THE ROLE OF ENVIRONMENTAL EDUCATION IN FOSTERING STUDENTS' COMPETENCE AND INVOLVEMENT

В статті розглядаються основні напрями екологічної освіти у вищих навчальних закладах, громадських та студентських молодіжних організаціях. Представлений результат соціологічного дослідження, проведенного серед студентів ВНТУ, розроблений конкретні рекомендації щодо підвищення екологічної відповідальності студентів. З досвіду роботи студентської організації ENACTUS зроблено висновок про можливість і доцільність організації ефективного екологічного навчання громадян щодо впровадження і використання енергозберігаючих технологій.

Ключові слова: екологічна освіта, опитування, сортування сміття, співробітництво, еко проект.

Considering the creating of a democratic, legal and socially-oriented state as a priority goal Ukraine steadily upholds the course of maintaining its cultural policy on the basis of full adherence to the norms and principals of international law, European values of integrity, collaboration and security. Ensuring full involvement of Ukraine in European and Euro-Atlantic integration, taking care of ecological security of citizens and sharing experience in teaching environmental education are likely to provide the solution of economic, social and cultural problems of Ukrainian citizens.

Environmental education is the teaching of individuals and communities to live in environment friendly society, to cultivate the ecological conscience, to enchance public environmental awareness.
Environmental education includes all efforts to educate the public including print materials, websites, media campaigns.

The current problems such as ecological security and waste management are so pressing that they demand a response from the entire education community. Educators have an ethical and personal responsibility to contribute to students’ awareness on environmental issues and to foster learners’ ability to make independent, responsible and informed choices considering the environmental factors. The goal of environmental education is to motivate students participate in the implementation of the projects and learn about waste management designing posters, distributing materials, collecting information and publishing the projects.

The students can master their language and communication skills and benefit from different education backgrounds and experience participating in the local and national conferences and workshops organized by the specialized university departments. Being members of the students organizations like ENACTUS, BEST, participants of EBEC and other contests and olympiads, the future engineers and managers have the unique opportunity to enrich their vocabulary and speaking comprehension, to develop the ability to express thoughts clearly and concisely, to improve communicative and managerial skills. This can lead to collaborate curriculum development and even team teaching, all of which are likely to provide professionally rewarding experiences.

Social and communicative competence in environmental issues can be acquired on the basis of different departments and faculties of higher educational establishments. An example of students involvement in making environmental decisions is a scientific sociological survey made by the graduates of VNTU Faculty of Management and Information Security in November 2017. [3, c. 6] The main goal of the project is to inform students about effective methods of the proper waste management and assist in educating young people to improve their lives in socially and environmentally sustainable way.

At present one of the most serious environmental problems Ukraine faces is the accumulation and inefficient management of wastes, especially solid household ones. Existing methods of waste management include collection, storage, recycling and utilization. Ukraine is among the
countries with the highest absolute volumes of formation and accumulation of wastes - 700-720 million tons annually. In Ukraine, landfills occupy more than 160 thousand hectares and all of them are completely filled - the total mass of accumulated waste exceeds 36 billion tons. In most European countries approximately 50-60% of domestic waste is subject to processing, while in Ukraine such indicators do not exceed 4.5%. [4 c. 18]

The solution of this problem can be waste sorting. Waste sorting is a process in which waste is divided into different groups. Waste sorting can be done manually at home or automatically split into areas for recovery of materials or mechanical biological treatment systems. Ukrainians do not sort waste mainly because they do not have special skills, knowledge and convenient infrastructure. In the majority of Ukrainian cities neither government nor business contributes to the development of competent sorting and further processing of waste.

Thus, there exists a contradiction between the further development of humanity to the safe environment and the successful solution of environmental problems, the distribution and waste recycling in particular.

University students, namely those living in dormitories, are not able to sort waste properly due to outdated waste collection system that does not involve separating rubbish into fractions. The other problem is the lack of motivation and understanding of the necessity of separate sorting.

The overall goal of the project is to improve social and practical skills and cooperative efforts of students in making environmental decisions. To accomplish this purpose the main objectives are to establish an effective, realistic methods of proper waste sorting in residential districts, to explain the importance of this work to the community residents and to create a sustained social effort to continue the new waste disposal programs.

The tasks of sociological research are:
1. To find out the relevance of the problem of rubbish sorting in Ukraine.
2. To analyze the level of young people awareness about the proper process of waste sorting.
3. To find out the attitude of students to waste sorting and recycling.
4. To find out the students' attitudes towards the existing waste disposal and waste infrastructure.
5. To develop practical recommendations on possible ways of solving the problem.

The following results were obtained in the course of this sociological survey of 30 interviewed students. Answering the question "Is it important today to sort and process garbage?", less than a half (13 people - 43.3%) of respondents believe that it is relevant today, for one third of respondents (11 people - 36.7%) it's difficult to answer this question and the smallest part of the interviewed students (7 people - 23.3%) is inclined to think that this it is not necessary to everyone. Consequently, it can be concluded that the issue of the importance of waste sorting is relevant for the smaller part of respondents.

Responding to the question "Do you sort the rubbish?" the vast majority of respondents (24 people - 80%) answered "no" and only 6 students from all respondents (20%) answered "yes".

