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INNOVATIVE APPROACHES TO OPTIMIZING THE EDUCATIONAL PROCESS IN HIGHER EDUCATION IN THE TRAINING OF FUTURE TEACHERS

Background. ***Innovations in education are the process of creating, implementing, and disseminating new ideas, tools, pedagogical and managerial technologies in educational practice, resulting in improved indicators (levels) of the achievements of structural components of education, and a transition of the system to a qualitatively different state. Innovation means introducing something new into the goals, content, forms, and methods of teaching and education; into the organization of joint activities between the teacher and the higher education student. The word "innovation" has a multifaceted meaning, as it consists of two forms: the idea itself and the process of its practical implementation.***

Results. ***Innovations in pedagogy should be considered as the implementation of new ideas, proposals, technologies, services, anything that can improve the development and results of the educational process. Information technologies in the educational process expand the possibilities of setting and solving various educational tasks, provide the opportunity to visually display the stages of solving a particular task, allow for quality control over the activities of higher education students, and diversify and optimize the educational process. Summarizing the research of scientists, we believe that optimizing the educational process involves a well-founded choice of content, innovative pedagogical technologies, methods, and means of teaching that would stimulate and motivate higher education students to activate their cognitive activity.***

Conclusions. ***Optimization is possible through the implementation of modern information and communication technologies (ICT) in the educational process, resulting in changes in teaching, modernization, and improvement of educational programs for future teachers. Information technologies in the educational process expand the possibilities of setting and solving various educational tasks, provide the opportunity to visually display the stages of solving a particular task, allow for quality control over the activities of higher education students, and diversify and optimize the educational process.***

Keywords: ***innovative technologies, higher education students, optimization of the educational process, information and communication technologies.***

Background

Requirements for modern education push educators to search for new, contemporary, and effective teaching technologies that allow achieving higher learning and educational outcomes, as well as integrating innovative educational technologies into the teaching process. One of the main tasks in the educational process is to develop students' interest in learning and creativity. This task can be addressed by applying modern educational technologies during classes, which diversify the forms and means of learning, thereby enhancing the creative activity of students. These technologies help to effectively organize educational processes, implement a person-centered approach, and actively utilize technical and information-computer technologies.

The concept of "innovation" was first used over a century ago in cultural studies and linguistics to denote the process of transfer (Latin: transfero – transfer, move) – the penetration of elements from one culture into another and the acquisition of new qualities that were not previously characteristic. This penetration was considered a decisive factor in cultural development. In the modern world, it is actively used in various fields of activity, especially in the economy. We believe that the basic concept of pedagogical innovation is the category of "innovation". This assertion is based on the following grounds: innovation is the goal and result, the cause and consequence of changes in a specific object; other concepts ("innovation process", "innovation activity", "innovation system", etc.) are derivatives in relation to this category, which defines their main substantive meaning; the concept of "innovation" establishes hierarchy, the orderliness of the conceptual field of innovation, the significance of the relationships between its components. At the same time, there is no universal, recognized, and accepted definition of the concept of "innovation" by all researchers today.

The goal of the article is to analyze innovative approaches through which the educational process in higher education institutions can be optimized during the training of future teachers.

Research Objectives:to conduct a review of scientific sources on the concept of "innovation".; to analyze the issues related to the optimization of the educational process in educational institutions; to explore the specificities of integrating Information and Communication Technologies (ICT) into the educational process for the preparation of higher education students.

Innovations have taken a significant place in the educational environment. In the works of many domestic scientists, we find the relevance of innovative processes, such as those discussed by: I. Bylous, A. Demyanyuk, O. Krychkivska (Bylous, Demyanyuk, & Krychkivska, 2022), S. Vitvytska (Vitvytska, 2015), I. Dychkivska (Dychkivska, 2015), O. Dubasenyuk (Dubasenyuk, 2011), P. Saukh, V. Kucher, T. Rozhnova (Kucher, & Rozhnova, 2023), O. Nadtochiy (Nadtochiy, 2023), and others.

