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FORMATION OF PERSONALITY THROUGH THE PRISM OF ENVIRONMENTAL EDUCATION OF STUDENTS: PROBLEMS AND PROSPECTS FOR DEVELOPMENT

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Purpose: to analyze the impact of environmentally oriented measures on the formation of environmental awareness among students of general education schools in Ternopil city.

Materials and Methods. The research methods include surveys, analysis, synthesis, and generalization.

Results. The impact of environmentally focused activities on the formation of environmental awareness among students of general education schools is a significant and multifaceted aspect of modern education. Lessons, projects, and events dedicated to ecology help students gain knowledge about the environment, environmental problems, and their causes and consequences. This contributes to the formation of awareness of the importance of preserving natural resources and biodiversity. Younger students are less interested in outdoor activities, but this interest increases with age. Students of all age groups are well aware of the harm that human activities can cause to nature.

All surveyed students actively participate in nature conservation activities, particularly sorting waste with their parents and throwing plastic into designated bins. The highest interest in nature conservation was shown by students aged 15–17.

Conclusions. Children's awareness of environmental issues and rules of behavior in nature is high. The survey confirms students' interest in learning about the environment and understanding the "nature-human" problem in the modern world. The ability to apply theoretical knowledge and practical skills gained in the field of ecology to solve practical and theoretical tasks encountered in daily life plays a significant role in the formation of young people's environmental awareness.

KEY WORDS: ecological education; ecological awareness; elements Earth; Fire; Water; Air.

Introduction. Today, the issues of sustainable development and environmentally conscious use of natural resources are extremely important [1, 2, 3]. For Ukraine, environmental problems in the eastern regions have intensified due to the war [4]. This suggests that forming environmental awareness among young people will help prevent a global environmental catastrophe [5, 6, 7]. This is why international public organizations and environmental projects implemented today under UN, AIESEC, and BUP initiatives emphasize the need to increase awareness and understanding of each person's role in mitigating socio-environmental problems [8, 9, 10].

In 2000, the UN identified the course for sustainable development as a global priority. Seventeen Global Goals were established, with Goals 6, 11, 14, and 15 being dedicated to environmental issues. Achieving these goals by 2030 will contribute to the world stopping "one step away from the point of no return" [11, 12].

The aim of this study is to analyze the impact of environmental measures on the formation of environmental awareness among students of general education schools in Ternopil city.

Materials and Methods. The research methods include surveys, analysis, synthesis, and generalization.

Research Results and Discussion. International environmental projects are being implemented at the I. Horbachevsky Ternopil National Medical University [13, 14, 15], including the "Four Elements of Nature: Harmony in Everyday Life" project, in cooperation with the University of Rzeszów (Poland), and the newly launched "SUPPORT4U" project within the Baltic University Program (Sweden).

The purpose of the project is to educate young people about the environment, instill a high level of environmental culture and awareness through environmental activities. "Earth, Water, Air, and Fire are the four elements that connect everything in Nature and us with Nature" – this statement is the project's main slogan. Conscious and careful treatment of nature should be instilled from childhood in the family, kindergarten, and school. It is only possible if children develop an environmental worldview in which humans can interact with the natural world by understanding its laws and cooperating with nature rather than controlling it.

The target audience consists of general education school students. This approach is based on the idea that schoolchildren are more open to communication and acquiring new knowledge through exciting experiments presented in a playful manner. They

share what they have learned with their parents, friends, and relatives, spreading the information. This expands the audience of those informed about environmental issues and our role in solving them.

The first phase of the project involved presenting the elements of nature through engaging and informative presentations, including "The Magic of the Earth Element", "Fire: Friend or Enemy?", "Who Needs Air?", "Water is Life", as well as scientific experiments and educational activities.

The Earth element was presented through informative content highlighting the main concepts about the Earth's structure, focusing on soil, forests, and inhabitants of the Earth's crust. The presentation included both the positive and negative impacts of the Earth element on humans and demonstrated how this element connects all of nature and humans to it. The presentation also discussed the use of soil by humans in various sectors, such as agriculture and medicine. The beneficial role of the Earth element was demonstrated through slides on the medicinal properties of mud and its use in pelotherapy. Issues of deforestation and its negative impact on ecology were also raised, emphasizing the importance of the planet's green cover. The presentation was also dedicated to the soil's animal world, demonstrating both positive and negative roles for humans. Many slides focused on helminths as human parasites, highlighting their morphological characteristics, sources of human infection, diseases caused by them, and the importance of preventing helminthiasis.

