

THE CONCEPT OF CONDUCTING INNOVATIVE COMPETENCE OF TEACHERS IN THE SPACE OF EDUCATIONAL ACTIVITIES

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INTRODUCTION

Despite the great variety and depth studies, they often quite autonomously considered the problems of preparing a teacher for innovative activities at the stage of higher education.

Professional education and support of the teacher's innovative activities at the stage of additional professional education, and therefore not found reflection issues related to the problems of lifelong education, taking into account the characteristics of the regions, (starting with a university, educational organizations and ending with organizations of additional professional education and public and professional communities), theoretical and methodological foundations of the formation of the teacher's innovative competence in the space of lifelong education on a new methodological basis.

Noting the importance and fruitfulness of the research carried out on the above problems, it should be clarified that in pedagogical theory, it is insufficiently worked out at the methodological and theoretical levels.

issues related to the content and structure of modern pedagogical education, taking into account the trends in the socio-economic development of the region.

The need for scientific understanding of the process of formation of the teacher's innovative competence is determined by a number of circumstances:

- educational policy, formed on the basis of a combination and division of powers between the federal and regional levels of education management, and, as a result, the rights granted to the regions and opportunities in the choice of educational strategies, the creation of concepts and programs for the development of education in accordance with the socio-economic characteristics of the development of the regions;
- actualization of the problem of development of a network of innovative general educational organizations at the level in connection with the introduction of new federal state standards for general education;
- the inertia of the modern education system, its separation from economic, social, cultural needs.
- Based on the above, the following were identified contradictions:
- at the socio-pedagogical level - between the order of the state and society for a teacher who is able to carry out innovative activities taking into account socio-economic development, and the inability of the education system to satisfy this order due to insufficient research into the problem of the formation of the teacher's innovative competence in the context of socio-economic development;

- at the scientific and theoretical level - between the needs of pedagogical science in theoretical comprehension of the essence of the formation of the teacher's innovative competence in the space of lifelong education and lack of an appropriate concept in its methodological, theoretical and practical implementation;
- at the scientific and methodological level - between the development of a network of innovative educational organizations, the increased demand for the identification and substantiation of leading ideas, approaches and principles that methodologically and theoretically ensure the formation of the teacher's innovative competence, taking into account the socio-economic development of the region and inertia the education system in responding to this situation, its isolation from socio-economic needs;
- at the scientific and practical level - between the understanding of the pedagogical community of the value of the formation of the teacher's innovative competence in space of education and undeveloped corresponding concept.

The resolution of these contradictions requires the study of the problem field of the space of lifelong education, in which the formation of the teacher's innovative competence is carried out.

THE INITIAL PRESUPPOSITIONS

The model of innovative activity should be developed on the basis of the model of social interaction, which was created in foreign pedagogical innovation (Harris, S., Sutton, R., 1986).

METHODS

The current stage of development of Ukraine and the entire world community is characterized by the rapid deployment of innovative processes in all spheres of human activity. If from the mid-90s of the last century the most important for the development of our country was the agrarian complex, now it is at the forefront in ensuring national security, prosperity and building the future of the country, maintaining a single sociocultural space claims to be scientific and educational. This claim, on the one hand, is formalized in program documents in the field of education (in particular, in the modern education model focused on solving the problems of an innovative economy, with the other is that the position of the subjects of the education system is such that it manifests itself in a paradigmatic shift from supportive to innovative learning, which makes it possible to ensure the formation of the subject's ability to have a projective, innovative view of the future. Therefore, the development the concept of the system of innovative pedagogical education is an urgent task.

The concept sets a general ideological and methodological framework for the further development of documents of a regulatory, program-organizational and methodological nature, which determines the peculiarities of the implementation of educational policy, the strategy and tactics of working with teachers who carry out innovative activities. It is aimed at the objectively necessary change of the existing, but isolated from each other and disparate forms and levels of work with educators engaged in innovative activities into a flexible, accessible multi-level system that includes coordinated actions aimed at identifying, supporting and supporting innovations in the education system (BOGOMOLOV, 2007).

