Theoretical and methodological fundamentals of application of information and communication technologies in the process of teaching tourism disciplines

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Abstract. The article analyzes the state of implementation of information and communication technologies (ICT) in the organization of e-learning in higher education students using the experience of specialties «Tourism». The urgency of e-learning technologies application and related information and communication technologies is proved. The results of research on active use of ICT, e-learning platforms, choice of ICT-based survey of the Ukrainian higher educational institutions that provide teaching training courses in specialties «Tourism». Describes examples of the use of various multimedia resources in the classroom. The author analyzes the problems and prospects of using information and communication technologies in the high school, as a pledge of constructing an intensive process of assimilation of knowledge and skills. It has been found that teachers prefer e-learning platforms, various Internet sites, and multimedia presentations.

1 Introduction

The modern period of human development, including education, can be defined as the transition from industrial to information society, the emergence of which is associated with the information revolution, the development of information and communication technologies that change the social life of everyone, including higher education.

One of the focus tasks of modern higher education is the training of professional's staffs of applying the latest information and communication technologies in professional activities.

In the current context of the global pandemic as well as at a time when students are trying to combine learning with work as well as learning simultaneously in several higher education institutions e-learning becomes especially relevant.

In this regard, to improve the training of tourism professionals need to optimize and update the introduction of information and communication technologies in the educational

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process of higher education. The urgency of this problem is exacerbated by the fact that modern special conditions for the functioning of the Ukrainian tourism industry require the education system to train a person capable of solving various professional issues.

It will be noted that solving these problems in the modern information space is impossible without the integrated implementation of information and communication technologies.

Pay attention that information and communication technologies are defined as a set of various technological tools and resources used to ensure the process of communication and the creation, dissemination, storage and management of information. These technologies are understood as computers, Internet, radio and television programs, telephone communication, as well as technologies for developing information systems and building communication networks, which involves psychological and pedagogical support of design, development, implementation and support [9].

Informatization and computerization of education in the modern globalized world involves both the training of research and teaching staff to use information and communication technologies, and the student's willingness to work independently, in particular in the study of tourism disciplines.

The Laws of Ukraine "On Education", "On Higher Education", the State National Program "Education" (Ukraine of the XXI century), the Concept of pedagogical education, the State target program of introduction in educational process of general educational institutions of information and communication technologies "One Hundred Percent", The National Doctrine of Education Development in Ukraine, the National Strategy for Education Development in Ukraine for the period up to 2021 are designed to outline the main directions of implementation of this trend.

2 Methods

To solve the tasks, the following set of research methods was used: theoretical - analysis of scientific sources, pedagogical, psychological literature and teaching materials, comparison; empirical – generalization of pedagogical experience; analysis of products of activities (analysis of work programs and curricula).

3 Results

Without information and communication technologies, it is impossible to imagine a full-fledged life of both a scientific and pedagogical worker and a student lately. On this evidence, students of future tourism professionals believe that the most successful in their professional activities will be a person who has up-to-date information and uses modern computer technology to obtain, evaluate, analyze and predict.

Informatization has significantly influenced the educational process in higher education, which due to the use of information and communication technologies has risen to a qualitatively new level. Nevertheless, the introduction of information and communication technologies in the learning process creates new opportunities for research and teaching staff. They do not replace the teacher, but should only be a powerful tool in his hands with a large resource of use.

The modern information and communication technologies have an impact on the educational process by changing the scheme of knowledge transfer and teaching methods. That is to say, their introduction into the education system not only affects educational technologies, but also introduces new ones into the educational process. They are

associated with the use of computers, software and hardware, information processing systems.

In this context, information and communication technologies are also associated with the creation of new tools for learning and storing knowledge, which include electronic textbooks, electronic libraries, educational networks and information and reference systems. To this effect, the use of information and communication technologies in the educational process is not an end in itself, but a pedagogically justified approach that will provide significant advantages over traditional technologies for organizing the educational process.

