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DEVELOPING STUDENTS' RESEARCH COMPETENCE IN THE CONTEXT OF DIGITAL PEDAGOGY

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Abstract

This article discusses the theoretical and practical foundations of developing students' research competence in digital pedagogy. As a result of the widespread introduction of digital technologies into the educational process, students' opportunities for independent research, information analysis, problem solving, and scientific research activities are expanding. The importance of digital educational tools, innovative pedagogical technologies, and project activities in developing research competence is also substantiated.

Keywords: Digital pedagogy, research competence, digital technologies, innovative education, student, independent learning, research activity, competency-based approach.

Introduction

One of the important tasks facing the modern education system is to develop students' independent thinking, problem analysis, and scientific research skills. As a result of the development of digital technologies, the content and forms of the educational process are changing radically. Digital pedagogy, as an innovative model of education, creates broad opportunities for organizing students' research activities.

Today, the formation of research competence in students is one of the important factors in improving the quality of education. This competence includes the



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student's ability to identify a problem, collect and analyze data, draw conclusions, and apply the results in practice.

Relevance of the topic

In the conditions of a digital society, a sharp increase in the volume of knowledge and an increase in information sources require students to have the skills to conduct independent research and work effectively with information. Therefore, the development of research competence is considered one of the priority tasks of the education system. Digital pedagogy is an important tool for effectively organizing this process.

Research Objectives

To identify pedagogical opportunities for developing students' research competence in digital pedagogy and to develop scientific and practical recommendations for its improvement.

Research Methods

- The following methods were used in the research process:
- • analysis of scientific and pedagogical literature;
- • pedagogical observation;
- • comparative analysis;
- • systematic approach;
- • generalization and conclusion methods.
- Main part
- The essence of research competence



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• Research competence represents a person's ability to conduct scientific research, identify a problem, collect, process data and draw informed conclusions. This competence consists of the following components:

- • identifying a problem and posing research questions;
- • searching and sorting information;
- • analyzing data;
- • critical thinking;
- • presenting results;
- • reflection and self-assessment.
- Opportunities of digital pedagogy
- Digital pedagogy creates the following opportunities for the development of students' research activities:
 - use of electronic educational platforms;
 - refer to online libraries and databases;
 - working with virtual laboratories;
 - use of artificial intelligence tools;
 - conducting research on the basis of remote cooperation;
 - organization of digital presentation and project activities.

These opportunities activate students' independent learning and scientific research activities.

Effective ways to develop research competence

The following methods are effective in digital pedagogy:

Project education technology

The project method develops students' skills of independent problem solving, information gathering and presentation of results. In the process of working on projects, students will carry out real research activities.

Problematic education



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Muammoli vaziyatlar asosida tashkil etilgan ta'lim o'quvchilarning tahliliy va tadqiqotchilik qobiliyatlarini rivojlantirishga xizmat qiladi.

Web-quest texnologiyasi

Web-quest usuli internet resurslari asosida ma'lumot izlash va ularni tahlil qilishga yo'naltirilgan bo'lib, tadqiqotchilik kompetensiyasini shakllantirishda samarali vosita hisoblanadi.

Use of artificial intelligence tools

Artificial intelligence technologies help students search for, analyze and organize research processes. However, it is necessary to form a critical approach to their use.

The following problems are observed in practice:

- insufficient level of digital literacy;
- improper use of Internet resources;
- weak skills in critical evaluation of information;
- limited knowledge of research methodology;
- shortcomings in the digital competencies of teachers.

To develop research competencies:

1. Widely introduce digital technologies into the educational process.
2. Use of project-based and research-based teaching methods.
3. Develop information and media literacy of students.
4. Use of virtual laboratories and electronic resources.
5. Establish targeted use of artificial intelligence tools.
6. Regularly improve the digital competencies of teachers.

The analysis showed that the educational process organized on the basis of digital pedagogy develops in students:

- independent research skills;
- critical and analytical thinking;



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- scientific research skills;
- information processing competencies;
- creative approach.

Conclusion

Developing students' research competencies in digital pedagogy is one of the priority areas of modern education. The effective use of digital technologies and innovative pedagogical methods develops students' abilities to conduct independent research, scientific thinking and problem solving. Therefore, the widespread introduction of research-based teaching technologies in the educational process should be considered an urgent pedagogical task.