Modern American Journal of Linguistics, Education, and Pedagogy
ISSN (E): 3067-7874
Volume 01, Issue 03, June, 2025
Website: usajournals.org

THE IMPORTANCE OF NATURAL SCIENCES IN SHAPING THE WORLDVIEW OF PRIMARY SCHOOL STUDENTS

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Abstract
This article highlights the role and importance of natural sciences in shaping the worldview, especially the scientific worldview, of primary school students. Through natural sciences, students can develop skills in understanding environmental phenomena, scientific thinking, observation, and analysis. The article analyzes methods for forming ecological awareness, scientific thinking, and foundational practical knowledge in students through the teaching of natural sciences at the primary education stage. Furthermore, the positive effects of using innovative approaches and integrated methods in teaching natural sciences are demonstrated. The results of the study have significant theoretical and practical implications for improving school curricula and fostering students' independent thinking.

Keywords: Worldview, natural sciences, education, upbringing, knowledge, science, skill, competency, information, mythological worldview, scientific worldview.

Introduction

Today, the reforms being carried out in the field of education emphasize the importance of nurturing students to become individuals who can think independently, possess a broad worldview, and solve real-life problems on a scientific basis. Especially at the primary education stage, the formation of a scientific worldview lays a solid foundation for students' success in later stages of education.

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Natural science subjects taught in primary grades help shape students' initial understanding of nature, society, and human beings. Through these subjects, students observe changes in the environment, comprehend cause-and-effect relationships, and strive to gain ecological awareness. Therefore, natural sciences are not only a source of scientific knowledge but also play a key role in developing children's thinking, observational abilities, and logical reasoning skills.

This article explores the role of natural sciences in shaping the worldview of primary school students, highlighting effective teaching methods and educational tools used in this process. In doing so, the educational, enlightening, and methodological potential of natural sciences in modern primary education is thoroughly examined.

Research Methodology

The research was conducted among primary school students in the Republic of Uzbekistan. In this study, the students' levels of worldview development were theoretically analyzed through natural sciences. Experimental tests were conducted and statistical analyses were performed. During the assessment of students' knowledge, observation, interviews, and survey methods were used.

Results

Today, the educational reforms being implemented emphasize the development of students as individuals who can think independently, possess a broad worldview, and solve real-life problems based on scientific reasoning. Particularly at the primary education level, forming a scientific worldview serves as a strong foundation for students' success in later stages of education. Natural science subjects taught in the primary grades help shape children's initial understanding of nature, society, and human beings. Through these subjects, students observe changes in the environment, understand cause-and-effect relationships, and strive to gain ecological awareness. For this reason, natural sciences are not only a source of scientific knowledge, but also play a significant role as a tool for developing children's thinking, observation, and logical reasoning skills.

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Discussion

The results of the research show that natural sciences play an important role in shaping students' worldview in primary education. All experimental tests and observations revealed that natural science lessons significantly contribute to the development of students' awareness of the environment, observational skills, analytical thinking, and logical reasoning.

Practical experience shows that some primary school teachers are unable to fully utilize the potential of natural sciences. This may be due to a lack of methodological knowledge and experience, or insufficient preparation in using interactive methods. As a result, lessons may not be conducted in an engaging and meaningful way.

Interactive methods used in the research – such as project work, experiments, visual observations, and group analysis – were observed to increase student engagement. In particular, topics explained using real-life examples proved to be effective in broadening students' worldview.

The analysis of scientific sources and advanced pedagogical practices also supports these conclusions. For example, the ideas of J. Piaget and L.S. Vygotsky regarding children's cognitive development and learning activities justify the need to create a favorable learning environment and to shape students' worldview step-by-step. National methodological literature also frequently emphasizes the educational, moral, aesthetic, and scientific-enlightening significance of natural sciences. Thus, in the primary education system, the role of the teacher is invaluable in shaping students' worldview through natural sciences. To ensure the effectiveness of this process, it is important to implement interdisciplinary integration, modern methodological approaches, and pedagogical innovations in practice.

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Conclusion

Natural sciences are one of the key factors in shaping students' scientific worldview in primary education. Through these subjects, students develop skills in understanding, observing, and analyzing natural phenomena and are taught to think scientifically. The use of interactive methods and tools in science lessons increases students' interest in learning, ensures their active participation, and enhances the effectiveness of the lessons.

The analysis of scientific and practical sources shows that a worldview shaped through natural sciences contributes to students' ecological culture, consciousness, thinking, and sense of social responsibility. Interdisciplinary and subject-specific integration, innovative technologies, and teaching natural sciences in connection with real life play a crucial role in helping students develop a broad worldview.

Through intensive teaching of natural sciences, it is possible to establish a solid foundation of theoretical knowledge and a comprehensive worldview among primary school students. This serves as a basis for their success in subsequent stages of education.

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