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THE ROLE OF ELECTRONIC TEXTBOOKS IN HIGHER EDUCATION IN IMPROVING THE QUALITY OF EDUCATION

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ABSTRACT

The article discusses the process of learning how to develop a site in PHP through an electronic textbook. The ostentatious possibilities of an electronic textbook to improve the quality of education. The effectiveness of training using an electronic textbook has been substantiated.

KEYWORDS

INTRODUCTION

According to a recent study by sociologists, humanity is entering a technocratic phase in its development. At the heart of the principles of development in this phase is the rapid introduction of scientific and technical achievements on the basis of computer technology in the economic, including technological, social and political spheres of society. The globalization of economic relations, the relativity of interstate borders under the influence of financial and information flows, and the rapid introduction of the latest advances in science and the creation of appropriate high-performance technologies are critical to the individual in the course of human

evolution. : the renewal of information in human society is faster than the biological renewal of an individual, that is, the exchange of generations. The large-scale reforms implemented in our country during the years of independence have become an important basis for strengthening national statehood and sovereignty, ensuring security and law and order, the rule of law, human rights and freedoms, interethnic harmony and religious tolerance. created the necessary conditions for a decent life of our people, education and profession at the level of world standards, the realization of the creative potential of our citizens. One of the biggest challenges for educators around the world, that is, the simplification of the teaching process, the development of many forms and methods of education for students to improve their knowledge and deepen their knowledge are being carried out.

No matter what field a modern specialist works in, it is time for him or her to be constantly aware of the events and happenings in his field, as well as to constantly improve his or her knowledge. Along with developed countries, the Republic of Uzbekistan is doing great work in the field of modern computer and information technologies. In order to widely apply infocommunication technologies in all areas of science and education, increase the level of training of highly qualified programmers, introduce international information systems, including the expansion of the Internet, the President of the Republic of Uzbekistan on February 19, 2018 "Information Technology and Communications Decree of the President of the Republic of Uzbekistan dated November 21, 2018 "On measures to improve the system of control over the introduction of information technologies and communications, their protection" Resolution No. PD 4024 of May 3, 2019 of the President of the Republic of Uzbekistan "On measures to identify talented

young people and the organization of a continuous system of training highly qualified personnel" No. PD-4306, May 19, 2019 Nominated by the President of the Republic of Uzbekistan Sh.M.Mirziyoyev n 5 important initiatives, the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated July 15, 2019 No 589 "On measures to organize the activities of the Technological Park of Software and Information Technology" allowed to further develop the work in this area. [1-2].

On November 21, 2019, a project called "One Million Uzbek Programmers" was launched at Inha University in Tashkent. Successful implementation of the tasks set by President Shavkat Mirziyoyev requires the creation of a modern electronic textbook database. This, in turn, increases the need for e-textbooks in Uzbek for young programmers who want to create web pages [3-4].

METHODS

In the education system, all fundamental knowledge is obtained mainly through traditional printed textbooks, audio versions, and video developments. The e-textbook is designed to broaden students' horizons, develop and deepen their initial knowledge, supplement it with new and additional information, and it is created on a voluntary basis.

The electronic textbook can be a publication on the basis of the state educational standard, publications on specific sections of disciplines in the specialties and directions, a sample and working curriculum, as well as video developments on a set of exercises and topics, various schemes. , atlases, guidelines, tests, and other information on experimental work.

All official e-textbook materials must first meet current standards. The content of the e-textbook will be neutral to the software environment in which it is

presented, and the author of the textbook will be able to place the material, describe it, and rely on certain concepts.

An e-textbook is a teaching tool for the use of computer-based teaching methods that can be used for independent learning and effective learning in all areas [5].

The e-textbook provides students with interactive teaching methods, psychological and pedagogical aspects, modern information technology, audio and video animation.

E-textbooks should consist of the following parts:

• ensuring high quality education and training;
• providing opportunities for independent learning and independent assessment of knowledge;
• a combination of lectures and workshops;
• possibility to develop and update information and educational resources;
• presenting text, as well as other information materials through special navigation (hypertext) and illustrations (multimedia, pictures, diagrams and tables).

