DEVELOPMENT OF ECOLOGICAL AND ECO-FORSIGHT COMPETENCE IN FUTURE SPECIALISTS

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ABSTRACT The article demonstrates the issues of the competence approach in education, involving the content and types of the terms competence and competency, the stages of development of ecological competence, the concepts of eco-foresight competence and the necessity of its formation and development. The stages of formation of eco-foresight competence in future specialists have been formed and the importance of advancing this competence during professional activity based on the principle of "Lifelong learning" has been shown.

Key words: civilization, competence, competency, ecological, ecological culture, foresight, eco foresight.

INTRODUCTION

Human civilization has reached the level of interdependence in all areas, including in the ecological education system. A modern education system aimed at improving free and physical living conditions should be divided into economic, economic, food, health, political, social and cultural and personal needs [1]. For this reason, the competences aimed at providing these products in the future specialists, important and eco-foresight competences solve important and financial tasks.

RESEARCH METHODS

In the process of research, the analysis of scientific and teaching-methodical literature, pedagogical observation, comparative analysis, generalization, pedagogical experiment-test and foresight methods were used.

RESEARCH RESULTS AND DISCUSSIONS

The terms "competence" and "competency" are defined differently. For example, in the "Modern Dictionary of Foreign Words" [2], competence is derived from the French word "competent", which means competent, legal, while "compensation" is derived from the Latin word "competens". , means suitable, ability, capability, capable. "Competence" also means capable in English. According to the information of the International Commission of the Council of Europe, the association of "Competency" is considered as occurring on the basis of a logical sequence, i.e.: reading - searching - thinking - cooperation - acting - adaptation [3]. In the report of the working group of the European Commission at the European Council in Stockholm, it is necessary to have 8 basic competencies for every European [4,5]:

knowledge of calculation and writing;

- basic competencies in mathematics, natural and technological sciences;

- competence in foreign languages;
- competencies in the use of innovative and information and communication technologies;
- ability to learn and study (educational competence);
- social knowledge (interpersonal, cultural, social and civic competences);
- entrepreneurial competence;
- general culture and ethics (cultural and spiritual competence)

Each student is required to develop these competencies during his studies and professional activity in a distance learning environment based on the principle of "Lifelong learning" in accordance with his educational direction or specialty.

No matter what type of competence it is, it should be inextricably linked with the main professional competence. Environmental competence is the main professional competence of future ecologists. Ecological competence is knowledge about nature, consciousness, perception, literacy, intellectual potential and the activity of knowing how to apply it in practice, a high indicator of activity in relation to the environment, a conscious and responsible approach. It contains a rational and responsible relationship between nature and man [6].

Today, despite the fact that the latest technologies, including cloud technologies, robots, machines based on artificial intelligence, and remote control systems are used in modern production enterprises, man-made accidents that have a negative impact on the environment and ecology are occurring. That's why future specialists should be able to predict the future of the enterprise and have the ability to use foresight, that is, it is the need of the hour to pay attention to the development of eco-foresight competence in the educational process.

Based on the above analysis, we can conclude that eco-foresight competence is an integral and component part of ecological competence. Therefore, we will first analyze the content, components and evaluation criteria of environmental competence.

Environmental competence arises on the basis of ecological knowledge and the results of professional activity and should be directed to solving the tasks at hand: the ability to see and solve ecological problems as a result of developing and advancing ecological scientific hypotheses, to carefully study the laws of ecological prediction to know, to correctly determine the goal and plan environmental activities, to select, collect and analyze the necessary information, to be able to choose the most optimal methods of maintaining ecological balance, to form the ability to use environmental knowledge and skills in professional activities [7] .

As components of ecological competence, it is possible to include universal and ecological culture, learning, social-civic, communicative, personal growth and development, and informational competences.

On the basis of ecological culture and ecological knowledge, it is important to have the ability to predict the impact of human activity on ecology in the long term. The solution to the environmental problems that have arisen today is inextricably linked only with the ability to correctly predict the future and the development, implementation and control of long-term strategic plans based on the

created future scenarios. Because the most global, national or regional problems that have arisen at the moment can only be solved by scientifically based predictions and the development and implementation of long-term strategic plans and concepts aimed at eliminating their consequences.

Nowadays, foresight (futures studies) is widely used as the most advanced and modern forecasting technology in the USA and European countries. Future experts in the higher education system of developed countries, especially in the curriculum of dozens of specialties such as ecology, management, marketing, logistics, etc. In order to form competences, several special subjects on foresight technology have been introduced. Including "Ecological foresight", "Foresight-technological methods", "Modern approach to foresight-based planning", "Foresight scenario planning", "Foresight organization and management", "Foresight technology in marketing", "Expertise in foresight management", " Such subjects as "Organization of foresight research", "Strategic drift", "Foresight competence in specialization" and "New market foresight" are taught.

As an example, at the Higher School of Economics (Russia), "Foresight technology" is taught as a specialty subject and foresight competence is formed in specialists [7].

