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THE DEVELOPMENT AND APPLICATION OF EDUCATIONAL SOFTWARE IN FOREIGN LANGUAGES TEACHING

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Abstract. *The article deals with possibilities of using educational software in teaching of foreign languages. It's shown that a computer is the most suitable modern means in teaching of foreign languages, the aim of which is an interactive communication. Application of educational software in educational process, which don't only widen the opportunity of process of studying but also change the whole paradigm of education, influence on methods of traditional language training. The classifications of educational software are described.*

Keywords: *educational software, multimedia, foreign language training.*

Introduction. The increased level of mastering of foreign languages is dealt with the result of social and economic reform in Ukraine. This is largely due to the course of European integration, increasing business contacts in the field of economics, politics, education and culture. The modern development of society and the computerization of the sphere of communication demonstrates the required level of foreign language proficiency that accord with the purposes and principles of Common European Framework of Reference for Languages. Modern information technologies have made computer as powerful tool for organizing comfortable, with delivery individual training at any convenient for a student place. Computerization of education can be an effective and justified in terms of material costs way to solve the problems associated with the foreign language training of students of higher educational institutions, as well as in the field of life-long education.

Overview of publications. Large number of research papers devoted to the problem of improving the efficiency of the educational process on the basis

of individualization, personalization, differentiation of training activities, application of multimedia teaching.

The problem of use of modern information technologies in educational process is discussed in I. Beh, V. Bikov, V. Volinskiy, R. Gurevich, M. Zhaldak, Yu. Zhuk, E. Mashbits research papers. Bigich. O., Kalmikova E., Serdyukova P., Marine L., Nikolaeva S., Tarnopolskiy O., Haleeva I. research papers covers the different aspects of studies of foreign languages of students. The specific of application of computer technologies in the process of studies of foreign languages in higher educational establishments was examined by E. AzImov, S. Arhangelskiy, L. Bulah, T. Belenka, Yu.A. Gapon, B. Gershunskiy, L. Gorodnicha, A. Dovgyallo, T. Kameneva, O. Kamenskogo, V. Lyaudis, E. Masliko, E. Mashbits, L. Morska, E. Nosenko, O. Nesterenko, N. Ogurtsova, O. Palliy, O. Sinekop, V. Strilets, P. Serdyukov, N. Mayer, O. Tihomirov, O. Tseomashko, G. Chekal, N. Chemeris, A. Chufarlicheva, B. Shunevich, R. Bauer, R. Derbski, M. Erdmenger, J. Krajka, M. Levi, J. Higgins, G. Motteram, M. Warschauer, K. Wiederhold, P. Sharma, E. Schuhmacher, G. Wazel and etc.

The aim of the article to review different aspects of application of educational software in foreign language training of students of non linguistic profile.

Presentation of the main material. Application of new information communication technologies in educational process is one of the most effective ways of to improvement of foreign language training of students of non-linguistic profile of learning. It became possible to achieve a new level of interaction between student and teacher, which allows solving the following tasks: individualization of the educational process; visibility; combination of individual and group modes of learning by means of modern information and communication technologies.

Computer functions are different by content and nature of the implementation of the goals and tasks of teaching foreign languages to determine the typology of multi-level computer programs, aimed at ensuring the educational process.

On the first level of differential feature of computer-based training programs should be considered as orientation for the class of problems solved in the learning process.

Vlasov E. A. picked out four basic types of computer programs [1; p]: 1) training; 2) training and research; 3) research; 4) auxiliary.

There is a diagram of the types of educational software used in teaching foreign language in figure 1.