Some of the characteristics of innovation include the ability to influence the overall level of a teacher's professional activity, and to expand the innovative field of the educational environment in an educational institution. Innovations are characterized by qualities such as: innovative process, innovative activity, innovative potential, and innovative educational environment. Innovative processes depend on the educational environment that requires new ideas.

Therefore, innovations in education are the process of creating, implementing, and disseminating new ideas, methods, pedagogical, and managerial technologies in the

educational process, which leads to improvements in the performance of structural components of education, transitioning from outdated to qualitatively new states. As explained in the Encyclopedia of Education, the concept of "innovation" has a multifaceted meaning, as it consists of two forms: the idea itself and the process of its practical implementation (Kremen (Goal. ed.). (2008)). The Encyclopedia of Education defines "innovation" as "the process of creating, implementing, and disseminating new ideas, methods, pedagogical, and managerial technologies in educational practice, which leads to improvements in the performance (levels) of structural components of education, transitioning the system to a qualitatively different state". It points to the comprehensive meaning of the concept of "innovation" because it consists of two forms: the idea itself and the process of its practical implementation (Kremen (Goal. ed.). (2008, p. 338)).

O. Dubasenyuk defines innovations in education as "the process of creating, implementing, and disseminating new ideas, tools, pedagogical, and managerial technologies in educational practice, resulting in the improvement of indicators (levels) of achievements of structural components of education, leading to a qualitatively different state of the system" (Dubasenyuk, 2011, p. 62).

I. Dychkivska explains innovative education as oriented towards dynamic changes in the surrounding world, educational and learning activities based on the development of various forms of thinking, creative abilities, and high social-adaptive capabilities of the individual (Dychkivska, 2015).

I. Dychkivska focuses on the various meanings of the concept "innovation" in pedagogy:

- a form of organizing innovative activities;
- a set of new professional actions of a teacher aimed at solving current problems of upbringing and education from the perspective of person-oriented education;
- changes in educational practice;
- a comprehensive process of creating, disseminating, and using new practical means in the field of technology, pedagogy, scientific research;
- the result of the innovation process of an individual (Dychkivska, 2015).

O. Dubaseniuk, in his research on innovations in higher education, asserts that they involve: a) creating an electronic database of innovations in higher education, organizing scientific (fundamental and applied) and educational-methodical work on problems of professional education; b) studying, summarizing, and disseminating the best domestic, European, and global experience in this field; c) organizing and conducting conferences, seminars, and training courses on innovative teaching methods for humanities and natural science-mathematical disciplines for the professional community (Dubaseniuk, 2011).

O. Nadtochiy identifies the main characteristics of educational innovations as follows:

- Purposeful changes that introduce new stable elements (innovations) into the sphere of education, leading to its transition from one qualitative state to another;
- The presence of specific features related to socio-psychological and other aspects of pedagogical activity;
- Innovative changes can be initiated at any level of the education system;
- Innovative changes should be implemented in the activities and thinking of all participants in the educational process;
- Innovative processes in education should be continuous and aimed at constantly improving the existing system;
- In order to ensure the process of continuous innovative renewal of the educational sphere, appropriate quality management mechanisms should be introduced;
- The effectiveness of implementing a particular innovation largely depends on the level of receptivity to innovative changes in the system and the availability of real possibilities for its implementation (realizability) (Nadtochiy, 2023).

T. Bondarenko, V. Yagupov consider innovations in pedagogy as synonymous with the successful development of the pedagogical sphere in society based on various innovations, modernization, and improvement of its elements, components, and constituents (Bondarenko, & Yagupov, 2023). According to the authors, such innovations in higher education system could include:

- Firstly, educational ideas and practical actions that are completely new and previously unknown in society; however, such innovative options in the pedagogical system of higher education institutions (HEIs) are very rare; recently, the introduction of a competency-based approach at all levels of education in Ukraine was such an innovation.
- Secondly, these can be adapted, expanded, or newly formulated familiar ideas and practical actions of the subjects of the pedagogical process in HEIs, which become particularly relevant in a specific pedagogical environment, at a certain period, and when there are specific supporters of this idea; such innovations are most characteristic of the higher education system.
- Thirdly, these can be innovations that are driven by a redefinition of certain pedagogical tasks, which in new conditions are implemented by previously known methods and means, but in a new combination, in an original author's interpretation and methodology, contributing to their successful resolution (Bondarenko, & Yagupov, 2023).

