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INFORMATION AND COMMUNICATION TECHNOLOGIES IN PROFESSIONAL TRAINING OF FUTURE ECONOMISTS

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Abstract
The article analyzes the means of information and communication technologies used in the training of future economists Based on the analysis, the expediency of using information and communication technologies in the educational process for future economists to acquire the necessary professional knowledge, skills, abilities and methods of activity is substantiated. The questions of expediency and pedagogical principles of efficiency of use of means of informatization in educational process are considered.

Keywords: professional training, future economists, information and communication technologies.

Introduction. In modern conditions, when the integration of Ukraine's economic system is gaining momentum, and information and communication technologies are rapidly penetrating into all spheres of life and professional activity of economic specialists, professional training of future economists in higher education is focused on training competitive professionals. able to quickly perceive and process large amounts of information in electronic form, be able to work with information and communication resources, expand the range of existing competencies, constantly update their knowledge, increase their intellectual potential. It is necessary that educational activities encourage future economists to actively work with information and communication technologies, to search for additional information that in the future, through the intellectual assimilation of such information, will turn it into new personal knowledge.

As evidenced by the practice of introducing information and communication technologies in the educational process, the impact of these tools on the results of educational activities depends on the correct definition of their place and role in the structure of information-oriented educational environment.

The experience of pedagogical work gives grounds to conclude that a significant shortcoming in the training of future specialists in the field of economics is the lack of professionalism in the use of information and communication technologies. This is manifested in the low level of application of such technologies in the educational process, which is mainly due to the ignorance of some teachers in the field of computer-based learning technologies, inability and unwillingness to use them in the educational process.

The purpose of the article is to show the features of training economists on the basis of modern information and communication technologies that provide intellectual and professional development of future economists, to consider the feasibility and pedagogical principles of effective use of information in the educational process.

Analysis of recent research and publications. Most scientists interpret information and communication technologies as tools related to the creation, storage, transmission, processing and management of information. We also support this position.

Formation of students' competence, which involves the acquisition of basic knowledge in the field of informatics and modern information technology; mastering the skills of using software and computer networking skills, the ability to create databases and use Internet resources, prompted us to analyze the theoretical and practical principles described in the literature.

Didactic and psychological aspects of the application of information and communication technologies in education were considered in the researches of M. Aleksyuk, V. Bespalko, L. Zankov, I. Lerner, E. Mashbits, S. Tikhomirov and others. M. Zhaldak, V. Klochko, N. Morse, S. Rakov, Y. Ramsky, O. Spivakovsky, Y. Trius and others studied the ideas of introducing information and communication technologies into the educational process. Researchers have interpreted the informatization of education as one of the key factors in modernizing education and improving its quality.

They proved that the stable skills and abilities of information activity of specialists in the economic field contribute to the solution of professional problems, effective analysis of economic phenomena, assessment of trends in the development of various objects of economic activity.

V. Klochko notes that the use of new information technologies in education allows:

− to harmonize the content of training with the requirements of modern life;

− to combine traditional technologies and modern information technologies of training, to increase intensity of educational and cognitive activity of students;

− deepen the integrated impact on the student's personality through access to modern information technology;

− to diversify the forms of student participation in educational activities, to more actively form professionally significant knowledge, skills and abilities;

− to involve students in scientific and cognitive activities that provide systematic, deepening and expanding the theoretical knowledge base, the disclosure of creative potential of students;

− increase the motivation to study the theoretical material and the course as a whole [1].

Well-known scientist M. Zhaldak [2] argues that the widespread introduction of new information technologies in the educational process, based on computer support of educational and cognitive activities, opens far-reaching prospects for expanding and deepening the theoretical knowledge base, giving practical learning results, integration subjects and differentiation of learning, intensification of educational and cognitive activities, strengthening communication between students and teachers, increasing the share of independent research nature of educational activities, revealing the creative potential of students and teachers, taking into account their positions, preferences, the specifics of the provision and the course of the educational process.

The main form of education in higher education remains a lecture, despite its sharp criticism as a passive form of education. Lectures are one of the most common forms of teaching in high school. Lecture courses combine a large amount of knowledge, which the teacher provides in a compact and accessible form. But traditional lectures do not meet the current demand of students. They are replaced by multimedia lectures, which provide visual support, interactive discussions, training lectures, which ensure the active participation of students in the learning process.