The Fire element was introduced through an engaging presentation that described the mythological origins of the Fire element among different peoples of the world, as well as the chemical and physical properties of fire. The presentation included a video showing one of fire's properties – its ability to burn with colorful flames. The main focus was on the positive and negative impacts of the Fire element on humans and its connection with nature. One section of the presentation was dedicated to the use of fire in medicine, describing the effects of warming compresses and fire massage on the human body.

The Air element was presented in a comprehensive presentation that explained that air is one of the most important natural elements, playing a significant role in human life. The slides showed the properties of air, its chemical composition, and its physical qualities. The positive and negative impacts of the Air element on human health and the surrounding nature were described, along with the influence of human activities on the quality of the atmosphere. Special attention was given to the importance of oxygen for health and its medical uses, as well as the industrial use of carbon dioxide and its harmful effects when accumulated in excess in the atmosphere. The presentation demonstrated how air pollution with harmful gases can affect the human body, causing various

diseases. The need to preserve air quality for environmental harmony was emphasized.

The Water element was presented in a way that detailed the mythological origins of water among various peoples, explaining how water appeared on Earth. The physical and chemical properties of water were discussed, including how much water exists on Earth and its presence in living organisms. The presentation also covered the positive and negative effects of human activities on water, as well as its benefits and dangers. A section of the presentation was dedicated to the use of water in medicine, describing various types of baths such as pine, pearl, and iodine-bromine baths for the treatment of various diseases.

In addition to the theoretical material in the presentations, pupils had the opportunity to participate in organized educational activities. For example, students conducted scientific experiments on the physical and chemical properties of fire, water, air, and soil, learning their importance for humans through activities like "Heartburn Fizz", "Pepper Water", "Fiery Breath", "Healthy Breathing", "Sea in a Glass", "Fiery Foam", "Finding Sand and Clay in the Soil", "Searching for Air in the Soil", "Lava Lamp", "Home Volcano", "Oxygen-Free Dome", "Mineral Salts", and "Come Out of Water Dry". The educational games "Clever", "Be attentive", "Erudit", "Plutanka", "Guess the word", "Tak-Ni'shki", "Fire Friend", "Water is an Elixir of Life" were held with the pupils, quizzes were organized, in particular "Rukavychka", "Cloud", "Sunshine", "It's interesting to know", "Where is the droplet hiding?", "Find Out the Word". Pupils solved rebuses, puzzles and cross-words on the topic "4 elements of Nature – Life in the Harmony of Existence", "Fire", "Water", "Air", "Earth", "Earth and Human", "Fire-Human-Nature", "Water in Nature. Water Properties", "Sun", "Climate Changes", "Cloud", "Gas laws", "Fire Friend", "Confusing Game", "Be Attentive", "Balloons". Various activities were also conducted in English, in particular: survey blitz "Fire and Safety", "Earth and Ecology", language quest "Where is Fire?", "Friendship with Earth", a moment of curiosity "Do you know that...". A scientific and educational film about helminths and their danger to the human body "Dangerous Helminths" was prepared for pupils, as well as macro- and microspecimens for demonstration under a light microscope.

To assess the impact of environmental education on pupils of general education schools in Ternopil city, an ecological awareness survey was conducted among pupils from grades 3, 4, 5, and 6. The survey involved 120 persons aged 8–17 and was divided into three groups: 40 pupils of primary school (4th grade, ages 8–10), 40 pupils of middle school (grades 5–9, ages 11–15), and 40 pupils of high school (grades 10–11, ages 15–17).

Analysis of the survey showed that 95% of respondents love nature, regardless of age. Interest in

outdoor activities grows with age. The favorite natural element for younger (58%) and middle school students (75%) is fire, likely due to their curiosity about this element. Older students (56%) prefer water as their favorite element due to a better understanding of natural processes. All age groups are well aware of the harm that human activities can cause to nature.

The willingness to participate in environmental protection activities also increases with age. Older students are more inclined to take part in environmental protection activities, with 97% ready to participate regularly, compared to only 34% of younger students.

All surveyed students actively participate in nature conservation activities, particularly sorting waste with their parents and throwing plastic into designated bins. The highest interest in nature conservation was shown by students aged 15–17.