Regarding the educational process, innovation means the introduction of something new in the goals, content, forms, and methods of teaching and upbringing; in the organization of joint activities between the teacher and higher education students. Innovations do not arise on their own; they are the result of scientific research, advanced pedagogical experience of individual teachers, and entire collectives. There are many definitions of the concept of innovation, novelty in pedagogy, and all authors agree that these are certain innovations that signify an attempt to change the education system, deliberately and thoughtfully aimed at improving the existing system. This innovation does not necessarily have to be something new, but it must be something better.

Therefore, in our opinion, innovations in the educational process should be considered as the implementation of new ideas, proposals, technologies, services, anything that can improve the development and results of the educational process.

Related to optimizing the educational process in educational institutions. This issue has been investigated by researchers such as Y. Vdovychenko (Vdovychenko, 2017), A. Marushkevych, Ye. Spitsyn (Marushkevych, Spitsyn 2021), and others.

In the Encyclopedia of Education, edited by V. Kremen, it is stated that the principle of correspondence plays a crucial role in the process of optimization in education. The implementation of this principle in education in Ukraine will accelerate the formation of a "knowledge-based society" (Kremen (Goal. ed.). (2008)). Optimization of the educational process is traditionally within the realm of scientific research and is associated with the need to improve the forms and methods of organizing educational activities in the preparation of specialists in the economic field. The direction of recent research in this field indicates the need for an analysis of the mechanisms of optimizing the

management of pedagogical activities at the level of educational institutions. This translates into providing combined competencies that are practically necessary for the learner and will be used in modern economic conditions. In this context, the concept of "optimization" has two aspects: ensuring the process of students' acquisition of both theoretical and practical knowledge and is defined as the choice of the best (optimal) result from countless possible tasks given the conditions (Kremen (Goal. ed.). (2008)). Optimization of the pedagogical process should be based on new technologies, which include the following structural components of educational objects: learning goals and diagnostically specified planned learning outcomes; content of learning; means of diagnosis and control of learning outcomes; teaching methods; organization of the educational process; teaching aids; the result of activity – achieving the level of general and professional training. "leading the way" (Kremen (Goal. ed.). (2008, p. 661).

A. Marushkevych and Ye. Spitsyn see the optimal organization of the learning process as involving a clear definition of its purpose at the level of the state and the specific institution of higher education, along with the acceptance and understanding of these goals by each student (Marushkevych, & Spitsyn, 2021). The authors focus on the necessity of high positive motivation, which can play a compensatory role in cases of insufficiently high development of special abilities or gaps in the necessary knowledge, skills, and abilities of the student. In the opposite direction of such compensatory dependence, it is not observed. This means that no high level of intellectual abilities of a higher education student can compensate for low learning motivation and directly contribute to their successful educational and professional activities.

Summarizing the research of these scholars, we believe that the optimization of the educational process involves a reasoned choice of content, innovative pedagogical technologies, methods, and means of learning that would stimulate and motivate higher education students to activate their cognitive activities.

Optimization is possible through the implementation of the latest information and communication technologies (ICT) in the educational process, which will lead to changes in teaching, modernization, and improvement of educational programs for the preparation of future teachers for professional activities.

Information technologies in the educational process expand the possibilities for setting and solving various educational tasks, provide the opportunity to visually represent the stages of solving a particular problem, allow for quality control of the activities of higher education seekers, and diversify and optimize the educational process.

Scientists combine the process of innovation with the development of computer technologies, afavorable environment, resources, and specialized personnel.

