

Agakhanova R.A.

FORMATION CONDITIONS PROFESSIONAL COMPETENCE

The article examines the model and software-methodological support of the process of forming the professional competence of students of the Automobile and Road Institute on the basis of electronic teaching aids. The main components of this model are highlighted, in which an important place is occupied by the elective course "Electronic teaching aids", developed using modular technology.

The article deals with the model and tutorials for the process of Automobile and Highway Institute students professional competence development on the basis of the electronic aids. The basic components of the model are considered with the main elective, named "Electronic Training Aids" implying modular technology which employs modular rating system of assessment.

Key words: automobile and road institute, model, competence, professional competence, electronic teaching aids.

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By e-learning we mean an educational tool that implements the capabilities of information and communication technologies (ICT) and is focused on achieving the following goals: providing educational information using modern ICT tools; feedback from the user; automation of control processes and organizational management of an educational institution. In the literature, the term "model" is most often interpreted as an image, analogue or description of a process. Domestic scientists name various parameters of the specialist's model, the degree of influence of conditions and factors on its formation [2].

To highlight the structure of professional competence and develop a competence model of a road specialist, we used the methods of repertoire grids (this method consists in determining the competencies that are significant for the success of a specialist from the position of management and employees) and direct attribution (assumes the use of a ready-made set of competencies). For this, we analyzed the functions performed by specialists; identified a list of knowledge, skills, business and personal qualities necessary for successful professional activity. Note that the structure of competence, the list of competencies can be clearly identified in those areas of professional activity that have a reasonable psychogram and psychogram [1].

We have created a model of competencies necessary for the effective professional activity of an automobile and road specialist (general technical, basic general professional, professionally profiled) (Table 1).

Model of competencies of a specialist in the automotive and road profile (functional competencies) Competencies Manifestation of competence Experimentally determines the main characteristics of the equipment and software of electronic teaching aids General technical Use reference and technical documentation in professional activity Diagnostics of equipment and software of electronic teaching aids, analyzes the results performed diagnostics Assesses the performance of equipment and software of electronic teaching aids. Draws up project documentation, generates technological and reporting documentation based on the results of work. Uses modern teaching aids in his work. Optimizes work algorithms Configures special software for electronic teaching aids Professionally profiled Selects a methodology for conducting road services, a methodology for teaching users Analyzes technological and architectural solutions in the field of informatization, works with various types of input data in the subject area Determining the levels of competence, a five-level scheme for assessing the formation of professional competence:

1. pre-professional;
2. initial mastering of skills (professional adaptation);

3. limited formation of skills (professional development);
4. sufficient formation (consolidation);
5. successful mastery of professional actions (skill).

The analysis of scientific, educational and methodological literature allowed us to develop a model for the formation of professional competence of students of a motor road institute on the basis of electronic teaching aids, including an analytical and predictive component, consisting of a social order, goals, principles and tasks of the stage; content-prognostic component, including the tasks of the stage, content and pedagogical technologies; result and extradiagnostic component, including monitoring of the formation of competence, criteria for the effectiveness of the formation of professional competence on the basis of electronic teaching aids. The experiment involves the preparation of students of the Automobile and Road Institute for the use of electronic teaching aids in educational, and then in professional activities in the natural conditions of the educational process of the university. As an experimental discipline, the elective course "Electronic teaching aids" is used, within which a theoretical study of the concept of "electronic teaching aids" takes place, as well as the development of electronic teaching aids that are in demand in the educational and future professional activities of these specialists. This course is held in the 8th semester in the block of disciplines of the student's choice.

The analysis of professional training in the conditions of the university of specialists in the automotive and road profile suggests that the course "Informatics" studied by students in the 3rd semester forms their theoretical base and practical skills in working with computer information technologies. In addition, students acquire skills in working with information technologies, professionally oriented knowledge in this area in the process of studying and special disciplines. The results of the ascertaining experiment confirm these results, since by the time of studying the course of choice we have developed, they have developed motivational-value, knowledge and operational components of professional competence at the adaptive, reproductive and heuristic levels.

We chose the Faculty of Economics of the Dagestan branch of the Moscow State Automobile and Highway Institute (specialty "Finance and Credit") as the basic faculty for the experiment. The objective criteria for selecting the content of the elective course "Electronic teaching aids" were the following: awareness of the social and personal significance of professional informational activity (indicators are interest in theoretical and practical material on the problems of future professional activity, self-esteem, connection of educational material with solving practical problems); setting on professional informational activity and on oneself as a carrier of this activity (indicators: acceptance of the value system of this activity in its various models at the levels of the corresponding value relation; forecasting the prospects for professional information activities; the relation of acquired knowledge to practical experience; selectivity of educational material); motivation of educational and practical activities (indicators: expanding the range of motives for educational and practical activities in external and internal motivation; quality of performance of educational tasks, etc.). emotional well-being.

In addition, we were guided by the general didactic principles of scientific nature, problematization, visibility, accessibility, consistency and consistency, the unity of theory and practice, information technology and consistency. The elective course program includes the following content modules:

I. The theoretical block is associated with the introduction into the consciousness of the subject of knowledge about the nature and specifics of teaching aids, both traditional and electronic (represented by basic knowledge in the field of electronic teaching aids).

II. The practical block is aimed at mastering electronic teaching aids that are in demand in future professional activities, acquiring by the subject the skills and abilities of using electronic tools in his educational, and then professional activities (represented by skills and abilities in the field of using electronic teaching aids).

Each of the blocks is a set of tasks of a particular nature and varying degrees of complexity, which are solved in the preparation process within the educational process of the

university and in the course of students' independent work. Our course was based on modular learning implemented through learning elements. The learning element consists of a learning goal; equipment, materials and aids for working with this educational element; related learning elements and materials (tutorials, application programs and other learning materials with which this learning element is associated); the content of the educational element, that is, educational material that implements the learning goals; verification of achievements, which guarantees the development of knowledge and skills strictly indicated in the goal and is provided by verification of the achievement of this programmed result. Building a course based on educational elements is convenient because students can build their own educational trajectory, and this, in turn, creates an opportunity for the formation of independence in working with electronic learning tools. In addition, for the formation of active independence, the creative mastery of professional skills and knowledge in the use of electronic teaching aids, the development of thinking abilities, a problematic approach to teaching turned out to be in demand, which found its implementation in the process of students completing multimedia projects.

LITERATURE

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