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The informatization role of the educational process for quality training of specialists

Роль інформатизації освітнього процесу для якісної підготовки фахівців

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
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
Abstract


The article reveals the role of informatization of the educational process for high-quality training of specialists in order to achieve in the educational process a systemic vision of the future innovative activity of specialists, its perception as a single system of professional functions and tasks, giving preference to informatization. The purpose of the article is to clarify the role of informatization of the educational process for quality training of specialists to achieve a systemic vision of future innovative activity in the educational process, its perception as a single system of professional functions and tasks, giving preference to informatization. The methodical concept of scientific training of future specialists in the conditions of informatization of the educational process for high-quality training of specialists reflects the relationship and interaction of scientific approaches to the study of a fundamental problem. Informatization of the educational process was considered in aspects:


Анотація


У статті розкрито роль інформатизації навчального процесу для якісної підготовки фахівців для досягнення в освітньому процесі системного бачення майбутньої інноваційної діяльності спеціалістів, сприйняття її як єдиної системи професійних функцій і завдань, надаючи перевагу до інформатизації. Метою статті є з'ясувати роль інформатизації навчального процесу для якісної підготовки фахівців для досягнення системного бачення майбутньої інноваційної діяльності в освітньому процесі, сприйняття її як єдиної системи професійних функцій і завдань, надаючи перевагу інформатизації. Методична концепція наукової підготовки майбутніх фахівців в умовах інформатизації навчального процесу для якісної підготовки фахівців відображає взаємозв'язок і взаємодію наукових підходів до дослідження фундаментальної проблеми. Інформатизація навчального процесу розглядалася в аспектах: системному, діяльнісному та інформаційному.

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system, activity and information. The positive factors of informatization of the educational process, which increase the effectiveness of the training of education seekers and factors that contribute to the prompt updating and solving of tasks, filling the content of the educational environment through the use of new technologies, have been determined.

Keywords: informatization of the educational process, quality training, education seekers, innovative activity of specialists, information and communication technologies.

Introduction

Formation of the information society impacts all areas of human activity, including the field of education, which is based on the mass introduction of computer technology and the use of the Internet in educational institutions. The modern system of the educational process cannot remain aloof from the global process of informatization of society and education. The latest trends in society require the development of the education system on the basis of information technologies, the creation and functioning of an appropriate high-tech and high-quality information and educational environment.

Its importance has recently been growing, affecting the educational process of all subjects of the educational space and their relationships in the educational system. The task of the information and educational environment is the radical modernization of the technological environment component of the education system and implementation of the transition to an open educational system that meets the demands of today's society regarding the quality of professional training of future specialists.

The application and implementation of information and communication technologies is a necessary step for the informatization of education, which involves the implementation of scientific, managerial, educational, and educational functions inherent in the field of education (Bykov, 2008).

Society is permeated and filled with information flows that require constant high-quality and timely processing. Therefore, it cannot function without the informatization of the educational process, the use of information technologies for high-quality training of specialists, as well as

Представлено програмні засоби для організації ефективного процесу інформатизації освіти для якісної підготовки фахівців. Визначено позитивні фактори інформатизації освітнього процесу, що підвищують ефективність підготовки здобувачів освіти та фактори, що сприяють оперативному оновленню та вирішенню завдань, наповненню змісту освітнього середовища шляхом застосування нових технологій.

Ключові слова: інформатизація освітнього процесу, якісна підготовка, здобувачі освіти, інноваційна діяльність фахівців, інформаційно-комунікаційні технології.

without transport, energy, and chemical technologies.

Informatization of the educational process, which determines the processes of informatization in all spheres of human activity, requires competitive specialists with a sufficient level of information competence. Therefore, under such conditions, the task of educational institutions is to ensure the preparation of young people for the future and modern labor markets, to constantly keep an eye on leading enterprises and their needs, and to guarantee that graduates receive high-quality training and appropriate qualifications. It is important to increase the role of informatization of the educational process for high-quality training of specialists to achieve a systemic vision of future innovative activity in the education process, to perceive professional functions and tasks, including the information function, as components of a single system (Poiasok, 2009).