E-textbooks can be distinguished by the following features:

I.   Purpose of usage: Electronic textbooks for collective and individual use.

Community-based e-textbooks should not require large computer resources, but should be hosted on a server computer and accessed via computer networks (Internet or Intranet).

Individually used e-textbooks will be designed to teach learning materials without the involvement of a teacher.

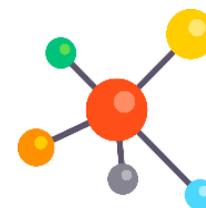These two types of e-textbooks can also be used in classrooms.

II.   In terms of providing training materials: systematic and voluntary.

Regular e-textbooks do not allow you to move on to the next section without mastering the material in one section

III.   According to updating training materials and information: continuous and periodic updates. Continuously updated e-textbooks are usually posted in e-learning databases (portals, websites, etc.) and e-libraries. Periodically updated electronic textbooks are mainly provided with electronic media (diskettes, CDs, flash drives, etc.).

According to the purposes of informing the learning process, e-textbooks should meet the following principles:

1. The principle of quantization: dividing educational materials into closed modules with a minimum volume of content. Modules consist of several components.

2. The principle of completeness: each module, which covers the main content of the training materials, should include:

hyperlinked keywords;

theoretical materials;

control questions on theoretical materials;

samples;

issues for independent resolution;

module control questions.

It is also advisable to include the following additions to the module:

tests;

control work;

auxiliary reference;

analysis.

3. Demonstration principle: Electronic textbook modules should consist of a set of illustrations and frames, while maintaining a certain proportion of text and visualized materials.

4. The principle of free management: students should be able to independently control the exchange of frames on a computer screen, display the necessary materials at any time and independently test their knowledge by completing control tasks.

5. The principle of flexibility: e-textbooks can be adapted to the needs of a particular user in the learning process, change the complexity and depth of the studied material, its practical orientation, the formation of additional illustrative materials based on user needs must have the capacity.

6. The principle of computer support: in order to focus on the essence of the study materials, the student should have computer support at any time. This application is useful for performing complicated computer calculations, drawing various graphs, and verifying the results at any stage.
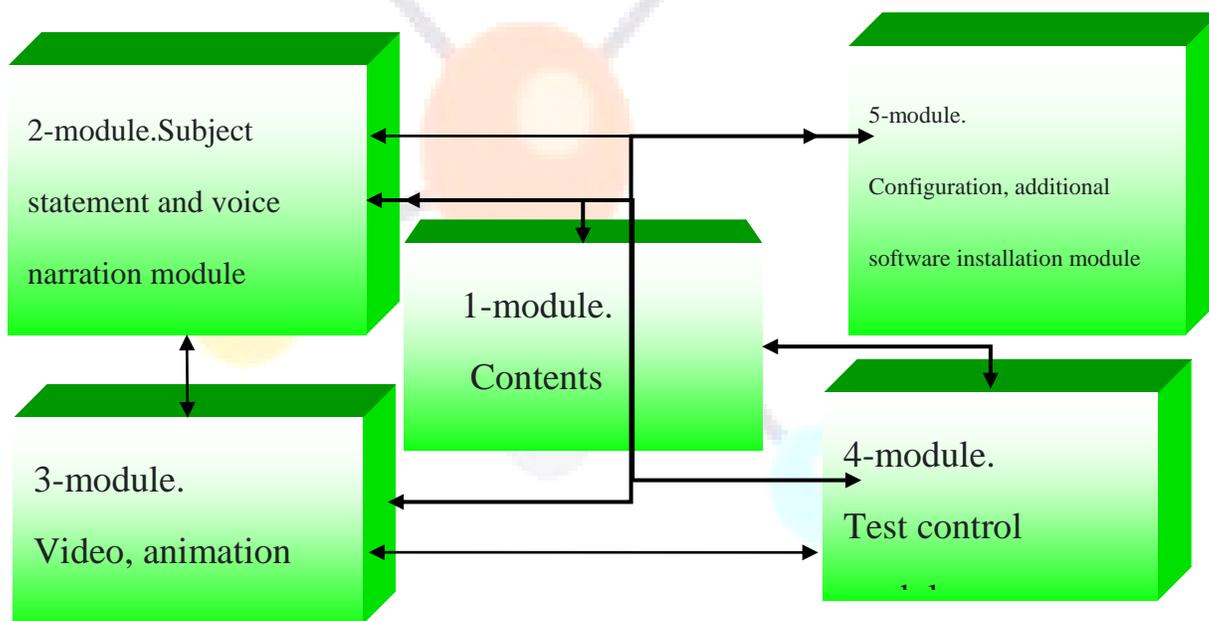

