

УДК

THE FORMATION OF ENGINEERING STUDENTS' ECOLOGICAL CULTURE

*Pronina A.E., Nikonova E.D. Kobzeva N.A.
Tomsk Polytechnic University*

This paper is devoted to the formation of contemporary engineering students' ecological culture in the process of teaching and learning English Foreign Language (EFL). The authors take into consideration the importance of creating students' environmental knowledge as the important base of their ecological culture and development educational potential of EFL while they are engaged in the learning process.

The aim of this paper is to review and highlight engineering students' ecological culture formation within EFL classes, as well as actions that can be taken by the students' community to preserve the ecological environment of the city of Tomsk.

Nowadays the ecological problems have become extremely crucial and received a great publicity. Nevertheless, people do a lot of harm to nature as they don't fully comprehend that the man is the part of environment. The relationship between man and nature has become one of the most vital problems facing civilization today.

Presently overcoming the ecological crisis only with the help of technological and technical means obviously is impossible. So the future generations could be doomed unless change their views on the environment and form ecological culture.

Culture and ecology are extremely broad topics by themselves. Ecological culture is a combination of ecological knowledge and opinions on the interrelations between all forms of life and the environment. This culture requires a system of skills and habits, readiness and ability, high competence for producing material and intellectual welfare in conditions of sustainable ecological and social development. Ecological culture determines the rules of interaction between man and nature, both at the level of the individual and at the level of certain groups and communities, and the whole humankind [1].

Formation of ecological culture and literacy are important direction of activity within engineering universities EFL classes. Today EFL classes can help ecological culture formation as EFL programs and concepts begin to play an organizing role.

The Department of Foreign Languages of the Institute of Non-Destructive Testing (Tomsk Polytechnic University) accomplishes methodical and practical materials which help to carry out purposeful work in this direction. EFL classes acquired a certain experience in the work with ecological materials, which includes themes aimed at the ecological culture development with the socially approved characteristics.

EFL classes related to environmental topics include conversation without giving a prescription of human behavior in finished form, and gradually lead-in to its own findings and conclusions to preserve the environment: *Environmental problems, Water, Air and Soil Contamination, Environmental protection, Conservation, Reduce-Reuse-Recycle, Ecological Footprint, Renewable Energy, Greenhouse Effect, Ozone*

Depletion, Acid Rain, Wastewater, Urban Runoff, Marine Pollution, Habitat destruction, Desertification, Land pollution, Soil pollution, Non-Recyclable Waste, Genetic Engineering, Nuclear Development, Water Crisis and et.al.

The main goal of such EFL classes is to provide engineering students with the background to environmental issues such that they develop solutions.

Students understand that the environmental education is not only a complex of knowledge, but a set of skills, so they try to apply their knowledge to real-life situations realizing that even local actions affect the global processes and human values. Many students enhance their academic career by becoming involved in students' project teams, ecological societies, and other organizations.

For example, students enrolled in the ecological programs: they take part in activities to clean up parks and squares of the city of Tomsk, debris from the river Tom.

It should be added that the technology of interactive activities, extra-curricular activities in a variety of ways (round table, debate, discussion, tour, meeting with representatives of environmental organizations) have a positive impact on the development of ecological culture of the students. As a whole the given actions represent knowledge through role games, situational work where different sources of the information are used.

The obtained results suggest the effectiveness of the proposed EFL classes methods for ecological culture formation and allow optimizing the new teaching and learning techniques that are used in engineering education and ecological culture upbringing of students.