

**Ключевые слова.** Экологизация, высшее образование, зарубежный опыт, дисциплины эколого-педагогического направления, экологическая подготовка, учителя биологии, экологическая деятельность, учебные планы.

### SUMMARY

**Skiba M.** Foreign experience of ecological education of future biology teachers.

*The main aim of this article is to analyze the foreign experience of ecological education of future biology teachers in the USA, the UK, Germany, Belarus and Russia. According to the comparative analysis of universities' curricula it is studied out their educational filling.*

*In particular it is revealed that in many countries of Western Europe and the USA the centers of ecological education are created, and in Russia – the environmental and educational center. In the UK during the educational process of teachers, attention is paid to ecologization of the educational process, and the curriculum includes some separate disciplines of ecological direction. The universities in the USA are concentrated on future biology teachers studying a big amount of ecological disciplines, and it is preferred research work to theoretical material. Germany has advocates of traditional pedagogic and eco pedagogic. The emphasis is made on practical methods and forms of work – carrying out practical work, field workshops, activities, waste disposal, landscaping, rescue measures in relation to animals. The U.S. environmental education is aimed not so much at the accumulation of knowledge about the relationship between man and nature but at the ways of their optimization, protection and conservation.*

*Shamiakin National Pedagogical University (Mozir, Belarus) gives off a big amount of hours for studying disciplines of ecological direction. Federal national educational standard of higher professional education (Russia) in the direction of "Biology" provided the studying of different ecological disciplines but it is not provided the study of eco pedagogical direction.*

*Based on the analysis of curriculum of certain universities it is identified the ways of realization of student's ecological education, it is selected disciplines that contribute to the formation of theoretical knowledge as the basis for ecological education of teachers of biology and ecology courses and educational guidance to prepare students for the ecological activities of pupils.*

*It is perspective to further scientific researches to analyze the content of the theoretical ecological education of future biology teachers of Ukraine, the USA and Europe, ant its comparative analysis.*

**Key words:** ecologization, higher education, international experience, eco pedagogical oriented disciplines, ecological education, biology teacher, ecological activities, curricula.

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### THE FORMATION OF INTERNATIONALIZED EDUCATIONAL SPACE AS A COMPARATIVE PEDAGOGICAL PROBLEM

*У статті визначено пріоритетні завдання інтернаціоналізації освіти на різних рівнях освітнього простору, з'ясовано пріоритетні завдання інтернаціоналізації освітнього простору, встановлено й схарактеризовано рівні інтернаціоналізації освітнього простору, оскільки інтернаціоналізація є головною умовою та засобом розбудови освітнього простору як сукупності всіх освітніх й виховних закладів, науково-педагогічних центрів, державних і суспільних організацій освіти в різних країнах, геополітичних регіонах.*

**Ключові слова:** інтернаціоналізація, освітній простір, інтернаціоналізація освітнього простору, рівні інтернаціоналізації освітнього простору, комерціалізація освіти.

**The state of the problem.** Joining the national education system into the European educational society needs in-depth development of the fundamental laws, regulations, laws aimed at transforming education nationally. The fundamental documents defining the conceptual approaches to internationalization of national education are: «National Doctrine of Education» (2002), the Order of the President of Ukraine «On urgent measures to ensure the functioning and development of education in Ukraine» (2005), the Order of MES «On approval of the Plan of Action for the quality of higher education in Ukraine and its integration into European and world educational community for the period up to 2010» (2007), The White Book of National Education of Ukraine (2009), «The National strategy of the development of education in Ukraine 2012-2021 years» (2011) and others. In these documents the process of internationalization is defined an essential condition for the effective development of the educational system.

The National strategy for the development of the educational system has confirmed its integration into European and world educational space with current integration and globalization, in particular the process of internationalization. Establishing the strategic objectives and their implementation determine the fundamental transformational changes in the sphere of education at its different levels, which are primarily aimed at improving the quality and competitiveness of education.