Presentations created with the help of the Microsoft Power Point program have become widely used in lectures. This multimedia software helps to present the material as a system of vivid reference images filled with comprehensive structured information in an algorithmic order. Presentations are organized at any stage of studying the topic and at any stage of the lesson, in particular during the explanation of new material, consolidation, repetition, control, etc. At the same time, the presentation performs various functions: a teacher, a working tool, an object of study that cooperates with the team, etc. Multimedia software has greater capabilities than traditional, in displaying information that favorably distinguishes them from each other. Multimedia presentations also directly affect the motivation of students, the speed of perception of educational material, etc., and therefore the effectiveness of the educational process as a whole.

The successful combination of different types of information demonstrates a high level of professionalism and professional training of the teacher.

Educational presentations with a huge range of educational, informational, educational, developmental and other opportunities are a modern and necessary element of educational and methodological support of the discipline, lectures, practical classes and more. It is important that each educational multimedia presentation meets all didactic requirements: scientific, systematic, consistent, accessible, visual, practical, and so on. Also, when creating a presentation, it is necessary to take into account not only the principles of classical didactics, but also specific approaches to the use of computer multimedia presentations.

At the stage of creating a multimedia presentation it is necessary to take into account: psychological features of the student audience, purpose and expected learning outcomes, structure of cognitive space and placement of students in the classroom, selection of the most effective elements of computer technology for specific tasks.

The use of multimedia presentations in the classroom also requires consideration of psychophysiological patterns of perception of information from the screen. Working with visual information has its own characteristics, as during long-term learning activities weakens visual acuity, causes fatigue. Working with texts is especially difficult for students.

In the educational process it is necessary to avoid monotony, to take into account the change of students 'activities, to focus on the development of students' mental abilities, ie on the development of observation, attentiveness, associativity, comparison, analogy, highlighting, imagination; to enable students with different levels of academic achievement to work successfully in the classroom with the use of computer technology; take into account the types of student memory (operational, short-term and long-term), it is limited to use everything that is introduced only at the level of RAM and short-term memory.

Thus, the use of multimedia software helps to intensify the activities of teacher and student; to improve the quality of studying the discipline; to implement the principle of clarity; focus on the most important characteristics of the studied objects and phenomena.

The use of presentations in the educational process contributes to the successful solution of methodological problems, activates the independent cognitive activity of students, opens new opportunities for their creative development. At the same time, the use of multimedia presentations must be harmoniously combined with the traditional methods of teaching the discipline. Experience shows that multimedia presentations are quite effective at any stage of learning, but in different structures and didactic purpose of the lessons, the method of their application should be different.

The introduction of modern achievements in the field of multimedia technologies in education makes it possible to really facilitate the work of teachers, increase student motivation to learn, optimize and enhance the effectiveness of the educational process in general. Increasing the mental load in the classroom encourages the teacher to think about how to maintain the required level of cognitive activity and interest of students throughout the study period. The use of presentations stimulates the interest and curiosity of students, encourages them to self-education and self-improvement.

But on the other hand, the organization of multimedia lectures requires the presence of classrooms for computerized lectures, equipped with a laptop, projector, compatible with available software, audio, screen, Internet access, and so on. Today, the vast majority of multimedia lectures are organized due to the personal enthusiasm of teachers and their creativity. Preparation of presentation programs, multimedia lectures requires effort and appropriate training.

An interesting direction in the application of modern information and communication technologies is also interactive communication. Researchers [3] distinguishes interactive discussions of two categories: synchronous ("chats") and asynchronous (e-mail, mailing

lists, Internet forums). In synchronous discussions, students communicate effectively over the Internet, and in asynchronous discussions, communication is more like correspondence. In general, synchronous interactive discussions are ideal for distance learning, asynchronous - for stationary learning, diversifying the direct daily communication of students. The easiest way to communicate is to use e-mail - sending messages to students. For large lecture courses or sections, this tool saves a lot of time. Having sent the lecture material the day before, you can actively work on its assimilation, rather than reproductively summarizing the lecture.

More complex and time-consuming is the organization of Internet forums, which register the individual participation of students in discussions. Each participant can read the full text of the discussion and join the discussion. Interactive computer conversations ("chats") require the most careful planning, special computer programs and adherence to ethical norms and procedures of communication. Internet forums, the organization of thematic groups as a creative task, can be organized by students themselves, and the teacher can be a participant in this process. The analysis of discussions in Internet forums, thematic groups can give a picture of assimilation of theoretical material by students, ability of tolerant communication, conducting discussion, argumentation of the position.

