PEDAGOGICAL ISSUES OF MULTIMEDIA TEACHING TOOLS ON THE SCIENCE OF LABOR PROTECTION IN HIGHER EDUCATION INSTITUTIONS IN THE CONDITIONS OF INFORMATION - EDUCATIONAL ENVIRONMENT

Hamidov Odil Abdurasulovich
Associate professor of "professional education"
department of Jizzakh Polytechnic Institute

Abstract

This article focuses on the creation of multimedia teaching materials by structuring educational materials on the subject of labor protection taught in technical higher education institutions based on the principles of integration, demonstration, personalization, emergence (emergence) and relevance (relevance).

Keywords: information, information-educational environment, information-methodical tools, multimedia educational complex.

Today, the issues of the content and quality of education are considered as a priority direction of the development of the society, special attention is paid to informatization of education in the developed and developing countries of the world, and the issues of introducing new information technologies are becoming popular. The widespread penetration of information and communication technologies into the field of education, in turn, requires the introduction of a new approach to teaching.

While the process of informatization of the education system continues in our republic, at the same time, active research is being conducted to improve the quality of training of specialists in higher education institutions. One of these methods consists in renewing the teaching and methodical support of separately acquired subjects in higher education institutions based on the combination of traditional innovative pedagogical and information technologies. In such conditions, the implementation of qualitative changes in the methodology of teaching subjects requires the creation of electronic teaching-methodical complexes for individual subjects and their integration into the information-educational environment.

In this work, some aspects of solving these problems were considered on the example of creating multimedia tools for teaching labor protection in higher education institutions.

The educational materials provided to the students in the field of labor protection, which are intended to be taught in technical higher educational institutions, are knowledge, methods and work experience, a system of emotional-value relations [2,3]

Knowledge performs the following tasks as a component of educational material;

-former of the general perception of labor protection in production - anthological;

- Norms on labor protection in production - Norms that ensure recall and memorization of legal documents;

- informative motivational about the importance and importance of labor protection in production.

These functions of knowledge are reflected using terms, concepts, theories, arguments, regulatory documents, schemes, tables, illustrations, conclusions and other means. It should be noted that the knowledge of labor protection cannot be given in the form of a hierarchical (tree-like) structure in the production of training using multimedia tools, because they are selected from different fields. At the same time, implementation of the above-mentioned tasks allows formation of knowledge about labor protection in production and establishment of communication and relations between them, formation of competences of conscious perception and memorization of knowledge in students.

Activity methods are mastered by students in the form of skills and competencies. The activity methods included in the multimedia tool can be divided into the following two groups:

- subject (exercises, tests, competent-oriented assignments, practicals, design, information and initial data collection and systematization, calculation, construction, etc.);

- organizational (bibliography creation, perception, analysis, report creation, technical documents, etc.).

These types of activities help to form preparation for ensuring labor protection in production.

The experience of labor protection in production is acquired by solving problematic issues and performing design and construction work.

The formation of an emotional-valuable attitude to labor protection in students can be solved by introducing special tasks aimed at evaluating production objects and situations. For example, the multimedia educational complex on electrical safety and protective equipment of electrical devices includes not only the algorithm for installing grounding devices, but also production situations related

to violations of operations performed during the installation of the external contour of the grounding device.

In the process of analyzing and evaluating such situations, students develop a stable orientation to warning of occupational diseases that may occur in production, providing first aid to the injured, as well as organizing safe methods of work.

It was determined that the structuring of the educational material in the multimedia educational complex is carried out on the basis of the following general pedagogical and special principles [1].

- integration, which ensures the systematic integrity of the components of the educational material aimed at mastering the experience of activity, as well as the formation of an emotional - valuable relationship;
- demonstrativeness, which provides for the formation of the experience of an emotional-valuable attitude to protection;
- personalization, which ensures individual learning trajectories and learning through internalization of educational material by students;
- emergentity, which is designed to establish connections between the components of the educational material and ensures the formation of features that are not characteristic of its components in the multimedia transfer complex;
- relevance, which ensures the professional orientation of the educational material and ensures its compatibility with the information needs of students.

The principle of integration, which ensures the structural integrity of the components of the educational material, envisages the interaction with the production of interdisciplinary interaction, the technology of professional training. The following aspects of the principle of integration were taken into account for the systematization of educational material in a multimedia tool.

1. Establishing interdisciplinary interactions with the subjects taught in the curriculum;
- humanitarian, social and economic sciences. To know the basics of the legal system and legislation of Uzbekistan;
- natural-scientific and general professional sciences: knowledge of basic physical and technical phenomena, processes, fundamental concepts related to them, classical and modern laws and theories of physics and technology, and principles;
-professional sciences: design and object stability assessment,
2. Establishing the following mutual relations with production in order to organize training and production practices together: participation in the creation

and implementation of production-related projects; collection, processing, analysis and systematization of scientific and technical information according to the assignment; participation in bench and industrial tests of samples of the object being designed: preparation of reports on the subject.

3. The combination of technologies based on the factor of personal targeting of the pedagogical process, activation and acceleration of student activities, didactic improvement and reconstruction of educational material, efficiency and organization of management of the professional training process, modular-competent construction of the main educational programs, as well as methods of professional training (geneological active stimulation and motivation, control and self-control) combination is carried out.