The main tasks and functions of informatization of educational institutions of professional education are interconnected and aimed at the formation of informational competence as a mandatory component of the professional training of a specialist, which is considered as one of the key qualifications of a person of the information society. Successful achievement of the goal of informatization of professional education and the introduction of ICT in professional training is possible, in our opinion, under the condition of designing, creating and maintaining an ICT-rich educational environment, which includes means and technologies for collecting, accumulating, transmitting, processing and distributing educational information, means of presentation knowledge, ensuring connections and effective

functioning of organizational structures of educational institutions.

Purpose of such an environment: identification and development of abilities and potential of an individual; creation of conditions for independent acquisition of knowledge and its qualitative assimilation; ensuring the automation of assessment of learning outcomes; compensation for certain negative consequences of students' work with ICT tools.

Comprehensive informatization of professional education significantly raises the requirements for the quality of ICT education, the effectiveness of methods of managing the educational process, and the profitability of information systems. An important role in the complex process of training future specialists belongs to the latest technologies, based on the use of the best traditional and innovative forms of training organization using information and communication technologies and resources. In professional education, a reorientation of the goals of information training, a justified update of its content, a clear definition of the structure and organization of training with the help of ICT is necessary. In our opinion, there is an obvious need for theoretical and methodological justification of the informatization of the professional training system, scientific support for the introduction of information technologies in professional education, and consideration of the problem of informatization of universities in the context of pedagogical requirements.

This article delves into various facets of the educational process's informatization. It explores the potential of such informatization to provide high-quality training for specialists and to foster an innovative educational environment. The discussion includes the utilization of web-based information resources, key indicators of the educational process's informatization, and the positive impacts of this informatization on enhancing student learning outcomes. Furthermore, the article underscores the pedagogical objectives of integrating information technologies into the educational process, the conditions necessary for this integration, and the primary tasks for improving information availability within educational institutions. Emphasis is also placed on the requisite skills for employing contemporary information and communication technologies, the development of pedagogical software tools, and the areas in which informatization effectively enhances the quality of specialist training and educational technology methods.

Literature Review

The problems of informatization, the formation of an information society, ensuring information security, etc. have become the subject of research by a wide range of scientists, including whose works are of special interest N. Morse, & V. Vember (2007). They showed the importance and pedagogical value of electronic means for educational purposes and developed the main tasks of electronic resources; the terminology of electronic resources is proposed; the possibilities of teachers to work with electronic resources are shown in different countries; diagrams of the provision of teachers with software tools were made, the values of software tools for the educational process were updated and the level of mastery of the educational potential of teachers and students of education was shown; examples of the use of informational computer technologies are offered in electronic educational tools; in conventional units, the weighting coefficients for each of the characteristics of electronic means for educational purposes are presented.

Despite the existing developments regarding the features the use of ICT in the educational space, the possibilities of the information and educational environment in the organization of the educational process of a higher education institution have not yet been fully explored, such scientists as O. Kondur, & N. Fuchynska (2021) examples of the use of information technologies in all spheres of the modern world; and showed the importance of the information component, which plays a significant role in the active life of mankind and the formation of a competitive specialist; presented the information society as a stage of the development of the post-industrial society, described the features of such a society and distinguished their difference from all forms of society; the peculiarities of the informatization of the educational process for high-quality training of specialists are structured and the advantages of the information society are shown by the impact on the development of the state and the individual; the basis of the information society is emphasized, its technologies are highlighted. The authors show the role of the educational sector in changing the priorities of social development, in particular, the active use of information and communication technologies; the process of informatization of education and the components of informatization of education are disclosed. The main task of informatization of the educational process for high-quality training of specialists is singled out (training of a competitive specialist who can quickly adapt to

self-realization, self-education, and changing conditions of the labor market.

