Model for the Formation of Professional Competence of Bachelors in the Field of Service with the Help Of 3D Technology and Graphic Visualization

Shaynazarov Ravshan Mamayusubovich;

Researcher of Karshi Engineering Economics Institute;
E-mail: finaledition2@mail.ru; Tel: +998 972916985

ABSTRACT

This article addresses the analysis of the model phenomenon in pedagogical research. According to the definitions given in some dictionaries and reference books, the understanding of the model as the mavhum image of some seemingly reality is noted.

Keywords: 3D technology, distance learning, graphic visualization, service industry, professional competence, model.

Introduction. Models can be of different types. The main focus in the context of this study is on the model. At the present time, it is observed that modeling is becoming one of the topical methods of scientific pedagogical research. The most important thing in the development of the model is the selection of its principles.

Literature view. V.D.Shadrikov said that the purpose of this model will be to create pedagogical conditions for the formation of professional competences of bachelors in the field of service in the educational process in technical universities. This competency provides an opportunity for effective implementation of professional activities on the basis of Information Technology.

Its functions are as follows:

- analysis of the future training of Engineers in the field of service with the use of 3D technologies in the context of a competency-based approach and methods of graphic visualization in the context of informatization of the educational process;

- the application of the model to the educational process and the justification of the effectiveness of its use are the like.

Research Methodology. In the context of the study, the following are the modelling in this research work:

- consistency and equivalence that is, the model must comply with the requirements of modern theoretical methodological paradigms imposed on higher education;

- accuracy, that is, the model must determine the compliance of the results with the set goals and objectives;

- quality, the model is based on the basic principles that can be transferred to the educational environment of any educational institution.

The aim is to determine what methods to use in solving tasks, what programming environment to choose and how the results of the research will be reflected. The component of the model reflects the design of the contents of this preparation.

The principle of continuity of education is connected with the constant enrichment of the knowledge system and the acquisition of students ' independent methods of learning. The principle of continuity implies consistency between educational goals, content, methods, forms and Means.

In the context of this article, the component of graphic visualization and the preparation of engineer training in the field of service using 3D technologies is based on knowledge in the field of engineering and computer graphics.

In addition, in order to formulate professional compensation in the future, it requires knowledge of the problems of micro-metric condition and others.

Analysis and results. The component of the model for the formation of professional competency of bachelors in the field of graphic visualization, 3D technologies and distance learning, using the methods of training, ensures the completeness and variability of knowledge that ensures the unity of professional, information and communication education. In this regard, the future engineer will be able to understand the following in the field of computer graphics: the methods of using computer graphics software and technical tools, the application of various color models, the use of vector primitives techniques, the techniques and tools for working with rastr graphics, the basics of performance. With 3D primitives, develop skills of working with specialized literature, reference books, etc., acquire certain knowledge.

This content describes the cognitive component of professional competency, which we have identified in our article, namely the following:

- in the field of information and communication technologies;
- in the field of computer modeling;
- in the field of engineering graphics;
- in the field of computer, interactive graphics and ALT;
- it helps to formulate the availability of knowledge such as working with color, choosing harmonious shades, knowing the necessary file formats and the use of graphic information processing packages in general.

Thus, the formation of professional competency, if the content of training is holistic, and the following:

- the approach to personnel training is carried out in the context of a competency format, taking into account modern information and educational technologies;
- restructuring of the cycle of general technical sciences taking into account the need to form professional competence;
- it occurs with the manifestation of future engineers in the introduction into the teaching content of topics aimed at mastering information technology.

Ushbu tadqiqot ishimizda texnologik komponentni tahlil qilinadi.

Electronic courses that are up to date at the moment. In modern education, the e-learning course is a didactic system, with the help of which the educational process is carried out with the help of information and communication technologies. Some researchers believe that the e-learning course includes the following specific blocks of work: information, control-communicative and corrective-generalization, which will allow you to fully present the content of the science, its sections, topics and control over the performance of tasks, including control questions; questions for exams and tests include an algorithm of evaluation criteria.

The results of monitoring the educational process are as follows: student portfolio and various types of control. Based on these data, the University enters into the formation of a database containing information about each student.

The teacher divides the audience into groups and gives them assignments using communication technology. In this process, the teacher monitors and controls the dynamics of the work of the group and the activity of each student, evaluates after graduation. Success depends on the ability of each member of his group to properly plan his or her educational activities, as well as on the ability of the students to combine individual work with group work.

In the context of the study, an appraisal and effective component will be considered. The evaluation and effective component of the model for the formation of professional competency of bachelors in the field of graphic visualization, 3D technology and distance learning using the methods of service is organized in accordance with its structure and includes the following levels of their formation: high, medium, low.

Based on the criteria stated for obtaining reliable data, we will determine the degree of formation of each component of professional competency in this research work.

It is a motivational component of the professional competency of future service engineers. It is considered a high degree of formation of the motivational component of professional competency.

The average level of formation. It is a motivational component of professional competency.

Low level of formation of the motivational component of professional compensation. At this level, students do not have motivation for professional engineering activities, they are not motivated to use information technology in their educational activities. They do not show motivation to understand the importance of knowledge of professional skills, they do not have the motivation to constantly strive for knowledge of Information Technology and sustainable success. Future engineers do not have a developed need for self-awareness, professional success, increasing their professional level on the basis of the use of Information Technology.

Cognitive component of professional competency. Represents a high degree of formation of the cognitive component of professional competence.

At this level, meaningful "excellent" respondents have knowledge in the field of information and Communication Technology.

They have mastered computer modeling. At this level, respondents have excellent knowledge of engineering, computer, interactive graphics and ALT.

They put a personal sense into their knowledge of working with color, choosing harmonious shades, using the necessary file formats and graphics processing packages.

It is the average level of formation of the cognitive component of professional competency.

Low level of formation of the cognitive component of professional competence. At this level, respondents have satisfactory knowledge in the field of information and Communication Technology. At this level, respondents have satisfactory knowledge of engineering, computer, interactive graphics and ALT. They have not mastered the knowledge of working with color, choosing harmonious shades, using the necessary file formats and graphics processing packages.

It is an activity component of professional competency. Represents a high level of formation of the functioning component of professional competency.

At this level, students have the following skills: the use of Internet services in information processing; skills such as spotting and locating the straight line relative to the projection plane in different octants.They are able to “perfectly " solve positional and metric issues; the use of independently acquired skills in the creation of the most widely used graphic models of geometrical bodies and surfaces in modern engineering, the creation of innovative projects in the field of services and the use of graphic editors in solving practical practical issues.

Conclusion / Recommendations. Thus, professional competence ensures the successful implementation of future professional activities on the basis of the use of Information Technology, taking into account the fact that it is presented as an integral characteristic of the future engineer person (opportunities, motivations, knowledge, skills). The following components of the specified competency are distinguished: motivational, cognitive, activity.

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