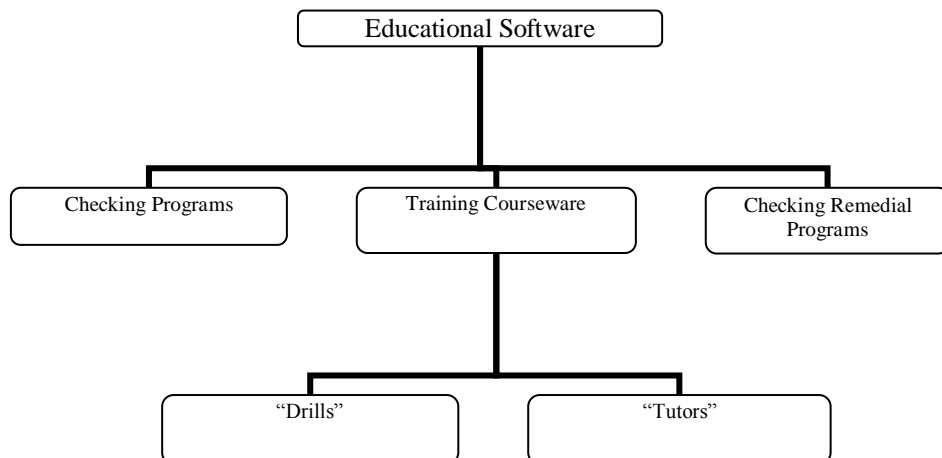


Figure 1. Types of educational software.

According to the scheme, on the second level of the program are divided into checking, training, checking remedial programs. Differences are due to a combination of types of special blocks that perform the following functions:

- 1) instruction - formation of information base of students, the presentation of the material.
- 2) training - consolidation the material in various kinds of exercises;
- 3) correction – consultation and updating of the information base, varying ways of presentation and consolidation material.

The checking programs are characterized by single-unit structure (check unit with tests bank). The following types of tests are used in such programs:

- 1) direct answer;
- 2) alternative answer;
- 3) multiple choice;
- 4) much up;
- 5) constructing an answer.

There is a block of registration and processing results intended for teachers in the checking programs.

Training programs are characterized by the structure of “instruction - training - correction-control”.

Checking remedial programs have the following structure changes - monitoring (series of tests) - correction - control”.

Training programs in accordance with the purposes and structures are divided into two groups.

Drills are the first group. They consist of most cases of one exercise with varying lexical material.

Programs of the second group of "tutors" have teaching - controlling functions and include theoretical number material, exercises and tests in different sequences.

Let us consider the features of Information technology simulators, as the scientific principles of its creation poorly described in research papers, despite the fact that these programs clearly demonstrate the advantages of computer learning.

Computer based language training software is created to develop automaticity of spelling, grammar, phonetic and lexical skills. These programs precede the introduction of educational material and its initial consolidation, which can be done in the classroom or on students own, by computer based or traditional way of studying.

Considered language simulators are based on the basic principles. When establishing the initial sequence of the list items (ex. original language forms, the equivalents of lexical units etc.), which will be presented to the student is taken into account the difficulty of response, either selected items of the same difficulties. The computer recognizes the common errors in the student's answer, gives appropriate remarks and prompts to help give the correct answer, which should be remembered. The appropriate item from the list once again placed in the queue for a presentation for better mastering. Such repetition ensures the formation of a strong skill.

Students are given the opportunity to run the program until the end or suspend its implementation when working with simulators.

The possibility of a temporary interruption provides magnification of computer language trainer and prevents the learner from frustration, both in oneself and in the program. The computer language trainers' work is completed when the student has learned all the elements against him (a list of all items with retries after errors have been exhausted). Student gets a message with information of total volume of learning material has passed, which part of it is mastered and which units are required additional training at the end of lesson.

Experience of implementation of language simulators shows that this kind of educational software, in spite of their relative simplicity, is one of the effective means of intensification of educational process and activization of educational and cognitive activity.

Kryukova O.P. [2] identifies the following types of programs using a computer-based training program classification basis on criterion of exercise types:

Question-Answer;

Vocabulary Games;

Text Construction/ Reconstruction;

Storyboard;

Gapmaster;
Matchmaster;
Simulation.

Educational and research computer programs are programs with the help of which students can analyze different aspects of the language.

Auxiliary computer programs include electronic dictionaries, speech recognition systems, and programs like text editor "Word", allow creating and adjusting a variety of written texts and print them out using printer.

Educational Software are related to the above methods and conditions of activation of cognitive activity should provide: access to the software; clarity, accuracy, availability of instructions for the use of software; stable navigation and exit at any stage of work; clarity of responses; the ability of control and regulation of speed training text; the possibility of using the isolated parts of the program; implementation by the student correction provides advice based on the information; the student's ability to self-correct the error before receiving explanation of the cause error; a multi-level structure of the educational material, the multi level task bank; interactive active and passive mode of communication with the computer; the use of expert systems or artificial – educational information technologies should include the reasons for the error analysis system - comment system necessary to the student realized their mistakes; polytouch presentation of educational material; the possibility of using the program, both for the group and for individual work; the availability of technical documentation for the non-specialist; correspondence with educational material to the curriculum requirements; the presence of the designated parts for reflection and studying the possibility of accumulation of results of reflection; the presence of friendly interface; possibility of obtaining a hard copy of static sections of the program - the ability to copy the selected information to the electronic portfolio, its editing and printing; availability of control unit student's tiredness, relaxation unit (encouraging remarks, music and video clips, color effects and ect.).