Scholars have considered various aspects of the professional training of IT professionals, but certain aspects require further research. In particular, educational strategies and vectors of their implementation aimed at increasing need constant attention the effectiveness of professional training of students of the IT specialty, which is due to the rapid pace of development and improvement of informatization of all spheres of life in society.

I. Yashchuk (2021) highlighted the problem of informatization of the educational process for high-quality training of specialists, in the institution of higher education in the conditions of global changes, ways of modernizing the educational process were shown, which accelerated the process of informatization and computerization of education; the effect of the pandemic on the need to implement distance learning has been proven. It was found that high-quality professional training of a specialist is impossible without the informatization of the educational process, and the development of information literacy of the specialist, which requires the institution of higher education to constantly update information and technology for the high-quality training of specialists. The important conditions of high-quality education, the possibility of creating an informational and educational environment in a higher education institution, in which the personal and professional qualities of a specialist are formed and educational activities are organized, are described.

V. Kalusenko, & L. Kartashova (2020) considered the issues and determined the peculiarities of the training of specialists in the development of science, economy, informatization of society, and introduction of electronic educational environments into the educational process, which today is the main task of higher education institutions. They showed the possibilities of introducing the electronic educational environment into the professional training of future specialists. The main tasks were set: in the conditions of the information environment, to provide an analysis of the possibilities of training specialists, and to propose theoretical foundations for the development of certain categories of training specialists in educational institutions. Various definitions and approaches to the concept of "informational and educational environment" are given. The possibilities of the information and

educational environment in the institution of higher education using the educational platform Moodle are described; the functions of the information and educational environment (educational, educational, informative, developing, reflective, socialization) are defined and their pedagogical value is shown.

N. Hunka (2016) characterized the concept of "informational and educational environment" and carried out its theoretical analysis; showed the difference between informational and educational and informational environment; highlighted the possibilities of the information and educational environment for improving the quality of education and disclosed its functions. The author identified the main components of the informational and educational environment and made a connection between the formation of the foundations of pedagogical skills and the informational and educational environment. The content of the electronic system "Socrates" is revealed and the need for the university is shown, to form and improve the professional and pedagogical skill of the teacher, the possibilities of this system for use in the educational process of the institution are summarized.

The analysis of scientific sources and educational practice proves that the issue of introducing information technologies in the process of professional training of future teachers in order to change the traditional education system to a practice-oriented one built on the implementation of modern innovative learning technologies and information and communication technologies is insufficiently developed.

We believe that this very issue is relevant today and requires efforts to use information and communication technologies during lectures, seminars and practical classes, for joint and individual projects of students, future professionals, as well as to ensure the quality of education, motivation of teachers and students. The introduction of innovative learning technologies, information and communication technologies, their integration will ensure the mastery of digital competences, familiarization with educational trends, as well as the use of interesting information tools in the educational process.

So, a competitive specialist, ready for changes, with the necessary abilities and skills of a successful person of the 21st century, who knows how to think creatively, makes the right decisions, is an indicator of professionalism and a successful career in the future.

The purpose of the article: to find out the role of informatization of the educational process for high-quality training of specialists to achieve a systemic vision of future innovative activity in the educational process, to perceive it as a single system of professional functions and tasks, giving preference to informatization.

Methodology

Following the purpose of the research, the following theoretical methods were used: analysis of current documents of higher education, monographs, textbooks, programs, study guides, dissertation studies on the problem of applying innovative information and communication technologies in the educational process, problems of informatization of the educational process for quality training of specialists, materials and articles scientific conferences, existing experience of such work in educational institutions; generalization of pedagogical best experience in the use of information technologies, important for the educational process for the quality training of specialists in higher educational institutions, personal pedagogical experience of teaching in higher education institutions; modeling of the pedagogical experiment and the educational process in the conditions of constant use of information technologies.

