

INFORMATION AND COMMUNICATION TECHNOLOGIES IN TEACHING FOREIGN LANGUAGES IN TECHNICAL UNIVERSITY

The opportunities of usage of modern computers and information-communicative technologies closely associated with them are considered as a tool for teaching students of technical specialties foreign languages. Large possibilities, real prospects and features of practical application of new teaching approaches in special content-based foreign language curricula relevant to students' professional field are discussed.

With the globalization of modern science and technology teaching foreign languages became an integral part of education and training of technical students. Proficiency in foreign languages is critical for employees of a number of industries such as aviation where incorrect interpretation of the terms could be disastrous. Reforming of higher school in Ukraine involves significant transformation of standards of educational programs, shaping the minimal requirements for average student competence. Due to strict time limit of classes in contemporary technical universities, a primary attention should be given, above all, not to mechanical learning of specific facts, events, words, but to studying the main principles of information structure in a particular field of knowledge, mastering of certain skills that help the student quickly and confidently navigate through the modern world among which the ability to obtain and process information is the most important [1].

The use of information-communicative technologies in education, particularly in studying foreign languages, has become the norm for most universities around the world. Information technologies including multimedia are a combination of video, audio and other display tools that are integrated into an interactive learning environment. Multimedia resources can involve almost all senses of students, combining text, graphics, video, photos, and sound. Using multimedia, students are mastering all aspects of language: phonetic, grammatical, lexical and communicative, that allows better and faster perception of the learning material to improve language skills and abilities.

Contemporary digital computers and related communication technologies today seem to be the most powerful, affordable and versatile multimedia tool. Experience in teaching foreign languages shows enormous possibilities of using computers even without an Internet connection [2, 3]. Firstly, it is a very big advantage of using a modern computer system as a powerful technical tool to show almost any visual aids. These features can be used in teaching any subject, but there are a number of particularly important points regarding the teaching of foreign languages. The most important is the crucial need for these visual tools while studying any language material. This form of presentation contributes to the transformation of a meaningful dialogue into unconscious associative links among involved concepts; it can largely compensate the lack of interaction of the students with real native speakers. Another aspect is connected with almost unlimited resources of such materials. Any visual material of professional area published in a country whose language is foreign to Ukraine may be used in a special course of this language, and modern communications, especially Internet service, provide free access to these resources. Demonstration materials used by computers are usually complex. Textual information is naturally combined with the multimedia tools that create the preconditions for perceiving this information on an emotional level.

Secondly, it is the use of computer as an effective means to store, search and process various data. Modern personal computer can store the information that requires numerous volumes of traditional paper storage: books, journals and manuscripts. This information can be instantaneously obtained, properly arranged and then stored as organized learning material [4].

Finally, the third essential aspect of application of computers as linguistics tool is to use them as teaching and controlling means for completion and subsequent automatic or semiautomatic evaluating a variety of exercises - grammar, vocabulary, and others [5, 6].

Possibilities of computer multimedia to simulate day-to-day situations far exceed traditional audio and video display means. By contrast, computers and related information and communicative technologies are able to provide effective audio-visual, extra support that can be much more adapted to real students: their abilities, rate of perception, level of previous training, etc. The computer is essentially capable of modeling and rendering of real speech situations, sometimes it is even able to provide some form of feedback.

The use of computer technology allows, in particular, to use in the learning process complex forms of work such as translation of original content based materials according to professional field of the students [7]. This to some extent creates prerequisites for the integration of academic courses of foreign language and appropriate professional discipline. There are many benefits of this combination, among which must be considered the principal:

- Using materials of professional content increases motivation and interest of students.
- Working with content based materials requires that students not only understand the information itself, but also interpret and evaluate it, develop their analytical and systematic skills, as well as the ability of critical thinking.
- Materials directly related to the professional field of study provide more opportunities for practical cooperation with language, make special terms easier to remember, reveal their true meaning, create associative links and support conditions for the contextual translation, providing innovative and fruitful environment in the classroom.
- Using professionally orientated materials provides opportunities for effective work of group of students with various ranks of proficiency in foreign language. It seems attractive to match more and less experienced students to collaborate in solving mutual task.
- Some academic time may be saved if certain topics of professional courses are delivered during the time dedicated to specialized content-based classes of foreign language.

The successful development of computer aided curriculum largely depends on the proper competence of the teacher, which supplies the interaction of each student with an educational tool and provides appropriate class environment. The introduction of such technologies requires suitable technical support. So the teacher should be proficient in both computer equipment and relevant technical discipline.

Particular attention must be paid to the use of computers as teaching and supervisory instrument. In many cases the use of a computer system enables the automatic authentication and assessment of the test results, increases their reliability, and reduces the teacher's overload. The implementation of automated systems for learning foreign languages on a large scale can lead to a true revolution in education, especially in relation to distant learning.

One of the major benefits of standard exercises designed to be automatically checked by computer is that they can be an effective tool for evaluating knowledge and competence of students. This is especially important in the case of courses with a large interval between classes, which is the usual situation in foreign-language curriculum in technical university. In this situation the student supplied with means of self-control, even in semi-autonomous mode of learning, is able to focus on issues that represent the greatest difficulty. Objective assessment of knowledge increases the confidence of students in their abilities, leads to further improving language skills. It is important that students become less dependent on direct evaluation by the teacher. On the other hand, it reduces the burden on the teacher and makes possible to pay more attention to less proficient students.

We suppose, however, that in some very important aspects of mastering a foreign language, particularly in the area of literary translation, the prospects of automation of the educational process seem to be very limited, at least in the nearest future. This field, which is essentially an art, yet is outside the capabilities of modern technologies [7].

The introduction of new teaching methods provides a means fundamentally different from traditional forms of presentation. This allows realizing the highest stage of differentiation,

individualization, even in a group. It keeps learning outcomes under permanent control, and provides feedback to make appropriate correction in studying process.

Computer networking opens the possibility for direct communication with authentic native speakers in real time. These opportunities, however, are largely chaotic and not organized for educational purposes that should be taken into account while searching for specific information. Not all the information available in Internet is relevant for content-based study of foreign language. Lack of direction might become a challenging obstacle. At every stage of work with the Web resources students have to know the purpose of the task they are performing as well as the final target. Therefore, during the introduction of new information and educational tools it is extremely important to provide an adequate level of training and expertise for all participants of the studying process. Such necessary skills include, for example, the ability to write queries to search engines, select keywords, etc. Fortunately, this problem is not serious for technical groups, where the students must by definition be computer literate.

The main task of the teachers while working with modern computer facilities is to combine them with traditional means and techniques to provide fast mastering essentials and, finally, high-quality background of foreign language. The key purpose that still remains for the teacher is to supply managing, coordinating and synchronizing functions. According to the guidance concept that lies at the center of studying foreign languages, the specific types of material, both factual and grammatical, must be selected to stimulate social interaction among teachers, students and outside participants in the communication network and so to structure appropriately the educational process.

Conclusion

Simultaneous studying of foreign language and professional discipline with the use of modern teaching techniques based on application of computers as an educational tool makes it possible to considerably increase productivity of training. Such technologies help to reveal the individual capabilities of students, enhance their motivation and interest, and provide more control over learning. It gives the students much more autonomy and supplies them with the tools of self-control. The teacher in this case does not only transmit knowledge but also supplies resources, organizes the educational process, and offers support to help students develop their own learning strategies.

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