

Technologies for Professional Training Development of Future Builders-Engineers on the Basis of Innovation Approach

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Abstract: The interest of civil engineering students can be further increased by creating a model of the elements of the assembled structures and analyzing the assembly processes during the course design work in the science of building construction technologies. The modeled constructions have a much simpler appearance, closer to reality, it is easy to implement, and students themselves try to do it practically with the help of models. Describes the extent to which the developed model is suitable for the environment in which it should work in the future.

Keywords: Building construction technologies, Modeling, constructions, models, students, vocational training, forms and formulas.

INTRODUCTION

The development of knowledge and professional training of engineers studying in engineering universities using modern electronic techniques that help to improve their professional activity is considered to be the main factor in developing their professional training. Therefore, it is necessary to develop an e-learning environment model that will help to improve professional training and justify its methodological methods. This model can consist of schematic dimensions of constructions used in construction that resemble the object or phenomenon under study, as well as forms and formulas.

INNOVATION (English innavation) is innovation, innovation. Innovative technologies are introducing innovations and changes to the pedagogical process and teacher and student activities, and mainly interactive methods are fully used in its implementation. Interactive methods are called collective thinking, that is, they are methods of pedagogical influence and are a component of educational content. The uniqueness of these methods is that they are implemented only through the joint activity of pedagogues and students. [1].

MATERIALS AND METHODOLOGY

Such a process of pedagogical cooperation has its own characteristics, which include:

- Forcing the student not to be indifferent during the lesson, to think independently, to create and search;
- Ensuring that pupils-students are constantly interested in knowledge during the educational process;
- Increasing the student's interest in knowledge by independently approaching each issue creatively;
- Organizing the activities of the pedagogue and the student in cooperation. In the opinion of teachers, researchers, and practitioners studying the issues and problems of pedagogical technologies, pedagogical technology is only related to information technology, and it is

necessary to use TSO, computer, distance learning in the teaching process. defined as winter or the use of different techniques [1].

An approach to education is a set of basic principles, requirements, and goals that form the basis for advanced and new technologies.

The requirement of modern education is not to give students as much knowledge as possible, but to teach them to learn on their own, not only to know, but also to be able to work with the received information.

Pedagogical innovations are based on two main approaches:

➤ A student-centered approach involves directing the educational process to each pupil/student. Modern pedagogy should take into account the unique experience and character of each student, develop his individuality and talent Implementation of this approach includes reliance on the principles of choice (students can choose the fields they want), trust (absence of authoritarian pressure from teachers), creativity and success, subjectivity, individuality;

➤ Competency-based approach is new for the Russian school. It focuses on the result of learning, and the result is not a sum of knowledge, but a sum of skills, the student's ability to solve problems, conflicts, and act in different situations.

It doesn't matter how much the student knows. The most important thing is his ability to respond to changes, to be flexible, to manage emotions and to choose the right information. This innovation requires a fundamental revision of the educational system, reform of the principles of educational evaluation and organization.

Based on these approaches, teachers and methodologists develop a set of innovative pedagogical technologies - techniques, methods and methods of knowledge transfer and evaluation [2].