The implementation of the search for solving the problem of informatization of the educational process for the qualitative training of specialists covers the following interrelated concepts: methodological, theoretical, and methodical.

The methodological concept of scientific training of future specialists in the conditions of informatization of the educational process for quality training of specialists reflects the relationship and interaction of scientific approaches to the study of a fundamental problem:

- competent, focused on the formation of skills, abilities, scientific knowledge, and such professional personality traits that provide opportunities for success in social life and professional activity;
- systemic, contributes to the systemic holistic perception of the professional training of future specialists in the process of informatization of the educational process for the high-quality training of specialists in the institution of higher education, ensures the unity of structural components in this process;

- synergistic, which allows investigating the process of scientific and educational training of future specialists of an open system that develops and organizes itself in the world educational space;
- integrative, gives integrity to the process of informatization of the educational space for high-quality training of specialists and the formation of their competence through the integration of abilities and skills, scientific and psychological-pedagogical knowledge, reflecting the complexity of the studied phenomenon and the integrative nature of the educational space;
- an axiological approach that focuses forms, methods, and content on the development and formation of professional values, etc.;
- active, based on innovative methods, forms, and technologies of training optimizes the organization of the educational process;
- a technological approach based on innovative learning technologies directs future specialists to improve their professional training.

The theoretical concept for informatization of the educational process for high-quality training of specialists represents a system of concepts, ideas, basic concepts, and initial categories (sociological, philosophical, pedagogical, psychological), without which understanding the essence of the investigated problem is impossible.

The methodical concept represents the basics of informatization of the educational process for quality training of specialists, their methods of goal setting, planning, study, and organization of professional training of future specialists. The concept is implemented through the implementation of methodical support for the informatization of the educational process for high-quality training of specialists, improvement of forms, content, means, methods, and training for effective formation of professional competence of future specialists.

Results and Discussion

In the educational process, two main missions of ICT are distinguished - as an object of study and as a means of learning. The first involves the formation of students' knowledge, abilities and skills that allow them to realize the possibilities of computer technology and successfully use it to solve various tasks, and the second is aimed at increasing the efficiency of the educational process. Accordingly, the use of information and communication technologies in modern

professional education is also considered in two aspects. First, it is the preparation of future specialists for the use of ICT to solve special professional tasks in accordance with the knowledge and skills acquired during the study of general professional and professionally oriented disciplines. Secondly, it is a means of intensification of the learning process in all disciplines provided for by the State Education Standards.

Informatization of the educational process is understood as a set of interconnected educational and methodological, industrial, socio-economic, organizational-legal, scientific-technical, and management processes aimed at meeting the computing, information, and telecommunication needs of the participants of the educational process, as well as managers of such of the process, which manage and ensure it, carry out its development and scientific and methodological support (Bykov, 2010).

Nowadays, with the help of computer equipment and modern information technologies, it is possible to conduct research and obtain distance education, communicate with other network users, receive administrative services, make purchases, conduct business, submit statistical, financial, and other reports and pay for any services or goods via the Internet, simultaneously organize the work of various specialists on joint projects, etc (Stratan-Artyshkova et al., 2022).

The information-educational environment for high-quality training of specialists makes it possible to realize various types of interaction and access to information resources (e-mail, chats, presentations), which significantly fills the environment with the interaction of all subjects, while the roles of subjects in the information environment are changing. The teacher acts as a coordinator and consultant of the educational process, and not only as a distributor of knowledge, while the student is a subject of the educational space aimed at acquiring professional competencies (Kuchai & Kuchai, 2019).

Let's define the purpose of training in an electronic educational environment for high-quality training of specialists – it is the development of personal abilities that currently contribute to the development of society. "The modern electronic educational environment is an integrated, open, unified environment aimed at informational electronic interaction between subjects of the educational process" (Kalusenko & Kartashova, 2020).