V. Kucher and T. Rozhnova believe that the rapid development of computer technologies affects the requirements for specialists in the education sector and requires the adaptation of teaching methods to modern information and computer realities (Kucher, & Rozhnova, 2023). They consider the main innovative requirements for specialists in the education sector to be:

- knowledge of modern information technologies and the ability to apply them in practice (specialists should have a high level of computer literacy and be able to use modern tools for creating and conducting educational sessions);
- ability to work with new forms and methods of teaching (participants in the educational process should quickly adapt and have an understanding of modern approaches and teaching methods, such as project-based learning, interactive methods, online courses, etc.);
- capacity for innovative thinking and creativity (specialists should creatively approach the organization of the educational process, develop the ability to work in a creative team, and be open to new ideas and solutions to improve the quality of education and the development of education as a whole);
- ability to work with data and analyze it, which involves developing critical thinking and the ability to filter and select necessary information from a large flow of information for effective scientific work. Based on the above, scientists argue that innovations in the training of higher education students in the conditions of a master's degree program should be aimed at professional mobility and the ability for self-development, which necessitates the use of innovative teaching tools (Kucher, & Rozhnova, 2023).

A notable feature of innovation is its practical implementation, the results of which allow us to speak about the value, feasibility, and effectiveness of new ideas, approaches, technologies, and so on. We believe that it is possible to optimize the educational process through the implementation of modern information and communication technologies (ICT) in the learning process, which, in turn, will lead to changes in educational teaching technologies, modernization, and optimization of educational programs at each stage of preparing a specialist for future professional activity. By ICT, we mean a set of methods of production processes and programs that serve to support information contact: teacher-student, student-teacher, as well as interaction among the students themselves. The development of information technologies has led to the emergence of a significant arsenal of educational software tools – electronic manuals and textbooks, electronic lecture notes, workbooks, multimedia lectures, monitoring systems, subject environments, encyclopedias and directories, interactive boards, projectors, websites, e-mail, and so on. Each of these tools has its functions and features.

The information and communication environment is a set of conditions that facilitate a user's interaction with an information resource (including distributed information resources) through interactive tools that interact with it as a subject of information communication and a personality. The information and communication environment includes: numerous information objects and connections between them; tools and technologies for gathering, storing, transmitting (broadcasting), processing, producing, and disseminating information, as well as knowledge; means of reproducing audiovisual information; organizational and legal structures that support information processes. Indeed, society, by creating and functioning within the information and communication environment, shapes and improves it. In turn, the information and communication environment of modern society is constantly influenced by the achievements of scientific and technological progress, the improvement of which is happening at an exponential rate today. Scientific research in various fields convinces us that the enhancement of the information and communication environment of society initiates the formation of progressive trends in the development of productive forces, changes in the structure of social relations, interconnections, and, above all, the intellectualization of activities of all members of society in all its spheres, including education.

Communication can be oral, written, or printed. While oral communication allows for quick reactions from both sides and conveys all the nuances of personal interaction, written and printed communication mostly serve public, organizational, and mass communication. Modern

communication systems, such as the Internet, play a significant role in this, where, so to speak, "electronic" communication has reached almost limitless possibilities.

The use of information technologies in higher education institutions has numerous advantages, including access to diverse information, the ability for self-learning, and increased student motivation. However, along with these advantages, there are also certain disadvantages to this approach, especially regarding the development of professional competence among higher education students.

Modern information technologies play a crucial role in preparing future professionals in various fields. Their influence extends beyond teaching methods to change the very approach to education. The use of interactive platforms, virtual reality, and other innovative learning tools contributes to improved material assimilation, provides access to up-to-date information, and develops skills necessary for a successful career in the digital age.

One of the key aspects is the individualization of learning, where each student can choose the pace, format, and method of study that best suits their needs and learning style. This approach promotes more effective knowledge acquisition and personal development.

Additionally, information technologies allow students to interact and collaborate with peers and experts from around the world, expanding knowledge horizons and promoting cultural diversity.

The use of ICT contributes to improving communication between teachers and higher education students. They can use electronic communication tools such as e-mail, video conferences, and chats to interact with higher education students outside the classroom. With ICT, teachers can easily track the progress of higher education students and provide feedback. They can use electronic assessment systems, create online tests and assignments, as well as provide individual recommendations for each higher education student.