The relevance of ensuring the formation of an innovative the teacher's competence is due to the need to form carriers of innovative abilities, bringing innovative activities carried out at the level of general educational organizations in accordance with the state educational policy, "completing" existing innovations in the context of modern trends in the development of education through the preparation of its multi-level carriers in the person of existing and future teachers, management and pedagogical teams educational organizations (individual and collective subjects of innovation) (HARRIS, S., SUTTON, R., 1986).

The formation of the innovative competence of a teacher is a continuous process of improving the personal, theoretical and practical readiness of the teacher for the purposeful introduction of innovations into the pedagogical system, which has a natural-artificial nature and carried out under the influence of external conditions, professional activity and the individual's own efforts.

The main idea of the concept is to ensure the formation innovative competence of current and future teachers, management and pedagogical teams of educational organizations (individual and collective subjects of innovation) by creating and ensuring the functioning of the educational space, which contributes to bringing innovative activities carried out at the level of general educational organizations in accordance with the state educational policy, and "completing" existing innovations in the context of modern trends in the development of education.

The concept of the formation of the teacher's innovative competence in the educational space is presented a set of laws, factors, principles, a set of generalized provisions reflecting the goals, content, technology, organization of the process of preparing a teacher for innovative activities and support of this activity.

The concept of the formation of the teacher's innovative competence in the educational space takes into account the specifics innovative processes in education, which determines the dependence of the scientific and methodological support of the teacher's innovative activity on the micro and macro levels of innovative processes; from activity, subjective and organizational and managerial aspects of polystructural innovation; on the scale of the expedient dissemination of innovations at the municipal level (POLAT, 2021).

The goal of the concept is to create a theoretical and methodological base and develop, on its basis, a strategy and model that ensures the teacher's readiness for innovative activities, taking into account the socio-economic development. As a methodological basis for the formation of the teacher's innovative competence within the framework of the concept, the following approaches are highlighted:

- systemic - allows us to consider the formation of the teacher's innovative competence as an integral process that ensures the unity of interrelated and interdependent components of his readiness for innovative activity;
- system-thinking activity - ensures the unity of thinking and activity, reflects the path of the formation of the teacher's innovative competence with an orientation towards resolving individual educational deficits;
- competence - contributes to the consideration of the formation of the teacher's innovative competence as a unity of his personal, theoretical and practical readiness for innovative activity;
- synergistic - focuses on social design and program-targeted management of the subjects of the education system at different levels of competence in the implementation of innovative activities (DERKACH, 2010).

The substantive core of the concept is the regularities the formation of the teacher's innovative competence in space of continuous education. When identifying patterns, we used the techniques proposed:

1. Taking into account the procedural features of the subject under study.
2. Taking into account the driving forces of its development (internal contradictions).
3. Taking into account the selected research methodological approaches (conceptualization of methodological foundations by a deductive method).

Taking into account the fact that in the humanities, patterns are social character, it becomes necessary to distinguish both external (determining the relationship between social and professional phenomena) and internal (reflecting the relationship between the components of the regional space of lifelong education, in which the formation of innovative competence is carried out teacher) patterns.

External patterns of the formation of an innovative teacher's competence in the educational space:

- the goals and objectives of ensuring the formation of an innovative the teacher's competence in the regional space of lifelong education is determined by the characteristics of socio-cultural development and educational traditions;
- the process of the formation of the teacher's innovative competence is due to the action of various factors that facilitate or impede this process.
- Internal patterns of the formation of an innovative teacher's competence in the educational space:
- the formation of the teacher's innovative competence in the space of lifelong education is carried out coordinated actions of subsystems aimed at identifying, supporting and maintaining innovations in the education system;
- the effectiveness of the formation of the teacher's innovative competence is associated with the nature of the educational process in which it is carried out, and depends on the integrity and continuity of this process in various structures of continuous space education (IASECHKO, IASECHKO, SMYRNOVA, 2021).