1. Aspects of informatization of the educational process.

Informatization of the educational process should be considered in the following aspects:

- the system, information environment serves as a system of forms of communication;
 - active, at the center of communication is a person, and the main thing is his ability to receive information, turn it into his knowledge, to transfer personal knowledge;
 - an informational and educational environment is created and used for information exchange and communication (Hunka, 2016).
2. The possibilities of informatization of the educational process for the high-quality training of specialists and the functioning of such an innovative educational environment.

V. Bykov (2019) shows the possibilities of informatization of the educational process for high-quality training of specialists and the functioning of such an innovative educational environment, which should ensure the educational needs of those seeking education, in particular, thanks to the creation and use of the following components in educational activities:

- electronic educational resources for educational purposes and computer-oriented systems for monitoring educational achievements that complement standard, traditional ones;
- electronic profiles of scientific-pedagogical purpose, which improve the nature of educational activities of education seekers and teachers;
- educational social networks that support an open informatization educational process for high-quality training of specialists, and cooperative learning;
- innovative pedagogical technologies based on the use of computer-oriented methodical systems of education, and ICT tools, with the aim of a new organization of education.

To organize an effective process of informatization of education for high-quality training of specialists, the following software tools are necessary: text editor Microsoft Word, operating system Windows 8 or higher, graphic editor for Windows.

To learn the basics of developing HTML documents, you should use professional hypertext editors (HotDog Professional,

HotMetal Pro, WebEditor, HTMLEditor, while knowledge of HTML descriptors will contribute to a deeper assimilation of the material.

You can use any of the browser programs to study the Internet WEB service: Microsoft Edge, Google Chrome, Mozilla Firefox, etc.

3. Information resources of the WEB space.

We suggest using the information resources available in the WEB space:

- automated educational systems;
- computer simulators;
- mathematical and simulation modeling software tools;
- software tools of virtual laboratories;
- testing software tools to control the level of formation of skills, abilities, and knowledge;
- educational software tools (MS Office, etc.) of general purpose;
- reference legal information systems;
- electronic educational and methodical materials (catalogs, textbooks, workshops, methodical recommendations, etc.);
- database, data bank, local and global, distributed computing systems, electronic bulletin board, e-mail, etc.

4. Signs of informatization of the educational process.

Let's define the signs of informatization of the educational process:

- the concept of "information" acquires a new meaning in the educational space;
- comprehensive access to the Internet;
- substantial development of telecommunication and information systems in all spheres of human life;
- the use of a multi-aspect definition of scientific approaches when conducting research in various fields of science to solve the problems of theoretical justification in the field of social changes;
- changes related to the establishment, formation, and development of innovative social relations, creation of innovative social configurations, employment of the population, social groups, and social relations;
- the possibility of scientific forecasting, analysis, and planning of social development, where the highest value is information and knowledge;

- creation of network subcultures inherent in virtual relations;
 - studying the knowledge of new opportunities that are significant for our society, and comparing information and knowledge with reality, researching the conditions of the truth of knowledge and the probability of an information society;
 - variety of cognitive processes in various fields of science, which are determined by scientific research;
 - a significant lever of authorities in the introduction and development of information and telecommunication systems (Petrukhno, 2014);
 - the emergence and development of innovative social institutions inherent in the society of new information relations (Kalusenko & Kartashova, 2020).
5. The positive factors of informatization of the educational process, which increase the effectiveness of student training

Let's highlight the positive factors of the informatization of the educational process, which increase the effectiveness of the training of students:

- differentiation of education;
- increase in activity;
- individualization and training;
- intensification of the educational process;
- creation of conditions for independent work;
- increasing the motivation of education;
- creation of a comfortable educational environment;
- assistance in the formation of self-esteem among students (Kravchenko et al., 2022).

The proposed positive factors of informatization of the educational process contribute to the creation of a single informational educational environment of an educational institution and provide an opportunity for each student of education to ensure interactive interaction, to feel comfortable in such an environment, which is as close as possible to the real one (Polishchuk et al., 2022).

