INFORMATION AND COMMUNICATION TECHNOLOGIES
AS A MEANS OF TEACHING FOREIGN LANGUAGES
IN TECHNICAL UNIVERSITIES

Abstract. The article deals with information and communication technologies as a means of teaching foreign languages to students of non-linguistic technical universities. The role of the teacher as an organizer, leader, expert and consultant of the student’s work is justified. It is considered the necessity of using of new information technologies in the learning process. Electronic learning tools which form the development of creative activity of students, motivation of cognitive activity are described. The use of the electronic textbooks in the process of teaching foreign languages is approved. The lack of a common approach to the development of methods of practical distance learning courses is shown.

Keywords: information and communication technologies, selection criteria, information competence, technology, higher education, foreign language, technical universities

As a result of the profound changes that have occurred in recent years in the socio-economic, political and cultural life both within the country and in the field of
international relations, the role of a foreign language in society has changed: from an academic subject it has turned into a basic element of the modern education system, into a means achievement of the professional realization of the personality. Accordingly, a lot of techniques have appeared that make it possible to adequately approach the study of a foreign language in modern conditions. Foreign language classes using information and communication technologies (ICT) are distinguished by diversity, increased interest of students in the subject being studied, and their efficiency.

Software is the means of information and communication technologies, software and hardware and technical means and devices operating on the basis of microprocessor, computer technology, as well as modern means and systems for broadcasting information, information exchange, providing operations for collecting, producing, accumulating, storing, processing, information transfer and the ability to access information resources of local and global computer networks. [1]

The entry of Ukrainian education into the single European and world educational and scientific space through the introduction of the main ideas of the Bologna Declaration [2] into the higher education system of Ukraine intensifies the problem of teaching foreign languages in the higher education system. Undoubtedly, language training in modern conditions should be based on new principles, meet European qualitative and quantitative demands. This problem can be solved by introducing new pedagogical and information technologies.

For this purpose, a search is made and new educational directions are developed, forms and methods of teaching are modernized. According to the national doctrine of the development of education in Ukraine in the XXI century, among the important pedagogical problems and tasks are the use of alternative forms of teaching and education, development of new pedagogical ideas for the educational process. [3] The Ukrainian education system needs radical changes, new educational approaches, among which interactive and information technologies occupy an important place.

Multilingualism and multiculturalism are the hallmarks of the new generation of Europe and, in particular, Ukraine. In higher education today more and more
attention is paid to the study of foreign languages. It should be emphasized that this applies to all spheres of life, where foreign languages are the basis for the development of international relations, scientific conferences, cultural, informational and scientific exchange between different countries. New requirements for foreign language proficiency are set for graduates of higher educational institutions.

Informatization of education is becoming increasingly important in this area and enters a new stage of development. Therefore, it is necessary to involve new information, multimedia and other computer technologies in the educational process. Accordingly, the issues on which the general idea of the capabilities of the computer depends to a large extent are relevant; including its place, role and functions in teaching foreign languages. An important area of improving the level of teaching, improving the foreign language learning process in a non-linguistic higher education institution is the use of various methods, including those based on modern information technology, as well as the use of modern teaching methods, new teaching methods, technical equipment, effective testing and control.

According to the new program of the Ministry of Education, the number of classroom hours is reduced in higher educational institutions and the number of hours devoted to independent work of students is increased. Thus, the role of the teacher in the educational process is gradually changing. Until a few years ago, the teacher served as the main source of information, and now he is becoming an organizer and leader, expert and consultant of independent student’s work. With this in mind, it is necessary to use more effective learning tools that would perform informative, formative, motivating, systematizing and controlling functions in the learning process. Therefore, it is necessary to develop and implement the latest computer-based learning tools, such as electronic manuals, textbooks, guidelines, multimedia training courses, training and test programs, etc. [4]

To work on the above requirements, you need to provide three components of the process. First, there must be hardware and software base, i.e. technological support. Secondly, it is necessary to develop appropriate electronic teaching aids (textbooks, manuals, guidelines or recommendations for the use of electronic
media). And, thirdly, it is necessary to carry out appropriate retraining of teachers.