This, in turn, creates the need to update the content of continuous education that serves to develop the professional competence of specialists, to widely introduce innovative forms and methods of teaching, modern information and communication technologies, and advanced foreign experiences in teaching. Based on this, a number of measures are being implemented in educational institutions to improve the quality of education, to ensure the coherence and continuity of educational stages. It is known that modernizing the educational process in educational institutions, developing the professional competence of teachers in improving the quality of the system of training pedagogues, using modern advanced foreign experiences in the field, professional knowledge, skills and vision Arming with skills, independent creative use of scientific and technical innovations, and development of skills to solve prospective tasks are considered important tasks. In this place, it is necessary to pay special attention to the professional competence of the pedagogue and his analytical skills. Professional competence, professional self-awareness, and respect for professional values and orientation to the profession - this is universal, which is manifested in the example of the professional formation of the young generation, support and development of innate abilities. generalizing concepts that are one of the components of culture. The formation of professional competences of the teacher is to ensure that he successfully acts on the basis of practical experience and knowledge in solving professional issues. Realization of professional competence and professional identity is considered a lifelong process, a person chooses a profession from the stages of dreaming, trying, choosing and realizing them, then he enters a profession and later changes professions in the world, in his own changes his profession or specialty depending on the change, his attitude to work. The idea of a perfect person is a noble idea of both national and universal importance, which embodies spiritual and physical perfection and motivates a person towards noble goals. Perfection should be embodied in a modern pedagogue. Forming the professional competence of today's teacher is to increase his daily ability and work efficiency. It is possible to train qualified specialists by studying and solving problems related to the formation of professional skills in work activities, forming professional training. The need to improve the pedagogical and psychological knowledge of teachers is based on the growth of social demands placed on educational institutions and pedagogues. In the field of

teacher training, it is necessary to determine the level of their professional training, the aspects that meet the requirements, and the actual needs for training based on the identification of existing shortcomings and gaps. Based on this, it is appropriate to implement innovations. Taking these needs into account when formulating training orders ensures well-targeted and, accordingly, effective training. This leads to the development of pedagogical competence [3].

Scientific-research methods of pedagogy. Any subject has its own scientific-research methods. It enriches and updates its content through these methods. In life and in the theory of knowledge of the objective world, there are issues of what to teach and how to teach, who should be educated and how, and they are interrelated. There is a dialectical unity between the problems of what to do and how to do it. In order to enrich and renew its content, pedagogy studies the existing pedagogical phenomena and processes with the methods that correspond to its goals and tasks. In this sense, when we say scientific-research methods of pedagogy, we mean a set of methods, techniques and means of checking internal communication and relations, which are characteristic of the real processes of educating, educating and teaching the young generation. Pedagogy implies learning and knowing the processes of teaching, imparting knowledge, education and their essence as follows:

- ↗ in the process of their common connection, mutual requirement and interaction, education and upbringing of children, science, culture, ethics and art, education and upbringing are inextricably linked regardless of where they are implemented to be;
- ↗ their continuous movement, changes and changes in teaching and upbringing tasks and methods that arise in the process of development, the impossibility of teaching and educating all children in the same way;
- ↗ in the growth of students, taking into account their unique characteristics, relying on the criteria of intellectual and behavioral activity, word and work unity;
- ↗ traditions and customs that affect the maturity of students, knowing the differences between them, identifying good and bad, old and new, taking into account conflicts between them, mutual criticism, etc.;

The more perfect, logical and correct the scientific research methods of pedagogy are, the better the educational content will be updated and improved, and the science of pedagogy will be enriched.

It is possible to think based on the following scientific research methods that exist and have been developed so far: 1) observation method; 2) interview method; 3) the method of studying children's creativity; 4) test, questionnaire method; 5) method of analysis of school documents; 6) experiment-experiment test method; 7) statistical data analysis method; 8) mathematics-cybernetics method [4].

RESULTS AND DISCUSSIONS

The analysis of scientific works on the general theory of modeling and the peculiarities of the construction of pedagogical models allowed us to draw the following conclusions: in order to effectively use the created model in the process of training future specialists, it is necessary and sufficient that it meets certain conditions. In particular, features such as simplicity, inherence, adequacy can be included among such conditions.

The interest of civil engineering students can be further increased by creating a model of the elements of the assembled structures and analyzing the assembly processes during the course design work in the science of building construction technologies. The modeled constructions have a much simpler appearance, closer to reality, it is easy to implement, and students themselves try to do it practically with the help of models. Describes the degree to which the developed model is suitable for the environment in which it should work in the future. Thus, the realization of these properties of the developed model provides an opportunity to achieve the goal set before us. This, in turn, leads to an increase in students' creative thinking. During the organization of this process, students try to do it with their own hands, and it is considered the main factor for the improvement of skills.

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