogenous to the company, i.e., political, economic, socio-cultural and technological factors that cannot be changed by its efforts. However, they can lead to a structural change in a number of industries or a change in industry regulations for business activities, which has been observed in particular after the end of the coronavirus pandemic.

The PEST analysis is designed to identify and analyze the macro-ecological factors that determine the development trends of the field in which the company operates in the future, and their relevance is now growing sharply. At the same time, there are many publications on the Internet in which the PEST analysis is basically reduced to some modification of the SWOT analysis: create a list of PEST factors → assess their impact on the company → develop measures to use / neutralize → identified factors it is proposed to form the company’s strategy and action plan based on it.

The results of such analysis are important for strategy development and business risk management. Environmental and ethical factors are mentioned as such factors in the literature, the need to separate legal factors from political factors, as well as the need to take into account world and global development factors are mentioned.

Prospective problems of conducting such an analysis are that, in addition to analyzing the current macro environment of the company, describing the existing factors and events, it is useful to determine the directions of further development of the country, region, industry and enterprise, and to solve existing problems. For example, during the pandemic, it showed the problems of ensuring the medical safety of the population when traveling and using a number of services. In fact, the PEST analysis defines the macroeconomic basis for the perception of the external environment and expands the boundaries of strategic thinking of experts, managers and company specialists, which allows them to overcome their cognitive limitations in the process of thinking about new trends and possible structural changes allows. In turn, understanding these trends, adapting to them or rethinking the business can help companies develop and create new competitive advantages.

Changes and risks related to legal factors E. V. Viktorova, D. A. Gorulev, D. A. Petrenko's article, which states that the existing structure of the law, as well as state institutions, do not correspond to modern reality. In particular, the legal nature of digital assets, including artificial intelligence, as well as new modes of ownership and use (sharing, peering, open source projects, etc.) should be developed [11].

Analyzing the new roles of consumers, American researchers Jeremy Heymans and Henry Timms proposed the following hierarchy of possible roles in increasing the level of human participation in society [12]:

- traditional consumption of goods and services;
- sharing or sharing goods and services. Cars (car sharing), housing, content on social networks, open source software products, etc. are used in terms of sharing;
- participation in creating something is called co-creation. This includes developing your own design for a popular product (Nike sneakers, Gloria Jeans), creating Wikipedia content, customizing content, social media ideas, and more;
- financing or crowdfunding. Millions of people direct money to where they need it: to help those in need, for example, for treatment (social financing), to implement certain projects (film, book creation, etc.). Often, such financing is done emotionally;

- production, goods, services and content creation. People create videos and their own channels on YouTube, post photos and other creative works on Instagram, thanks to the Internet, the sale of handmade products, various individual services, etc. is expanding;

- co-ownership on the principles of equal rights (equal ownership) or open access (open source). Wikipedia was built on these principles, the Linux operating system and many other software products were developed.

Changes in the socio-cultural sphere are also associated with the formation of new labor relations and a new employment paradigm, the important components of which are “on-demand employees”, freelancers and self-employment. development. While permanent staff can be critical in capital-intensive industries, researchers say, in any information-based business, on-demand staff will become a necessary element of a company’s business model to achieve greater speed, functionality and flexibility [13].

In general, a company’s strategy should be based on an understanding of industry dynamics and the behavior of consumers and other stakeholders. When conducting a PEST analysis, it is intended to use secondary data on industry development trends and analyzes available in various levels of regulatory documents, periodicals, statistical reports, analytical reviews, Internet resources, etc. that regulate the development of the industry. will be compatible. All this, together with expert knowledge and discussions, allows to form a comprehensive picture of environmental factors and possible directions of industrial development.

One of the possible forms of PEST analysis is strategic sessions - interactive meetings for solving strategic problems, in which participants participate not only in analytical discussion, but also in a creative and emotional process. Many useful ideas for conducting such an analysis can be found in the book “Think in Other Formats” by BCG consultants L. Brabander and A. Ini [14].

Let’s look at the PEST and SWOT analyzes that are effective for economic personnel on the example of the Microsoft company.

Table 2

SWOT analysis of Microsoft [15]

<i>Opportunity</i>	<i>Strength</i>
<i>I. Creation of new software</i>	<i>1. Market reputation</i>
<i>II. Price reduction</i>	<i>2. Large market share</i>
<i>III. Access to other markets</i>	<i>3. A good employee</i>
	<i>4. Confidential technologies</i>
	<i>5. Good product advertising</i>

Threat	Weakness
<ul style="list-style-type: none"> I. Antitrust Policy II. Competition III. Demand reduction 	<ul style="list-style-type: none"> 1. Unfinished products 2. Low wages 3. monopoly

Table 3

Microsoft's PEST analysis [16]

Political factors	Economic factors
<ul style="list-style-type: none"> - Political stability in most markets - Expanding government capacity for automation - Strengthening international trade agreements 	<ul style="list-style-type: none"> - Economic stability of most developed countries - High growth in developing countries - Middle class income
Social/ Socio-Cultural Factors	Technological
<ul style="list-style-type: none"> - A stable attitude about entertainment - Expanding cultural diversity - A steady demand for high-quality customer service 	<ul style="list-style-type: none"> - Rapid adoption of mobile technologies - Increase the volume of online transactions - Expanding automation in business

A PEST analysis provides a systematic understanding of the future industry landscape in which a company will operate. However, it is difficult to predict the speed and intensity of the formation of such a landscape. For example, when looking at the digitization trend, it is necessary to assess the level of impact of digitization on the industry and understand the readiness of the entire industry for digitization. In other words, based on the principle of taking into account the trends, it is necessary to try to understand whether digitization will be attractive for industrial development or whether the industry is not yet ready for it.

5. Conclusions and suggestions.

Summary PEST analysis is an important tool for identifying possible changes in the structure and rules of operation of the industry, and its importance increases due to the high dynamics of changes in the external environment. Essentially, it is a tool for thinking about trends in the development of the state, economy, society and technology, and helps to identify new opportunities for business development. When conducting a PEST analysis, it is important to identify catalysts for change, ideally attractors as points of interest for potential industry development paths. Of course, this is a difficult methodological issue because it concerns the future, but if

a company has a vision of the attractiveness of its industry, it will be able to grow in the wave of change. In connection with the important trends in the macro environment, it is necessary to identify the interested parties and their power, to identify the supporters of the changes. Timely identification of possible changes in the external environment and adequate assessment of their consequences is an important stage of strategic management of organizations in the modern world.

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