At same time of most scholars regarding that, the informatization of modern tourism education is to change the content, methods and organizational forms of educational work in the formation of a "new" school, which is designed to solve the problem of training Tourism to live in the information society.

With regard to that, analysis of the existing capabilities of information technology in terms of educational problems allows us to identify five new pedagogical tools used by research and teaching staff during lectures and seminars for students majoring in Tourism: interactivity, multimedia, modeling, communication, productivity.

Information and communication technologies are used at different stages of classes for students majoring in Tourism to illustrate the material; use of training programs; performance of independent and creative tasks; use of a computer for statistical calculations and plotting; organization of project activities of students as future specialists in tourist services.

In connection with the data of most researchers, the introduction of computer tools in the educational process has expanded the theory and methods of education with new teaching aids [2].

The main activity of application of information and communication technologies in the teaching of tourism disciplines can be:

- Development of methodical and didactic materials (presentations, images, animation, etc.);
 - Management of the educational process of students majoring in Tourism;
 - Purposeful search of educational information on the Internet;
 - Conducting an experiment using computer models;
 - Mathematical processing of experimental results;
 - Organization of intellectual leisure of students;
- Development of web-resources for educational purposes (distance learning, mass online courses);
 - Development and implementation of pedagogical software.

The main components of information and communication technologies - computer technology with software can perform some functions of the teacher: submission of new material, feedback control and processing of information on students' educational activities, etc.

Regarding to using information and communication technologies, the research and pedagogical worker gets access to educational material that can be supplemented and adapted according to the professional preferences of students majoring in Tourism.

That is to say, students who use information and communication technologies gain general and professional competencies by communicating with representatives of educational institutions in different cities and countries.

That is why the status and geographical location of higher education institutions do not affect the possibilities of communication in the field of education and science in cyberspace.

In the system of tourism education, integrated classes with the use of multimedia tools are widespread, and educational presentations are an integral part of the presentation of the material.

The use of videos and animations on tourism allows you to move from the presentation of material using the board to the use of a new educational environment that contains the ability to present educational information in electronic form. Due to this, multimedia lectures can be used to teach almost all disciplines of the tourism cycle.

When planning classes with the use of information and communication technologies, the researcher and teacher turns for help to the educational sites of the Internet, for example, when studying topics in the disciplines of the tourism cycle or the presentation of material on local lore. If the technical support of a higher education institution allows, it becomes a reality to conduct a telecommunications project with foreign educational institutions or to organize direct communication via Skype or Zoom.

The researcher with the help of multimedia in the classroom independently determines the sequence and forms of presentation of tourism material, and most importantly gets the opportunity to present educational information in the form of text, graphics, animation, sound or video. Also for the teacher there is an opportunity to create slides that contain detailed drawings, diagrams, charts, other materials in order to clarify the most difficult questions of the lecture or to provide additional explanations, if necessary for students majoring in Tourism [1, p. 75].

For conducting seminars and practical classes on the disciplines of the tourism cycle, information and communication technologies also have huge potential for improving the efficiency of learning through individual work of students with e-learning information.

In this sense, Internet-methods are effective, which allow to obtain significant advantages in the organization of educational activities of students majoring in Tourism, namely:

- Providing the ability to independently search for the required information among electronic sources;
 - Use of cloud technologies to store educational information;
 - Ensuring communication between students and research and teaching staff;
 - Use of various forms of control of students' academic achievements;
- Holding competitions, webinars and other forms of educational and scientific activities.

The use of information technology in higher education depends on high-quality educational software and its use. It should be noted that information and communication technologies in the process of teaching tourism disciplines should be used in combination with different forms of education in order to obtain maximum results.

Presentations, search for information on the Internet are used in project activities, during which students majoring in Tourism perform a study project in the form of a practical task, for example, while studying the discipline "Tourist and local lore workshop" [7, p. 489].

