

FORMATION OF ECOLOGICAL COMPETENCE AMONG UNIVERSITY STUDENTS

**ФОРМУВАННЯ ЕКОЛОГІЧНОЇ КОМПЕТЕНТНОСТІ У СТУДЕНТІВ
УНІВЕРСИТЕТУ**

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ABSTRACT

The article focuses on the description of the need to overcome the global environmental crisis, which has increased the importance of environmental criteria. They are becoming mandatory and priority in all branches of human activity. In this regard, the current circumstances require the implementation of an innovative development strategy in the state and the related training of human resources, whose activities will be aimed at improving the effectiveness of the relationship between man and nature, ensuring environmental safety on the basis of advanced domestic and foreign achievements. The basis of ecological well-being is ecological education, the main goal of which is the formation of a new ecological thinking, the upbringing of a socially active person with a high ecological culture and the ability to adapt to rapidly changing socio-ecological conditions, as well as having a sense of responsibility to descendants for their ecological behavior. The aim of the article is to reveal the existing problems of environmental knowledge among university students. The article suggests the ways of training specialists in the field of environmental protection and the use of natural resources, taking into account public needs. Environmental knowledge is a mandatory qualification requirement for all officials whose position is related to the use of natural resources and leads to an impact on the state of the environment. The article deals with the problem of ecological education and the possibility of training specialists in the field of environmental protection. The main point is the formation of environmental competencies. The need for environmental education of the entire population directs educational institutions to plan (develop) a system of environmental education. The importance of environmental education as a direction of spiritual and moral development of a student's personality is currently increasing. The results of the research can serve as a basis for further study of teaching environmental knowledge among university students in higher educational institutions. The training of a teacher who is able to organize the process of educating students' ecological culture in practice is the most important link in overcoming the ecological crisis.

Key words: *ecological education, ecological thinking, educational institutions, environmental crisis, environmental protection, natural resources.*

The importance of environmental education as a direction of spiritual and moral development of a student's personality is currently increasing.

Formulation of the problem. The relevance of the problem lies in the fact that today the main goal of ecological competence is the formation of a new ecological thinking, the upbringing of a socially active person with a high ecological culture and the ability to adapt to rapidly changing socio-ecological conditions, as well as having a sense of responsibility to descendants for their ecological behavior.

The object of the research is environmental education.

The subject of the research is the description of teaching ecological competence among university students.

The research represents the description of the existing problems of environmental knowledge among university students. The ways of training specialists in the field of environmental protection and the use of natural resources are suggested.

Analysis of recent research and publications. Aspects of environmental education have become a subject of study for many modern scientists, such as Bulatbaeva K.N., Dlimbetova G.K., Kozhuhova E.D., Nijazova A.A., Sadykova E.F., Stukalenko N.M. and others.

Nowadays, in spite of the amount of works, devoted to environmental education, there is a lack of the research combined with teaching of the subject in conditions of distance education.

The **aim of the article** is to reveal the existing problems of ecological education and the possibility of training specialists in the field of environmental protection. The main point is the formation of environmental competencies.

Presenting main material. Modern environmental education is based on personal-oriented learning, individualization and differentiation of educational activity, the formation of motivation for self-development.

The need to overcome the global environmental crisis has increased the importance of environmental criteria, they are becoming mandatory and priority in all branches of human activity. In this regard, the current circumstances require the implementation of an innovative development strategy in the state and the related training of human resources, whose activities will be aimed at improving the effectiveness of the relationship between man and nature, ensuring environmental safety on the basis of advanced domestic and foreign achievements.

The basis of ecological well-being is ecological education, the main goal of which is the formation of a new ecological thinking, the upbringing of a socially active person with a high ecological culture and the ability to adapt to rapidly changing socio-ecological conditions, as well as having a sense of responsibility to descendants for their ecological behavior.

The legal basis for achieving the goal of such education in Ukraine is the Law «On Environmental Protection», № 1264-XII of 25.06.1991. Article 7 of this law «Education and upbringing in the field of environmental protection» states: «The improvement of the ecological culture of society and the professional training of specialists are provided with general compulsory comprehensive education in the field of environmental protection, including in preschool children's institutions, in the system of general secondary, vocational and higher education, advanced training and retraining frames.