One of the key competencies of a teacher is the ability to apply information and communication technologies in the classroom. Information and communication technologies not only make it possible to keep up with the times, but also make the learning process interesting. [5] This technology makes teaching creative and research-oriented. The use of ICT allows

– providing positive motivation for learning;
– conducting integrated lessons using music, animation;
– providing a high degree of differentiation of training;
– improving knowledge control;
– organizing the educational process rationally, increasing the effectiveness of the lesson;
– forming the skills of students' research activities.

It is always interesting for students to work with electronic manuals. You can work with material on various types of speech activities of native speakers or take a virtual trip to his country, or you can simply test your knowledge, it makes it possible to regulate the presentation of educational tasks according to the degree of difficulty. Each teacher of our chair uses interactive presentations and videos in their classes. They contain tasks in the form of questions, games, crosswords, and are also used as a means of visibility and the result of project activities.

Another opportunity to make the lesson unusually informative is to use virtual excursions. The advantages of a computer presentation are that it allows you to work with a large number of tables and diagrams. It allows all participants to take part in disputes with speech support. [6] The student does not only perceive information, but also remembers faster when he sees it on the screen. One of the possibilities to unify the educational process is the use of electronic tests. The Internet offers many helpful resources for working with authentic material that can be adapted to the specific learning objectives of the lesson. Electronic tests can be used both when introducing and fixing material.

The use of new information technologies in teaching is one of the most important aspects of improving and optimizing the educational process, enriching
the collection of methodological tools and techniques that allow diversifying the forms of work and making the lesson interesting and memorable for students.

The use of ICT contributes to the acceleration of the learning process, the growth of students’ interest in the subject, improves the quality of the assimilation of the material, makes it possible to individualize the learning process and make it possible to avoid the subjectivity of the assessment.

ICT helps to solve the following problems: improving learning processes, increasing educational results and motivation, networking and the implementation of joint projects, improving the organization and management of the educational process. It should be noted that ICT is not only a means of presenting material, but also a means of control. [7] They provide high quality presentation of material and use various communication channels (text, touch, graphic, sound, etc.).

New technologies make it possible to individualize and intensify the learning process. A differentiated approach creates conditions for the successful activity of each student, evoking positive emotions and, thus, increasing his educational motivation. In addition, the computer can be effectively used at all stages of the lesson: to get acquainted with new language material, at the training stage, at the stage of applying the formed knowledge, skills, abilities and at the stage of their control. [8]

The computer can be used in various communicative tasks and situations, taking into account the individual age and personality characteristics of the trainees. The use of ICT in the classroom of a foreign language (FL) increases the cognitive activity of students, broadens their horizons and makes it possible to apply a personality-oriented technology of interactive learning of FL, that is, learning in interaction. The student himself becomes the protagonist and opens the way to the assimilation of knowledge. The teacher, on the other hand, is an active assistant, and his main function is to organize, direct and stimulate the educational process.

It is known that the effectiveness of the creation and implementation of new computer tools in the process of learning foreign languages in higher education largely depends on compliance with the conceptual objectives of creating e-learning tools for both extracurricular (distance) and classroom learning. Didactic
capabilities of e-learning tools are designed to promote better learning, formation and development of various types of skills, namely, listening skills based on adapted and authentic audio texts, skills of monologue and dialogic speech, skills and abilities of translation and abstracting texts, skills and reading skills with direct use of materials from the Internet and local networks. They also help to increase information capacity and visibility, expand active and passive vocabularies and strengthen the motivation of students’ independent work. [9]

Electronic learning tools form creativity, development of creative activity of students, motivation of cognitive activity, the need to use foreign languages in the interactive communication and the culture of communication. Such teaching aids give teachers the opportunity to individualize and to differentiate the work of students, choosing the pace and volume of educational material, the level of its complexity, as well as control the feedback and diagnosis, increasing its objectivity.

In general, computer programs and their functions can be classified as, for example: training, supporting, mentoring, reference, giving control and teaching games. An essential feature of all types of computer training programs is their interactivity, the availability of feedback. Feedback can be both external and internal. External feedback allows the teacher to monitor, evaluate and adjust the interaction between the student and the computer. Internal feedback allows the student to draw certain conclusions about the effectiveness of their own learning activities, provides the necessary assistance and clarification, and, if necessary, demonstrates the correct answer or method of performing certain actions.