In summary, the use of ICT helps teachers improve the quality of education, make it more accessible and interesting for students, and facilitate interaction between teachers and higher education students.

Therefore, it can be concluded that modern information technologies not only transform the learning process but also revolutionize the preparation of future professionals, providing them with the necessary knowledge and skills to succeed in a constantly changing and evolving world.

Results

During the preparation of higher education students in the conditions of postgraduate studies, university faculty members increasingly use technical innovations and implement special software tools and web servers such as Google Classroom, Zoom, Kahoot! and others. These tools help reproduce and visually demonstrate educational materials during both in-person and distance learning sessions.

V. Kucher and T. Rozhnova combine information technologies with software, computer equipment, and networking technologies. All these innovative tools allow significantly increasing the speed and accuracy of information processing, reducing the number of errors, and enhancing the level of automation and interaction between educational processes. The use of informatization can improve production efficiency, reduce task completion time, and increase the productivity of higher education students and university staff (Kucher, & Rozhnova, 2023).

Regarding the educational process, innovation means the introduction of something new in the goals, content, forms, and methods of teaching and upbringing, as well as in the organization of interaction between the teacher and the higher education student. Innovations are the result of scientific research and the advanced pedagogical experience of teachers. There are many definitions of the concept of innovation, novation in pedagogy, and all authors agree that these are certain innovations that signify an attempt to change the education system, purposefully and thoughtfully aiming to improve the existing system. This innovation does not necessarily have to be something entirely new, but it must be something better. Therefore, in our opinion, innovations in the education system should be considered as the introduction of new ideas, proposals, technologies, services, anything that can improve the development and outcomes of the educational process.

Therefore, "innovative technologies" can be interpreted as a purposeful provision of the educational process through new methods, approaches, and means of organizing educational activities to enhance its effectiveness and achieve quantitatively and qualitatively new educational outcomes. In other words, the specificity of pedagogical innovative technology lies in the fact that with the help of innovations, such an educational process is organized and implemented, the ultimate result of which is the achievement of the main goals of modern education (Bilous, Demyanyuk, & Krychkivska, 2022).

Therefore, a distinctive feature of innovation compared to novelty is the practical implementation, the results of which allow judging the value, expediency of implementation, effectiveness of new ideas, approaches, technologies, etc.

Innovative processes in the education system are aimed at shaping a qualitatively new stage of interaction and development of scientific and pedagogical creativity, as well as the processes of applying its results. It is characterized by a tendency to eliminate the gap between the processes of creating pedagogical innovations and the processes of their perception, adequate evaluation, mastering, and application, as well as overcoming the contradiction between the spontaneity of these processes and the possibility and necessity of conscious management of them. The formation of an innovative culture among teachers is facilitated by effective innovative management in the educational institution, creating a situation of general support for innovation and successfully overcoming conservatism and resistance to innovative changes. Of course, such an important process in the educational process as readiness for pedagogical activity is not a static concept but a dynamic process that constantly changes and improves under the influence of various factors. It is important to note that various factors influence development, such as self-education, practical experience, interaction with students and colleagues, changes in the educational system. The dynamic nature of readiness for pedagogical activity requires teachers to constantly self-develop and improve their knowledge, skills, and abilities. This provides the teaching profession with dynamism and creativity, and readiness for pedagogical activity is a key factor in the successful implementation of a teacher's professional duties.

Discussion and conclusions

Based on the analysis of research by leading scientists in the field of education, we have come to the conclusion that optimizing the educational process involves a broader approach than simply implementing the latest technologies. This means not only a rational choice of content and teaching approaches but also active implementation of innovative pedagogical methods and tools that will stimulate and motivate students towards more active and independent cognitive activity.

Based on the above, we can also argue that innovations in preparing higher education seekers in the conditions of education in higher educational institutions (HEIs) should be aimed at professional mobility and self-development skills, which necessitates the use of innovative teaching tools. Optimizing the educational process is possible through the implementation of advanced information and communication technologies (ICT) in the teaching process, which in turn will lead to global changes in teaching technology, modernization, and optimization of educational programs at each stage of preparing specialists for future professional activity. ICT refers to a set of methods of production processes and programs that serve to support information contact: teacher-student, student-teacher interaction, as well as interaction among the students themselves in higher education.

