
Mechanisms for Creation of Electronic Educational and Methodological Kits in State (Uzbek) Language in the Insettraining System

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ABSTRACT

The following article discusses the ways of creating the electronic educational-methodical complex in a State (Uzbek) language. An electronic educational-methodical complex (EEMC) is essentially a source implemented in an electronic in-sett training system.

Key words: textbook, electronic textbook, multimedia tools.

INTRODUCTION

One of the main areas of efficiency improvement higher professional education today is considered its informatization. Under the "informatization of education in a broad sense it is understood - a complex of social and pedagogical transformations associated with saturation of educational systems with information products, means and technology, narrowly - the introduction in institutions of the system education of information tools based on microprocessor technology, as well as information products and pedagogical technologies, based on these funds.

Currently, the preparation of educational and methodological support (UMO) in electronic form is one of the main types of educational and methodological work of the teaching staff. A set of UMOs can cover the educational program as a whole, a separate discipline or a section of a discipline, for example, a cycle of laboratory work. A set of UMOs can include various resources (programs, plans, guidelines, textbooks or lecture notes, etc.),

forming a strict hierarchy, where some resources together form resources of a higher level. All UMO resources should be structured and links between the various components should be defined in the form of an info logical model. It should be emphasized that each electronic resource (composite or not) is an independent ERM.

An electronic textbook is a new form of a textbook that has more opportunities for organizing the educational process and can be used not only as a source of information, but also as a tool for performing practical, laboratory work, written assignments, observing various processes, etc. When working with an electronic textbook the teacher can suggest assignments that were given when working with an ordinary paper textbook. Modern devices used to play electronic textbooks allow not only viewing information, but also writing on the screen. Thus, all techniques that were used when working with a printed textbook can be applied in electronic form, expanding them with new ones, considering the software and technological capabilities of the electronic textbook.

An individual learning path presupposes not so much a variation of tools as an individual pace, sequence and volume of the materials studied. How can this be done using electronic textbooks?

An individual educational trajectory reflects the idea of individualization - considering in the learning process, in all its forms and methods, the individual characteristics of students.

The organization of educational activities using electronic textbooks, undoubtedly, presupposes considering the individual pace of work of children, a certain sequence of presentation of educational material and various forms of its study. The expansion of the resources of the printed textbook with multimedia and interactive elements, tests and virtual laboratories creates all the conditions for the individualization of the learning process.

MATERIALS AND METHODS

A child, using the resources of an electronic textbook, assimilates the material at his own pace, creates an educational product and builds his own educational path, relying on personal qualities and abilities. In this situation, the teacher can no longer continue teaching schoolchildren according to the traditional classroom-lesson system, in which students are at the same stage before learning new material, and each student will need their individual educational route.

Currently in education, electronic teaching aids (ESS), contains systematized material on relevant scientific and practical field of knowledge, ensuring the creative and active mastery of students' knowledge, skills and abilities in this area. ESP should be

distinguished by a high level of performance and decoration, the completeness of information, the quality of methodological tools, the quality of technical performance, clarity, logicalness and consistency of presentation. ESP cannot be reduced to a paper version without loss of didactic properties. Due to the specifics their definition, ESPs significantly improves the quality of visual and audio information, it becomes brighter, more colorful, more dynamic. Huge modern multimedia technologies have possibilities in this regard.

EEMC provides an opportunity to:

- update training information timely;
- break information into semantic parts according to the level of complexity;
- apply audio, video, graphic information, as well as diagrams and drawings;
- use hyperlinks to other sources of information.

Also, EEMC is mainly aimed at self-study, self-assessment of students, although it can provide feedback to a teacher who coordinates and directs the student's activities.