More than half of the students (56.7%) replied negatively to the question "Have you been taught at school or university how to clean up rubbish properly?" 8 students (26.6%) had difficulty answering this question and only a part of students (16.7%) answered - yes. Thus, we can conclude that the overwhelming majority did not obtain the relevant knowledge in educational institutions.

Taking into account the results of the sociological research on the topic "Attitude of VNTU students to the garbage sorting " the following recommendations have been proposed:

1. To introduce classes to promote the ecological consciousness of young people and to systematize the knowledge they have at schools and universities

2. To conduct interactive educational activities (trainings, seminars, discussions) that will provide students with the skills and tools they need to protect the environment.

3. To improve the system of separate collection of garbage in the city of Vinnytsia.

4. To promote among the students and all the inhabitants of the city the idea of preservation of the environment and separate collection of garbage through social advertising, thematic events, etc. [1, c.3]

Alongside with universities, institutes, colleges and other education institutions the campaign for environmental protection is supported by
many public organizations, ENACTUS being very active in the field.

Enactus is an international nonprofit organization dedicated to inspiring students to improve the world through entrepreneurial action. It provides a platform for teams of outstanding university students to create community development projects that put people's own ingenuity and talents at the center of improving their livelihoods. [2, c. 9]

Being started in 2016 the ongoing ENACTUS projects Eco-Energy and Eco-Paper promote students active training and involvement in socially beneficial activity.

The target of the project Eco-Energy is to raise awareness of the city and village residents in the issues of energy saving and teach them to save costs and have profit by using the innovative technologies.

In this project the team focused on two energy efficient devices named solar collectors and biogas reactor. Solar collector is a device that converts solar energy into heat energy for the purpose of water heating. The use of this device allows to provide free hot water for the average family completely in the warm and partly in cold seasons and significantly reduce the use of electricity and fuel to heat the water.

The team conducted several master classes in the villages of Vinnytsia region for the people with low income, where then students talked about modern energy saving technologies, their capabilities and advantages. One participant of the master class was motivated by the team members to install a solar collector. He is a teacher of Komarhorod technical college, where the electricity and gas are limited and, as a result, often the instructors couldn’t even take a shower after hard work. The participant who built the collector got necessary skills. Thanks to this project the participant earned 50 $ from manufacturing and installation of collector and currently has orders for manufacturing such devices in the canteen, dormitory and at the car wash. As a result of solar collector using for 5 months college saved 70 $ which gave the opportunity to improve the material base for students training.

Talking with participants of master classes, the team members have learnt that many farmers have large areas of land and grow food for sale. Considering this, the team found the opportunity of manufacturing high-quality organic fertilizers for higher profits. Taking into account the needs of farmers in quality fertilizers with the basic target of the project being...
energy efficiency the innovative solution of the team was to install a biogas reactor in the village of Nekrasove in Vinnitsia region. The usage of such device allows to reduce the amount of domestic wastes, receive biogas which contains almost the same volume of methane and get quality organic fertilizers that will enrich the soil for growing crops which is much better than using chemicals.

The ENACTUS team is known to have designed, built and launched Biogas reactor with the volume of 5 cubic meters. After the successful launch of the reactor the research of fertilizer was conducted by the Institute of Ecological Security and Environmental Monitoring and the students received recommendations on using these fertilizers in the soil.

Environmental issues occupy the minds and feelings of learners and encourage real practical use. Students are stimulated to discuss topics, brainstorm solutions and share their reactions with other students and the teachers. Using classroom activities teachers can provide students with particularly enjoyable and satisfying learning experience. Some activities serve as means of guiding students toward awareness of the nature of specific environmental problems – their causes and potential solution. Other activities may heighten awareness of how several problems are related or how individuals can contribute to solving them. Some activities provide students with an opportunity to explore their own values and feeling of concern about the environment, become more motivated so that to work actively for its protection and improvement.

Developing interpersonal skills such as listening, public speaking and presentation of technical information, writing, small group leadership and problem solving communication promotes success with students and coworkers. Achieving proficiency in communication skills enhances the students’ ability to communicate with their group mates and to influence others both in the workplace and university setting.

To conclude, the educators should take measures to facilitate education development and the exchange of information on research problems. If we want to help our country to survive and keep it healthy for future generations we must be active participants in the protection of our environment and improving environmental education.
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КРЕАТИВНО-ІННОВАЦІЙНА СТРАТЕГІЯ ОРГАНІЗАЦІЇ ВИХОВНОЇ РОБОТИ ВИКЛАДАЧАМИ КАФЕДРИ УКРАЇНСЬКОЇ ФІЛОЛОГІЇ ВІННИЦЬКОГО ГУМАНІТАРНО-ПЕДАГОГІЧНОГО КОЛЕДЖУ

Стаття присвячена питанням, які виникають на сучасному етапі в спільній роботі сім’ї та вищої навчального закладу в умовах їх соціального партнерства, особливостям взаємодії між навчальним закладом, батьками та студентами, ефективності навчання й виховання підрослинного покоління в сучасному освітньому просторі, а також виховним заходам, які спрямовані на формування «нового» українця, що діє на основі національно-патріотичних та європейських цінностей.

Ключові слова: сім’я, соціалізація, взаємодія, освітній процес, виховання, національні традиції, патріотизм, національна свідомість.

The article is devoted to the issues that arise at the present stage in the joint work of the family and high education in the conditions of their social partnership, to