

TRENDS OF ECOLOGICAL EDUCATION IN HIGHER SCHOOL

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ТРЕНДЫ ЭКОЛОГИЧЕСКОГО ОБРАЗОВАНИЯ В ВЫСШЕЙ ШКОЛЕ

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В статье рассматриваются современные системные тенденции экологического образования в высшей школе на примере профессионального педагогического образования. Включение личности в эколого-ориентированную деятельность является основным (системообразующим) фактором экологического образования, позволяющим в полной мере использовать эколого-педагогические и психологические принципы и закономерности формирования эколого-ориентированного мировоззрения.

Ключевые слова: экологическая культура, экологическое образование, высшая школа, эколого-ориентированное мировоззрение, профессиональная компетентность, профессиональное образование, эколого-профессиональная компетентность, тренды

The article deals with the current system trends of ecological education in higher school on the example of professional pedagogical education. The inclusion of the individual in the ecological-oriented activity is the main (system-forming) factor of ecological education, which allows to fully use the ecological, pedagogical and psychological principles and laws of the formation of the ecological-oriented worldview.

Key words: ecological culture, ecological education, higher school, the ecological-oriented worldview, professional competence, professional education, ecological and professional competence, trends

Introduction

As the main objectives of the state policy in the field of ecological development, laid down in the «Bases of state policy in the field of ecological development of the Russian Federation for the period up to 2030», including, it was stated «...the formation of ecological culture, the development of ecological education and upbringing» [9].

Also in «Bases of the state policy in the field of ecological development of the Russian Federation for the period up to 2030» concerning purposeful ecological education it is said the following:

- the formation of all layers of the population, especially the youth, ecologically responsible worldview;
- state support for the dissemination of ecological and resource-saving information through the media, as well as for thematic events;
- the inclusion of ecological protection in new educational standards;
- ensuring the orientation of the process of education and training in educational institutions on the formation of ecologically responsible behavior;
- state support for the activities of educational institutions engaged in training in the field of ecological protection;

— development of the system of training and professional development in the field of ecological protection and ensuring ecological safety of heads of organizations and specialists responsible for decision-making;

— inclusion of issues of ecological culture formation, ecological education and upbringing in state, Federal and regional programs [9].

Main content

The Concept of the Federal target program of education development for 2016—2020 in terms of characteristics and forecast of development of the developed problem situation in the field of education refers to «...the necessity of a flexible and diversified system of vocational education that meets the requirements of the labour market and the needs of the innovation economy in the part of educational programs» [7]. Under the diversified system of vocational education, we understand such a system of education, which guarantees the possibility for the future graduate to respond to the challenges of time, to rebuild depending on objective socio-economic factors. These factors inevitably include ecological problems of various scales, the effect of which on the daily life of the inhabitant, unfortunately, every year is significantly increased. Modern researchers in the field of ecological culture and ecological

competence, teachers and psychologists (S. N. Glazachev, V. I. Panov, A. V. Gagarin, et al.) [1, 6] Express a joint opinion that the ecological component is a substantial dominant of the existence of the individual, which in modern conditions requires access to a higher level of her (personality) mental organization — self-evident. In this regard, the fact of evolution of the purposes of ecological education, first of all, in the direction of development of its personal-activity character, namely, from formation of ecological responsibility of the person to formation of ability of the trained to design and effectively to solve socially-ecological problem situations [2, 3] acts very symbolically. Academician N. N. Moiseev, talking about the system of «Teacher», stressed: «...the Importance and place of education and the role of teachers in the fates of individual Nations and civilization as a whole are constantly increasing as the development of productive forces and the growth of the power of civilization. The whole history of human society can be studied in the context of the development of the system of accumulation and transfer of knowledge, culture and education from one generation to another. And, having conducted such analysis, we will see that the teacher, I emphasize, not the politician, the military or even the engineer, namely the teacher becomes gradually the Central figure of «history of people». Today, the teacher first of all, and I will try to prove it, depends not only on the fate of civilization, but also the preservation of man on the planet» [8, p.18] And, in this case, in our opinion, we should talk about the phenomenon of ecological and professional competence of the individual as the main projected result of environmental education at the University, taking into account that the competence approach in education allows the student to form an individual ecological and educational space («space of development»), organizing their personal experience and designing their future ecological and professional activities. Under the ecological and professional competence we consider that party of professional competence of the expert which reflects his ability and readiness for the ecological-oriented professional activity.

Modern higher professional education is currently characterized by a qualitative transition to a new stage of its development, fundamentally changed the approach to the formulation of the qualification requirements of the University graduate. Under the environmental-oriented activities in general, after A. V. Ivashchenko, V. I. Panov, A. V. Gagarin [6], we understand the activities that have environmental-practical, conservation, nature conservation goals. The inclusion of the individual in the ecological-oriented activity is the main (system-forming) factor of ecological education, which allows to fully use the ecological, pedagogical and psychological principles and laws of the formation of the ecological-oriented worldview.