The revealed patterns served as the basis for identifying factors that influence the formation of a teacher's innovative competence in the space of lifelong education, and the principles that will form the basis of this process. As a result of the study, we found that the following factors are actively acting on the formation of the innovative competence of the teacher:

- the transition of a significant part of socio-economic relations in society to market conditions for development;
- the requirements of the economy for the quality of training of teaching staff in terms of innovation;
- the growing influence of external (foreign) factors on the development of education systems;
- intellectualization and informatization of socio-economic processes;
- the growing contradictions between individual systems (government - business - science - training - civil society institutions) both at the national level and at the regional level;
- increasing the role of the human factor in the management of society at different levels (country - region - local systems).

The development of the concept of the formation of the teacher's innovative competence also presupposes the identification of the fundamental principles that will form the basis of its design.

RESULTS AND DISCUSSION

Based on the research of the scientist, the following principles of the formation of the innovative competence of the teacher are formulated:

1. The principle of continuity, which determines the continuous nature of modern education. This principle, in our opinion, becomes fundamental for the system and the subject's participation in it throughout the entire continuous process of his educational activity.
2. In the course of ensuring the formation of the teacher's innovative competence, the principle of continuous education at the stage of higher education is manifested in the self-determination of students for their own education within the framework of elective courses, drawing up individual educational and research programs. At the stage of additional professional education, this principle assumes that the teacher turns any life situation into an educational one for himself. Continuity involves a combination of at least three types of educational activities: formal, non-formal and informal education.

3. A manifestation of the continuity of education is also the continuity of the individual educational program of the teacher in different periods of life.
4. The content-structural principle that determines the priority of the formation of the content of vocational education over its organizational forms.
5. The principle of multilevel and complementarity professional educational programs, which determines the presence of many levels and stages of both professional and additional professional education.
6. The principle of mobility of professional educational programs, implying a possible change by the subject at one stage or another in the life path of the field of professional activity or receiving parallel professional education.
7. The principle of individualization of educational goals and programs.
8. Education is subjective in nature and is associated with the growth of knowledge, methods, cultural values in a person. Therefore, educational goals and objectives are maximally individualized.
9. The principle of individualization is manifested through the preparation and implementation of individual programs for participants in the educational process. The goals and programs of education are individual, but it is impossible to realize them alone (there are not enough funds, methods), therefore, collective work is necessary. Education takes place in complex teams, where processes of collective thinking and activity are organized.
10. 6. The principle of continuity of professional educational programs, which allows for the free migration of a teacher in the space of continuous education from vocational training to additional vocational education and professional development.
11. 7. The principle of integration of professional educational structures that provide activity-based and intersectoral orientation of vocational education.
12. 8. The principle of consistency and different routes of content and planning its development in the regional space of lifelong education.
13. 9. Modular-variable principle, which allows to optimize the development of the content of the educational process.
14. 10. The principle of the network organization of the educational process, indicating that the educational environment is not limited to the boundaries of the educational organization, because there are no organizations and organizations in the network at all in the traditional sense, the primary cell of the unification is the "event community", "community".

The concept of "organization" affects, on the one hand, the way of interconnections and interdependencies between structural units (autonomous wholes), on the other hand, it characterizes the overall picture of the device (what internally sets and maintains integrity) (IASECHKO, SHELUKHIN, MARANOV, 2021).

Typically, the term "network" is used to denote some kind of integrity, consisting of interconnected nodes. The specificity of this concept is as follows:

1. from any node you can reach any other node through internal communications;
2. all nodes are equivalent in terms of the integrity of the object;
3. being interconnected in total integrity, each node has some relative independence. This, in fact, manifests itself as the ability to move by different routes from one node to another.