Relative to use of information and communication technologies in the independent work of students majoring in Tourism significantly facilitates the process of obtaining the necessary information, as there is a significant amount of literature, including scientific and educational, which is submitted in electronic form.

According to the researcher Kobylyansky O., increasing the amount of independent work of students using information and communication technologies leads to the development of their information retrieval skills that help future tourism professionals to quickly and efficiently find the necessary professional information [4, p. 36].

We will note that modern processes of informatization of education are characterized by saturation of educational process of higher school by communication technologies. Therefore, we consider the introduction of information and communication technologies in

auditorium and independent work in certain tourism disciplines, which can be considered a means of developing the communicative competence of students majoring in Tourism, as an important area of improving education.

On this evidence, the training of modern tourism experts involves not only a certain amount of knowledge in the subject area, but also the level of information culture. The fact is that in modern realities, the specialist must be able to effectively and creatively solve professional problems, to constantly improve their professional qualities. Moreover, information and communication technologies are a powerful tool that can speed up the learning process [3].

Owing to we consider their use to be a socially significant factor in the process of formation of integral, as well as general and professional competencies related to the professional activity of tourism specialists. This allows for mutual exchange of professional experience, access to a large amount of information about the development of tourism and local lore, to ensure the formation and development of information culture of students [8].

On the point, we note that the use of information and communication technologies in the process of practical classes in tourism disciplines must be structured and methodologically sound, planning their educational, developmental and educational purpose (general acquaintance with a new topic, formation of practical skills, mastering theoretical material, knowledge testing, etc.).

As part of the use of information and communication technologies in the educational process for students majoring in Tourism, the researcher can also build classes using e-mail for correspondence, dialogue, online tests, or browsing sites, podcasts or videos, through online tasks to consolidate skills, knowledge and abilities in tourism disciplines.

Provide for the use of e-mail to study and teach tourism disciplines play an important role, as it allows students to communicate directly with their colleagues and teachers. In addition, it should be noted that e-mail provides an opportunity to communicate with native speakers; becomes one of the sources of information about the culture of leading countries in the field of tourism; promotes the ability to present more information than in the audience; increases learning motivation; provides almost one hundred percent participation of students in the study of tourism disciplines; contributes to the development of a situation where the role of the teacher is decentralized, as students have the opportunity to independently choose topics for communication, change the course of discussions and debates [5, p. 174].

Presently, many services on the Internet create various "modeled sending lists" in the study and teaching of tourism and local history disciplines. Such services allow you to share the necessary information, get help and advice. The authors offer free lessons and feedback to the subscribers of the newsletters on the study of tourism disciplines.

The advantage of studying tourism disciplines with the help of mailings is that you can choose a topic, which is then sent to the mailbox. The student can work with the topic at a convenient time and at a convenient pace. If necessary, you can ask for help from the author of the newsletter.

Podcasts - audio or video recordings that can be viewed on the Internet or downloaded to an appropriate device for listening and viewing offline - also help significantly in the study of tourism disciplines. In fact, the term "podcasting" appeared in late 2004 due to the merging of the two words "iPod" and "broadcasting" - a technology that allows you to distribute digital, audio and video files on the Internet.

On the other hand, podcasting is the downloading of a variety of audio and video podcasts from the Internet to listen to or play from an iPod, computer, car stereo, tablet, mobile phone, or smartphone. They can range in volume from a few minutes to hours. On the Internet you can find both authentic podcasts and educational, created for educational purposes [5, p. 171].

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Possibilities of podcasting are considered as a means: supply of educational materials to pupils and students, reception of the authentic information, repetition and consolidation of the mastered educational material on tourist disciplines, preparation of students for lectures and seminars. The advantages of the podcast include its sound nature, multimedia, interactivity and accessibility to research and teaching staff, students and anyone interested in studying tourism disciplines.