In the framework of the concept of Computer Assisted Language Learning at Volodymyr Dahl East Ukrainian National University at the Department of Foreign Languages was created 14 educational computer programs. Among them the most famous in Ukraine:

Control-educational program "**THE BIBLE STORIES**" (Developers: Krasnopolskyi V.E., Mogilevska N.E., Rozsoha V.M.). The program has been designed for learning, controlling and mastering the English Bible texts. The program consists of three parts: introduction and control of learning vocabulary for every class, texts study, and control of text understanding.

The main menu consists of the following sections: "Introductory Word", "Glossary", "Quotes", " Test on Religious Studies", "Test on the Bible," 14 Bible stories.



Figure 2. Screen shot from **“THE BIBLE STORIES”**

The Introductory Word contains information about the Bible as a sacred book and historical site.

The dictionary contains 500 terms related to religious themes. Articles of the glossary can be used as educational texts and quiz.

The section "Quotes" contains famous biblical quotes (ex. Anyone who asks will receive. If anyone is not with me, he is against me).

Test on Religious Study consists of three parts and control the process of learning the topics "Christianity", "Islam", "Judaism," "Buddhism". There are such kinds of tests: match equivalents, multiple choices, insert correct answer.

Activity with text involves the following steps:

- 1) learning new vocabulary
- 2) text reading
- 3) tests on text understanding

The program gives possibility to listen to all the texts. Each biblical story is followed by comments.

The program provides control of progress of each user that runs the program.

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Multimedia Control Educational Program **“UKRAINE IS OUR MOTHERLAND”** (Developers: V.E. Krasnopolskyi, N.E. Mogilevska)



Figure 3. Screen shot from “UKRAINE IS OUR MOTHERLAND”

Control-educational program “Ukraine is our Motherland” has been designed to teach and control learning the topic "Ukraine" at non-language universities. The program consists of 12 topics which include spheres of geography, politics, economics and culture of Ukraine. It was successfully tested at Luhansk Institute of Internal Affairs and at Volodymyr Dahl East Ukrainian National University on the faculties of journalism, international economics, human resource management, juridical, humanitarian. Activity with material involves the following steps: Choosing Topics; Translation from English into Russian/Ukrainian; Translation from Russian/Ukrainian into English; Completion of Words; Listening; Completion of Sentences; Completion of Text; Final Test.

The computer program "Ukraine is our Motherland" is registered in the State Department of Intellectual Property of Ministry of Education and Science of Ukraine (PA №4724) and awarded by Certificate of Honour of The National Academy of Sciences of Ukraine.

Conclusions. Based on the analysis of philosophical, pedagogical and psychological literature is determined that foreign language training at non-linguistic Ukrainian tertiary schools in the conditions of current development of the education system of Ukraine needs a new paradigm of education that would meet the requirements and individual needs of students.

Analysis of special units, performing functions of instruction, training, correction allowed classifying educational programs as checking, training courseware, checking remedial programs.

The effectiveness of multimedia technologies in the study of foreign languages depends on teaching conditions, the implementation of which achieves maximum pedagogical effect for account of reduction of expenses of physical and intellectual strength.

It's worked out and implemented in the educational process of Higher School special course "Multimedia technologies in foreign language training of students at non-linguistic Ukrainian tertiary schools", guidelines "Creation and application of multimedia training", whose aim - to help teachers appropriate and effective use of multimedia learning while teaching foreign languages.

Implemented courses and guidelines in educational process contributed to the formation of teachers' readiness to use multimedia technologies in training activities as well as witnessed efficiency of multimedia technologies in the process of teaching foreign languages.

Undertaken research does not exhaust all aspects of the use of multimedia technology in foreign language training of students at non-linguistic Ukrainian tertiary schools. The further research is required the problem of creation of multimedia educational software which can take into account and be adjusted to the individual physiological characteristics of students.

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