Environmental knowledge is a mandatory qualification requirement for all officials whose position is related to the use of natural resources and leads to an impact on the state of the environment.

Specially designated higher and professional educational institutions train specialists in the field of environmental protection and the use of natural resources, taking into account public needs» (Zakon Ukrainy Pro okhoronu navkolyshnoho pryrodnoho seredovyscha, 2022).

The need for environmental education of the entire population directs educational institutions to plan (develop) a system of environmental education. The importance of environmental education as a direction of spiritual and moral development of a student's personality is currently increasing, but a difficult situation is developing in the field of environmental education design, since a separate ecology course is not allocated in the school education system.

In this regard, teachers are faced with the task of forming an environmental component within the framework of general educational subjects for primary school and choosing a separate course of environmental orientation for high school students within the school curriculum.

The role of a teacher in overcoming the environmental crisis and the content of his activities is changing significantly – his professional subject competence is expanding and the measure of responsibility for the results of environmental education of young people is increasing.

At the same time, there is a need for the formation of a new professional competence of a specialist in the field of education – ecological and pedagogical competence.

Ecological-pedagogical competence is becoming in demand not only in the system of general and vocational education, but also in institutions of additional education and the social sphere, in the media, public organizations, environmental management, ecotourism. Therefore, the educational process of a future teacher should be focused on the formation of an ecological culture of a supra-professional and interprofessional level.

The ecological competence of a student of a pedagogical university is formed on the basis of the necessary level of his training, including the values and meanings of ecological (ecological-pedagogical) activities, basic environmental knowledge. Of great importance in this case is the use of accumulated experience in solving socially significant environmental problems on the basis of practical activities in the field of ecology.

The basis for the formation of an individual's environmental competence is the basic competencies. The basic system of environmental competencies of the personality of the future teacher, according to S.N. Glazachev (Glazachev, 2008), reveals the main aspects of the concept of «ecological culture of personality» and is represented by the following theses:

- the ability to treat the natural environment responsibly based on the recognition of its universal value;
- understanding the nature of natural redistribution of modern socio-economic development and the causes of the ecological crisis;
- the ability to assess the results and consequences of human activity from the point of view of naturalness (biosphere compatibility), minimizing and harming nature.

The inclusion of students of all educational profiles in various types of environmental-oriented activities (environmental protection, nature restoration) is one of the most important active forms of environmental education in higher education. It is necessary to involve students in active participation in the environmental volunteer movement, in landscaping of public places, in environmental actions of various levels (garbage collection in public places, cleaning of memorial cemeteries, in a citywide clean-up), etc.

Such events are aimed at improving the quality of the natural environment, increasing the level of environmental education and culture of young people, as well as at forming an active civil position (moral and patriotic education).

The characteristics of the formation of an eco-friendly educational environment at the university and the process of formation of basic general cultural, general professional competencies largely coincide.

At the same time, students are involved in the following processes:

- awareness of personal importance in solving environmental problems of an educational institution and the development of the need to improve the quality of the environment;
- development of cognitive interest in the surrounding world and development of skills to identify, investigate and solve problems in the field of ecology;
- study of the regulatory framework of environmental activities and increase personal environmental responsibility;
- acquisition of environmental management skills, harmonization of relations with the surrounding worlds;
- acquisition of skills to analyze the role of nature in human life, predict the results of human impact on nature and the formation of critical thinking on this basis;
- comprehension of ecological knowledge systematized by mankind, awareness of the importance of research activities in the field of ecology;
- formation of an emotional and value attitude to all environmental situations, the desire to resolve problematic situations;

- education of communication skills for dialogic communication in the process of joint problem solving.

Yu. M. Grishaeva notes that the ecological competence of a teacher lies in his ability and readiness for ecological and pedagogical activity, which is aimed at creating and maintaining an effective ecological educational environment aimed at improving the level of ecological culture of all participants in the pedagogical community (Grishaeva, 2012).

