DIDACTIC AND PEDAGOGICAL OPPORTUNITIES OF TEACHING THE COURSE "APPLICATION OF INFORMATION TECHNOLOGIES IN THE FIELD" IN A DIGITAL LEARNING ENVIRONMENT

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Abstract: *This article analyzes the didactic and pedagogical opportunities of teaching the course "Application of Information Technologies in the Field" in higher education institutions within a digital learning environment. The study examines how this course contributes to the formation of students' professional ICT competencies and their ability to effectively apply information technologies in their future professional activities. Special attention is given to visualization, modeling, individualization, interactivity, and accessibility of information as key didactic opportunities of digital education. In addition, the article explores pedagogical aspects such as independent learning, creativity development, and collaborative learning. The findings emphasize that the integration of these opportunities enhances the effectiveness of the educational process and supports the training of competitive specialists.*

Keywords: *digital learning environment, information technologies, ICT competence, didactics, pedagogical opportunities, interactivity, visualization, individualized learning, e-learning, professional competence.*

Introduction. In modern higher education institutions, the course "Application of Information Technologies in the Field" plays an important role

in developing students' professional competencies. This discipline not only provides technical knowledge but also forms the ability to effectively use information technologies in solving professional tasks.

In the context of a digital learning environment, the importance of this course is significantly increasing. It allows students to acquire practical skills in working with digital tools, analyzing information, and solving real-world problems. Therefore, studying the didactic and pedagogical potential of this course is of great scientific and practical importance.

Didactic Opportunities of the Course in a Digital Learning Environment

The digital learning environment provides a wide range of didactic opportunities that enhance the effectiveness of the educational process. According to O.R. Roziqov, the harmony between educational content and teaching tools is a key factor in ensuring learning effectiveness. Similarly, N.S. Saidahmedov emphasizes that pedagogical technologies improve learning outcomes through proper instructional design.

One of the main didactic opportunities is **visualization and modeling**. Information technologies allow complex processes to be represented in graphical, animated, and simulated forms. This helps students better understand abstract concepts and systems.

Another important aspect is **individualization of learning**. Adaptive learning systems enable education to be tailored to each student's level, pace, and abilities. This increases learning efficiency and ensures personal development.

Interactivity is also a key feature of digital education. Interactive platforms, tests, and simulations allow students to actively engage in the learning process, receive immediate feedback, and correct their mistakes.

The **accessibility of information** is another significant didactic advantage. Through digital resources and the internet, students can access

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global information databases, scientific materials, and real datasets, which enhances independent learning.

Table 1. Analysis of Didactic Opportunities of the Course

Didactic Opportunity	Description	Methods Used	Tools	Results
Visualization and modeling	Representation of complex processes through graphics and simulation	Demonstration, modeling	Simulation software, graphic tools	Deep understanding is formed
Individualization	Adapting learning to student level	Differentiated instruction	LMS, testing systems	Personal development is ensured
Interactivity	Active communication between student and system	Interactive methods, problem-based learning	Online platforms, quizzes	Active participation and critical thinking
Accessibility of information	Use of global information resources	Independent learning, research methods	Internet, e-libraries	Information literacy is developed
Practical orientation	Application of knowledge in real situations	Case study, project-based learning	Software tools	Professional competencies are developed

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Pedagogical Opportunities of the Course

In addition to didactic aspects, the course also has significant pedagogical potential. It contributes to the development of students' professional identity and ICT competencies.

One of the key outcomes is the formation of **domain-oriented ICT competence**, which enables students to use specialized software and technologies relevant to their field. According to Sh.Q. Qurbanov, innovative approaches in education play an important role in developing professional competencies.

Another important pedagogical aspect is the development of **independent learning skills**. Through LMS platforms, online courses, and digital libraries, students can independently expand their knowledge.

The course also promotes **creativity and innovation**. Students are encouraged to create presentations, digital models, and software-based solutions, which enhance their creative thinking.

Furthermore, **collaborative learning** is supported through cloud technologies and online platforms. This helps students develop teamwork, communication skills, and responsibility.

Conclusion

The analysis shows that teaching the course "Application of Information Technologies in the Field" in a digital learning environment provides significant didactic and pedagogical opportunities. These include visualization, individualization, interactivity, accessibility of information, independent learning, creativity development, and collaborative learning.

The effective integration of these elements contributes to improving the quality of education and preparing highly qualified specialists who are capable of meeting modern professional requirements. Therefore, the systematic use of digital educational tools and innovative pedagogical approaches is essential for enhancing the effectiveness of the educational process.

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