E-mail, communication through "chats", on-line consultations become an effective tool for creating a student learning environment, provide interactivity of the educational process. New opportunities in teaching the educational process, development and implementation of effective didactic tools and teaching methods, focused on the needs and intellectual abilities of a particular student.

In the educational process of Vinnytsia National Agrarian University, the management system of the higher educational institution "Socrates" is actively used, which contains a single database of students, teachers and staff (Fig. 1). It is a global information base of the university for: management of the educational process; accounting for students' knowledge; accounting for student learning activities; Thesaurus knowledge testing systems; work of the training client-server program WEB-accounting; conducting personal affairs of students; conducting medical affairs of students; management and distribution of individual resources of students on the file server of the university; libraries; university repository; creation of e-books; support of the scientific advisory educational environment of the university.

On its basis there is a functioning of subsystems Socrates: personal office of the teacher, personal office of the student which, in turn, contains: the integrated system of distance education, educational cards of disciplines, the combined methodical and electronic educational materials, the electronic magazine, system of testing of knowledge "Test-master" (Fig. 2).

In the electronic journal, the teacher forms the structure of the discipline according to the amount of credits and the types of classes that will be evaluated. Students have access to an electronic journal, see the structure of the grading system and their own grades for each of the identified tasks. At the request of teachers, the journal allows you to identify mandatory and additional tasks and make notes on their implementation. The head of the group keeps records of missed classes, the data of this record fall into the system "Electronic Dean's Office"; the teacher can also keep such records and take into account the points for attending classes.
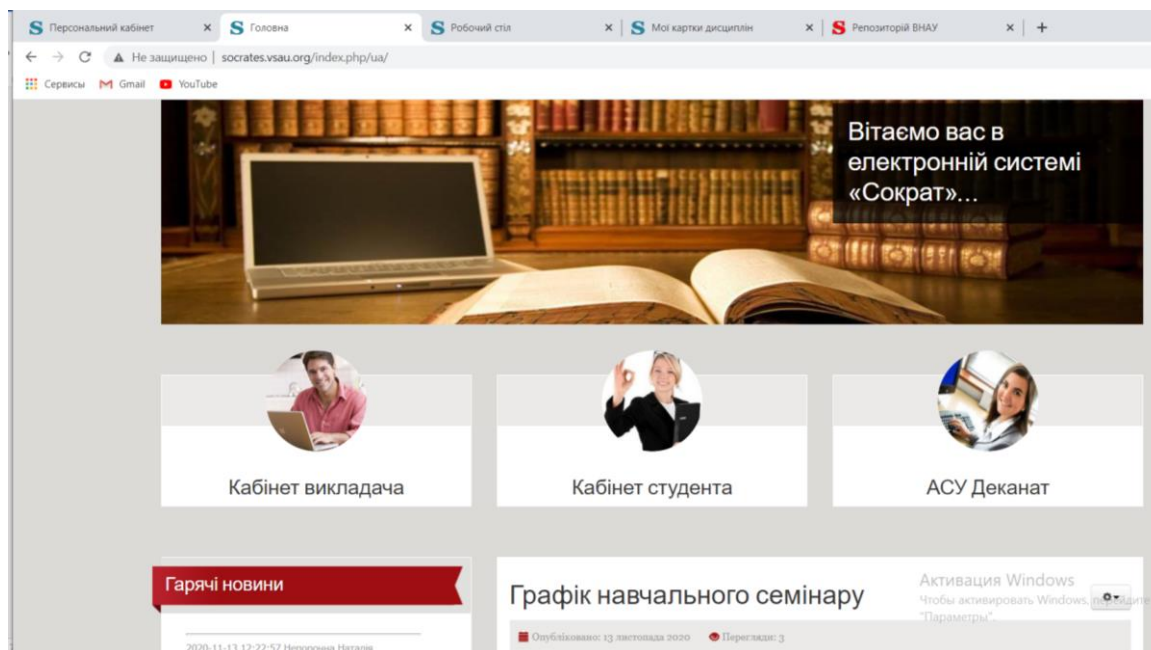

Fig.1. Appearance of the Socrates system

Fig. 2. Example of discipline card design "Higher and Applied Mathematics"

If the teacher actively uses the e-journal, he has the opportunity to print an e-journal page and use it in a traditional paper journal to save time and avoid duplication of information. If the teacher is more active in using the traditional paper journal, then in the electronic journal he can enter only the final assessment data with the mandatory introduction of modular assessments.

