THE IMPORTANCE OF ORGANIZING PRACTICAL WORK IN THE PROCESS OF TEACHING NATURAL SCIENCES IN PRIMARY GRADES

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Abstract: This article highlights the importance of organizing practical work in the process of teaching natural sciences in primary class students in the formation of students' knowledge, skills and competencies. Through practical activities, students develop an interest in the environment, observation, independent thinking and scientific thinking. The article provides recommendations for planning and conducting practical work and methods for increasing their effectiveness. The results of the study substantiate the important role of practical work in the effective teaching of natural sciences in primary education.

INTRODUCTION

Currently, the reforms being carried out in the education sector, particularly the approaches aimed at improving the quality of primary education, demand the formation of solid knowledge, practical skills, and creative thinking in students. The teaching of natural sciences in primary grades plays a crucial role in this regard, as it is at this stage that children develop an interest in the environment, observational skills, and the foundations of a scientific worldview. Practical work, in turn, activates students' cognitive interest in the process of learning natural sciences and helps to connect theoretical knowledge with real-life experience.

In accordance with the Decree of the President of the Republic of Uzbekistan No. 4805, dated August 12, 2020, "On measures to improve the quality of continuous

education and the effectiveness of science in the fields of chemistry and biology," curricula have been established for the introduction of natural sciences in schools [1].

According to the sixth clause of the Decree, it is stipulated that in the 2020□2021 academic year, a variable curriculum for natural sciences will be developed on a trial basis for students in general secondary schools who are interested in chemistry and biology, and the share of natural sciences will be increased for the purpose of developing practical skills [2].

In the modern educational process, it is a crucial task to develop not only theoretical knowledge but also practical skills in students. Natural sciences, in particular, provide an opportunity to develop abilities such as gaining real-world experience, observation, analysis, and drawing conclusions. Therefore, by increasing the share of natural sciences in primary education and integrating them with practical activities, it is possible to foster scientific thinking, ecological awareness, and independent thinking skills in students. This, in turn, serves as an important factor in enhancing the quality and effectiveness of the educational process.

MATERIALS AND METHODS

Currently, there is a growing trend in our country's education system to teach natural sciences in an integrated manner, that is, as a single subject. Specifically, in primary grades, elements of biology, physics, chemistry, and geography are not taught as separate subjects but are instead taught under the single name of "Natural Science" or "Science." This approach, firstly, aligns with the students' age characteristics and cognitive levels; and secondly, it allows them to acquire knowledge in a logical sequence and in an interconnected way.

The natural sciences are consolidated into a single discipline, generalized under the name "SCIENCE" or "natural science," ensuring a logical progression. Natural sciences are taught as a single, unified subject up to the 6th grade [3].

Teaching natural sciences in an integrated manner helps students understand the intrinsic connections between natural phenomena and objects, form a holistic

scientific understanding, and realize the relevance of science to everyday life. Furthermore, this integrative approach aligns with the requirements of modern STEAM education, developing students' analytical thinking, problem-solving skills, and scientific mindset.

Practical sessions in the natural sciences are the most crucial and effective part of the learning process. Especially for primary school students, grasping abstract concepts can be challenging, but through hands-on activities, they can comprehend complex phenomena based on their own experiences. For example, rather than simply providing theoretical information about water evaporation, light refraction, or plant growth, knowledge becomes much more permanent if students observe these processes with their own eyes and conduct experiments with their own hands.

The use of practical methods is linked to the active engagement of students' sensory and effector systems. Practical methods create opportunities for a deeper understanding of the learned material and for the development of skills and competencies. When applying practical methods, the students' own activity becomes the source of knowledge. Such methods include oral and written exercises, laboratory work, and activities conducted on school grounds, in a "living nature corner," and as part of extracurricular activities [4].

Types of practical methods include:

1. Students creating various objects using handout materials.
2. Drawing pictures.
3. Recognizing and identifying natural objects.
4. Observing and recording phenomena.
5. Conducting experiments (solving problems through experimentation) [5].

Practical activities include small experiments, observations, nature walks (field trips), using models and mock-ups, and simple laboratory work. These activities encourage student engagement, transforming them from passive listeners into active participants in the learning process. Therefore, it is essential to pay sufficient attention to practical activities when teaching natural sciences, as they help students

develop a scientific worldview, experience-based thinking, and the ability to independently find solutions to problems.

DISCUSSION AND RESULTS

Organizing practical work in the process of teaching natural sciences in primary grades plays a crucial role not only in reinforcing theoretical knowledge but also in shaping students' observation skills, thinking, and scientific worldview. Through this process, children learn to directly observe, analyze, and draw conclusions about phenomena and processes in their environment. Young children, in particular, have a strong interest in experimenting and connecting their knowledge with activities. Therefore, practical work helps to foster a positive attitude towards the natural sciences.

The Importance of Practical Activities: There are several key aspects of teaching natural sciences through practical application for primary grades [6]:

1. **Facilitates understanding** □ Students grasp topics better not only by hearing about them but also by seeing them with their own eyes and doing them in practice.
2. **Develops creative and critical thinking** □ Experiments in the natural sciences create opportunities for students to identify problems, find solutions, and think independently.
3. **Increases interest** □ Through practical activities, lessons become interactive and enjoyable, increasing students' interest in the natural sciences.
4. **Develops skills** □ Through conducting experiments, observing, and analyzing results, students develop foundational skills for scientific inquiry.

In primary education, practical activities hold a special place in the process of teaching natural sciences. They are an important tool for connecting theoretical knowledge with real-life phenomena and for developing skills of observation, analysis, and conclusion-drawing in students. Through practical activities, students see what they have learned from books with their own eyes, perform it with their own hands, and confirm it through experience. This leads to the retention of knowledge in long-term memory. For example, when studying the topic "The Impact of Plants on the Environment," designed for 4th-grade students, they apply their

theoretical knowledge from the textbook in a practical setting. They study surrounding plants through observation, thereby integrating and reinforcing both practical and theoretical knowledge.

Practical activities used during lessons increase students' interest and engagement, and also help develop 21st-century skills such as communication, critical thinking, collaboration, and creativity. For young learners, movement, games, experiments, and diverse activities are crucial during lessons. Practical activities fully meet this requirement. As a result, students become invested in the activities they participate in, fostering a positive attitude toward the lesson. At the same time, practical activities also help prepare children for real life. In this process, children become familiar with the environment, natural phenomena, and ecological problems. This helps them learn to be mindful and develop a responsible attitude towards nature.

CONCLUSION

The effective organization of practical work in teaching natural sciences at the primary education stage enhances students' interest in knowledge and shapes them into active observers, experimenters, and thinkers. Practical activities develop skills such as independent thinking, problem-solving, and understanding cause-and-effect relationships. This not only deepens theoretical knowledge but also enables students to connect it with real-life situations.

The research findings indicate that through practical work, students develop a conscious attitude towards nature, an ecological culture, and knowledge based on experience. At the same time, these activities serve to invigorate the lesson process by allowing teachers to use innovative approaches.

Thus, organizing practical work correctly and on a methodological basis in teaching natural sciences in primary grades is a crucial factor in harmonizing modern educational requirements, the STEAM approach, and the natural curiosity of students.

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