The principle of demonstrability makes it possible to form the experience of an emotional-valuable attitude to labor protection.

The structuring of educational material in a multimedia tool on the science of labor protection based on the principle of visuality makes it possible to distinguish the following components:

- textual component: includes basic (theoretical - knowledge), additional (documentary chronology) and explanatory (notes, dictionaries, applications) texts;
- demonstration component: includes pictures, drawings, schemes, diagrams, photos, videos, technological maps, posters, signs, tools for analyzing production risks;
- control component: includes questions, tasks, tests, exercises;
- target component: introduction, content, indicators; includes appendices, bibliography, and Internet resources. For example, the educational materials of the multimedia tool "Occupational safety in the construction and use of highways" include:

1) theoretical - knowledge texts, documentary - chronology and notes, dictionary and applications on the main professions engaged in road construction works;
2) graphic posters on the organization of production works, which reflect the conditions of use of various construction techniques and execution of works.
3) a graphic guide used as a visual handout;
4) educational program designed for independent study of the material by students.
5) monitoring software that performs automated monitoring of student knowledge at all stages of education.

The principle of personalization is aimed at determining the individual abilities of students, improving the individual way of thinking and building an individual educational trajectory.

It was determined that the structuring of multimedia educational material based on the principle of personalization implies the separation of the following components:

- the diagnostic component allows to determine the individual abilities of students and the level of their professional training;
- subjective component: allows localization of educational material to build individual learning trajectories;
- comporative component: it allows to compare the initial and current levels of professional training in order to raise the issues of improving the efficiency of the assimilation of educational material suitable for near-term development.

For example, the diagnostic component of the multimedia tool on "Occupational safety in the construction and use of highways" allows to check the level of knowledge, to conduct a conversation with students about the production situation on the topic depicted on the graphic poster in order to determine their skills and knowledge.

The subjective component includes a graphic guide and a training program for the types of work and working specialists engaged in the implementation of road construction works, and it is divided into separate training modules, each of which contains information about specific production situations, individual work operations that affect the safety of work implementation. includes

Within the framework of the comparative component, it is suggested to communicate with students at several stages of education using graphic posters, to comment on one or another picture of the poster. Separation of the elements of safe organization of work, evaluation of the results based on the correctness and speed of the solution to the complexity of the task is carried out in a point system.

It was determined that the implementation of the principle of personalization in the process of preparing students for professional activity will allow students to internalize the educational material on labor protection.

The implementation of the principle of emergence in practice allows such interactions between the components of educational materials and the formation of new features in the multimedia educational complex. For example, in the production of labor protection in emergency situations, a multimedia educational complex of educational material allows to establish the following interactions based on the principle of emergency:

- effective assimilation of educational material on labor protection in emergency situations in production is achieved in the conditions of interdisciplinary interaction, interaction with production, system integrity of combination of vocational training technology and methods;
- the quality level of mastering the methods of forecasting and situation assessment in production in emergency situations, is realized in the conditions of formation of educational material for building individual educational trajectories;
- full participation of students is ensured in mastering professional competence, conducting experiments on methods of forecasting and assessing the situation in production in emergency situations, compiling the report of the conducted research and systematizing the results;
- the formation of general cultural competences is achieved in the context of the introduction of special tasks aimed at the ethnic assessment of labor protection in emergency situations into the multimedia educational complex.

Mastering educational material on labor protection in production in emergency situations will be successful in conditions of expansion and deepening of knowledge, skills and qualifications determined by the content of basic (compulsory) subjects (modules);
- the internalization of the training material on labor protection in production in emergency situations will be consistent if it is used outside the auditorium (master classes of experts and specialists at meetings with representatives of foreign companies, state and public organizations).

As a conclusion, it can be noted that structuring the educational material on the basis of the principles of integration, demonstration, personalization, emergence and relevance in the multimedia tool of teaching on the science of labor protection allows to create an information-educational environment on labor protection in production.

References

1. Семенова Н.Г. Теоритические основы создания и применения мультимедийных обучающих систем лекционных курсов электротехнических дисциплин. Оренбург, Вестних, 2007. -317 с.
2. Х. Рахимова ва бошқалар. Меҳнатни муҳофаза қилиш, -Тошкент, Ўзбекистон нашрёти, 2003 й.
3. О. Юлдошев ва бошқалар. Меҳнатни муҳофаза қилиш,- Тошкент Меҳнат, 2001 й.

4. Усанов М. М. Современная Информационно-Образовательная Среда Как Основа Модернизации Системы Образования //Global Science and Innovations: Central Asia (см. в книгах). – 2021. – Т. 4. – №. 1. – С. 61-65.
5. Mustafayevich U. M. Innovative technologies as a factor of development professional competence students //Web of Scientist: International Scientific Research Journal. – 2022. – Т. 3. – №. 7. – С. 199-203.
6. Usanov M. M. Using of Cloud Technologies in the Process of Preparing Future Specialists for Professional Activity //International Journal of Trend in Scientific Research and Development (IJTSRD). – 2020. – Т. 4. – №. 5.
7. Mustafayevich U. M. Educational Aspects of using Cloud-Based Network Services in Training Future Engineers //Spanish Journal of Innovation and Integrity. – 2022. – Т. 2. – С. 13-19.