**The analysis of current research.** It should be stressed that the scientific works of Ukrainian and Russian researchers on the analysis of modern educational space have played a great role in the study of the analyzed phenomenon. Thus, the essential characteristics of educational space are given in the works of N. Bordovskaya, B. Vulfson, its structure – in the works of Z. Batyukova, A. Liferov, A. Tsymbalar; the characteristic of its levels are presented in the research of A. Liferov, A. Novikov, modeling and typology of educational environment – in the works of V. Yasvin.

The analysis of theoretical achievements has allowed the author to systematize the internationalization of educational space and its levels; to establish the analogies in the characteristic of dimensions of internationalization of education and the levels of educational space. An important role in solving the tasks has been played by the researches of the scientists who defined the key characteristics of educational space. The study has found that the structure of educational space has been revealed in the works of A. Tsymbalar through a set of such levels: global, European, regional, institutional (local) [7].

The analysis of each level of educational space and directions of its development is carried by B. Hinetsynsky, B. Vulfson, Z. Batyukova, A. Liferov

(world educational space), O. Matvienko (European educational space), V. Kremen (national educational space), M. Korniyushkin, A. Novikov (regional educational space), V. Slobodchikov, V. Stepanov (local educational community) and others.

The spread of the process of internationalization of education at all levels of the educational space needs to study the works of foreign authors who have disclosed and determined the educational space from the positions of multidimensionality and polysubjectivity (J. Boys, M. Brown, T. Varher, J. Dickson, E. Kattier, D. Kristof, N. Lee, M. Lawn, G. Neave, T. Andrus, L. Walsh and others).

**The aim of the study.** The aim of the article is to determine the priorities of internationalization of education at different levels of educational space. The objectives of the article are to establish and characterize the level of internationalization of educational space.

**The methods of research.** The following methods are used: general scientific methods – analysis, synthesis, comparison, generalization, comparing and contrasting different views; method of ascent from the abstract to the concrete in order to establish the levels of internationalization of educational space and main tasks at each level.

**The main material.** Understanding the key features of the world educational space it is revealed that internationalization is a major condition and a means of its development. The expressed generalizations are based on the scientific vision of the world of educational space as a combination of education and educational institutions, scientific and educational centers, public education and public organizations in different countries, geopolitical regions and globally, and their mutual interactions in intensive internationalization of various spheres of public life of modern world (B. Vulfson) [2]; a set of common (global) elements of the content, teaching methods and tools specific to the international community as a whole, the transfer of scientific and cultural experience of previous generations to younger generation (S. Batyukova) [1]; a zone of interaction of national educational systems and their components (A. Liferov) [3].

In the conditions of internationalization of various spheres of public life the formation of the world educational space is in the process of mutual adaptation of national educational systems and the associated development of transnational education, which involves the search for optimal conditions to meet the needs of the individual (I. Tahunova) [6].

By the middle of the 80-s of the twentieth century the key aspects of internationalization were treated within the concepts of «international cooperation», «international education business», «foreign students». As a result, there was a need for specifying the essential characteristics of the phenomenon, its manifestations and results. During the 90-ies of the twentieth century and the beginning of the XXI-s century in foreign science the purpose and basic tasks of internationalization of education were specified, the main

components and nature of the relationships between them, the typical model of internationalization of education were determined. Within active international educational activity during the first decades of the twentieth century rethinking of the essential characteristics and manifestations of the phenomenon in the context of global and local challenges has been done.

The current understanding of the internationalization presents it as the integration of the international dimension in teaching and learning, research, social services institution; in the development of educational strategies aimed at forming global thinking of the youth from the perspectives of the development of modern society.

The international dimension is established a specific feature of the internationalization which aims to develop a multicultural society, experience, knowledge, values and skills through a transformation and enrichment of international color.