Independent work of students on the basis of multimedia teaching aids contributes to the formation of a high culture of intellectual work; formation and development of techniques and skills to study independently; ability to spend and allocate their time wisely; develops mental skills of analysis, synthesis, comparison, correlation etc.; teaches independent thinking. In the process of working with printed materials of educational literature, many students have some difficulties due to the lack of copies of literature in foreign languages, including those published in accordance with the current level of development of science.
Many e-learning tools are multifunctional. [10] These are electronic textbooks and tutorials that contain methodical teaching material in accordance with the requirements of the foreign language teaching program. Electronic textbooks are means of learning in the pedagogical system of distance learning, which contains elements inherent in any didactic system. Unfortunately, now electronic textbooks are more of an additional tool in organizing the educational process within the traditional educational system. However, over time, their functions will be specialized due to the development of distance learning methods, which will certainly lead to the introduction of new learning technologies. [11]

Electronic textbooks and electronic tutorials should be developed at a high scientific and methodological level. Accordingly, they should provide students with the necessary amount of information, as well as promote the formation of the appropriate level of the above skills for a particular stage of learning. E-learning tools should ensure the continuity and completeness of a particular didactic cycle of the learning process, subject to interactive feedback, both external and internal. [12]

The electronic textbook should be developed according to such criteria as: high-quality content, appropriate use of this textbook, the availability of a sufficient number of guidelines, the implementation of this product exclusively by electronic means.

The development of electronic textbooks is one of the leading activities of higher education institutions working on the introduction of distance learning. Distance learning is a form of learning based on the use of a wide range of traditional and modern information and telecommunication technologies and technical means with a full supply of scientific and methodological materials.

According to the Ministry of Education and Science of Ukraine, all higher education institutions are connected to the global Internet. There are also local networks in each educational institution of the higher school. Therefore, it is fundamentally important to provide students with remote access to electronic libraries of any higher education institution, and not only to local electronic libraries, which give modern distance learning technologies.

Modern technologies of distance learning are divided into the following forms:
– interactive (electronic textbooks, the latest multimedia tools, video conferencing);
– non-interactive (printed textbooks with audio or video components).

It is expedient to comprehensively apply such forms of modern information and telecommunication technologies in various types of classes in information retrieval, experimental research and independent educational activities, in particular in students’ activities to process information, acquire knowledge and develop skills. Therefore, it is necessary to combine hypertext tools (electronic textbooks, reference books, methodological developments on topics), demonstration (multimedia tools) and control or test tools.

So, already now, teaching students to conduct a discussion using the latest innovative technologies contributes to the development of cognitive activity, significantly increases interest in learning and gives good results. The conditions of the modern educational environment provide students with significant opportunities for independent work with the language in order to ensure the difference at any levels using various electronic resources. This allows you to develop an individual way and gives the student the opportunity to realize and improve their knowledge.

Hence, teaching students with the help of the latest information technologies increases motivation for learning, contributes to the development of their cognitive activity, significantly increases interest in learning and the level of creative self-realization, and also gives good results in the formation of communication skills in comparison with the traditional method. Information technologies have high communication capabilities in teaching foreign languages, contribute to the development of knowledge and skills of speaking and listening skills of students, actively include them in educational activities and effectively develop communicative competence skills.

Therefore, the use of ICT in the process of teaching foreign languages allows us to talk about positive results in mastering foreign languages and about increasing the motivation and interest of students.

Thus, advanced educators continue to search for the latest approaches to distance learning of foreign languages, develop general provisions for the concept
of distance learning of foreign languages in higher education. The lack of a common approach to the development of methods of practical distance learning courses in foreign languages is the main methodological problem in this area. This problem significantly slows down the process of implementing distance learning of foreign languages in practice. This is due to both its relative novelty and its complexity, caused by the imposition of the latest information technology on the very method of teaching foreign languages.

References:


SCIENTIFIC TRENDS AND TRENDS IN THE CONTEXT OF GLOBALIZATION