The electronic journal allows to form own structure of estimation of tasks of students, to carry out quickly and qualitatively calculations of success of students, to define a rating of the student in group, to provide data for the further processing and the analysis in "Electronic dean's office".

The use of information and communication technologies as a tool for intellectual and professional development optimized the control of the level of acquired knowledge of students.

The forms of control used by teachers in higher education are very diverse, but it is usually a written and oral survey. Practice shows that such forms of control are not without drawbacks. Oral interviews involve a lot of time with a small number of grades. In the course of written work, the number of assessments increases, but it takes a lot of time to check the tasks by the teacher.

As an effective way to test knowledge, testing is becoming increasingly used. One of its undeniable advantages is the minimum time spent on obtaining the results of control. Both electronic and paper versions are used during testing. Electronic ones are especially effective because they do not take much time, they are devoid of subjectivity, and help to get results immediately after the test.

Testing has three main interrelated functions: diagnostic, educational, and educational. The diagnostic function is to identify the level of knowledge, skills, abilities of students. In terms of objectivity, breadth and speed of diagnosis, testing surpasses all other forms of pedagogical control.

The educational function of testing is to intensify the work of students to learn the material. To strengthen the educational function of testing, it is advisable to use additional measures to stimulate students, such as the presence in the test of leading questions and tips, an approximate list of questions for self-study, joint analysis of test results.

The educational function of testing is manifested in the inevitability and periodicity of test control. It disciplines, organizes and directs the activities of students, helps to identify and eliminate gaps in knowledge, forms a desire to develop their abilities.

Teachers of Vinnytsia National Agrarian University create and edit tests with the help of the "Test Master" from their personal office and install them in discipline cards. The Test Wizard can be accessed from any computer with an Internet connection. The Test Wizard allows teachers to view a list of all their tests, create a new test, combine tests, delete them, and improve existing tests. Also, the "Test Master" shows the rating of each test (the number of questions answered by students) and performs an analysis of the quality of questions (Fig. 3).

Студентська Головна > Студентська > моя група

Кабінет студента
Моя група
Екзамени
Сервер олімпіад
Тести
Змінити пароль

Результати проходження тестів

Студент : Асауленко Олексій Іванович. У мережі : 0:2:0 год. Картка

№	Назва тесту	Середній бал	Кількість здач
1	IT. Модульна контрольна робота № 1.	4.4	15
2	MS Word. Лабораторна робота № 1.	4.07	15
3	MS Word. Лабораторна робота № 2.	4.07	15
4	MS Word. Лабораторна робота № 3.	4	15
5	MS Word. Лабораторна робота № 4.	4.47	15
6	MS Word. Лабораторна робота № 5.	4.6	15
7	MS Word. Лабораторна робота № 6.	4.73	15
8	MS Excel. ЛР № 1.	4.4	10
9	MS Excel. ЛР № 2.	4.2	5
10	MS Excel. ЛР № 3.	4.8	5
11	MS Excel. ЛР № 4.	4.8	5
12	MS Excel. ЛР № 5.	5	5
13	MS Excel. ЛР № 6.	4.8	5
14	ККТ. Контрольна робота № 2.	3	1

Виберіть студента

Fig. 3. Test results window

Tests can be performed in two modes: without registration or with registration. Without registration, students take tests, see their results, but the score is not recorded in the system "Socrates", in fact, students get acquainted with the test questions. During registration, students enter their login and password to take the test, the test result is recorded in their study card. Teachers can see the same results through the Socrates system, as well as view the average score and the number of times each test is taken by a particular student, the date and time of its implementation.

If you fill in the field "E-mail for errors" in the test card, then the specified address will receive messages about errors detected by students in the tests. In this case, when passing the tests in the registration mode, students will have a "Report an error" button.

The obvious advantages of using tests that ensure the successful implementation of the goal and all control functions are: high efficiency, objectivity, fairness of knowledge assessment; lack of stress and overload for students; the ability to save time for teachers and students; processing speed of the obtained results [4].

Consider the basic principles of effective practice of training future economists, which are most evident due to the use of information and communication technologies.

Strengthening contacts between teachers and students, development of communication skills. The role of the teacher is very important, because it should help the student to understand the goals and objectives of learning, to believe in their strengths and capabilities. In this case, the learning process becomes more motivated, as the teacher significantly increases motivation during feedback and uses tools to develop student competencies.