Fig. 1 Electronic textbook modules

The design of e-textbook creation technology includes 7 steps, taking into account the principles that must be followed in the creation of e-textbooks (quantization, completeness, visualization,

networking, management, adaptation, computer support, compactness) takes [6]:

1) development of the concept (development of the basic idea of creation of the electronic textbook based on the scientific standard and methods of training, creation of the substantive part of the textbook);

2) design (development of a working sample, a set of templates of information blocks and screen forms, a schematic diagram of the structure of hyperlinks, providing interactivity of applications);

3) screen shape and design of information blocks (clear educational process, psychological and pedagogical features, ergonomic requirements, construction of the design structure in accordance with the structure and content of educational materials);

4) preparation of educational materials in electronic form and their division into one-session work session, that is, elementary parts-modules for one lesson;

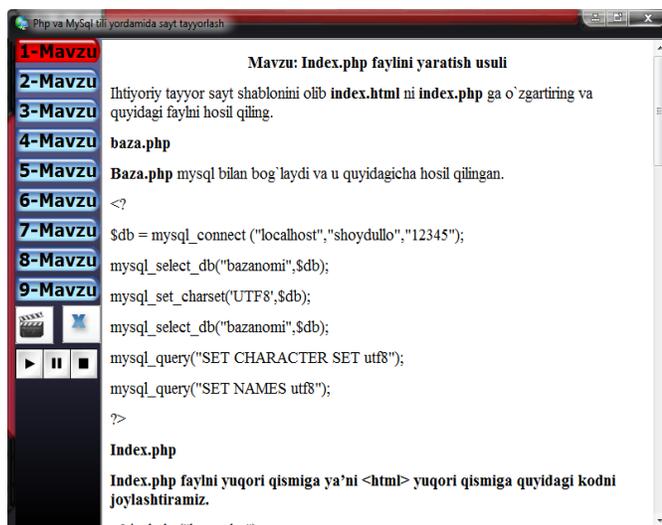5) filling in the elements of the application structure (placing the prepared materials in the developed templates and screen forms, filling the application system and providing feedback to the user);

6) testing and tuning (checking the correctness of each application, communication operations and the correctness of the program's response to user actions);

7) implementation in the educational process (of course, the use of e-textbooks in general secondary schools with the collection of information on the reflection of teachers and students).

RESULT

The e-textbook is designed to teach you how to create a website on the Internet. An e-textbook system is being implemented for undergraduate and graduate students in PHP programming language. The e-textbook describes the structural and organizational-normative developments of the relevant system. The electronic textbook consists of 6 chapters [7-8].
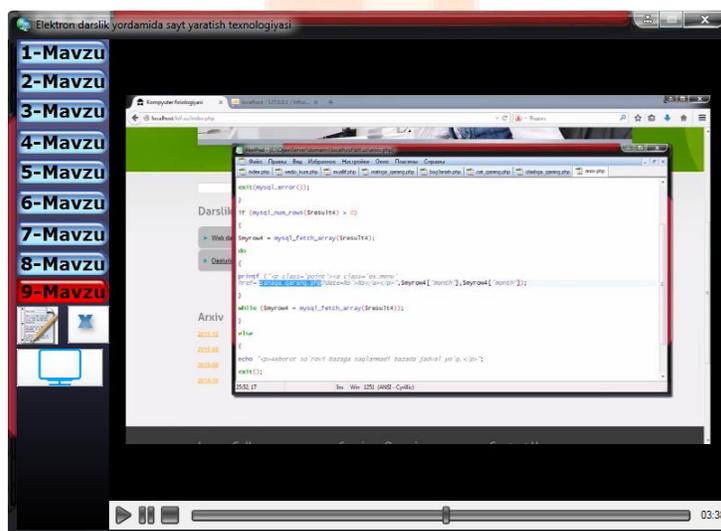
The second module. The Topic Description section consists of 24 topics, with an audio version for each topic, and the practical work is clearly shown in the video tutorial.

