Sadokat G. Siddikova,
Scientific researcher,
Bukhara Engineering Technological Institute

Using New Generation Electronic Educational Resources in Teaching Special Disciplines at Professional Colleges

Key words: *electronic educational resources, new generation, teaching special subjects, vocational colleges.*

Annotation: *the article deals with the use of electronic educational resources of the new generation in teaching special subjects in vocational colleges. The didactic tasks that they allow to solve are given, as well as the advantages of a new generation of electronic educational resources over traditional educational resources.*

At present, an important factor in the renewal of the education system in accordance with the requirements of modern society is the active introduction of innovative educational technologies into the educational process.

The development of secondary vocational education is carried out in the conditions of fundamental changes in the state - political and socio - economic development of Uzbekistan. Therefore, the current situation in the teaching of special disciplines requires a fundamental change in the strategy and tactics of training.

Modern society and the education system are placing increasing demands on the quality of training graduates of vocational colleges. Therefore, a vocational college sets the main task of preparing for the society a highly qualified specialist - a professional who must be able to work well, therefore, his main task is to achieve the third level of education for all students - knowledge - skills - skills. Its most important features are the ability to apply the knowledge gained in practice. The main condition for the fulfillment of these tasks is the improvement of the quality of education, which is ensured by the introduction of new active learning methods into the educational process. Active learning methods combine the forms of individual and collective development of educational material that uses factual data of a specific problem and its theoretical generalizations.

The study of special disciplines in vocational colleges faces an ever-increasing volume and complexity of educational material with a limited amount of hours devoted to its development. Under such conditions, the usual forms and methods of work for the teacher require revision and improvement.

Taking into account the requirements for the rapid acquisition and high-quality learning of information by students, as well as the development of the ability to effectively and creatively apply it, there is a need for a fundamentally different approach to the development of educational and methodological resources for special disciplines, allowing for a qualitatively deeper approach to students' extracurricular work. The educational process to a greater degree should be focused not so much on the formation of a complex of knowledge and skills as on

general development, arming with the methods of independent activity on collecting and processing information, thus realizing the transition from the outdated formula “education for life” to actual - “education through life”.

Most effectively, this approach to learning can be realized by forming an electronic educational environment with the wide use of modern information technologies (1). At present, the electronic educational resources of the new generation form the basis of the electronic educational environment, which are the most adequate method for integrating information technology into the student learning process.

Electronic educational resources (EER) are scientific - pedagogical, educational and methodological materials presented in the form of electronic means of educational purpose, realizing the didactic possibilities of information and communication technologies (Robert IV, Lavina TA, Mironova LI. and others.) (2).

From a technical point of view, an EER is a collection of programs and data, from a consumer’s point of view it is content, i.e. a set of meaningful elements representing objects, processes, abstractions that are the subject of study (3).

The EER of a new generation (EER of an NP) is an open educational modular system in which each module is an autonomous, informative, and functionally complete educational resource designed to solve a specific learning task. In the EOR NP, you can use such educational tools as interactive, multimedia, modeling, communication and performance.

The use of the EER of an NP allows to organize the learning process in which the student becomes the subject of the educational process, its active and equal participant. A variety of electronic resources provide an opportunity to individualize the learning process, to organize independent work in the classroom and during extra-curricular time, to activate students' cognitive activity. Training sessions with computer and multimedia support do not cancel traditional forms of education, but they help to diversify forms of work, save time on training lessons and use more informational material (3).

The use of EER in the educational process ensures the achievement of the following pedagogical goals:
1. The development of the personality of the student, his preparation for independent productive activity in the conditions of the information society, including:
- development of constructive, algorithmic thinking due to the peculiarities of communication with a computer;
- the formation of the ability to make optimal decisions in a difficult situation (when using the EER of NP as simulators);
- development of research skills;
- formation of information culture, the ability to process information.
2. The implementation of the social order due to the informatization of modern society:
- preparing students by means of pedagogical and information technologies for independent cognitive activity.
3. Intensification of the educational process:

- improving the efficiency and quality of education;
- deepening of interdisciplinary connections in solving problems in various subjects.