In the network organization of the educational process between the "nodes" of the network, more horizontal connections are built, and entails a change in the content of education and its forms. They are getting bigger become focused on supporting individual learning,

pedagogical support for the preparation and implementation of individual educational programs and self-education plans that ensure continuous education of the subject throughout life. In the context of the functioning of the regional space

continuing education, the ability of the subject to place an order for his own education is of particular importance. In these conditions, everyone needs to master the culture of choosing and co-organizing various educational proposals into their own educational program. The task of using a possible resource of open education for the construction and implementation of their individual educational program requires teachers to have special educational technologies and special skills.

The process of formation of the teacher's innovative competence in the regional space of lifelong education is built on an activity basis. In our understanding, this presupposes those teachers live through the transformations that are projected in the practice of children's education, i.e. education of teachers is carried out by means and methods of innovative technology, which they implement in the classroom. Thus, one of the main pedagogical principles of which we adhere is to organize the education of a teacher in the technology in which he is to work.

CONCLUSION

Based on the foregoing, we have identified the following stages of the formation of the teacher's innovative competence in the space of continuous education:

1. The preparatory stage, within which the teacher introduces into his practice innovations developed and tested by others, i.e. mastering of already existing samples.
2. Productive - when the teacher introduces new models content and technologies of education in new conditions. For example, organization of education of different ages in a city school, rural district or small school. At this stage, he is forced to redesign activities for specific conditions.
3. Creative - where the teacher himself is the author of the innovation and in parallel with the development, he is engaged in its implementation and support of those who work at the approbation stage.

As a rule, the first and second stages occur during the periods of building the foundation of pedagogical culture and its formation, the third - during the period of improving pedagogical culture. Consider how the formation of an innovative the competence of a teacher in the space of lifelong education, which is a set of educational organizations and educational programs that ensure the preparation of a teacher for innovative activities and support of a teacher who carries out this type of activity. We recall that structurally this space is represented by professional education organizations, namely: the pedagogical university, the regional institute for advanced training and professional retraining educators, educational organizations that are its base platforms and social pedagogical movements.

The modernization of higher education is closely related to the implementation of the Bologna Agreement and involves expanding access to European education, further improving its quality, increasing the mobility of students and teachers, using the system of study loans, and issuing a European diploma supplements.

A multi-level training system (bachelor's - master's), a system of credits (credits), modular structure of educational programs, ideas of lifelong education are among the priority tasks of the Bologna process. At the same time, researchers note insufficient attention to such aspects of higher education as the development of a specialist's individuality, his research culture, creative potential, and mobility. Transition from from one level of education to another implies an increase in the role of creative, educational and research skills in the structure of professional training. In our opinion, all forms of innovative activity of universities can be reduced to three areas:

1. Activity to create innovations as a factor of development innovative activity of the university.

2. Teaching innovative activity as a factor reproduction of innovation processes.
3. Educational activity as a factor of support and development of innovations.

REFERENCES

BOGOMOLOV, V.A. Review of free learning management systems. *Educational Technology & Society*, 2007, p.188. No available online.

DERKACH A. M. Case-method in teaching. *Specialist*. 2010, pp. 22-23. Available at: <http://www.kapr.ru/annotations/2006/12>. Access: March 11, 2021.

HARRIS, S., SUTTON, R. Functions of parting ceremonies in dying organizations. *Academy of Management Journal*, 19, 1986, pp. 5-30. Available at: <http://www.gslis.utexas.edu/~ssoy/usesusers/l391d1b.htm>. Access: March 11, 2021.

IASECHKO, M., SHELUKHIN, O., MARANOV, A. Evaluation of The Use of Inertial Navigation Systems to Improve The Accuracy of Object Navigation. *International Journal Of Computer Science And Network Security*, 21:3, 2021, pp. 71-75. Available at: http://paper.ijcsns.org/07_book/202103/20210310.pdf. Access: March 30 2021.