Sites that are useful for research and teaching staff and that can be used in the auditorium are divided into informational and educational. Information sites are used to select interesting information, creative tasks, and search for additional material. Special training sites contain tasks and exercises for the development of different types of learning skills and are designed with different levels of knowledge in mind [5, p. 173]. The examples of learning sites include online tests, quizzes, and more. After their implementation, the student usually has the opportunity to check and analyze errors independently or with the teacher.

4 Discussion

The effectiveness of the use of information and communication technologies in the teaching of tourism disciplines depends, inter alia, on the availability of appropriate equipment, high-quality educational software and its methodological and planned use.

In this case, the software and pedagogical tools used in the educational process must meet the list of requirements for this type of software. In this aspect, we are talking about stability (detection of input errors), usefulness (interactive help to the user), simplicity (use of several control methods), clarity and controllability (the ability to determine the place in the program) [6, p. 586].

Within the teaching of tourism disciplines, the researcher can also use an electronic textbook, provides, in addition to mandatory training tasks, the following specific benefits:

- Intensification of educational activities through the combination of many tools in one;
- Can be used during group, individual, collective study of the material;
- Provides creative work of students;
- Forms an active, competent person who has a certain level of information culture;
- Adjusts to work through a creative vision of the content of the lesson.

It is advisable to develop an electronic textbook for each subject of the curriculum separately, taking into account its specifics. Visual support is necessary here - illustrations, video material, photos, which are indispensable, because through them the research and pedagogical worker conveys information about the country, historical and cultural monuments, resorts, etc.

It should be noted that the creation of educational tools is a very time-consuming process that involves the joint activities of a programmer, teacher and designer [5, p. 171]. An electronic textbook should not only be a computer program or educational resource, it should combine relevant and scientific information content from the discipline of the tourism cycle. In addition, the very process of implementing a software product in the learning process can cause problems related to the availability of, in particular, guidelines for use.

5 Conclusions

Thus, considering the elements of information and communication technologies, it should be emphasized that in education an important condition for successful integration of technologies is the training of teachers and professionals who operate systems and tools of .1 .

the new integrated learning technology. Each participant must have the necessary information literacy and understanding in the use of information and communication technologies.

Indeed, the teaching of tourism disciplines using information and communication technologies involves the readiness of research and teaching staff to this form of educational process. He must have not only knowledge of the subject, but also be familiar with existing learning technologies using information and communication technologies.

In addition, the research and teaching staff must have at least a basic understanding of the available hardware and software that can be used to study tourism disciplines. The use of electronic resources in the educational process makes it possible to most fully implement the principle of personality-oriented training of future tourism professionals.

Thus, the electronic tool for educational purposes in tourism disciplines will ensure the effectiveness of training, as it contains all the necessary educational material: lectures, seminars, tasks for independent work, photo gallery and control unit.

Own experience and pedagogical practice have shown that the use of information and communication technologies in the teaching of tourism disciplines can significantly increase the efficiency of the educational process during independent work of students, in lectures, laboratory, practical and seminar sessions.

References

- 1. O. Vinoslavskaya, Theoretical and Applied Problems of psychology and pedagogy, 3, 74-76 (2002)
- 2. O. Isaac, Technological education: experience, prospects, problems, **6**, 118-130 (2010)
- 3. O. Carbine, Bulletin of the National Academy of the state border service of Ukraine, 4, (2011)
- 4. O. Kobylyansky, Education Of Donbass, 5, 34 42 (2009)
- 5. I. Kostenko, Tauride Bulletin of Education, **1(41)**, 170–176 (2013)
- 6. M. Kurilov, Artificial intelligence, 4, 584–589 (2009)
- 7. V. Lapinsky, Higher education in Ukraine, 3, 487-495 (2011)
- 8. L. Skaliy, Literary studies, **4**, 6–9 (2003)
- 9. N. Fominykh, The essence of the concept of "information and communication technologies" and their significance at the present stage of Education modernization, (2017) http://dspace. uabs. edu. ua/ jspui/bitstream/ 123456789/ 9084/1/ ped905 77.pdf.