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References

Bilous, I., Demianyk, A., & Krychkivska, O. (2022). Innovative teaching technologies in the context of modern education development. *Bulletin of Taras Shevchenko Lugansk National University,* 1(349), 136–147 [in Ukrainian]. [Білоус, І., Дем'янюк, А., & Кричківська, О. (2022). Інноваційні технології навчання в контексті розвитку сучасної освіти. *Вісник Луганського національного університету імені Тараса Шевченка,* 1(349), 136–147].

Bondarenko, T., & Yahupov, V. (2023). *Methodological foundations of understanding pedagogical technologies. Innovative educational technologies: world and domestic experience of use in the system of continuous education: Rzeszow, Republic of Poland.* "Bilotserkivdruk" [in Ukrainian]. [Бондаренко, Т., Ягупов, В. (2023). *Методологічні основи розуміння педагогічних технологій. Інноваційні освітні технології: світовий і вітчизняний досвід використання в системі неперервної освіти: Жешув, Республіка Польща*. ТОВ "Білоцерківдрук"].

Dubasenyuk, O. A. (2011). *Implementation of educational innovations in higher education system. Innovations in higher education: problems, experience, prospects*: Publishing house of Zhytomyr Ivan Franko University [in Ukrainian]. [Дубасенюк, О. А. (2011). *Упровадження освітніх інновацій в системі вищої освіти. Інновації у вищій освіті: проблеми, досвід, перспективи*. Видавництво Житомирського державного університету ім. Івана Франка].

Dychkivska, I. M. (2015). *Innovative pedagogical technologies*. Akademvydav, 304 [in Ukrainian]. [Дичківська, І. М. (2015). *Інноваційні педагогічні технології*. Академвидав].

Kremen, V. G. (Goal. ed.). (2008). *Encyclopedia of Education.* Jurinkom Inter [in Ukrainian]. [В. І. Кремень (Голов. ред.). (2008). *Енциклопедія освіти*. Юрінком Інтер].

Kucher, V., & Rozhnova, T. (2023). Application of innovations in the organization of the educational process of higher education students in the conditions of postgraduate education. *Ukrainian Pedagogical Journal*, 3, 155–162 [in Ukrainian]. [Кучер, В. & Рожнова, Т. (2023). Застосування інновацій у процесі організації освітнього процесу здобувачів вищої освіти в умовах магістратури. *Український Педагогічний журнал*, 3, 155–162].

Marushkevych, A. A., & Spitsyn, Ye. S. (2021). *Higher education pedagogy.* PPC "Kyiv University" [in Ukrainian]. [Марушкевич, А. А., & Спіцин, Є. С. (2021). *Педагогіка вищої школи.* ВПЦ "Київський університет"].

Mykhailova, L. (Ed.). (2020). *Dictionary of terms and concepts of modern education* (2020). Luhansk Regional In-service Teacher Training Institute [in Ukrainian]. [Михайлова, Л. *Словник термінів і понять сучасної освіти* (2020). Луганський обласний інститут післядипломної педагогічної освіти].

Nadtochiy, O. V. (2023). *Innovative approaches to organizing the educational process in VET (VET) institutions: an electronic educational course.* BINPO DZVO "UMO" NAPN of Ukraine [in Ukrainian]. [Надточій, О. В. (2023). *Інноваційні підходи до організації освітнього процесу в ЗП(ПТ)О: електронний навчальний курс.* БІНПО ДЗВО "УМО" НАПН України]. https://binpo.com.ua/wp-content/uploads/2024/01/%D0%95%D0%9D%D0%9A_%D0%86%D0%BD%D0%BD%D0%BE%D0%B2%D0%B0%D1%86%D1%96%D0%B9%D0%BD%D1%96-%D0%BF%D1%96%D0%B4%D1%85% D0%BE%D0 %B4%D0%B8-%D0%B4%D0%BE-%D0%BE%D1%80%D0%B3%D0%B0%D0%BD%D1%96%D0%B7%D0%B0%D1%86%D1%96%D1%97-%D0%BE%D1%81%D0%B2%D1%96%D1%82%D0%BD%D1%8 C%D 0%BE%D0%B3%D0%BE-%D0%BF%D1%80%D0%BE%D1%86%D0%B5%D1%81%D1%83-%D0%B2-%D0%97%D0%9F%D0%9F%D0%A2%D0%9E-%D0%BD%D0%B0-%D1%81%D0%B0%D0%B9%D1%82.pdf

