

IMPROVING THE TEACHING OF "ECOLOGY AND ENVIRONMENTAL PROTECTION" IN HIGHER EDUCATION

Utayeva Robiya Otaqulovna

Teacher at Navoi State University

Sobirova Munisa Toyir qizi

Teacher at Navoi State University

Abstract. This article discusses the teaching of the subject "Ecology and Environmental Protection" in the higher education system, which is currently one of the urgent issues of the education system, since it is important to form an ecological culture in students. It is argued that the teaching of ecology should not be limited to providing only theoretical knowledge, but should also be aimed at instilling practical skills, analytical thinking, and the principles of environmental safety.

Keywords. Ecology, water, climate, culture, education, globalization, industrialization, urbanization.

Nowadays, environmental problems on a global scale affect all spheres of human life. Processes such as atmospheric, water and soil pollution, climate change, and biodiversity loss pose a serious threat to sustainable development. Therefore, the formation of an ecological culture, raising environmental awareness, and the development of environmental education are among the urgent issues. Teaching ecology in the higher education system is the most important stage of this process. Nowadays, environmental problems on a global scale affect all spheres of human life. Therefore, the formation of an ecological culture, raising environmental awareness, and the development of environmental education are among the urgent issues. Teaching ecology in the higher education system is the most important stage of this process. One of the most urgent problems facing humanity in the 21st century is the disruption of the ecological balance and environmental pollution. As globalization, industrialization, urbanization, and technological progress expand the scope of human activity, pressure on natural resources is increasing. In this context, the formation of an ecological culture in

instilling practical skills, analytical thinking, and the principles of environmental safety.

Table 1

Features that develop students' understanding of the subject "Ecology and the Environment"

| No. | Direction | Content and Essence |
|-----|------------------------------|---|
| 1 | Spiritual and moral | A conscious attitude and responsibility towards the environment is formed. |
| 2 | Theoretical-practical | Possess important and fundamental knowledge of environmental safety. |
| 3 | Analytical skills | The ability to identify and analyze existing environmental problems is developed. |
| 4 | Ideological | The ideas of sustainable development are instilled in the minds of young people. |
| 5 | Professional training | Future professionals learn to apply ecological principles in their field. |

Note: The table was developed by the author.

Ecology today is directly related to almost all areas: economics, industry, agriculture, medicine, architecture, technology, etc. There are some shortcomings in teaching the subject "Ecology and Environmental Protection" in the higher education system, including:

- 1. The dominance of traditional teaching methods.** Lectures are often theoretical in nature and do not engage the student in an active learning process.
- 2. Lack of modern laboratory equipment.** Practical training may be ineffective.
- 3. Limited practice in environmental monitoring.** Insufficient access to real-world experience.
- 4. Insufficient digital learning resources.** Virtual labs and simulations are rarely used.
- 5. Weak interdisciplinary integration.** Although ecology is a highly interdisciplinary discipline, it is not sufficiently interconnected with other disciplines.

The above problems can be an obstacle to students developing knowledge, skills and competencies within the subject and may prevent the teacher from

achieving the goals he or she has set for himself or herself in education. We offer the following recommendations as solutions to the above problems:

Introduction of innovative pedagogical technologies: Interactive methods (cluster, debate, case study, project method). Connecting ecology lessons with technology, mathematics and engineering through the STEAM approach. Developing students' analytical thinking by creating problem situations. Using the "Why and How" scheme in teaching the subject "Ecology and Environmental Protection" plays an important role in forming knowledge, skills and competencies in students.

Use of digital learning platforms: Organization of practical exercises based on Geographic Information Systems (GIS). Virtual laboratories: modeling of water, air, soil pollution. Implementation of online educational content, video lessons and animations in the teaching process.

Practice-oriented training: Expeditions on ecological monitoring. Practical visits to industrial enterprises, treatment plants, reserves and national parks. Involvement of students in ecological projects, startups and volunteer activities.

Strengthening interdisciplinary integration: Ecology and economics: ecological audit, green economy. Ecology and biology: biomonitoring. Ecology and chemistry and working with ecological data.

Teacher training: Study of international experience and implementation of new methodologies. Organization of special seminars and trainings for specialists.

Expected results: The improved education system will lead to the following results. The ecological literacy and ecological culture of students will increase. Practical skills and analytical thinking will be strengthened, future specialists will actively participate in ensuring ecological safety, conditions will be created for the development of innovative ecological solutions, and the science of ecology in higher education will develop in accordance with modern requirements.

Conclusion. Improving the science of ecology in higher education is not only a renewal of the education system, but also an important factor serving the

ecologically sustainable development of society. Through modern methods, digital technologies, a practice-oriented approach and interdisciplinary integration, it is possible to raise the science of ecology to a new level. This will serve as a key factor in shaping the ecological thinking and responsibility of the future generation.

References:

1. Odum E.P. — Ekologiya asoslari. — Toshkent: O'qituvchi, 2001.
2. Реймерс Н.Ф. — Использование природы и экология. — Москва: Наука, 1994.
3. Tilovov T., Qodirov B. — Umumiy ekologiya. — Toshkent: Fan, 2015.
4. Rasulov A., Xolmatov X. — Ekologiya va atrof-muhitni muhofaza qilish. — Toshkent, 2018.
5. Zakirov, S. S. (2023). Deepening Of Territorial Specialization in The Production of Agricultural Products (In the example of the suburbs of the city of Navoi). Texas Journal of Agriculture and Biological Sciences, 19, 8-15.
6. Ishmuhamedov R., Yuldashev M. — Ta'lim va tarbiyada zamonaviy pedagogik texnologiyalar. — Toshkent, 2017.
7. Худойбердиева, И. А., & Утаева, Р. О. (2024). КЛАССИФИКАЦИЯ СЕЛЬСКОХОЗЯЙСТВЕННЫХ ОТРАСЛЕЙ С ЭКОНОМИКО-ГЕОГРАФИЧЕСКОЙ ТОЧКИ ЗРЕНИЯ (НА ПРИМЕРЕ ЖИВОТНОВОДСТВА НАВОИЙСКОЙ ОБЛАСТИ). Экономика и социум, (12-1 (127)), 1155-1161.
8. Latipov, N. (2022). Shaharlar va ularning ekologik muhit bilan bog'liqligi. Scienceweb academic papers collection.
9. Latipov, N. F. (2024). THE PROCESS OF URBANIZATION AND ITS CORRELATION WITH THE ECOLOGICAL CIRCUMSTANCE. Science and innovation, 3(Special Issue 4), 343-352.

10. Xudoyberdiyeva I.A., & Ahmatova S.N. (2024). ECONOMIC GEOGRAPHICAL DESCRIPTION OF KHARTICHI DISTRICT. Экономика и социум, (11-2 (126)), 516-520.
11. Mukhammedova Nazokat Jurayevna (2018). The geographical features of population mortality in Uzbekistan. European science review, (1-2), 35-38.
12. Sh, N. S. (2021). MIGRATORY PROCEDURES HUMAN RESOURCES IN GLOBALIZATION PROCESS. Теория и практика современной науки, (8 (74)), 3-5.
13. Шодиев, С. Р., Чембарисов, Э. И., & Шодиева, Г. Р. (2021). Минерализация и химический состав речных и коллекторных вод Кашкадарьинской области Республики Узбекистан. Экономика и социум, (2-2 (81)), 353-359.