

Formation of Technological Competencies on the Basis of Innovative Approaches in the Preparation of Bachelors of Technological Education

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Annotation: This article provides information on the formation of technological competencies on the basis of innovative approaches in the training of bachelors of technological education and their role and importance in student education.

Keywords: innovative approach, technological competence, modular technology, didactic units

Modern trends in the modernization of education, consisting of increasing the role of teaching and production practices and shortening classes in basic academic disciplines, encourage teachers to seek new ways and means of systematizing and compiling the material being studied. However, it should be borne in mind that only 61% of all hours devoted to the study of science are devoted to classroom lessons, the rest being the student's independent work. Therefore, today a lot of attention is paid to the introduction of new pedagogical technologies, such as block-module teaching, distance learning, etc., which allows us to make the learning process stratified, flexible, problem-oriented, active and creative. allows you to do.

The continuous change of the educational paradigm of education requires a change in the traditional methods of teaching at the university. The inability of university graduates to use effective methods of intellectual work and methods of self-acquisition of knowledge, rapid focus on increasing the flow of information, successful adaptation to difficult conditions of the educational process force teachers to look for innovative active teaching methods does. The Federal Law "On Education in the Russian Federation" (new edition) focuses on the formation of students' competencies from the transfer of knowledge in the educational process, the latter "practical experience, the experience of applying knowledge in everyday life."

The integration processes taking place in Russian education today, the adherence to these principles in the organization of the educational process, encourage teachers to use modern pedagogical technologies and active forms. The interaction of education in the educational process of any educational institution,.

The relevance of this pedagogical research is determined by the tasks facing universities in terms of ensuring the quality of higher education, first of all: modernization of content and improvement of the educational process. The leading concept of education at the university is the choice of modern technologies of education: cognitive-developmental, personal motivation and differ in content and teaching methods.

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Unlike teaching methods, technology involves the systematic organization of the interaction of all elements of the learning process, ensuring the achievement and repetition of learning objectives and ultimately a different quality of learning.

problem-based technologies (requires a combination of reproductive and effective teaching methods and the transfer of certain knowledge and methods of activity to new situations: methods of forming creative thinking, tasks on the application of knowledge in non-standard situations, algorithms, instructions modification, replenishment, compilation, transmission of new methods of work in new conditions, tables and classifications, comparison and systematization schemes; analysis and generalization) forms professional and personal competencies: communication, balanced, stress-resistant, self-directed ability to regulate actions, make independent decisions; creativity, demonstration of organizational skills);

Most teachers are convinced that students who apply a particular skill in one subject will not always be able to apply it in another subject. To overcome this obstacle, the teacher needs special work to help the child identify the problem, highlight the subject component, and demonstrate the application of certain methods in a new situation, in a new setting.

Possible ways to solve this problem:

Tasks on the use of verbal mathematical dictations, including skilled pronunciation and numbers, mathematical terms, etc., are used to form a coherent, logically correct speech;

Always monitor students' speech literacy during oral work and ask students about it themselves. oral presentation, then I ask students to show it first and only help if it's hard to do;

I encourage students to solve problems where the units of measurement can be deliberately removed;

One of the technologies that allows to better structure and systematize the studied material is block-module training technology. An important advantage of this technology is its multi-level stratified approach to reading.

Modular technology involves the division of the teaching material of science into small parts - didactic units (modules). The goals and objectives of each module are clearly defined, theoretical and practical materials are structured, control forms are given.

Current issues and achievements of mathematics, physics and digital technologies in modern education

According to this technology, all sections of the physics course program are divided into separate blocks (semesters). Blocks are divided into modules - didactic units, so the semester program in science is divided into four or five modules (Table 1). Each module has learning elements (components). The module provides intensive independent work of students, ie maximum individualization of students' academic achievements (within the module).

Technological education is the study of technology in which students "learn the processes and knowledge associated with technology." [1] As a field of study, the ability to shape and change the physical world to meet human needs with materials and tools techniques. This bridges the gap between the widespread use and the technical components of the technologies used and the lack of information on how to fix them. Technology training is a very important Industrial Art Tradition United States and craft training or vocational education in countries. [3] In 1980, through something called the "Project of the Future," "industrial art education" was renamed "technological education" in New York State; The aim of this movement was to increase students' technological literacy. [5] Because the nature of technology education was significantly different from its predecessors, in the mid-1980s, Art Education teachers underwent service training, both by the New York State Department of Education (NYSED). A network of technology training has been established. [3]

In Sweden, technology as a new subject is rooted in the traditions of craft entities, while in countries such as Taiwan and Australia, its elements are reflected in historical vocational programs. [6]

In the 21st century, the Mars suit has been used as a subject of design technology education. [7] Technical education is completely different from general education

The current state of technological education

TeachThought, a private company, described technology education as “a state of childhood and daring experimentation.” [8] showed that 86% of respondents agreed that technology should be used in the classroom. 96% said it would increase student engagement and 89% said it would improve student outcomes. [9] Technology is available in many education systems. Since then, American public schools have provided one desktop computer for every five students and spent more than \$ 3 billion annually on digital content. [10] In the 2015–2016 school year, the government introduced the traditional pen and paper method. Instead, it conducted state-standardized tests for beginners and intermediate students through digital platforms.

The digital revolution offers new educational perspectives. Students can study online even if they are not in class. The development of technology includes new approaches to combining current and future technological improvements and the introduction of these innovations into the public education system. With the technologies incorporated into daily education, this creates a new environment with new personalized and mixed learning. Students will be able to do work based on their needs, as well as the versatility of individual teaching, and this will develop the overall learning experience. The technological field of education is very large. It develops and changes rapidly. In the UK, computer technology has helped raise standards in different schools to address a variety of challenges. The UK adopted the Flipped Classroom concept after it became popular in the United States. The idea is to reverse traditional teaching methods by providing guidance on the Internet and outside of traditional classrooms.

In Europe, the European Commission in January 2018 supported the Digital Education Plan. The program consists of 11 initiatives that support the use of technology and digital opportunities in the development of education. The Commission has also adopted an action plan called the Working Paper of Employees detailing its strategy in implementing digital education. The plan includes three priorities that will help develop solutions to all EU member states' problems. The whole framework supports the European Qualifications Framework for lifelong learning and the European Classification of Skills, Qualifications, Qualifications and Professions.

The World Bank is the sponsor of the annual (two-day) international symposium in East Asia in October 2017 in collaboration with the South Korean Ministry of Education, Science and Technology and the World Bank to address education and ICT issues for industry practitioners and senior policymakers. Participants plan and discuss the use of new technologies for schools in the region.

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