Informatization of the educational process meets the requirement of openness and is implemented using Web technologies. Let us name the factors that contribute to the prompt updating and solving of the tasks, to fill the content of the educational environment by the application of new technologies and the acquisition of knowledge – the centralization of software and

methodical support; wide access to the presented knowledge using corporate means of communication.

Undoubtedly, the tasks and functions of informatization vary in the educational processes of educational institutions of different levels and profiles, which is associated with different learning goals, professional training tasks, unequal preparedness of teaching staffs for the introduction of ICT, and different financial opportunities.

Practically solving the task of informatization, planning innovative processes in professional education, it is advisable to focus on the concept of the zone of immediate development, which is widely used in the design of the pedagogical process. Then the pedagogical teams will consider and implement those changes for which they are ready. For this, it is necessary to see a complex of practically significant tasks of informatization of the institution and to correlate them with its capabilities and on this basis to highlight practical guidelines, near and distant goals that determine the content of the necessary innovations. When the efforts of teachers are directed at once to a wide range of complex problems of informatization of education, it distracts them from solving the key tasks facing the educational institution.

6. Pedagogical goals Use of information technologies for informatization of the educational process.

The use of information technologies for informatization of the educational process provides an opportunity to realize pedagogical goals:

- preparation for life and continuous development of personality in the information society;
- development of communication skills;
- development of thinking;
- ability to process information;
- formation of information culture;
- aesthetic education;
- development of research and experimentation skills;
- formation of the ability to accept optimal solutions.

7. Conditions of informatization of the educational process.

The necessary condition for informatization of the educational process is:

- development of the global Internet network, network technologies, and local intranet networks, which open up accessible and wide opportunities for the use, transfer, and storage of large amounts of information;
- constant use of means of communication: regional, global, local networks, e-mail to teach opening the possibility to carry out: operational, interactive communication; prompt transmission of information at a distance of any type and volume; organization of joint telecommunication projects; free access to various sources of information; discussion of problems and communication; participation in Webinars, teleconferences, forums, chats, blogs, etc.

The continuous development of information provision in the educational space of the educational institution based on the Web platform was accompanied by the appearance of various resources that support the activity of people and their various educational needs, users are treated with respect, and they are presented as co-authors or authors of network content.

The rapid development of informatization of the educational process contributes to the activation of aspects of communication in the educational activity of those seeking education. Currently, the network has several innovative technologies that contribute to the discussion of various problems, the implementation of communication between students in the educational process, the creation of creative and intellectual values, and the implementation of the exchange of information and experience (Hurevych et al., 2012).

The transfer of information through a computer network and the introduction of innovative technologies for informatization of the educational process changes the way of interaction between the learner and the teacher, optimizes verbal communication, and increases its level (Plakhotnik et al., 2023). With this approach, education is implemented in the form of a clear program, has an individual character, uses modern technologies, promotes the modular development of educational classes, and necessarily pedagogically supports the students of education. Such support is provided by teachers and is as individual as possible for each student. Based on the involvement of various educational disciplines, as a result, the interdisciplinary nature of education increases, and the integration of the educational process into a single disciplinary complex is strengthened. Taking into account the fact that in

connection with the development of technology and science, there is a continuous information update in the educational field, this leads to the rapid "aging" of the content of the educational material in professional disciplines in the preparation of specialists, and at the same time, the ability of education seekers to master the skills of using remote databases with relevant educational, scientific and cognitive information, different ways of searching for knowledge in the education process, where students of education master the skills of applying innovative modern information technologies in research, educational, scientific activities as much as possible (Plakhotnik et al., 2022).

