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SECONDARY SCHOOLS REQUIREMENTS FOR MULTIMEDIA ELECTRONIC LITERATURE CREATED FOR

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Умумий ўрта таълим мактаблари учун яратиладиган мультимедиали электрон ўқув адабиётларига қўйиладиган талаблар ёритиб кўрсатиб ўтилган.

Калит сўзлар
Мультимедиа, электрон ўқув адабиётлар, энциклопедия, индивидуал ёндашув.

Выделены требования к мультимедийной электронной учебной литературе, создаваемой для общеобразовательных школ.

Ключевые слова
Мультимедиа, электронная учебная литература, энциклопедия, индивидуальный подход.

The requirements for multimedia electronic educational literature created for general secondary schools are highlighted.

Key words
Multimedia, electronic educational literature, encyclopedia, individual approach.

The creation of electronic educational literature from subjects in general secondary schools is a process that requires great skill and takes a long time. The creation of such tools for each subject and course has become the demand of the time, when electronic educational literature is effective in the educational process and there is a great need for them. That's why in our republic, at the same time, an apparatus is being formed in the field of creating electronic educational publications. In this case, the following are the main concepts: multimedia electronic educational literature (MEO'A) - these are publications related to the most important sections of the sciences in specialties and areas based on the state educational standard, a sample and working plan, as well as a set of exercises and problems, an album of maps and schemes, related to structures we can look at individual approaches to atlases, chrestomathy, reference books, encyclopedias, simulators, etc.[1-3].

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To implement an individual approach, the program should include a dynamic model of the learner:

• ensure collaborative learning: the program should model collaborative activities as much as possible;

• formation of logical and systematic thinking: it is necessary to ensure the training of creative thinkers capable of seeing contradictions, as well as those who are able to pose and solve problems independently;

• providing systematic feedback: feedback should be correct from a pedagogical point of view, that is, it should include information not only about the mistakes made, but also about their elimination;

• the presence of a developed support system: the support system should be multi-level, based on a pedagogical point of view, sufficient for solving the problem and mastering the method of solving it;

• completeness of the educational material: compliance with the requirements regarding the existence of a multi-level organization of the knowledge base, task bank;

• the presence of an intellectual core: software tools can be provided due to the application of data processing methods in the construction of expert systems and artificial intelligence tools of such a core;

• Pedagogical flexibility: the program should allow the student to make an independent decision about the choice of reading strategies, the nature of support, the speed of delivery of educational material. Access to the previously passed educational material, the possibility of exiting the program at its voluntary place should be ensured;

ensuring two-way communication: the learner should be able to ask questions, control should be carried out not only by the computer, but also by the learner;

• the possibility of going back: cases of turning back mistakes made by the student during independent work should be considered;

• the presence of a specially allocated place for the student's reflection: the program should collect the results of reflection in order to successively correct the actions being taught;

• the possibility of documenting the progress of the training process and its results: the developer of the program should have modules designed to collect and process information necessary for the program;

• availability of an understandable, convenient interface: the program should be designed with adequate use of all methods of displaying information in the form of text, graphics, animation, hypertext, and multimedia. The learner should be able

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to browse information material in both directions, "forward", "backward". The learner should be able to set the size and type of the font, as well as return the optional fragment at any time;

• to ensure the possibility of obtaining an exact copy of the statistical (textual, graphic, illustrative) parts of the program: the possibility of copying the selected information to a personal electronic abstract, editing it and printing it without exiting the software product;

• the presence of an advanced search system: "magnifying glass", "auto display" cases.

In the next stages, methods of decorating the MEO'A will be developed. This process is carried out on the basis of suggestions of WEB-design experts, software developers, as well as psychologists.

Preparation of educational material for deployment. In accordance with the used artistic method, it is necessary to prepare the material of the educational course for placement. It will be necessary to scan the necessary photo materials, digitize sound and video, prepare animated videos, organize all text materials. This process must be strictly limited and related to the size and concepts of the finished study guide. The volume is calculated in advance based on the technical capabilities of the students and options for using the manual. For this, the size and format of the multimedia files must be defined in advance:

1) types of picture and image files and possibility of compression;
2) type of sound files, possibility of compression;
3) type of video files, possibility of compression;
4) creating animations;
5) creating software for viewing.

The material must be compatible with software and hardware, in particular, for viewing on a screen with a resolution of 600*800 pixels.

Completing the structural elements of the MEO'A. It is necessary to place the prepared material on the developed templates and screen forms, organize feedback with the user and fill in the reference systems [2].

Pedagogical experience and testing. A specialist with appropriate qualifications and experience is involved to check the correctness of each reference, communication and reaction of the program to the user's discretion, to remove texts, it is recommended to involve teachers, users, experts to draw conclusions about the product.

Use in the educational process. Use in the educational process as additional and basic material according to the given reflection of students and teachers.

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The requirements for the content of the MEO are as follows:

1) the content of methodological material arranged by chapters, parts, lectures;

2) availability of control exercises (tests and test tasks);

3) glossary (explanatory dictionary);

4) list of main and additional literature;

5) information about the authors (names, titles (if any), the name of the university where they graduated, work phone, e-mail).

The use of the electronic study guide should be possible for the consumer at any time. For ease of use, it is recommended to put buttons such as "forward", "back" on each screen page [3].

Requirements for technical tools and files when creating MEO'A:

1) when information is stored on computer hard drives, save the material under a suitable name (for example, "Information technologies");

2) all pictures must be sorted, annotated. The size of the text should be convenient for reading on the monitor;

3) when the folder is opened, it should contain a file corresponding to the name of the MEO'A (course name, index, HTML) and start page.

Thus, the MEO'A:

1) it must meet the simple requirements for the curriculum and educational publications: the manual must be completely new, that is, it is being published for the first time, the electronic version of the published educational and methodological manual can be related to general, special or optional courses;

2) should have a volume sufficient to reveal the content of the studied course or its part and to achieve its educational and methodological goals;

3) should have illustrative elements that serve to achieve educational-methodical goals (that is, use the computer's multimedia capabilities as much as possible);

4) materials should be separated according to their importance (smaller chapters, relevance and additionality of the material are given with appropriate visual separations);

5) as in other chapters, it should be possible to refer to external WEB sources and resources when necessary;

6) it should have control questions that allow self-checking for the student to independently assess the level of mastering the material;

7) it is necessary to provide feedback.

Currently, many teachers are incorporating MEO's into the teaching process. MEO'A significantly improves the educational process. Today, MEO'A is actively

involved in the educational process, because it allows students to make the educational process interesting and understandable; stimulates creative activity.

Seeing the future model, and in some cases not only on the monitor screen, but also on paper, will help the teacher in the virtualization of the educational process, as well as in the field of motivation and in the process of materializing work products. Of course, this student will help to prevent delinquency among the youth and help them to get good education.

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