

COMPUTER LINGUODIDACTICS IN THE SYSTEM OF INNOVATIVE FOREIGN LANGUAGE TEACHING

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Abstract

Technology-based foreign language teaching has provided many effective strategies in the learning process. The article describes the main achievements of computer linguodidactics as a field of science that studies the theory and practice of using computer and network technologies in teaching foreign languages, analyzes the experience of implementing various forms and means of modern information technology in the practice of teaching foreign languages and identifies ways to use them effectively in order to optimize the learning process. It is noted that computer linguodidactics as an innovative field is at the stage of theoretical and practical study by the researchers from many countries around the world, including domestic scientists. By its nature, the methodology of teaching foreign languages is interested in using multimedia and information properties of information and computer technology, because these qualities can help implement the basic principles of didactics, namely: clarity, accessibility, individuality, awareness, activity. Due to the rapid development of multimedia and the spread of the Internet, we can talk about a new approach to creating a computer learning environment, which suggests the systematic and integrated use of carefully selected authentic and educational materials, applications and computer programming tools. The possibility of using a computer during practical classes in a foreign language class is due to the specifics of this discipline. Educational computer programs can be used as simulators that help organize the individual work of students, creating the environment in which they independently form their knowledge. A characteristic feature of the current stage of computer linguodidactics development is the closest possible integration of computer and traditional learning. The article emphasizes that a modern foreign language teacher must not only have professional

knowledge of the subject, but also be deeply aware of the role of computers, network and telecommunication technologies in language teaching.

Key words: *information and communication technologies, Web 2.0, multimedia means, training computer programs, Skype*

Introduction

The development of the theory of teaching foreign languages in the paradigm of the new educational space formation is directly related to the continuous technological changes in all spheres of human life. The rapid transition of the world community to the new types of communication creates conditions for developing new educational and pedagogical technologies. Qualitatively new characteristics of modern information and communication technologies (ICT) gradually modernize approaches to the organization of foreign language teaching. The need for widespread use of information technologies in language teaching is generally recognized. The use of computers is becoming an integral part of the educational process, and therefore the interest of teachers to this field of methodology is growing. It is obvious that a modern foreign language teacher must not only possess professional knowledge of the discipline, but also deeply understand the role of computer, network, and telecommunication technologies, be familiar with various forms, technologies, and approaches to teaching a foreign language. Due to the intensive spread of information networks and new software capabilities, a relatively new scientific direction, computer linguistic didactics (linguodidactics), is developing dynamically.

Computer linguodidactics is a branch of language didactics that studies the theory and practice of using computers in language teaching. It is an interdisciplinary field that is closely related to the development of information technology, applied and mathematical linguistics, developments in the field of artificial intelligence, computer program design, theory and practice of computer learning. Intensively developing computer linguodidactics is on the verge of a new stage, namely, the transition from the descriptive-theoretical nature of the possibilities of information and communication technologies to their wide practical use in language teaching, since at the software and

technical level all the prerequisites for independent creative activity of the teacher has been created.

Literature review

Many foreign and domestic scientists devoted their researches to the issues of the language learning process computerization. Some of them are A. Bohomolova, A. Hartsov, L. Zlativ, O. Kapinus, M. Kozub, O. Kucheruk, L. Liulka, E. Polat, M. Shishkina, M. Levy, K. Beatty, J. Ostanina-Olszewska and others. They focused attention on the psychological-pedagogical, didactic and linguistic-methodical features of new information technologies, ways of introducing these technologies into the process of language competences formation, as well as on the importance of training specialists who are capable of using information and communication technologies in education. The research of L. Zlativ is devoted to the methodical ways of applying the achievements of computer linguodidactics in teaching linguistic disciplines. The researcher justifies the importance of developing a comprehensive system of methods for introducing ICT into the educational process [2]. Modern problems of using new information and communication technologies in linguistics and linguistic education are analysed in the works by O. Kapinus [3]. M. Kozub reveals the general concepts of computer linguodidactics and its place in the methodology of language teaching [4].