The structural components of the international dimension of education are global and European dimensions. G. Benn defines the global dimension within the receiving intercultural skills required to work in a globalized world; the formation of a citizen of the world with global thinking for solving contemporary problems at the local, national and global levels [9].

The history of the concept of «the European dimension of education» is closely associated with the emergence of the EU, which initially took care of the problems of mobility, educational ideas and others. First of all, they talked about the equivalence of diplomas for admission of children of migrant workers for training.

In the 1970-s, the cooperation in education in Europe, within the Programme of Action (1976) was introduced. It was aimed at improving the education of migrant children, intensive information exchange, learning a foreign language in cooperation between higher education institutions and others. In the context of our study it is important to emphasize on the need of introducing the European dimension in the school link in Europe according to this program. Within the Single European Act (1986) there was the arrangement of the introduction of the European dimension in education, forming the basic mechanisms of this process. It was the first time when the concepts of «European identity», «European citizenship» were introduced; recommendations for the modernization of educational content according to the idea of forming a united Europe were developed [5].

The European dimension of education involves the students acquiring knowledge about Europe, in Europe and for Europe. Its essential characteristics have knowledge of traditions, culture, language and economic status of the European countries to obtain a comprehensive picture of Europe and its cultural diversity (E. Low-Bier) [4].

The implementation of the European dimension is due to the mobility of the teachers, students, learning European languages, partnership between institutions members of the EU, participation in European educational programs, organization of joint conferences and seminars on the development of European education, introduction of educational networks, distance learning, cooperation with educational information centers that deal with the issues of comparative research in the educational sphere [15].

The scientific works of J. Knight [12], H. Futao [11], S. Cunningham [8] have made a significant contribution to the clarification of the essential characteristics of the process of internationalization, so they presented the systematization of its types (Table 1).

*Table 1*

**Types of internationalization of educational space**

<b>Types</b>	<b>Import-oriented</b>	<b>Import-export-oriented</b>	<b>Export-oriented</b>
The territorial spread	most developing countries and countries with colonial experience	most developed countries and some developing countries with unique culture and traditions	especially English-speaking developed countries
The manifestations	search for competent personnel for the countries with low levels of national educational systems	English import product for improving the quality of teaching and research activities; export of educational programs with specific features	attraction of foreign students from developing countries, export of international educational services
Negative manifestations	a loss of national identity and «brain drain»	acquisition of national culture, identity and education	commercialization of education, reducing of its quality

As we see, the expansion of internationalized educational services in the global market encompasses the developing countries, developed countries, and the countries with unique culture and traditions. The manifestation of the internationalization of education is to attract competent staff for teaching foreign students for learning, international export of educational services and educational programs. However, the negative manifestations are an absorption of national culture, national identity, national education, «brain drain», the commercialization of education and reduction of its quality.

J. Knight's significant achievement is an attempt to explain the dynamics of internationalized changes in education at all levels [12]. The researcher identifies the international, European, national, regional, institutional levels of internationalization of education.

Internationalization of international educational space is characterized by the common principles of educational policy, free access to quality

education, open education, international educational coherence mechanisms, standards, plans, programs, requirements for teacher training, introduction of an international dimension into all aspects of education.

The priorities of internationalization of European educational space is the creation of a single European educational policy, the introduction of the European dimension of education, the intensification of integration processes in the sphere of education. In this context, the outlined aspects of the internationalization of European educational space include the further development of academic mobility, international educational cooperation, the formation of European policy of multilingualism.

According to the British researcher G. Neave, the internationalization of European educational space began in the Middle Ages and was closely linked with the emergence of universities and international students' mobility when the students travelled from one university to another [13]. The researcher believes that there was a medieval European space, which was defined by a common religious faith, universal academic language curriculum and examination system. However, the scientist emphasizes that the medieval European space is limited and has fragmented nature in comparison with modern one, in which the English language plays a dominant role [13].

