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The "Engineer" publishes the most significant results of scientific and applied research carried out in universities of transport profile, as well as other higher educational institutions, research institutes, and centers of the Republic of Uzbekistan and foreign countries.

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Problems and solutions of organizing pedagogical practice remotely for students of technological education

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Abstract: This article examines the challenges and solutions of organizing distance pedagogical practice for students in technological education. Distance practice is an essential tool for developing students' professional competencies, applying theoretical knowledge in practice, utilizing modern technologies, and forming social collaboration skills. The article analyzes technical, methodological, psychological, and assessment-related problems and provides recommendations and effective strategies for organizing distance pedagogical practice.

Keywords: Distance practice, pedagogical practice, technological education, virtual laboratory, professional training, online learning, methodological solutions

1. Introduction

In recent years, as a result of the widespread introduction of information and communication technologies in the educational process, distance learning forms have become increasingly relevant. In particular, pedagogical practices of students in the field of technological education are an important stage not only in consolidating theoretical knowledge, but also in developing professional skills and preparing for the production process. In the traditional form of practice, students are forced to work directly in the laboratories of an enterprise or educational institution . However, in recent years, due to the global pandemic, geographical restrictions and technological development, the need for distance pedagogical practice has increased.

Distance learning is a process in which a student combines theoretical knowledge with practical activities through online platforms , performs independent work and projects, and develops professional skills using virtual laboratories and simulations. At the same time, the distance learning format allows the student to develop important competencies such as time management, initiative, and independent problem solving .

The purpose of the article is to identify problems in organizing pedagogical practice remotely for students of technological education and to propose effective solutions to them . To achieve this goal, the following tasks have been set:

1. To define the concept of distance pedagogical practice and its importance in professional development.
2. Analysis of technical, pedagogical, and psychological problems encountered in organizing distance learning.
3. Develop practical recommendations and solutions to improve the efficiency of the distance learning process.

This research will not only help develop the student's professional competencies, but also improve the quality of modern education and strengthen cooperation between educational institutions and industrial enterprises.

2. Research methodology

1. The concept and essence of distance pedagogical practice

the process of applying a student's theoretical knowledge to a real or virtual work process, allowing him to work independently, complete projects and assignments. develops professional competencies through.

technological education is determined by the following:

- Formation of professional skills: management and control of technological processes through virtual laboratories and simulations.
- Combining theoretical knowledge with practice: applying knowledge from the learning process to real work conditions.
- Psychological and social development: developing independent work, teamwork, and time management skills.
- Application of modern technologies: effective use of information and communication tools and virtual platforms.

Distance pedagogical practice allows you to improve the professional training of students, develop social competencies, and strengthen the connection between universities and industrial enterprises.

2. Tasks of distance pedagogical practice

The main task of distance practice is to develop the student's professional competencies, in the process of which he performs real production tasks, independently solves problems and transforms theoretical knowledge into practical skills. The student learns to manage technological processes through virtual laboratories, takes initiative and responsibility through independent implementation of projects and assignments. At the same time, the student develops social and communicative skills through virtual group work, receives psychological support through regular communication with mentors, and forms work discipline.

The main tasks of distance learning are:

1. Development of professional competencies: The student combines theoretical knowledge with practical training to make independent decisions, solve problems, and manage technological processes. develops skills.
2. Applying theoretical knowledge to practice: Distance learning assignments help students integrate

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theoretical knowledge with practical activities and develop analytical thinking and innovative approaches.

3. Developing independence and initiative: The student acquires initiative and responsibility by planning tasks, completing their work independently, and evaluating results.

4. Psychological and social development: Improving the ability to collaborate, self-organize, and manage time in virtual teamwork.

5. Motivation and professional aspiration formation: Strengthening professional motivation by monitoring student progress and exchanging ideas with mentors.

6. Assessment and Monitoring: Ensuring an individual approach through a system of monitoring and evaluating student performance.

3. Problems encountered in distance pedagogical practice.

3. Research results

Distance pedagogical practice is an important tool for the professional training and personal development of students in the field of technological education. This process allows the student to transform theoretical knowledge into practical skills, use modern technologies, develop independent work and initiative. At the same time, it forms social and communicative skills through virtual communities, strengthens psychological readiness and effectively prepares for future work.

The effectiveness of distance learning depends on technical, methodological and psychological aspects, and by systematically addressing them, it is possible to develop the student's professional competencies and increase motivation. Innovative platforms, virtual laboratories, a mentoring system and regular monitoring ensure the success of distance pedagogical practice.

The effectiveness of distance learning can be affected by a number of problems. Technically, students' lack of stable internet access and modern devices, platform and software malfunctions reduce the effectiveness of distance learning. At the same time, the lack of clear methodological and pedagogical guidelines, the complexity of applying theoretical knowledge to practice, and difficulties in assessment and monitoring processes limit student performance. Psychological and social problems are associated with decreased motivation, stress, fatigue, and limited team integration. It is also difficult to objectively assess a student in distance learning, and delayed feedback from mentors or technical errors negatively affect the results.

1. Technical infrastructure
   - o Stable internet and modern devices.
   - o Virtual labs and simulations.
2. Methodical approach
   - o Clear plan and tasks.
   - o Video lessons, interactive training, webinars.
3. Mentoring and support
   - o Individual consultations and online monitoring.
   - o Step-by-step monitoring of the student's work process.
4. Evaluation and monitoring system
   - o Online assessment platforms.
   - o Objective assessment through project work, reports, and presentations.

There are a number of solutions to solve these problems. It is necessary to improve the technical infrastructure, introduce stable internet and virtual laboratories, use software compatible with different devices and platforms. It is necessary to improve methodological approaches, effectively organize practice through clear plans and tasks, interactive exercises, video lessons and webinars. Increasing student motivation through mentoring and individual support, step-by-step monitoring of their activities and regular feedback ensure the success of distance practice. It is also important to optimize the assessment and monitoring system, objective monitoring of student activity through project work, reports and presentations.

The advantages of distance learning are extensive. It gives students experience in real-world work environments, develops independent work and initiative, improves skills in using modern technologies, and forms communication and collaboration skills through virtual teams. However, there are also negative aspects of the distance learning format: decreased motivation, stress, technical and methodological limitations, and difficulties in assessment. These negative aspects can be overcome through systematic solutions.

Practical experience shows that students achieve success in performing real production tasks through virtual project work and simulations. Online communication with mentors and the assessment process help develop the student's professional skills and increase psychological readiness. Thus, distance pedagogical practice ensures not only the professional preparation of students in the field of technological education, but also their personal development.

As a result, distance pedagogical practice is an integral part of modern technological education, allowing the development of professional competencies of students, increasing their motivation, and forming social and psychological skills. Effective distance practice serves to prepare students for real working conditions, strengthen cooperation between universities and industrial enterprises, and improve the quality of education. Therefore, effective organization and systematic support of the process of distance pedagogical practice in the direction of technological education is of great importance.

4. Conclusion

Thus, distance pedagogical practice serves as an effective tool for improving the quality of technological education, strengthening cooperation between universities and industrial enterprises, and for the professional and personal development of the student. Its systematic organization and support create the foundation for the future specialist.

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