Currently, promising areas for the formation of environmental competence of students are:

- research direction, which consists in the fact that students are involved in the activities of the scientific society of ecological orientation.

Research activity consists in the consistent solution of interrelated problems of ecological content;

- design and production activities provide for conducting research in the field of environmental management and developing recommendations for them;

- assessment of impacts on the natural environment, monitoring in the field of environmental management; analysis of problems in the use of natural conditions and resources;

- control and expert activity consists in developing recommendations for the rational use of the natural resource potential of territories; in assessing economic projects taking into account environmental requirements;

- the practice-oriented direction consists in deepening and consolidating the theoretical knowledge acquired by students in the process of studying at the university on the basis of in-depth study of the above-listed areas of environmental competence formation. The practice-oriented direction also includes mastering the basics of management in the field of nature management and nature protection, systematization and analysis of materials obtained by practical means for writing a course or master's thesis, the development of performing discipline and the ability to solve emerging environmental problems independently, the formation of sustained interest and respect for the chosen profession, the development of skills for a full-fledged analysis of work results, the acquisition of professional qualities a specialist in environmental issues.

The development of science and economics is currently greatly influenced by the ecologization of education. Therefore, there was a need to train personnel with a renewed spiritual consciousness.

The emergence of such areas as environmental education and environmental pedagogy in pedagogical science demonstrates the close relationship of social, natural and technological components of sustainable development of society. Therefore, the purpose of environmental education in the course of training future teachers should be not only the formation of knowledge and skills, but also the development of environmental awareness, thinking, culture, which should be reflected in the state educational standard in the form of competencies in the field of pedagogical education.

The need to constantly search for new solutions in the field of environmental problems increases the requirements for the training of future specialists in the framework of their upcoming professional activities. Such training needs constant updating of content and educational technologies.

When acquiring knowledge about the environmental situation, students should study these issues not only on a global scale, but also within their region. The formation of such environmental competencies can be facilitated by studying the course of the discipline «Fundamentals of environmental Culture».

The training of a teacher who is able to organize the process of educating students' ecological culture in practice is the most important link in overcoming the ecological crisis. The main point is the formation of environmental competencies.

Conclusions. It is revealed that the development of science is currently greatly influenced by the ecologization of education. Therefore, there was a need to train personnel with a renewed spiritual consciousness. The purpose of environmental education in the course of training future teachers should be not only the formation of knowledge and skills, but also the development of environmental

awareness, thinking, culture, which should be reflected in the state educational standard in the form of competencies in the field of pedagogical education.

The prospect of further research is to find out the peculiarities of teaching ecological culture in practice. Among the **perspectives of further research** is the study the main points of formation of environmental competencies.

ДЖЕРЕЛА І ЛІТЕРАТУРА

Глазачев С. Н. Экологические компетентности: становление, проблемы, перспективы. М.: РИО МГТУ им. А. М. Шолохова, 2008. 128 с.

Гришаева Ю. М. Экологическая компетентность будущего профессионала в гуманитарной сфере. *Знание. Понимание. Умение*. 2012. № 2. С. 250-256.

Закон України «Про охорону навколишнього природного середовища» від 25.06.1991 № 1264-ХІІ. З останніми змінами, внесеними Законом від 20.06.2022 № 2321-ІХ. URL: <https://uristy.ua/laws/show/1264-12>

Закон України Про охорону навколишнього природного середовища від 25.06.1991 № 1264-ХІ. URL: https://kodeksy.com.ua/pro_ohoronu_navkolishn_ogo_prirodnogo_seredoviwa.htm

Kozhuhova E.D. Formation of ecological competence of students. *Scientific review. Pedagogical sciences*. 2016. No 6. P. 81-83. URL: <https://science-pedagogy.ru/en/article/view?id=1575>

Sadykova E.F., Nijazova A.A. Formation of ecological competences in the teacher-training process. *Fundamental research*. 2014. No 11 (part 9). P. 2066-2069. URL: <https://fundamental-research.ru/en/article/view?id=35897>

Stukalenko N.M., Dlimbetova G.K., Bulatbaeva K.N. About formation of ecological competence of future specialists in the context of the strategy of «GREEN» economy. *Modern problems of science and education*. 2018. No 4. P. 69-69. URL: <https://science-education.ru/en/article/view?id=27859>

REFERENCES

Glazachev S.N. (2008). Ekologicheskiye kompetentnosti: stanovlenye, problemy, perspektivy. M.: RYO MHTU ym. A. M. Sholokhova. 128 p. [in Russian].