Based on the structure and main components of the teaching materials, electronic educational and methodological complexes (EEMC) are created, which, in the process of their application in teaching, provide new opportunities for organizing the educational process and independent work of students, as well as for the implementation of distance learning. Thus, EEMC is a set of structured educational and methodological materials, which

combines using of a computer learning environment, providing a full didactic training cycle and designed to master students' professional competencies. Analysis of the stages of development of an electronic educational-methodical complex, highlighted by different authors, made it possible to identify the following stages: creation of the concept, structure and content of the EEMC; preparation of the EEMC software and its placement in the training system; examination and quality assessment. Also, when developing an EUMC, it is necessary to consider such didactic principles as: the principle of integrity, scientific character, the connection between teaching and practice, systematicity, accessibility, visibility, strength of knowledge assimilation, and conscientiousness of teaching. Methodological principles of modularity, variability, parity, stereoscopicity and openness.

Different types of ESPs have their own specifics of creation, purpose and use. The main types of ESP are the following:

- Electronic educational-methodical complexes (EEMC);
- Electronic courses;
- Electronic textbooks (ETs);
- Automated training systems (ATS);
- Software for monitoring and measuring the level of knowledge;
- skills and abilities of students;
- Service software for general purposes;
- Electronic simulators;
- Software for mathematical and simulation modeling;
- Software for laboratories for remote access and virtual laboratories;

- information retrieval reference systems;
- Expert training systems (ETS);
- Intelligent training systems (ITS);
- Means of automation of professional activity.

DISCUSSIONS AND RESULTS

Among the ESPs, electronic educational and methodological complexes. If the traditional educational and methodological complex is system of normative and educational-methodical documentation, means training and supervision necessary and sufficient for quality organization of basic and additional educational programs, according to the curriculum. The possibilities of EEMC are much wider.

From the standpoint of systems engineering, an electronic educational and methodological complex (EEMC) is an automated information system (AIS) for educational destination, which at a new quality level provides continuity and completeness of the didactic cycle of the learning process and contains organizational and systematized theoretical, practical, control materials based on the principles of interactivity, information openness, distance and formalization knowledge assessment procedures. Depending on the scale of the covered subject area distinguish electronic educational and methodological complexes for individual academic disciplines (EEMCD) and electronic educational methodological complexes in the specialty (direction) (EEMCS). The supporting part of the EEMC consists of information, technical, mathematical and software, linguistic, methodological, organizational and legal support. EEMC information

support is a set of design decisions on volumes, placement, and forms of organization of educational and methodological information. Information support of EEMC is a complex of logically related structured didactic units presented in electronic form, containing all components of the educational process:

- state educational standard for this specialty,
- work programs,
- Funda lectures,
- teaching aids for practicing practical and laboratory tasks,
- lists of educational questions to be submitted for credit and examination,
- tests of intermediate control of progress and control of the residual knowledge,
- teaching, teaching aids,
- a list of recommended basic and additional literature, addresses of Web sites on the Internet with information necessary for learning and annotating each resource, reference books and databases for educational purposes,
- educational and methodological literature on conducting tactical and special and operational
- tactical exercises, business games, etc.
- themes of seminars, essays, term papers and theses,
- educational films, presentations, videos, etc.

EEMC technical support is a complex of technical means, designed to ensure its work, as well as the corresponding documentation for these tools and technological processes. Modern technical means for the educational process in its

own way composition and functionality are diverse. To them can be attributed:

- multimedia projectors, slide projectors, overhead projectors,
- interactive whiteboards,
- video conferencing systems,
- computer simulators,
- computer equipment - computers of any model
- (personal and high performance),
- computer networks and devices for connecting computers to him,
- tape recorders, voice recorders, turntables, linguaphone devices,
- TVs, VCRs,
- means for online printing (copying) of the handout material, etc.

EEMC mathematical and software are the combination of mathematical methods, models, algorithms used for educational purposes for solving problems, as well as system and special software products, applied software and technical documentation to them. The means of mathematical support include software tools for mathematical and simulation modeling, which allow you to expand the boundaries of experimental and theoretical research, supplement or replace a physical experiment computational experiment. In some cases, objects are modeled research, in others - measuring installations. Such funds allow you to reduce the cost of purchasing expensive laboratory equipment, the level of safety of work in educational laboratories. The simulation software can also include domain-specific software environments, enabling operating with model objects of a certain class.