The use of modern information and communication technologies in higher education is constantly growing, radically updating the education not only in new forms, but also in new ways to achieve learning goals. The theory of foreign language teaching is also undergoing significant changes under the influence of ICT which create conditions for the full implementation of the basic principles of didactics (visibility, accessibility, feasibility, consciousness, activity), radically changing the entire course of the educational process in the aspect of foreign language learning. Didactic and psychological aspects of the use of ICT and their pedagogical interpretation have not been sufficiently studied yet, relatively few software tools for educational purposes, linguistic resource bases, electronic textbooks, and educational process dispatching programs have been created. At the moment, the computerization of education is reaching a new level. Taking into account the intensive development of information

and communication tools and the emergence of new resources and opportunities that can be used in teaching foreign languages, research in the field of computer linguodidactics remains relevant, putting forward new tasks, the priority of which is the active use of ICT to solve professional problems of a foreign language teacher at a new technological level.

Methods

The following research methods are used in the present work: theoretical analysis and synthesis when studying and generalizing literary sources, electronic publications, computer and network resources for educational purposes, and visual editors for the development of applied and educational programs; system analysis when studying the interdisciplinary nature of electronic linguodidactics; object-oriented method when designing and implementing a new generation of electronic learning tools and information environment of teaching a foreign language; expert-analytical method of quality assessment of electronic means for educational purposes.

Results and Discussion

Computer linguodidactics is a rapidly developing field of language teaching methods. Since the end of the last century, it has undergone significant changes due to the development of computer technology and the concept of education. The possibilities provided by modern information technologies have a significant impact on modern forms and methods of language teaching. Interest in computer linguodidactics is growing, as the use of computers becomes an integral part of the educational process. Its use opens up new opportunities for both teachers and students, allowing them to solve fundamentally new tasks in the methodology of language education.

The terminological system of the theory of teaching with the help of computers is closely connected with the development of the terminology of computing and information technologies. Such terms as "electronic", "automatic", "computing", which were used in the first years of electronic computing systems, were also characteristic of linguistics: "computational linguistics", "automatic text processing", "electronic dictionary", etc. Later, the term "computer" became commonly used ("computer

hardware", "computer technology", "computer linguistics"). Recently, the terms "information technologies" and "information and communication technologies" have also become widely used, reflecting the modern potential of computer technology and telecommunications. In foreign literature, they define the field of theory and practice of using computers in education with the term "Computer Assisted Language Learning" (CALL), which is used as a generalization, covering the entire complex of theoretical and applied problems related to computer language learning, from methodological principles of design and development of programs to psychological and pedagogical aspects of using computers in the educational process [6; 9].

Educational programs occupy a central position in the complex of programs that create a computer-based learning environment. Such programs can be of various types: educational, applied, instrumental, telecommunication. A characteristic feature of the modern stage of computer linguodidactics development is the tight integration of computer-based and traditional training. This is not only due to the fact that Internet resources are widely used as a source of authentic materials for practical classes and individual work, but also because of changes in the structure of educational complexes and emergence of new types of educational aids.

The implementation of web sources has been considered as a framework that facilitates the educator to design and construct student-centered learning by using the web for planning and application. The web provides teacher and learners with support tasks and attractive materials to develop and conduct classes. We might then say that autonomy can be enhanced by the use of net sources, which encourage independence; besides which, motivation is enhanced since users usually deal with more appealing and interesting materials provided by the internet [10].

Today, you can find many computer-based training programs, which usually complement the educational complexes of Pearson, Longman, McMillan, Oxford University Press and others. On the websites of these publishing houses, web pages are created that contain links to the Internet resources, additional educational materials and tasks, including methodical recommendations and other materials for teachers.