Grishaeva Yu. M. (2012). Ekologicheskaya kompetentnost budushcheho professionala v humanyarnoi sfere. *Znanye. Ponymanye. Umenye*. No 2. P. 250-256. [in Russian].

Kozhuhova E.D. (2016). Formation of ecological competence of students. *Nauchnoe obozrenye. Pedagogicheskiye nauky*. No 6. P. 81-83. [in Russian]. URL: <https://science-pedagogy.ru/en/article/view?id=1575>

Sadykova E.F., Nijazova A.A. (2014). Formation of ecological competences in the teacher-training process. *Fundamental research*. No 11 (part 9). P. 2066-2069. [in Russian]. URL: <https://fundamental-research.ru/en/article/view?id=35897>

Stukalenko N.M., Dlimbetova G.K., Bulatbaeva K.N. (2018). About formation of ecological competence of future specialists in the context of the strategy of «GREEN» economy. *Modern problems of science and education*. No 4. P. 69-69. [in Russian]. URL: <https://science-education.ru/en/article/view?id=27859>

Zakon Ukrainy Pro okhoronu navkolishnoho pryrodnogo seredovishcha vid 25.06.1991. № 1264-XI [in Ukrainian]. URL: https://kodeksy.com.ua/pro_ohoronu_navkolishn_ogo_prirodnogo_seredoviwa.htm

Zakon Ukrainy Pro okhoronu navkolyshnoho pryrodnoho seredovyshcha № 1264-XII vid 25.06.1991. Z ostannimy zminamy, vnesenymy Zakonom vid 20.06.2022 № 2321-IX. [in Ukrainian]. URL: <https://uristy.ua/laws/show/1264-12>

АНОТАЦІЯ

Стаття присвячена опису необхідності подолання глобальної екологічної кризи, яка підвищила значимість екологічних критеріїв. Вони стають обов'язковими і пріоритетними у всіх галузях людської діяльності. У зв'язку з цим нинішні обставини вимагають реалізації інноваційної стратегії розвитку в державі та відповідної підготовки кадрів, діяльність яких буде спрямована на підвищення ефективності взаємовідносин людини і природи, забезпечення екологічної безпеки на основі передових вітчизняних і зарубіжних досягнень. Основою екологічного благополуччя є екологічна освіта, головною метою якою є формування нового екологічного мислення, виховання соціально активної особистості з високою екологічною культурою і здатністю адаптуватися до швидко мінливих соціально-екологічних умов, а також володіє почуттям відповідальності перед нащадками за їх екологічну поведінку. Мета статті-виявити існуючі проблеми екологічних знань у студентів вузів. У статті пропонуються шляхи підготовки фахівців у галузі охорони навколишнього середовища та використання природних ресурсів з урахуванням суспільних потреб. Екологічні знання є обов'язковою кваліфікаційною вимогою для всіх посадових осіб, чия посада пов'язана з використанням природних ресурсів і призводить до впливу на стан навколишнього середовища. У статті розглядається проблема екологічної освіти та можливості підготовки фахівців у галузі охорони навколишнього середовища. Головним моментом є формування екологічних компетенцій. Потреба в екологічній освіті всього населення спонукає освітні установи планувати (розробляти) систему екологічної освіти. Значення екологічної освіти як напрямку духовно-морального розвитку особистості студента в даний час зростає. Результати дослідження можуть послужити основою для подальшого вивчення викладання екологічних знань студентам університетів у вищих навчальних закладах. Підготовка вчителя, здатного організувати процес виховання екологічної культури студентів на практиці, є найважливішою ланкою в подоланні екологічної кризи.

Ключові слова: екологічна криза, екологічна освіта, екологічне мислення, освітні заклади, охорона навколишнього середовища, природні ресурси.