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IMPROVING THE METHODOLOGY OF CREATING INNOVATIVE ELECTRONIC TEXTBOOKS IN THE SCIENCE OF GEOGRAPHY

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Annotation
In the article, the organization of the educational processes of general education schools based on modern approaches in the world educational practice, the problems of using electronic information educational resources in the teaching of geography in general education schools and their solutions, the creation of innovative electronic textbooks on geography and the importance of the effectiveness of education is discussed. Also, there are recommendations on the methodology of creating and using electronic information educational resources in geography education.

Keywords: educational system, modern education, geography education, electronic information educational resources, computer technologies, innovative electronic textbook, Internet network, modern approaches.

Introduction

Innovative technologies, interactive educational methods and technologies used in the educational process for the effective mastery of each subject by the student based on modern approaches to the educational processes of general education schools in the world educational practice and the use of electronic information educational resources based on the competence approach is one of the issues closely related to the professional competence of the teacher and the intellectual potential of students. According to the analysis of the available scientific and methodical literature and the teaching situations in schools, there are the following problems in the use of electronic information educational resources in the teaching of geography in secondary schools:

♣ creation of a bank of tests (online, offline, non-standard, electronic) corresponding to international assessment programs (TIMSS, PISA) in geography;

♣ formation of skills and culture of using electronic information educational resources of geography teachers;

♣ creation of an electronic information environment that allows the introduction of electronic information resources in secondary schools;

♣ Formation and development of an informational educational environment for teaching geography on the Internet;

♣ Widespread integration of information technologies and teaching technologies in the teaching of geography.

If the above-mentioned problems are eliminated, the methodology of teaching geography in secondary schools will be significantly improved, and there will be wide opportunities for independent mastery of the subject.

Geographer-scientist U.Kh. Safarov in his research work focused on the use of electronic educational resources in the educational process and said about electronic computers: "Regular use of electronic computers in the educational process improves independent work skills allows for more effective formation. It makes it possible to introduce new organizational forms of computer education. At the same time, its use causes a variety of problems and processes [1; pp. 56-57].

The geographer-scientist H.B. Nikadambayeva, who conducted research on the application of computer and pedagogical technologies to the teaching process of "Natural Geography of Uzbekistan", in her methodical manual of the same name, taking into account that geography is one of the natural sciences, Since it is a science rich in visualization, electronic textbooks and data banks occupy a very large place in the development of science. It is necessary to have all the necessary visual aids in the classrooms where geography lessons are conducted, that is, maps, rocks and minerals, plant and soil collections, and the necessary meteorological equipment for observing the weather. emphasizes [2; p. 115].

Researcher D.N.Abdullayeva, researching the issues of organizing geography education based on electronic educational tools in the system of retraining of public education workers and improving their qualifications, points out that there are several problems in this process [3; pp. 47-48]:

1. The level of use of modern approaches and innovations used in the teaching of geography is low, and objective and subjective reasons were identified for this (lack of necessary tools in the material and technical base of vocational training institutions, teacher's computer literacy is a problem);
2. Inadequate knowledge or lack of understanding of the time requirements for teaching geography (as a result of a gap in the period from upgrading to upgrading);
3. Not being able to ensure the coherence and consistency of the teaching content, methods and forms, technical means of geography;
4. Inadequate level of competence in comprehensive, comprehensive information and pedagogical technologies in fulfilling the modern requirements for the organization of geography lessons;
5. Ignorance of the latest research and scientific research on the achievements of geography teaching methods, the use of science in technology and production (not aware of magazines and newspapers related to the science).

Researcher A.B. Janzakov, who conducted research on improving the mechanisms of teaching geography with the help of information technologies in general education schools, in his footsteps, touched on the role and importance of information technologies in the education of geography, and applied computer programs in the teaching of natural sciences

and the use of pedagogical software tools created on their basis is effective compared to other subjects.