The inability of a practicing teacher to influence the quality and improvement of software products is considered to be the most serious drawback in solving problems related to the development of computer-based training programs in language teaching. Absolute dependence on the programmer does not allow teachers to become real participants of informatization processes in their professional field, and therefore, to create and forecast pedagogical and didactic innovations that should appear as a result of the development of new forms of communication in the environment of the latest information technologies [5]. Computer programs, as well as printed textbooks, have to be adapted to the needs of a specific audience. Therefore, there is a need for such special software tools that would allow the teacher to create computer-based educational materials or make the necessary changes to those used without the involvement of programmers. This task is solved by the instrumental computer programs, which are currently being actively developed and put into practice. For example, "authoring programs" allow a user to fill the exercises of a given format with a new language content, it is possible to enter not only texts, but also images, audio and video materials. Thus, the opportunities provided by modern information technologies are so essential for the intensification of the language learning process, its individualization and orientation towards real communication that the use of computers becomes an integral part of the educational process, and Internet connection is a standard requirement for equipping the classroom.

One of the key factors of electronic language learning is the presentation of new material, its explanation and semantization. A popular way to use computer technology is to create a multimedia Power Point presentation. The use of computer presentations in a foreign language class allows introducing new vocabulary, grammar or country studies material in the most understandable form, as the principle of visualization is implemented.

The advantages of multimedia presentations include the following:

- combination of text, audio and video;
- focusing students' attention on the essential points of the presented information;

- simultaneous involvement of several types of memory: visual, auditory, emotional;
- the possibility of monitoring the assimilation of new knowledge and systematization of what has been learned;
- saving study time;
- formation of students' computer multimedia competence.

Creating presentations in the Microsoft Power Point program and using them in the educational process makes it possible to increase the efficiency of learning material assimilation and conduct practical classes at a qualitatively new level, using a projection from a computer screen onto a large screen on the wall instead of a traditional blackboard. In such presentations, it is easy to adapt the educational material to a particular group of students. Presentations can be used at various stages of practical training, while their essence as a visual aid does not change, only its form changes, depending on the goals.

Web 2.0 services play an important role in teaching foreign languages. *Web 2.0* services, also called *social software*, are network software that supports group interaction. This is a comprehensive approach to the organization, implementation and support of Web resources. A feature of *Web 2.0* is the principle of involving users in filling and repeatedly checking the content. In *Web 1.0* users could only consume the information offered by the developer on the site, thanks to *Web 2.0* users can become co-authors, and therefore can make changes, corrections, additions, give their assessments, ask questions and receive answers from professionals. Thus, a user-generated product becomes an important channel of social communication.

Educational technologies based on *Web 2.0* are rapidly gaining popularity, and their specific weight in comparison with other interactive technologies used in higher education is constantly increasing. Such popularity is determined by the following features of *Web 2.0*:

- ability to quickly create content;
- possibility of editing;
- possibility of joint work on any project;

- possibility of communication;
- possibility of storing voluminous information in the network instead of electronic media, etc. [1].

Today, the most common computer technologies used by foreign language teachers are:

- using Internet sites for teaching a foreign language;
- using Skype, Zoom in foreign language training;
- searching by both teachers and students for additional information on the Internet;
- using blogs for individual language learning.

Let's dwell in more details on those that we use in teaching English to students of Sumy National Agrarian University.

Internet sites help to solve a number of didactic tasks, for example, they contribute to the formation of reading skills thanks to materials from the global network, especially of professional direction; vocabulary enrichment; motivation to study a foreign language; broadening the worldview of students. An example of such a site is BBC Learning English (<http://www.bbc.co.uk/worldservice/learningenglish/>). The site contains a variety of educational and methodical materials that students can use to test their own knowledge, expand their vocabulary and develop language skills by reading, listening to, or viewing reports on world events.

A useful service in learning a foreign language is *Skype*. It is a free software that is used for communication between subscribers located in any part of the world (chat, voice conversation, video call), for transferring files of any size at maximum speed, for organizing telephone conferences. Online communication contributes to the development of students' communicative competence. Using Skype for educational purposes gives students the opportunity to communicate with native speakers, participate in group classes, seminars, webinars and conferences conducted by native speakers. Immersion in a foreign language environment in the process of learning a foreign language is an effective factor. However, not everyone can visit the country whose language is being studied. Skype creates an opportunity not only to hear speech,

but also to follow the gestures, facial expressions, and intonation of the interlocutor. In online education, this program can be used to connect with students who are studying remotely.

