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The State of The Methodology of Teaching Students of Technical Universities in Modern Conditions and Determination of Priority Methodological Tasks

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Abstract: The article addresses current issues and trends in higher technical education pedagogy. The author analyzes modern teaching approaches, emphasizing the need to adapt methodologies to the rapidly changing technological environment and labor market demands. The article highlights key methodological tasks that need to be addressed to improve education quality: integration of practice-oriented tasks, development of students' critical thinking, and the use of new information technologies in the educational process. In conclusion recommendations are provided for educators and university administrations on implementing effective educational practices to prepare competitive specialists.

Keywords: ICT, personalized learning, practice-oriented approach, adaptive learning, interdisciplinary approach, real problem-solving, case-study, soft-skills.

Introduction: The state of the methodology of teaching students of technical universities in modern conditions is characterized by a number of trends and challenges associated with the development of technology, changes in the educational environment and requirements for the qualifications of graduates. In this regard, individual aspects of the teaching methodology are advisable.

The first aspect is the introduction of modern information and communication technologies (ICT) into

the educational process. This process includes the use of online courses, video lectures, simulators and virtual laboratories.

Another aspect is the personalization of learning, the essence of which is that the teacher takes into account the individual needs and interests of students. This also implies the use of adaptive educational platforms and systems that take into account the level of training and the pace of assimilation of materials, contribute to a deeper understanding of the subject.

The next aspect of teaching in technical educational institutions is associated with the use of methods based on the active involvement of students in the process, such as project-based learning, games, case methods, collaborative learning, which contribute to the development of critical thinking, creativity and communication skills. The use of game methods allows you to create a comfortable atmosphere in which students feel confident. A favorable educational atmosphere, in turn, affects the quality of their learning and motivation.

The aspects discussed above emphasize the need for constant updating of teaching methods and practices in accordance with the requirements of the time and changing conditions of the educational environment.

In addition, scientists in the field of pedagogy highlight individual approaches used to organize the educational process in technical universities.

The first approach can be defined as "practice-oriented". It implies the inclusion of industrial practices, internships, projects based on real enterprises and Case-study in the curriculum, which helps prepare students for the requirements of the labor market.

In modern teaching practice in technical educational institutions, the use of the "Interdisciplinary" approach is also visible, the essence of which lies in combining academic disciplines such as economics, management and ecology. This allows students to develop not only highly specialized knowledge, but also a broad outlook necessary to solve complex problems.

For example, in the field of developing new technologies, it is important to take into account economic aspects, such as the profitability of projects and the availability of resources. At the same time, ecology is becoming critical in light of global challenges such as climate change and sustainable development, which requires future specialists to be able to integrate environmental principles into their technical solutions.

"Adaptive learning" is also one of the approaches used in organizing training in technical universities. Adaptive learning is taking into account the peculiarities of information perception by each student, which become important aspects. The development of adaptive educational platforms allows taking into account the level of knowledge and the pace of learning of students. In addition, approaches based on solving real problems have recently become increasingly popular. This approach promotes the development of analytical thinking skills and teamwork. The use of this approach involves organizing classes in such a way that students are given a specific problem to solve, for the solution of which they discuss various solutions and collectively try to choose the most effective ones. The introduction of problem-based learning can also increase student motivation, as they see the connection between the material being studied and real-life situations.

As a result, problem-based learning is becoming an important tool in the modern educational process, meeting the requirements of a rapidly changing world and labor market.

Based on the aspects and approaches discussed above, it seems advisable to solve the following priority methodological tasks in the organization of the educational process.

1. Updating curricula: It is necessary to regularly update the content of educational programs, taking into account modern trends and technologies, as well as the requirements of employers.

2. Professional development of teachers: Teachers should have modern skills and knowledge not only in their field, but also in pedagogy, as well as in new learning technologies.

3. Development of interdisciplinary courses: The development and implementation of courses that combine several disciplines, contribute to the development of systemic thinking among students.

4. Integration of scientific research into the educational process: Involving students in scientific research and innovative projects increases their interest in learning and promotes the development of research skills.

5. Assessment and monitoring of educational outcomes: Creation of effective systems for assessing students' knowledge, skills and competencies, including formative assessment.

6. Creating an innovative educational environment: Creating a space conducive to active learning, collaboration, creativity and self-development of students.

7. Formation of communication and teamwork (soft skills): Focusing on communication skills, teamwork, time management and other skills that are becoming increasingly important for a successful career.

Thus, modern conditions require technical universities

to be flexible and ready for change. Effective teaching methods must adapt to a rapidly changing world by adopting innovative approaches and taking into account the individual needs of each student. The introduction of active learning methods such as project activities, case studies, discussions and group work can stimulate independent thinking, the development of critical analysis, teamwork and communication skills, which is an integral part of successful professional activity. It is also important to pay attention to the formation of digital competencies among future specialists, integrating modern technologies, online platforms and virtual laboratories into the educational process.

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