8. The main tasks of the development of information provision of the educational space of the educational institution.

The development of information provision in the educational space of the educational institution contributes to the solution of the main tasks at the same time:

- to organize the educational activities of education seekers using elements of electronic learning,
 - to form skills and abilities in the process of education to apply communication and information technologies and to use them in their professional activities in the future and to use informational, educational, educational, reflective, developing, and socializing functions, because the informational and educational environment of an educational institution is also a component of traditional educational systems and an independent system that develops professional competence, promotes the active creative activity of education seekers, provides the opportunity to use information technologies in a new innovative educational space (Yashchuk, 2021).
9. Specific skills. use of modern information and communication technologies in the educational process.

For the effective development of informatization of the educational process, information provision of the educational space of the educational institution, and the use of modern information and communication technologies in the educational process, the teacher must possess the following specific skills:

- apply innovative modern information and communication technologies in the training of competitive specialists;
- analyze, and adjust the educational process;
- choose the most rational means and methods of educational activity;
- effectively take into account the individual characteristics of the students of education, their abilities and inclinations;
- to combine traditional methodical educational systems with new information and communication technologies;
- manage the educational process and the educational and cognitive activities of the students;
- monitor the quality of educational activities.

Informatization of the educational process, with the aim of quality training of specialists, requires appropriate funding, which means state support for solving the tasks of informatization of education, in particular, increasing the number of methods and means of processing educational material, forming and ensuring high technological support of educational institutions, developing alternative options for presenting information, provision of software-methodical and educational equipment of the educational institution with educational-oriented software and modern technical means. Informatization of the educational process, with the aim of high-quality training of specialists, and introduction of new information technologies, is only the beginning of restructuring in the system of society. A modern student of education needs to instill aspirations and learn, and skillfully use the latest technologies and knowledge, to develop dynamically by the needs and requirements of the time, which concerns both teachers and students of education. Therefore, education should acquire an anticipatory character, based on new information technologies (Dotsenko, 2016).

10. Use and development of pedagogical software computer tools

The use and development of pedagogical software computer tools will be effective if there is a focus on:

- effective use of a combination of non-computer and computer methods not only in specially organized experimental conditions but in the real educational process;
- a systematic approach in determining the organization and structure of the use of software pedagogical tools, to guarantee a gradual transition to a high level of mastery of information pedagogical technologies as

- the empirical material necessary for a specialist increases;
- the solution of today's problems by a teacher who has an initial level of information culture and constant improvement in the process of developing his needs of this level of information culture;
 - modern didactic ideas that have a specific purpose of an educational institution, that will develop at the methodical level their effective use not only in experimental, specially organized conditions but in the real educational process;
 - multi-level classification of educational process informatization software and their harmonious use for high-quality training of specialists.
11. Areas of effectiveness of informatization of the educational process, with the aim of quality training of specialists, informatization of educational technologies.

We believe that the effectiveness of informatization of the educational process, with the aim of quality training of specialists, informatization of education technologies will be achieved under the following conditions:

- firstly, the educational technologies themselves will be applied from the goal to the learning outcomes, as a systematic method of designing, implementing, making corrections, and contributing to the reproduction of the educational process;
- secondly, the informatization of education technologies should be aimed not only at the introduction of new innovative computer education tools for all educational components;
- thirdly, the informatization of educational technologies will be focused primarily on the development of the individual, and not only on the specifics and needs of the content of the educational discipline.

We see the way to solve the mentioned problem in the use of such basic approaches, which would ensure the implementation of the principle of integrity of the pedagogical innovative designed system, which embodies in its essence the unity of the main elements (content, forms of educational organization, educational goal, didactic process). Integrity allows you to see the object: as a structure with spatially interdependent elements and a collection of its elements; ensures conscious perception of professional information by the student of education; creates conditions for the