Vdovichenko, Yu. P. (2017). Optimization of the educational process using total quality management. *Collection of scientific NMAPE,* 2, 17–22 [in Ukrainian]. [Вдовиченко, Ю. П.(2017). Оптимізація освітнього процесу з використанням загального менеджменту якості. *Збірник наукових праць НМАПО ім. П. Л. Шупика*, 27, 17–22]. http://nbuv.gov.ua/UJRN/Znpsnmapo_2017_27_5

Vitvitska, S. S. (2015). Preparation of education masters for innovative activity. *Collection of scientific works. KNU,* 84, 77–82 [in Ukrainian]. [Вітвицька, С. С. (2015). Підготовка магістрів освіти до інноваційної діяльності : *збірник наукових праць КНУ,* 84. 77–82]. http://eprints.zu.edu.ua/18159/1/%D0%B2%D1%96%D1%82%D0%B2%D0%B8%D1%86%D1%8C%D0%BA%D0%B0.pdf

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ІННОВАЦІЙНІ ПІДХОДИ ДО ОПТИМІЗАЦІЇ НАВЧАЛЬНОГО ПРОЦЕСУ У ВИЩІЙ ШКОЛІ У ПІДГОТОВЦІ МАЙБУТНІХ ПЕДАГОГІВ

В с т у п . ***Досліджено значущість оптимізації освітнього процесу у закладах вищої освіти у процесі фахової підготовки майбутніх викладачів та впровадження інноваційних педагогічних технологій. Наведено тлумачення поняття "інновація", сформульовані сучасними науковцями. Виконано аналіз ролі викладача в організації освітньої діяльності здобувачів вищої освіти.***

Р е з у л ь т а т и . ***Проаналізовано загальні особливості інноваційних процесів в освітній галузі, що спираються на сучасні методологічні підходи оптимізації освітнього процесу; особливості розроблення та впровадження в освітню діяльність інноваційних технологій професійного становлення сучасного фахівця. Визначено роль і значення основних інноваційних вимог до фахової підготовки майбутніх викладачів. Наведено приклади необхідних умов для ефективної організації освітнього процесу у здобувачів вищої освіти; розглянуто різні підходи до застосування інформаційно-комунікативних технологій під час фахової підготовки здобувачів вищої освіти; виконано огляд інноваційних педагогічних технологій, які використовують для активізації пізнавальної діяльності здобувачів вищої освіти. Зроблено висновки, що інновації у підготовці здобувачів вищої освіти в умовах навчання у закладах вищої освіти мають бути направлені на професійну мобільність і здатність до саморозвитку, що зумовлює потребу у використанні інноваційних засобів навчання.***

В и с н о в к и . ***Оптимізувати освітній процес можливо за рахунок упровадження новітніх інформаційних комунікативних технологій у процес навчання, а це у свою чергу, спричинить виникнення глобальних змін у технології навчання, модернізації та оптимізації освітніх програм на кожному з етапів підготовки фахівця до майбутньої професійної діяльності.***

К л ю ч о в і с л о в а : ***інноваційні технології, здобувачі вищої освіти, оптимізація освітнього процесу, інформаційно-комунікативні технології.***

Автори заявляють про відсутність конфлікту інтересів. Спонсори не брали участі в розробленні дослідження; у зборі, аналізі чи інтерпретації даних; у написанні рукопису; в рішенні про публікацію результатів.

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