The researcher J. Figel shares this opinion [10] and he notes that the Europeans have always exchanged the ideas across borders, including the professors, the scholars, the church supporters who traveled to the Middle Ages and Renaissance Europe; the proof of this is the creation of the Erasmus program, which continues the laid educational traditions today.

Internationalization of national educational space is a key element of national education policy aimed at achieving the objectives of the country at the national and international levels and implementing the international dimension into education [10].

The priorities of the internationalization of national educational space is the formation of national educational goals, improving the quality of education, teachers' training, transparency of educational systems, establishing a partnership between the countries of Europe, the preservation of cultural identity and the respect for different cultures and understanding between nations.

The internationalization of the regional educational space is defined by the global trend of socio-cultural development of mankind, aimed at recognizing the basic value, uniqueness of national and regional cultures, their unity, integrity and significance as an integral part of human culture. These specific characteristics and properties of the particular educational space of the region determine the originality of its educational system.

For example, the Law «On Education» in Great Britain is the basis for determining the national educational policy in the context of European trends, especially internationalization [14]. The document emphasizes the increasing of

educational standards, the quality of education and introduction of innovative technologies in schools. The strategic directions of the development of education according to the Law is to provide quality educational services by uniting schools; raising the educational standards through the use of innovative methods and forms of education and training; support of the educational institutions that use innovation to improve the educational standards; the development and introduction of internationalized school curriculum; increasing the attractiveness and prestige of the teaching profession in the context of integration processes [14].

The internationalization of the regional educational space has specific regularities affecting its development. Among the subjective factors it should be highlighted the educational policy, the purpose and objectives of education, the level of financial, institutional and human capacities of educational policy, the level of autonomy of educational institutions. Internationalization is a condition for the formation of regional educational space, which has an objective character and is aimed at developing the educational sphere.

The internationalization of the regional educational space is conditioned by the following factors: improving the quality of education, the use of modern ICT, studying foreign languages and increasing demand for certain specialties in the region, increasing the number of specialties and multilevel training. In this regard, the attitude to education in general is increasing thanks to the awareness of the importance of education; the demand for highly skilled professionals; there is a certain perception of education as a value and as a result, changing attitudes to education. Thus, the very nature of internationalization of regional educational space is changing. The development of it takes into account the educational needs and interests of each citizen of the particular region, thus it has a personally oriented focus.

The author of the article has come to the conclusion that the process of internationalization of the regional educational space is due to:

- internationalized curriculum, which provides special training for teaching international/foreign students; the introduction of an international dimension in curriculum; language policy (teaching a foreign language but not national); study of the history of the country; establishing partnerships and joint courses and diplomas; Internet usage, ICT, distance learning; Programs twin and franchises and others;
- the students mobility; students pay tuition; Distance Learning of the foreign students; students' participation in international activities;
- diversification of bilateral and multilateral agreements, determination of their goals and effectiveness;
- the mechanisms for determining the quality of education and the assessment of international activities and international programs;

- participation of the students in international research activities and network projects;
- cooperation in research activities: joint consortia, international conferences, conducting research in the sphere of education;
- assistance to developing countries: the definition of motivation, strategies, objectives; training and consultation, quality control [16].

The important role in internationalization of the regional educational space is played by the international activity of the institution, including different substructures, connections between different parts of the institution, responsibility, conflict resolution mechanisms, the presence of specific educational services and related infrastructures (academic and social – provision of housing to the foreign students, staying with the local students, extracurricular activity, student's support) and others.

Thus, the main objectives of internationalization of the regional educational space is the coordination of regional educational policy with the objectives of the national education development, improving the quality of education; the use of modern ICT; learning foreign languages; growth in demand for certain specialties in the region; increasing the number of specialties and different levels of training.

Internationalization of institutional educational space of the educational institution contributes to the solution of such problems: the formation of institutional internationalization strategies, implementation of internationalized curriculum, enriching the international dimension of all aspects of the educational institutions, the establishment of international education partnerships, mobility of the students/pupils, teachers and administrative staff.