Because, in natural sciences, including geography, it is possible to present high-quality information to the student by demonstrating natural phenomena [4; pp. 30-31]. Because, according to the conclusions of psychologists, when a person reads a source - 10%, when he hears information - 20%, when he sees a process - 30%, when he sees a process and hears information about them - 50% while keeping % data in memory. Modern students are children of high technologies, lessons limited to textbooks can be boring and incomprehensible for them. In such a situation, the teacher must learn to adapt to the changing reality, to use digital technologies and their products in the educational process. The information in the textbooks of general education schools expands and becomes more complex in the section of classes.

During the course of the lesson, students have different opportunities to listen to the topics and retain them in memory. Some students are able to absorb the given information only after repeating it several times. In order to avoid such complexity, there is a need to learn and hear information repeatedly. In practice, this is almost impossible. Such problems can be solved using modern electronic information and educational resources. That is, the electronic resources available by the teacher are distributed to the students, and the students view and reinforce them many times during the course of the lesson or in their free time outside of the lesson with the help of their personal computers or Android devices.

If we approach it from a psychological point of view, human physiognomy is engaged in analyzing information after hearing information about a new topic. During the course of the lesson, most students pay less attention to the information given by the teacher during the analyzed time. As a result, the efficiency of complete mastering of a new topic by students is lower. And through electronic resources, they can better reinforce the new topic.

Currently, many researchers have created video lessons, video clips, electronic course manuals, electronic textbooks on various topics in geography on the Internet, and they are the following few for students creates positive opportunities.

- when using computer technologies, students can quickly complete a large number of tasks and save time;
- gives the opportunity for teachers and students to do exercises in the form of independent work in front of the computer;
- helps students master the topics independently;
- the video lesson draws students' attention to the content of the topics;
- the information that became incomprehensible to the students during the course of the lesson will be mastered more deeply by re-watching the video lessons, etc.

It should be mentioned that the electronic textbooks created by secondary schools on the subject of geography, in particular, on the course "Natural Geography of Continents and Oceans", are not sufficient. This situation creates the need to create an innovative electronic textbook for this course.

Innovative electronic textbook is a teaching tool designed to use educational methods based on computer technologies, virtual educational technologies, which can be used for independent study, repetition, strengthening of knowledge and evaluation of existing knowledge.

Several tasks are assigned to the creator of innovative electronic textbooks:

- the innovative electronic textbook should be primarily aimed at increasing the level of knowledge of the students in the subject;
- it serves to fill the gaps in students' subjects;
- control of students' level of mastery at the initial and final stages of educational processes;
- to enable students to relate the information given to life as much as possible;
- expand students' visual imagination;
- materials included in the innovative electronic textbook are created based on the most advanced technologies (PowerPoint, Ispring QuizMaker, Hot Potatoes 6, Bandikam, Autoplay Media Studio);
- in the process of using the created electronic textbook, when accepting the information provided in it, not only its content, but also the size, capitalization of letters, correct selection of colors, and the movement of images should be taken into account;
- the cover of the innovative electronic textbook should match the title of the textbook, be as beautiful as possible and attract the attention of users;
- an innovative electronic textbook should be rich in animation and multimedia elements.

At this point, it should be said that there are several aspects that should be considered when creating electronic textbooks for the course "Natural Geography of Continents and Oceans". These are:

• pay attention to the unique features of innovative electronic textbooks (flashing, underlining, color highlighting) in students' reception of information;
• the materials included in the electronic textbook should be placed in such a sequence (for example, Continents - natural-geographic geographical location, relief, climate, internal waters, natural zones, etc.; Oceans - the main features of their natural conditions, history of investigation, under the ocean relief and geological structure, climate and waters, currents, ocean natural zones, etc.), students should have no difficulty in using it;
• instructions for students on using the electronic textbook;
• there should be electronic control tests, crosswords, and practical tasks to assess and control the students' learning level.

Currently, there are several different ways to prepare electronic textbooks for geography, among other subjects. For example, one of the programs that prepares and decorates HTML pages is Microsoft Front Page, and it is possible to easily create electronic textbooks with the help of programs such as Dreamweaver.

E-textbooks originally appeared as plain text, but now they incorporate a variety of visual formats. With the help of programs that create electronic textbooks, it is possible to insert Flash, 3D Max and other types of animations into various audio and video files into the

content of electronic textbooks. How easy it is to use these opportunities depends on the skill and psychological approach of the creator of the electronic textbook [5].