YouTube is a service that provides video hosting services. Users can view, add, comment, share certain videos with friends. Thanks to its simplicity and ease of use, YouTube has become one of the most popular video hosting sites and the third most visited one. The use of video in the process of learning foreign languages provides a unique opportunity to master not only the language, but also the foreign culture. Unlike printed or audio texts, which perform informative, educational, developmental functions, video, in addition to the content component, also provides visual information. Visual support contributes to a better and more complete understanding of the content of the message. The use of video materials in the educational process activates the attention and memory of students, expands their worldview, develops communication skills. In order for the use of video in class to become an effective educational tool, it is important to comply with certain conditions:

- the content of the material should correspond to the topic of the lesson and the language level of the students;
- the video should provide students with the opportunity to develop their linguistic, communicative, and sociocultural competences;
- watching the video should be preceded by clear instructions from the teacher aimed at achieving a specific educational goal.

Educational videos on YouTube can also be used to explain grammar. Such videos present grammatical material visually in the form of diagrams, tables, pictures, songs [7].

Moodle (Modular Object-Oriented Dynamic Learning Environment) is a course management system distributed under the GNU GPL license. The system is primarily focused on interaction between the teacher and students. This system contains tools for preparing and conducting classes and for evaluating the educational achievements of students through the use of modern learning technologies. At the same time, it is simple for using. Educational courses posted on this platform may include a wide range of

materials like course abstracts, a list of informational resources, assignments, discussion topics, tests, questionnaires, etc.

Work on the creation of an educational subject course of the appropriate type is a multifaceted process based on the principles of modularity in the structuring of educational and methodological materials, systematicity, integrity of the presentation of information from the entire educational course, scientificity, accessibility, openness, interactivity, technology of learning, computer visualization of educational material, methodological expediency of the content of educational materials and types of educational activities, the possibility of choosing an individual trajectory of advancement in education, subject-practical direction, etc. [6].

Another Internet platform for language learning is *Liveworksheets*. It is an effective educational tool, allowing teachers to transform traditional printable worksheets used in class into interactive online exercises with self-correction. Students can do the worksheets online and send their answers to the teacher. This is good for the students motivating them to study, for the teacher as it saves time and for the environment because it saves paper. Additionally, such interactive worksheets take full advantage of the new technologies applied to education: they may include sounds, videos, drag and drop exercises, join with arrows, multiple choice and even speaking exercises, that the students must do using the microphone [11].

The use of information and communication technologies in teaching foreign languages has a significant impact on the forms and methods for presenting educational material, on the nature of the interaction between students and the teacher, and, accordingly, on the methodology of conducting classes. At the same time, they do not replace traditional approaches to learning, but complement them, significantly increasing their effectiveness. It is important to correctly determine the place of ICT in the educational process and apply them where they will be more effective than the usual pedagogical methods. It is in this direction that computer language didactics works.

Conclusions

Recently, the theory and practice of teaching foreign languages has been significantly enriched due to Internet resources. It is important to note that Internet resources for computer-based language didactics are of exceptional importance, as they provide the possibility of real communication in the language being studied, access to authentic materials and a huge number of educational resources in text, audio and video formats.

Technology is a facilitating tool of education which teachers and students get a great deal of benefit from. Today's language teachers need to learn how to take advantage of the technology and how to integrate it into their teaching skills. Computers, smart phones, tablets etc. provide powerful opportunities to learn foreign language. As the use of smart phone, computer etc. is increasingly common among students, teachers need to equip themselves with today's technology.

Studies on foreign languages learning with the use of modern computer technologies testify to radical changes in the organization of foreign language teaching, calling them the "Internet revolution". The theory of teaching foreign languages is undergoing significant changes under the influence of the development of the latest information technologies. The growing linguistic and didactic possibilities of information and communication technologies have not yet received a clear scientific and theoretical justification, which could become a clear guide for teachers in their everyday practical work. Mastering the methodology of using ICT in teaching foreign languages is one of the key factors in the success of the informatization of language education. Only a scientific approach to the discovery and study of new didactic and methodical patterns of learning with the use of computers and ICT will allow the development of innovative methods that meet modern demands.

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