Over the past few years, the Bukhara College of Oil and Gas has been developing interactive electronic educational resources for special disciplines implemented on the basis of the Moodle platform, which allows you to apply various types of independent work, as well as organize individual work with students.

Developed electronic resources include:
- electronic textbooks for independent work of students;
- educational - visual material for lectures;
- methodical development for individual independent work;
interactive thematic modules, including materials on all types of curriculum, including laboratory practical work and test control of students' knowledge.

For the development of students' independence, college teachers develop guidelines for the independent study of certain topics of the program material of the academic discipline, which contribute to:
- the formation of skills of self-mastery of new educational material;
- the formation of skills to independently organize mental work;
- the formation of professional competencies.

The creation of electronic educational resources of the new generation included the following activities of teachers:
- creation of electronic training modules for special disciplines;
- search and selection of the content of the resource: theoretical information and material to consolidate and test knowledge, the contents of the laboratory workshop, homework and tasks for self-study;
- presentation of educational material in special disciplines in electronic form;
- creating a bank of tasks for training and control testing;
- approbation, adjustment of the content of the resource, taking into account the identified deficiencies.

Experience has shown that the use of presentation and multimedia electronic resources, which are an interactive combination of text, graphics, sound, video and animation on a digital basis, significantly increases the visibility and accessibility of educational material. For example, when studying various chemical processes in the discipline "Oil and gas processing technology" in the classroom, where a lecture is given and there is no opportunity to show a demonstration technological experiment, students are invited to watch an interactive virtual experiment confirming theoretical material, which allows students to visualize the process being studied.

To control students' knowledge in special disciplines at the department of information technology, a bank of control and measurement materials in the form of tests was created, which is constantly updated. For interactive tasks, an electronic test shell was developed based on the Super Testing computer program, which uses ready-made packages with tasks and allows you to create a test in which an unlimited number of questions; there is the possibility of setting the

time for a test decision; the program automatically gives marks, making them in the journal of marks.

The use of electronic educational resources in the process of teaching special disciplines made it possible to solve the following didactic tasks:
- the formation of basic knowledge of the discipline;
- systematization of acquired knowledge;
- formation of skills of independent work with educational material using information and communication technologies;
- the formation of skills of self-control;
- formation of motivation for learning in general and for the chosen profession;
- the possibility of independent choice in the search and use of information sources in preparation for certification.

It is necessary to say that the possibilities of EERE NP cannot be realized in the conditions of the traditional classroom-lesson system, when the teacher in the audience and the book at home give information, and on the exam the teacher carries out certification, which, unfortunately, quite often comes down to controlling the fact remembering and rules. The use of e-learning resources in the framework of traditional educational technologies is not effective. For their effective use in general, the development of new educational technologies is required. The dominant trends in this process are the empowerment of students in self-study (audiovisual information, practice, certification is out of class) and the growth of the creative component in the activities of the teacher in the audience. A gradual transition in the activity of a teacher from broadcasting to discussion with students and the transfer of many traditionally classroom types of activities to an extracurricular (independent) part of academic work are assumed.

Summing up, it can be said that the use of the EER of NP in the presentation of special disciplines is one of the most important aspects of the improvement and optimization of the educational process. They allow you to diversify the forms of work and make the lesson interesting and memorable for students. The presence of an EER of an NP makes it possible to raise the learning process to a qualitatively new level. The emergence of information technology allows you to individualize training according to the pace and depth of the course. Such a differentiated approach gives a great positive result, since it creates conditions for the successful performance of each student. Unlike traditional methods, where the teacher is used to giving and demanding certain knowledge, by using the interactive capabilities of the EER of the NP, the student himself becomes the main actor and opens the path to learning. The teacher acts as an active assistant in this situation, and his main function is to organize and stimulate the learning process.

Thus, in the light of modern requirements for the quality of students' training, in the educational process of the university, it is necessary to use, along with traditional learning technologies, innovative, including the use of EED NP, which allow students to increase their motivation to study the academic discipline, and also contribute to the formation of their professional competencies. The use of the EER of the NP allows to expand the set of pedagogical techniques and methods of the teacher, to target students to gain experience in finding information on the proposed issues, improving their skills in processing and presenting information.

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