The issues of creating and using electronic textbooks are covered in many scientific literature and research works, in which the following types of electronic textbooks are distinguished [6]:

1) Creating electronic textbooks using text, simple graphics, hyperlinks. Such textbooks in word. Can be created using text editor options.

2) Electronic textbooks working in interactive mode using text, graphics, multimedia tools. An important aspect of such tutorials is that the user uses the computer in dialog mode.

3) Electronic textbooks with the ability to check knowledge by answering test questions on the studied topic [7].

Proceeding from the above points, it can be said that electronic textbooks differ from traditional textbooks by their wide range of possibilities.

Electronic textbooks created in the subject of geography create the following positive opportunities for the teacher:

-can organize educational processes in high quality;

- students can form a visual image of the natural geographical environment, processes and objects;

- teaches students to work not only with geographic maps, but with electronic maps;

- the teacher shows students geographical objects that cannot be seen directly with the naked eye (mountain top, ocean bottom relief, space, rivers, deserts, swamps, etc.) videos and makes it possible to see through images;

- teaches students to work cooperatively;

- ensures that geography lessons are rich in controversy;

- evaluates students objectively through electronic control tests;

- ensures the diversity of ideas in the lesson processes;

- stimulates students' activity;

- is not limited to textbooks.

It is recommended to follow several principles when creating e-textbooks

Based on these principles, the creation of an electronic textbook for the course "Natural Geography of Continents and Oceans" was carried out in the following stages:

Determination stage: the e-textbook is intended for which course of geography in secondary schools, how many hours are allocated to this course in the curriculum, and the main users of the e-textbook are determined.

Stage of creating content: based on the sequence of topics of the e-textbook, the sequence of its modules is created. For example, theoretical information, practical assignments, control tests, questions and answers, additional materials on the subject, a list of used literature, authors.

Planning stage: What materials will be placed within the subject of the electronic textbook, what information will be included to increase students' interests, and other similar tasks will be planned in advance.

The stage of creating an electronic textbook: it is determined which programs will be used to prepare the electronic textbook, it is created based on the available materials and the specified requirements.

Editing stage: During the creation of the electronic textbook, the materials and information included in its content are edited, mistakes made are corrected.

Implementation phase: when the electronic textbook is ready, it is put into practice and handed over to users.

Summing up from the above, it should be noted that the following tasks must be carried out in order to qualitatively organize the use of electronic information educational resources in order to increase the effectiveness of geography education:

1) Regular development of geography teachers' skills in using computer technologies;

2) Proper use of modern electronic information educational resources in educational processes;

3) To create conditions for the widespread use of multimedia resources, electronic textbooks, electronic manuals, and video lessons for geography lessons.

The implementation of these tasks ensures the effectiveness of the quality of geography lessons.

Therefore, the use of electronic information and educational resources in the course of teaching the course "Natural Geography of Continents and Oceans" allows the teacher to fully implement his educational tasks. That is:

• Complex materials in the course, that is, materials that are difficult for students to master, natural-geographical processes, events can be studied through a monitor if there is no opportunity to directly observe them.

• Studying the geographic location and characteristics of continents and oceans is organized in a unique way.

• In addition to the main features of the nature of the world's oceans, the distribution of rivers and lakes on the earth, the composition of the soil cover, flora and fauna, scientific and popular films in SD and DVD format are shown, and students can learn about nature and humanity. educational concepts about the need to balance relations between them, rational and economical use of natural resources, and the need to preserve nature are developed;

• Students' independent learning skills will be improved.

According to Vakhobov H., N.R.Alimkulov., N.B.Sultonova, electronic textbooks often become a copy of textbooks. Therefore, the demand for them is less. Their efficiency is not higher than that of an experienced teacher. One of the main reasons for the decrease in the demand for electronic textbooks or the use of computer technology is the incompatibility of modern educational requirements and modern principles with a person-oriented approach and programs aimed at use in the classroom system [8].

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