humanization of the educational process and promotes the interaction of the teacher and the learner, as a result of which there is a change in the style of communication and leads to cooperation; increases mental activity; promotes at all levels the transformation of managerial activity on a reflexive basis from subject-object to subject-subject relations (Bykov et al., 2008). For high-quality training of specialists, the effectiveness of informatization of the educational process cannot be without the introduction of active forms of learning by the teacher into the practice of education. The main condition for the effective application of such an organization of informatization of the educational process is modular learning, which is based on the integration of the principles of self-organization, modularity, and contextuality. Therefore, the educational process requires such modernization that it is adequate to the requirements of today. Modernization is possible with the wide implementation of computer tools and methods of processing, receiving, and transmitting information in the practice of educational institutions. Such an approach guarantees qualitative changes in the teacher's activity and those seeking education. With particular urgency, in connection with this, the urgent question of creating a new innovative generation of informational and methodological support of the educational process based on computer multimedia technologies (Isak, 2016).

Thus, informatization is not just a tendency, a trend, not an end in itself, but a means of more effectively achieving the goals facing the pedagogical system. The main tasks and functions of informatization of educational institutions of professional education are interconnected and aimed at the formation of informational competence as a mandatory component of the professional training of a specialist, which is considered as one of the key qualifications of a person of the information society.

Successful achievement of the goal of informatization of professional education and the introduction of ICT in professional training is possible, in our opinion, under the condition of designing, creating and maintaining an ICT-rich educational environment, which includes means and technologies for collecting, accumulating, transmitting, processing and distributing educational information, means of presentation knowledge, ensuring connections and effective functioning of organizational structures of educational institutions. Purpose of such an environment: identification and development of

abilities and potential of an individual; creation of conditions for independent acquisition of knowledge and its qualitative assimilation; ensuring the automation of assessment of learning outcomes; compensating for certain negative consequences of pupils and students' work with ICT tools.

Conclusions

In this article, we elucidate the pivotal role of the educational process's informatization in ensuring the high-quality training of specialists. This is aimed at fostering a holistic understanding of future innovative activities within the education system, envisioning it as an integrated network of professional functions and tasks with a particular emphasis on informatization. We investigate various aspects, including the potential benefits of integrating informatization into the educational process and its contribution to an innovative learning environment. We also delve into the rich information resources available in the web space, the indicators of successful informatization in education, and its positive implications for enhancing student performance. Our discussion encompasses the pedagogical objectives of employing information technologies, the conditions required for effective informatization, and the primary objectives for bolstering information accessibility in educational institutions. Further, we highlight the essential skills needed to harness modern information and communication technologies, the evolution of pedagogical software tools, and the domains where informatization markedly improves the caliber of specialist training and the methodologies of educational technologies.

Information and educational environment for high-quality training of specialists:

- prepares students for high-quality work in the informational educational space and a fulfilling life in the modern information society;
- provides simultaneous access of a large number of education seekers to high-quality learning resources; accessibility, innovativeness, and flexibility of the educational process;
- contributes to the effectiveness of professional training and improvement of the quality of the educational process;
- forms the ability to master methods of cognitive activity and independent accumulation of knowledge and activates forms of individual educational space;

- implements an individual educational trajectory as the basis of competitive professional activity;
- provides an opportunity to provide high-quality training for the future specialist for the active use of communication and information technologies in his future activity;
- accelerates the transfer of knowledge and the accumulation of social and technological experience of the individual.

The role of informatization in the educational process for high-quality training of specialists has been clarified to achieve in the educational process a systemic vision of the future innovative activity of specialists, to perceive it as a single system of professional functions and tasks, giving preference to informatization.

The article proposes a definition of informatization of the educational process and defines the purpose of training in an electronic educational environment for quality training of specialists. Informatization of the educational process was considered in the following aspects: system, activity, and information.

Software tools for organizing an effective process of informatization of education for high-quality training of specialists are presented. The positive factors of informatization of the educational process are highlighted. The specific skills that a teacher must possess for the effective development of informatization of the educational process are listed.

Further research will substantiate the conditions under which the effectiveness of informatization of the educational process will be achieved for the quality training of specialists.

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