Development of fruitful cooperation of students. Research shows that the percentage of students who are able to learn independently, without communication with others, is quite small. Joint learning activities stimulate interest and motivate. Sharing ideas improves reasoning and deepens understanding. However, such work requires an individually differentiated approach to take into account the degree of understanding of the educational material, truly independent work and timely removal of psychological barriers. This requires constant monitoring, as well as the organization of consultations to analyze the progress of each student, assess the degree of understanding of educational information, its memorization and reproduction.

Quick feedback. While studying the material, students need help - it is an assessment of their knowledge, skills, abilities, counseling in the process of homework, analysis and discussion of the material, linking with their experience. You can define the following feedback functions: informing the student about the mistake, helping to correct it, increasing motivation by analyzing the progress of the student and discussing its results, leveling the learning trajectory to optimize the learning process.

Use of active forms and methods of teaching. Students should discuss the material being studied, reflect on it, and relate it to their practical experience. The effectiveness of students' dialogue largely depends on the teacher's ability to manage the discussion. On occasion, the teacher becomes a participant in the dialogue to give examples of language culture and it is advisable to use chats to form the personality of students.

High stable cognitive motivation. Motivation is important for everyone, for the indifferent, for the ill-prepared, for the overly reserved, and for the active, purposeful students. Information and communication technologies provide new opportunities to increase learning motivation.

Efficient use of time. Successful time management is effective learning for students and useful learning and improvement for teachers. Information and communication technologies provide such assistance through access to information resources distributed around the world.

It may seem that the use of information and communication technologies in all areas of educational activities is always justified. Of course, in many cases this is the case. However, the informatization of education has certain negative aspects. Both positive and negative factors of informatization of education need to be known and taken into account.

The use of information and communication technologies becomes a necessary condition for professional training of future professionals. Thus, their competent use due to the clarity and accessibility of the presented educational material, provides high efficiency of educational classes, independent, individual work of students. Information and communication technologies are used as a means of information and methodological support and management of the educational process, the tool of cognition of the surrounding reality and self-knowledge, means of developing the personality of students; means of communication; means of automation

of processes of control and adjustment of results of educational activity, testing and psychodiagnostics; means of organizing intellectual leisure.

Information and communication technologies make it possible to build the learning process in such a way that the content of education provides mastery of strategies for solving problems, including creative ones; analysis and mastering by the student of the activity; the content of vocational training is organized taking into account the real production processes. This approach optimizes the intellectual and professional development of future economists. They form important professional qualities: responsibility for the task, creative approach to decision-making, the ability to independently obtain personally meaningful information from a variety of sources; analyze, use information to perform tasks; present the results of their own activities, which are important components of professional competence and future professional activity in general.

The process of informatization of education increases the level of activity and reactivity of the student, develops the ability to think alternatively, the formation of skills to develop strategies for finding solutions to both educational and professional problems, forecasting the implementation of decisions by modeling objects, phenomena, processes and relationships between them.

These positive aspects of the use of information and communication technologies in education are not unique, but the use of modern means of information and communication technologies can lead to negative consequences.

In particular, one of the advantages of using information tools is often considered to be individualization of learning. However, along with the advantages, there are many disadvantages associated with total individualization. Individualization minimizes live communication between teachers and students, students among themselves, offering communication in the framework of "dialogue with the computer." This leads to the fact that a student who actively used the living language according to the traditional model of learning, is silent for a long time when working with the means of infor-

mation and communication technologies. The objectification of human thinking - language is excluded, immobile for many years of study. The student does not get enough practice of dialogic communication, formation and formulation of ideas in professional language.

Conclusions. Thus, the reform of modern education cannot take place without the use of information and communication technologies. The search for a new life experience with the help of information and communication technologies contributes to the fact that in the minds of students there is a qualitative productive breakthrough in the development of spatial representations. The use of modern technologies in higher education creates conditions for the development of skills and abilities of self-education through the organization of creative and research work of students aimed at updating and integrating knowledge from different disciplines. A characteristic feature of training with the use of information and communication technologies is the ability of the teacher to conduct training at a higher quality level. Such training requires the creation of a fundamentally new learning technology.

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THE CONCEPTUALIZATION OF GLOBAL INDICATORS FOR THE ANALYSIS OF THE POSITIONING STRATEGIES OF UNIVERSITIES IN THE INTERNATIONAL INFORMATION SPACE

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Abstract
The article analyzes and defines global indicators and their indicators for the analysis of strategies for positioning universities in the international information space, allowing without significant material costs and efforts to effectively collect, systematize, analyze and use the available information that is formed in the process of the main activities of the university.

Keywords: global indicator, indicators, positioning strategy, leading university, international information space.