Thus, the impact of environmentally oriented activities on the formation of environmental awareness among students of general education schools is a very important and multifaceted aspect of modern education. Lessons, projects, and events dedicated to ecology help students gain knowledge about the environment, environmental problems, and their causes and consequences. This fosters an understanding of the importance of preserving natural resources and biodiversity.

Environmental activities often include practical lessons such as tree planting, territory clean-ups, and monitoring water or air quality. Such activities help students not only theoretically but also practically immerse themselves in environmental issues, fostering a positive attitude towards nature. Through participation in various environmental activities, students learn how to handle waste properly, use resources efficiently, and reduce their environmental impact. This shapes their responsible attitude towards daily actions and decisions that can affect the environment.

Environmental projects and activities can be motivating and inspire students to take active steps. For example, participation in competitions, environmental campaigns, or volunteer actions can help students feel their role in changing the situation for the better.

Environmental topics can be integrated into various subjects – from biology and geography to literature and the arts. This allows students to see the connections between environmental issues and different aspects of life, making their learning more interesting and meaningful.

Involving students in the organization and implementation of environmental activities helps them develop leadership qualities and project management skills. It also fosters a sense of responsibility for their community and the surrounding environment. Students who receive environmental education can pass on their knowledge and skills to their families and friends, creating a multiplier effect and contributing to the formation of environmental awareness in a broader context.

Conclusions. Summarizing the results of the project team's work and the conducted survey, it is worth noting the following: children's awareness of environmental topics and rules of behavior in nature is high. The survey confirms students' interest in learning about the environment and understanding the "nature-human" problem in the modern world. Conducting interactive lessons is one of the key tools for encouraging and deepening knowledge in the educational process for further understanding of sustainable development goals. Conducting integrated lessons and increasing teaching hours can help develop environmental thinking skills and assist in choosing a future profession related to natural or environmental sciences. Thus, the ability to apply theoretical knowledge and practical skills gained in the field of ecology to solve practical and theoretical tasks encountered in everyday life plays a significant role in shaping young people's environmental awareness.

Prospects for Further Research. The presented research results provide a solid foundation for further development of environmentally oriented activities aimed at forming young people's environmental awareness. Environmental activities have great potential for shaping students' environmental consciousness and responsible behavior. It is important that such activities are systematic, diverse, and integrated into the educational process.

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ФОРМУВАННЯ ОСОБИСТОСТІ ЧЕРЕЗ ПРИЗМУ ЕКОЛОГІЧНОГО ВИХОВАННЯ УЧНІВ: ПРОБЛЕМИ ТА ПЕРСПЕКТИВИ РОЗВИТКУ

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Мета: проаналізувати вплив заходів екологічного спрямування на формування екологічної свідомості учнів загальноосвітніх шкіл міста Тернополя.

Матеріали та методи. Для досягнення мети дослідження використано метод анкетування, аналізу та синтезу, а також метод узагальнення.

Результати. Вплив заходів екологічного спрямування на формування екологічної свідомості учнів загальноосвітніх шкіл є дуже важливим і багатограним аспектом сучасної освіти. Заняття, проєкти та заходи, присвячені екології, допомагають учням отримати знання про навколишнє середовище, екологічні проблеми та їх причини й наслідки. Це сприяє формуванню уявлень про важливість збереження природних ресурсів і біорізноманіття. Молодші школярі менше зацікавлені у відпочинку на природі, проте з віком такий інтерес зростає. Учні всіх вікових категорій добре ознайомлені зі шкодою, яку може спричинити природі діяльність людини.

Усі опитані учні активно долучаються до збереження природи, зокрема, разом із батьками сортують сміття, викидають пластик в окремі, призначені для цього смітники. Найвищу зацікавленість у збереженні природи виявлено у школярів віком 15–17 років.

Висновки. Рівень обізнаності дітей з екологічної тематики та знання правил поведінки на природі є високим. Анкетування підтверджує зацікавленість учнів у пізнанні навколишнього середовища та розумінні проблеми «природа – людина» в сучасному світі. Здатність застосовувати теоретичні знання та практичні навички, набуті в галузі екології, для вирішення практичних і теоретичних завдань, які зустрічаються в повсякденному житті, відіграють значну роль у формуванні екологічної свідомості молоді.

КЛЮЧОВІ СЛОВА: екологічне виховання; екологічна свідомість; стихії Земля, Вогонь, Вода, Повітря.

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