Under the ecological -oriented professional (hereinafter-eco-professional) activities, in particular, we understand such professional activities, which are environmentally sound and aimed at achieving ecological significant results within the relevant professional field [4].

In our works [3, 4, 5] we have repeatedly stressed that ecological and professional competence is, in fact, a manifestation of the ecological culture of the individual in their professional activities.

Ecological culture is a humanitarian culture in its essence, based on a systematic understanding of a person's place and its role, its functions in the global ecosphere. In the basis of the system approach is the study of objects as systems, it orients the researcher to demonstrate the integrity of the object and the underlying mechanisms, to identify the diverse types of links, structure of a complex object and reduce them into a single theoretical picture.

We consider ecological and professional competence as an acmeological invariant of professionalism, as an integrative phenomenon, the result of integration of processes of development of ecological culture and professional competence of specialists of various profiles. This is reflected in its essential characteristics such as the system of ecological professional-oriented views and beliefs of the individual; the need to update the environmental potential of professional activity; the system of professional-oriented ecological knowledge; readiness for ecological and professional activity; ability for ecological and professional reflection.

It is obvious that the ecosystem methodology of cognition of reality allows us to see in every object of knowledge, not only his own essence, but focuses more on the disclosure of relationships of the object with the surrounding world, on the study of the laws of sustainable («supported») of the existence and development of the object on the understanding of the mechanisms of regulation of optimal interaction of the investigated object and the surrounding world. Ecosystem the methodology of knowledge allows to systematize all studied objects and to highlight the relationship between them. It is important to understand that «Everything is connected with everything» (B. Commoner), and there is a need for a new ecological thinking, based on the ecosystem principle of perception of the world and the place of man in it. In connection with the above, it becomes obvious common goal-oriented environmental and vocational education, the expediency of theoretical justification and the formation of ways and means of their integration [3].

Ecological and professional competence of the teacher, obviously, consists of two main components, namely: from level of individual ecological culture of the teacher and level of his methodical literacy in the field of formation of ecological consciousness of schoolboys by means of the subject and purposeful educational activity. The task of higher education in this case is to ensure the training of a graduate teacher in these two areas.

It is interesting to note that on the basis of foresight centers of a number of leading Russian universities in the direction of «Rational nature management» the following substantial trends have been identified, which have the most significant impact on the ecological development of Russia (i.e., creating challenges and Windows

of opportunities for the Russian Federation) [10] and therefore provide, in our opinion, the main vectors of subject training of the future teacher in the field of ecological education. Consider the most significant of them.

Economic trends:

— reduced availability of fresh water and increased competition for water in transboundary river basins;

— increased ecological costs and ecological and economic challenges associated with climate agreements (introduction of legally binding restrictions on carbon dioxide emissions after 2012; Introduction of trade restrictions in the field of «carbon protectionism»).

The technological trend:

— the increasing demand for the forecasting and modeling of dangerous and extreme meteorological processes.

Social trends:

— the increase in the share of the urban population and the related increase in consumption of energy, water and other resources, waste production;

— growth of population living under water stress;

— increased morbidity and mortality from air and water pollution.

Ecological trends:

— climate change and the increasing intensity of dangerous hydro-meteorological processes;

— increase the intensity of adverse exodynamic processes in the permafrost zone;

— invasion of alien species and biodiversity reduction.

It should be noted that the above listed global trends, which are based on a large number of expert opinions (large-

scale survey of experts using the Delphi method), are most important for the development of Russia in the long term. These challenges and threats and adequate response to them, requires training of specialists in the relevant field, as well as taking into account in environmental education at all levels of education (from basic General to Higher education).

Summary

Thus, taking into account all the above, and reflecting on the modernization of ecological education in higher education (on the example of professional pedagogical education), it is possible to identify the main systemic trends — the key directions of its development, from our point of view, namely:

— «cultural» conditioning of environmental education. Ecological education is aimed at the formation of ecological culture and in its essence should be aimed at the development of functional aspects of culture-competences, universal educational actions, value orientations, etc;

— interdisciplinary approach as an approach that extends the possibilities of studying ecological knowledge by means of other disciplines;

— transdisciplinarity as an approach that forms a new ecological worldview based on the synthesis of the content of different disciplines.

In this article the trends of hyperinformatisation (hyper-informatisation as a condition of development of scientific knowledge in the broad sense) and locality (the locality as a method based on the study of the problems of their area), however, we believe it is important to identify because they reflect objective trends of modernization of educational activity, including in the field of ecology.

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