EEMC software is a set of programs for implementation of educational goals and

objectives, as well as normal functioning complex of technical means. They can be conditionally divided into system and software as well as special software educational products (ESP).

The teacher must change the timing of independent work, increase their interest in individual work, the desire for independent learning, as students regularly complicate their homework. For high school students, individual assignments can be used to help develop creative thinking. The use of EEMC in collaboration with students and the organization of the learning process have the following advantages over traditional teaching aids, including the following:

- guaranteed access to training materials from any geographical location;
- timely delivery of electronic materials;
- facilitating the search for materials, facilitating exam preparation;
- availability of training materials at work, at home and on the road by connecting a cell phone to the Internet;
- timely and prompt updating of electronic materials.

Today, the technological basis and content of e-learning complexes are changing radically. Instead of educational complexes with textographic information content, audio, animation, video capabilities, virtual laboratory practices, modules of search and expert systems and internal software-didactic algorithms, student-teacher-educational material interaction multimedia and interactive complexes have entered. In short, e-learning complexes do not lose

their relevance in the organization of the teaching process with other forms of teaching, including innovative pedagogical technologies and distance learning technologies, but also with the prospects of education requires greater attention in riding.

Today, information in higher education institutions is viewed as an environment of information interaction in the educational environment, aimed at meeting the needs of students, graduate students and researchers for information, special hardware and software.

This information interaction includes means of interpersonal communication (e-mail, telephone, chats, forums, video conferencing, etc.), access to external and internal information resources, as well as information resources provided to students. The main information resources of higher education institutions (HEIs) are electronic teaching materials for the study of various disciplines. EEMC allows you to combine almost all information materials into a single information package. In addition, it requires the necessary interactivity, visualization, mobility, compactness and low cost of reproduction, versatility, multi-stage and a large number of tasks and tests for testing. 'he says. The advantage of modern e-learning materials is, first, the effective organization of the role of independence and activism of students in the learning process. The introduction of EEMC in the educational process to provide students with a complete picture of information on the subject, to ensure independent learning of educational material, individualization of teaching, improvement of control and self-control, helps increase the efficiency of the chase

process. In addition, the advantages of modern e-learning materials include the ability to make the learning process more interesting.

The use of these tools in the process of independent preparation of students changes the typical situation in which the usual teaching task in the education system belongs only to the teacher. The teacher's teaching function is transferred to the student in the free reception of the educational information provided to the student by the EOM, in their assimilation according to individuality. Here, the teacher not only supports the student but also helps use the flow of educational information and solve problems.

Structural electronic educational-methodical complexes have a working program for the course, logical categorization of theoretical material on the subject, typical problems, assignments and tests, exams for students to acquire independent knowledge and self-control or questions for the tests, with detailed descriptions of the required regulatory information and examples. In addition, it contains information about the author (last name, first name, patronymic, contact phone, e-mail address), the name of the subject, the code of the name of the specialty, as well as the approximate number of hours required for the entire course must be specified as well. The operating system and software products of the e-learning software platform must work flawlessly and correctly under the management of the training center.

Some important aspects that need to be considered when creating an e-learning package. Today, the content of the EMP

should meet the requirements of the new generation, as well as meet the level of modern scientific and technological progress in the field of knowledge. The structure of e-learning complexes should consist of two logically interconnected elements or modules. While developing or reviewing a separate module, they should be open to the content of a separate general-purpose e-learning material, even if they are intended to address various specific issues. The interface of the EOMM is designed in such a way that it has a strong expressive appearance, and the visual toolbar is simple for the user to master the technology of operation.

CONCLUSION

It is important to keep in mind that further improvement and modernization of the course content will not be technologically complicated when using EMC. EEMC should be as interactive as possible, have enough multimedia information, and be able to search for the necessary educational information.

When teaching students to use e-learning resources in a professional field, the teacher should teach them the proper distribution of learning activities. It should be borne in mind that lower level students do not have sufficient experience and skills in working with teaching materials, and therefore the teacher must manage this process with great care, helping students master the methods and techniques of independent work. As students move up the ladder, this approach will change.

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