IASECHKO, M., IASECHKO, S., SMYRNOVA, I. Aspectos pedagógicos do autodesenvolvimento de alunos de educação a distância na Ucrânia. *Laplage Em Revista*, 7(Extra-B), 2021, p.316-323. Available at: <https://doi.org/10.24115/S2446-622020217Extra-B929p.316-323>. Access: June 11, 2021.

IMPROVEMENTS IN VERSION MOODLE 1.9 [Electronic resource]. Available at: http://docs.moodle.org/en/Release_Notes#Moodle_1.9.1. Access: March 11, 2021.

INDEX OF CODES. Available at: http://www.ecgi.org/codes/all_codes.php. Access: March 11, 2021.

METHODOLOGY FOR USING AN ELECTRONIC TEXTBOOK IN PHYSICS LESSONS Available at: <http://works.tarefer.ru/64/100534/index.html>. Access: March 11, 2021.

OECD. *Education at a Glance 2016: OECD Indicators*, OECD Publishing, 2016, Paris. Available at: <https://doi.org/10.1787/eag-2016-en>. Access: March 11, 2021.

Organization of distance learning using modern ICT. Available at: http://uotashtagol.3dn.ru/doc/PDF/Dist_Obuch/metodicheskie_rekomendacii_dlja_pedagogo_v_obrazova.pdf. Access: March 11, 2021.

POLAT, E.S. Distance learning models.2008. Available at: <http://hr-portal.ru/article/modeli-distancionnogo-obucheniya-polat-es>. Access: March 11, 2021.

TECHNOLOGY OF CREATION OF ELECTRONIC TEACHING AIDS [Electronic resource]. - Available at: www.ido.rudn.ru/nfpk/tech/t1.html. Access: March 11, 2021.

WHAT IS DISTANCE LEARNING. Available at: <http://ra-kurs.spb.ru/2/0/8/1/?id=28>. Access: March 11, 2021.

The concept of conducting innovative competence of teachers in the space of educational activities

O conceito de condução da competência inovadora dos professores no espaço das atividades pedagógicas

El concepto de conducción de la competencia innovadora de los docentes en el espacio de las actividades educativas.

Resumo

O artigo propõe um conceito de formação da competência inovadora do professor no espaço educacional, contemplando as ideias iniciais, metas, objetivos, padrões, princípios, etapas, conteúdos e tecnologias para a implementação desse processo; o conceito é concretizado ao nível da estratégia e implementado tendo em conta o modelo desenvolvido de formação da competência inovadora do professor no espaço educacional; os critérios e níveis de formação da competência inovadora do professor permitem avaliar a disponibilidade do professor para introduzir inovações (desenvolvimento e implementação de imagens fundamentalmente novas de conteúdos e tecnologias de ensino).

Palavras-chave: Ensino inovador. Ensino superior. Tecnologia de ensino.

Abstract

The article proposes the concept of the formation of the teacher's innovative competence in the educational space; it includes the initial ideas, goals, objectives, patterns, principles, stages, content and technologies for the implementation of this process; the concept is concretized at the level of strategy and implemented considering the developed model of the formation of the teacher's innovative competence in the educational space; the criteria and levels of the formation of the teacher's innovative competence make it possible to assess the teacher's readiness to introduce innovations (the development and implementation of fundamentally new images of content and teaching technologies).

Keywords: Innovative teaching. Higher education. Teaching technology.

Resumen

El artículo propone un concepto de la formación de la competencia innovadora del docente en el espacio educativo, incluye las ideas iniciales, metas, objetivos, patrones, principios, etapas, contenidos y tecnologías para la implementación de este proceso; el concepto se concretiza a nivel de estrategia y se implementa teniendo en cuenta el modelo desarrollado de formación de la competencia innovadora del docente en el espacio educativo; Los criterios y niveles de formación de la competencia innovadora del docente permiten evaluar la preparación del docente para introducir innovaciones (el desarrollo y la implementación de imágenes fundamentalmente nuevas de contenidos y tecnologías de la enseñanza).

Palabras-clave: Enseñanza innovadora. Educación más alta. Enseñanza de la tecnología.