Based on the above, it can be concluded that it is necessary and important to apply foresight technology to the educational process in the training of future specialists in the higher education system of Uzbekistan and to form and develop foresight competence based on the experiences of developed countries. . For this, it is necessary to include the term foresight competence in the qualification requirements of educational areas and subjects related to foresight in the curriculum, and use foresight technology in the educational process [8].

The term "ecological foresight" (eco-foresight in English, environmental foresight or environmental futures projects) means scientific research on the environment and nature protection carried out using foresight technology [9]. Eco-forsight is a relatively new term in Uzbekistan. Forecasting the future on the basis of foresight can be similar to or similar to the production of environmentally friendly products or "Green Space" activities. Only these activities are carried out in order to improve the environment. And foresight is initially a scientific basis for predicting what the development of current environmental problems will lead to in the future, for example, in 10 or 30 years, creating future scenarios [10] and models, developing long-term strategic plans, concepts, and implementing them to eliminate these crises. As a result of high-level scientific and technical progress, future ecologists are required to have the ability to create scenarios for the development strategy of a specific enterprise, institution, company based on the results of long-term scientific forecasting and forecasting of the consequences of environmental pollution. The use of foresight technology is the most effective and reliable in the development of such long-term strategies, concepts and technological roadmaps. For this, it is necessary to form and develop "Eco-foresight competence" in future ecologists. For this purpose, in 2019, the draft Presidential Decree No. ID-3800 on "Establishing foresight centers in leading

higher education institutions of the Republic of Uzbekistan" was prepared and discussed [11].

CONCLUSION

On the basis of the above analytical data, it can be concluded that in the higher education system of Uzbekistan, providing sufficient information about foresight technology in the training of competitive ecologists in line with world standards, including subjects related to foresight in the block of elective subjects of the curriculum, their foresight development of competence and formation and development of "Eco-foresight competence" in future ecologists is the need of the hour. However, until now, in Uzbekistan, scientific-research works have not been carried out and dissertations have not been defended in order to obtain the scientific degree of doctor of philosophy (PhD) and doctor of science (DSc). Foresight topics on the formation and development of "Eco-foresight competence" in future ecologists are not included in the curriculum of specialized subjects or as a separate subject in the block of elective subjects of the curriculum. Therefore, in higher education institutions in Uzbekistan, it is necessary to train professional ecologists who are far-seeing, who can correctly predict the consequences of the environmental impact of enterprises or organizations, and to scientifically and theoretically justify the formation and development of eco-foresight competence in them are one of the urgent and very important issues.

LITERATURE

1. Rakhimov OD, Murodov MO, Ruziev XJ. Quality of education and innovative technologies. Tashkent, "Science and technologies" Publishing house. 2016. Page 208.

2. Modern dictionary of foreign words. St. Petersburg: Duet, 1994.– page752

3. Gavrishchak G.R. Competence and key competencies of a university teacher /G.R. Gavrishchak //Professional competencies and teacher competencies: materials from the region. scientific-practical seminar (November 28-29, 2006). – M.: Ternopolsky us. ped. University named after V. Gnatyuka, 2006.– pp. 31-32

4. Ovcharuk O.V. Development of a competency-based approach: strategic guidelines for the international community /O. V. Ovcharuk // Competency-based approach in modern education: world experience and Ukrainian prospects. – K.: K.I.S., 2004. –p 112.

5. Competent approach in modern education: world experience and Ukrainian prospects / edited by. ed. O. V. Ovcharuk. - K.: K.I.S., 2004. - P. 90.

6. Khodzhibolaeva N.M. Socio-pedagogical content of ecological competence and its components. //Science and innovation International scientific journal. Volume 1, issue 6. uif-2022: 8.2. - pp. 250-256.

7. Dustkobilovich R.O., Ismatovich R.M., Ravshanovich B.Z. Biosphere impact of humanity and environmental problems // Problems of science. – 2019. – No. 5 (41). – P. 6-7.

8. Rakhimov O. D. Berdiyev Sh. J., Rakhmatov MI, Nikboev AT //Foresight In The Higher Education Sector of Uzbekistan: Problems and Ways of Development.//Psychology and Education Journal. – 2021. – T. 58. – №. 3. – p. 957-968.

9. Noskov I.A. Foresight of education: essence, difficulties, realities // International student scientific bulletin. -2022.-No. 1.
URL: https://yeduherald.ru/ru/article/view?id=20866

10. Bis'hop P, Hines A., Collins T. (2007). The current state of scenario development: an overview of techniques. *Foresight.* No. 9(1) P. 5-25.
doi: http://dx.doi.org/10.1108/14636680710727516

11. Rakhimov O. D., Manzarov Yu. Kh., Ashurova L. Initial foresight studies in the higher education system of Uzbekistan // Contemporary education (Uzbekistan). – 2021. – no. 4 (101). - P. 16-22.