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DEVELOPING STUDENTS' SKILLS IN ORGANIZING PROJECT-BASED ACTIVITIES THROUGH EXTRACURRICULAR WORK IN TEACHING NATURAL SCIENCES.

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ANNOTATION

This article analyzes the issue of developing students' project-based work organization skills through extracurricular activities in the process of teaching natural sciences. It highlights the pedagogical significance of project-based activities in teaching natural sciences, as well as their role in developing students' independent thinking, research abilities, and creative activity. In addition, effective forms and methods of organizing project-based activities during extracurricular sessions are considered. Based on the research findings, it is substantiated that the use of project-based activities in teaching natural sciences plays an important role in deepening students' knowledge, developing their practical skills, and guiding them toward independent learning.

Keywords: natural sciences, extracurricular activities, project-based learning, primary education, research skills, innovative pedagogy, environmental education, practical learning, independent thinking.

INTRODUCTION

In the modern education system, developing students' independent thinking, creative activity, and ability to analyze problems is considered one of the key tasks. Especially in the process of teaching natural sciences, it is important to engage students in activities such as observation, experimentation, and analysis of results. Therefore, it is necessary not to limit the educational process only to classroom lessons, but also to effectively organize extracurricular activities.

Extracurricular activities not only help reinforce students' knowledge but also contribute to the development of their research and creative abilities. In this process, organizing project-based work helps students develop skills such as independent inquiry, problem-solving, and the ability to justify their opinions.

The modern education system requires not only the acquisition of theoretical knowledge but also the formation of competencies to apply this knowledge in real-life situations. From this perspective, the use of innovative pedagogical approaches, particularly project-based learning technologies, in teaching natural sciences is of great importance. Project-based learning ensures students' active participation in identifying problems, conducting independent research, and finding solutions.

In the process of studying natural sciences, it is one of the important pedagogical tasks to directly familiarize students with natural phenomena, encourage observation, and conduct experiments. In this regard, extracurricular activities play a special role, as limited time and opportunities during lessons do not always allow for the full implementation of practical activities. Extracurricular sessions provide students with broader opportunities for research, experimentation, and creative engagement.

At the primary education stage, it is especially important to develop students' interest in nature, as well as their observation and research skills. Therefore, project-based work organized through extracurricular activities in teaching natural sciences serves as an effective means of enhancing students' cognitive activity, developing independent thinking, and increasing their interest in the learning process.

The Importance of Project-Based Activities in Teaching Natural Sciences Natural sciences are aimed at studying the relationships between humans and nature, and practical activities play a crucial role in their teaching. Students should learn about natural phenomena not only theoretically but also through observation and experimentation.

Project-based activities provide exactly such opportunities. Work organized on the basis of projects enables students to identify problems, study them, collect information from various sources, conduct experiments, and present final results. This process develops students' independent thinking, logical analysis, and creative approach.

Moreover, project-based activities help students develop teamwork, communication, and the ability to defend their ideas. As a result, students can connect their knowledge with practical application.

The use of project-based activities in teaching natural sciences is an important pedagogical tool for enhancing students' cognitive activity. This approach allows students to integrate theoretical knowledge with practical experience. During project-based learning, students independently search for information, conduct observations, and draw conclusions, which leads to the development of analytical thinking and research skills.

Project-based activities also help students gain a deeper understanding of natural phenomena. For example, they can work on projects related to plant growth, the water cycle, or environmental issues, based on practical observations and experiments. Through such activities, students understand natural processes not only theoretically but also through real experience.

In addition, project-based activities contribute to the development of students' social and communicative skills. While working on projects, students collaborate, exchange ideas, and work together to achieve common goals. This fosters teamwork, responsibility, and the ability to justify their opinions.

Furthermore, project-based activities help develop students' environmental awareness. Through projects related to natural sciences, students begin to understand the importance of environmental protection, rational use of natural resources, and careful attitude toward nature. This contributes to the development of their ecological consciousness.

In general, project-based activity is an effective pedagogical approach in teaching natural sciences, as it enhances students' cognitive activity, develops independent thinking and creativity, and connects knowledge with practical application.

Pedagogical Opportunities of Extracurricular Activities. Extracurricular activities are forms of educational and upbringing work organized outside classroom hours, based on students' interests and needs. Such activities expand students' knowledge, encourage independent inquiry, and develop creative thinking.

In studying natural sciences, extracurricular activities can be organized in the following forms:

science clubs;

nature observation activities;

small-scale research projects;

environmental campaigns;

experiments and laboratory work;

nature-related projects.

These activities not only increase students' interest in nature but also help form environmental culture.

Stages of Organizing Project Work. To effectively organize project-based work during extracurricular activities, it is important to follow certain stages:

1. **Identifying the problem** – students define a problem within the topic being studied (e.g., environmental protection, water conservation, plant care).
2. **Setting goals and objectives** – students determine what results they aim to achieve through the project.
3. **Collecting information and conducting research** – students gather data from various sources, carry out observations and experiments.
4. **Analyzing results** – collected data is analyzed and conclusions are drawn.
5. **Presenting results** – students present their projects to classmates or teachers, developing communication and reasoning skills.

Skills Developed Through Project-Based Activities Project-based work organized through extracurricular activities develops several important skills in students, including:

independent thinking and inquiry;
problem analysis and solution finding;
teamwork;
information searching and selection;
data analysis and conclusion making;
clear expression of ideas.

These skills are also essential for students' future educational activities.

CONCLUSION

Effective organization of extracurricular activities in teaching natural sciences helps deepen students' knowledge, engage them in research activities, and develop independent thinking skills. In particular, the use of project-based activities allows students not only to acquire theoretical knowledge but also to apply it in practice.

Therefore, integrating extracurricular activities and project-based learning in primary education is an important factor in developing students' intellectual, creative, and research potential.

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