📽️A sign of transition to a video lesson

▶ ❚❚ ■   Voice included based on the topic.

The third module. The video development is clearly shown for each topic of practical work.

The button to return the topic

The sign of making a video bigger and smaller

Module Four. Tests are given for the topic.

The fifth module. Settings, Add-ons Installation section, here is a set of programs for creating a website.

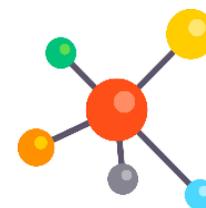A website can be prepared and run by installing software.

CONCLUSION

Nowadays, every organization, no matter what field they work in, pays great attention to the need to use the Internet in order to enter the world market.

Posting information on the Internet allows the developer to present his product, the designer to present his project, the inventor to present his invention, and the student to search for the topic on the site. At a time when science and technology are developing rapidly, it is necessary to train new competitively qualified personnel, equipped with modern pedagogical technologies in line with modern requirements. With the help of e-textbooks, teachers and students create their own websites on the Internet. Creating a website on the Internet saves time and eliminates financial barriers to the dissemination of positive information. The efficiency of the education system will increase and teaching will accelerate.

REFERENCES

1. Mirziyoev SH.M. Together we will build a free and prosperous, democratic state of Uzbekistan. Speech at the joint session of the chambers of the Oliy Majlis dedicated to the inauguration of the President of the Republic of Uzbekistan, Tashkent, 2016. 56 p.

2. Mirziyoev SH.M. Critical analysis, strict discipline and personal responsibility should be a daily rule of every leader. Report of the enlarged meeting of the Cabinet of Ministers on the main results of socio-economic development of the country in 2016 and the most important priorities of the economic program for 2017, January 14, 2017 - Tashkent, Uzbekistan, 2017. 104-p .

3. Mirziyoev SH.M. The rule of law and the protection of human interests are the key to the development of the country and the well-being of the people. Speech at the solemn ceremony dedicated to the 24th anniversary of the adoption of the Constitution of the Republic of Uzbekistan. December 7, 2016- Tashkent, Uzbekistan, 2017. p.48.

4. Mirziyoev SH.M. We will build our great future together with our brave and noble people. The book contains speeches of the President of the Republic of Uzbekistan Shavkat Mirziyoyev at election meetings with voters of the Republic of Karakalpakstan, regions and the city of Tashkent from 1 to 24 November 2016.-Tashkent, Uzbekistan, 2017 . 488-b.

5. Zakirova F. et al. Methods of creating e-learning complexes and educational resources. - Tashkent: OUMTV. - 2010. - 64 p.

6. Zakirova F. WEB 2.0. - innovation in education // J. TATU news. 2012.- №2. S. 101-102.

7. Mahmudov Y. G., RaimovG. F. Specific psychological characteristics of improving the content of physics education on the basis of solving non-standard problems //Current research journal of pedagogics. –2021. –т. 2. – No. 07. –с. 16-18.15.

8. FayzullaevichR. G. Methodology of selection, construction and solution of non-standard graphics, drawings, pictures of the department of physics" mechanics". –2021.

9. Mahmudov Y. G., RaimovG. F. Student's creative abilities in the solution of non-standard problems in physics and their evaluation //Asian Journal of Multidimensional Research. –2021. –T. 10. –No. 8. –C. 290-293.

10. Raimov, G`ayrat Fayzullayevich (2020) "MAKTAB FIZIKA DARSLARIDA NOSTANDART MASALALAR YECHISH METODIKASI," Scientific Bulletin of Namangan State University: Vol. 2 : Iss. 7 , Article 54.

11. Ganiyeich M. Y., Fayzullayevich R. G., Ugli T. S. S. SOLVING MECHANICAL PROBLEMS //CURRENT RESEARCH JOURNAL OF PEDAGOGICS. – 2022. – T. 3. – №. 04. – C. 83-95.

USED INTERNET WEBSITES

1. WWW.Ziyonet.uz
2. WWW.Tami.uz
3. WWW.Php-start.com
4. WWW.Htmlweb.ru/php
5. WWW.Ruseller.com
6. WWW.Webshake.ru
7. WWW.Qaru.site/questions/tagged/php
8. https://webbooks.com.ua/?p=1654