



USE OF INTERACTIVE METHODS IN DEVELOPING A UNIVERSAL ECOLOGICAL WORLDVIEW AMONG STUDENTS IN THE CONTEXT OF GLOBALIZATION

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Abstract

This article examines the psychological and pedagogical foundations of developing a universal ecological worldview among students in the context of globalization. The study analyzes the impact of climate change on human psychological well-being, behavior, and environmental consciousness. Particular attention is paid to the role of interactive teaching methods in fostering environmental awareness, ecological culture, and environmental responsibility among university students. The effectiveness of innovative pedagogical technologies in environmental education and their contribution to sustainable development are substantiated. The findings highlight the necessity of integrating modern educational approaches into higher education to promote ecological competence and environmentally responsible behavior.

Keywords: Ecological worldview, environmental awareness, globalization, climate change, interactive methods, environmental education, ecological culture, sustainable development, innovative technologies.

Introduction

Today, it is evident that many individuals do not fully recognize the extent of the changes occurring as a result of climate change. For example, rising sea levels significantly contributed to the devastating impact of Hurricane Sandy, affecting approximately 83,000 residents of New York and New Jersey. According to scientific assessments, such consequences would have been considerably less severe under stable climatic conditions. Moreover, tens of thousands of people worldwide are already suffering from and dying as a result of intensified heat waves caused by global warming.



Climate change has also become one of the factors contributing to migration flows and refugee crises, thereby influencing political and social stability in different regions of the world. As with many other global challenges, the most vulnerable populations are disproportionately affected by environmental changes. International studies indicate that concerns about climate change are more prevalent among women, residents of small communities, and individuals with lower socioeconomic status.

Long-term experimental research demonstrates that exposure to high temperatures is associated with increased irritability, emotional instability, and a greater tendency toward aggressive behavior. From a psychological perspective, the impact of climate change can be categorized into two primary dimensions. The first includes emotional consequences such as anxiety, depression, and mood disturbances. The second encompasses cognitive and affective changes resulting from direct or indirect exposure to adverse environmental conditions, including declining cognitive performance, increased incidence of illness associated with air pollution and extreme temperatures, heightened impulsivity, and aggressive behavior.

The diverse psychological consequences of environmental change require the development of reliable quantitative indicators and the expansion of interdisciplinary research aimed at assessing and mitigating these effects. Environmental grief, eco-anxiety, and psychological distress associated with natural disasters represent increasingly significant areas of scientific inquiry. These phenomena are closely linked to uncertainty about the future, the loss of familiar environments, and concerns regarding environmental degradation.

Empirical studies reveal that the increasing frequency of extreme weather events and natural disasters contributes to elevated levels of stress, depressive disorders, and post-traumatic stress symptoms. Secondary psychological trauma, feelings of guilt, substance abuse, and suicidal ideation have also been documented among affected populations. Women and children appear particularly vulnerable to these psychological consequences. Common reactions to natural disasters include sadness, insomnia, anxiety, distrust, emotional instability, and persistent psychological distress.

The Paris Agreement entered into force in November 2016, representing a global commitment by nearly 200 countries to reduce atmospheric carbon dioxide emissions and achieve carbon neutrality by 2050. This international initiative reflects the



growing recognition of climate change as a critical challenge requiring collective action and sustainable solutions.

Research conducted in Germany involving more than 22,000 participants demonstrated that the number of emergency psychiatric visits was significantly higher during warmer days compared to cooler periods. Such findings provide further evidence of the relationship between environmental conditions and mental health outcomes.

Russian environmental psychologists, particularly S.D. Deryabo, have extensively investigated the development of environmental attitudes and ecological consciousness. Deryabo emphasized the importance of understanding the negative consequences of human activities on nature and highlighted the need to cultivate environmental awareness and responsibility. His research underscores the interdependence between humans and the natural environment and advocates for the formation of environmentally responsible behavior through education and psychological development.

Similarly, D.S. Yermakov, in his work “Psychology of Sustainable Development: Problems and Prospects,” explored the relationship between human psychology and sustainable development. He argued that sustainable development should be viewed not only from economic and social perspectives but also through the lens of psychological growth, environmental responsibility, and the capacity for constructive decision-making.

In the Republic of Uzbekistan, ensuring environmental security, improving ecological conditions, preserving a favorable environment, and enhancing the effectiveness of environmental governance have become priority areas of public policy. The successful implementation of these objectives requires the modernization of higher education systems and the integration of innovative educational technologies into teaching and learning processes. The application of interactive teaching methods in environmental education contributes significantly to the development of students’ ecological competence. Interactive learning encourages active participation, critical thinking, collaborative problem-solving, and the practical application of environmental knowledge. As a result, students become more capable of understanding environmental challenges and adopting environmentally responsible behaviors. Modern educational technologies facilitate student-centered learning and support the development of creativity, innovation, and independent inquiry. In



environmental education, these approaches enable students not only to acquire theoretical knowledge but also to engage in meaningful experiences that strengthen their ecological awareness and commitment to sustainable development. Consequently, the effective use of interactive methods in higher education serves as a powerful instrument for cultivating a universal ecological worldview among students and preparing future generations to address the environmental challenges of the twenty-first century.

The concept of educational technology first emerged in the United States in the mid-twentieth century. Until the mid-1950s, it was commonly referred to as "educational technology" and primarily denoted the use of technical equipment and audiovisual tools in the teaching process. During the 1950s and 1960s, the concept was closely associated with programmed instruction. In the 1970s, the term "pedagogical technology" came into widespread use and was understood as a systematically designed instructional process aimed at achieving clearly defined educational objectives and guaranteeing learning outcomes.

Since 1979, the practical application of the principles of construction ecology has played a significant role in preventing environmental crises and disasters, as well as in resolving ecological conflicts between society and nature. At present, the primary practical objectives of environmental science include: (1) providing students with an optimal ecological environment; (2) ensuring the construction of environmentally safe buildings; (3) promoting the rational use of natural resources alongside the development of waste-free technologies; (4) maintaining the sustainability and high productivity of artificial ecosystems, particularly in agriculture; and (5) implementing environmental protection measures through ecological education and environmental awareness programs for students.

Nature represents an inexhaustible source of wealth and knowledge. The world of plants and animals serves as an essential resource for the holistic development of young individuals, helping them understand the mysteries of natural phenomena and supporting their intellectual and moral growth. Environmental education contributes to the implementation of all forms of upbringing and personal development. The application of advanced teaching methods in classroom instruction varies according to the objectives and content of each lesson.

The integration of modern educational technologies into environmental science education provides several important advantages. First, it ensures a student-centered



approach to learning. Second, it enables educators to consider different levels of students' readiness for modern education and facilitates the adoption of evolving educational technologies. Third, it promotes the development of students' personalities through active participation in the discovery of new knowledge and innovative problem-solving activities.

The effective organization of environmental science instruction requires a comprehensive understanding of the content, forms, and tools of pedagogical technologies. The appropriate selection and efficient use of these technologies, together with the continuous study and implementation of educational innovations, contribute significantly to achieving guaranteed learning outcomes and enhancing the practical value of the educational process.

Since education is a complex and multifaceted process, its effectiveness depends on several interrelated factors, including the level of activity and engagement demonstrated by both teachers and students, the availability of educational resources, and the organizational, scientific, and methodological quality of the instructional process.

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