The personal development of the subjects of the educational process and meeting the needs of each person who is involved in the social relations of the institution causes the formation of individual educational space.

Internationalization of the individual educational space is to identify the personal learning goals; an educational route; the formation of international professional competencies, the standards of international citizenship, a personal identity, implementing of educational needs and choice of future profession that meet international educational standards and demands of the modern labor market in the context of building a knowledge society.

The individual educational space is focused on the formation of a competitive personality of global consciousness and professional competence that meet international requirements and the needs of the market, requires its internationalization through international development thinking, formation of international citizenship, social adaptation based on the principles of an «open society» and «society without borders».

**The conclusions and prospects of further scientific studies.** As a result, the study has found that at every level the process of internationalization is



recognized as a catalyst for the development of a single educational space, the priorities of which are to build an open system of education without borders; an increase of the quality of education for all; an increase of international educational standards; broadening and deepening the international cooperation between countries in education on the basis of partnership between the state and its individual members; humanization of education by introducing humanitarian disciplines (political science, cultural studies, ecology); distribution and application of innovative technologies while maintaining national traditions and national identity of the countries, states and regions; training of highly qualified teaching staff with prevailing international competence.

The prospects of further scientific studies are seen in determining the priorities of internationalization of institutional educational space of the United Kingdom.

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### РЕЗЮМЕ

**Чернякова Ж. Ю.** Формирование интернационализованного образовательного пространства как сравнительно-педагогическая проблема.

*В статье определены приоритетные задачи интернационализации образования на различных уровнях образовательного пространства, выяснено приоритетные задачи интернационализации образовательного пространства, установлены и охарактеризованы уровни интернационализации образовательного пространства; определено, что процесс интернационализация является главным условием и средством развития образовательного пространства как совокупности всех образовательных и воспитательных учреждений, научно-педагогических центров, государственных и общественных организаций образования в разных странах, геополитических регионах.*

**Ключевые слова:** интернационализация, образовательное пространство, интернационализация образовательного пространства, уровни интернационализации образовательного пространства, коммерциализация образования.

### SUMMARY

**Chernyakova Zh.** The formation of internationalized educational space as a comparative pedagogical problem.

*The article is devoted to defining and characterizing the levels of internationalization of educational space, clarifying the internationalization priorities of educational space. Understanding the key features of the world educational space it is revealed that internationalization is a major condition and means of its development.*

*It should be stressed that the scientific works of Ukrainian and Russian researchers on the analysis of modern educational space have played a great role in the study of the analyzed phenomenon. Thus, the essential characteristics of educational space are given in the works of N. Bordovskaya, B. Vulfson, its structure – in the works of Z. Batyukova, A. Liferov, A. Tsymbalar; the characteristic of its levels are presented in the research of A. Liferov, A. Novikov, modeling and typology of educational environment – in the works of V. Yasvin.*

*The analysis of theoretical achievements has allowed the author to systematize the internationalization of educational space and its levels; to establish the analogies in the characteristic of dimensions of internationalization of education and the levels of educational space. An important role in solving the tasks has been played by the researches of the scientists who defined the key characteristics of educational space.*

*The author defines the international, European, national, regional, institutional levels of internationalization. It is found that at every level the process of internationalization is recognized as a catalyst for developing the international educational space.*

*The current understanding of the internationalization presents it as the integration of*

*the international dimension in teaching and learning, research, social services institution; in the development of educational strategies aimed at forming global thinking of the youth from the perspectives of the development of modern society.*

*The international dimension is established a specific feature of the internationalization which aims to develop a multicultural society, experience, knowledge, values and skills through a transformation and enrichment of international color.*

*The main priorities of internationalization of educational space are to build an open system of education without borders, the transition to high-quality education for all, improving international education standards, expanding and deepening international cooperation in education on the basis of the partnership of the state and its individual members, training of highly qualified teaching staff with prevailing international competence.*

**Key words:** *internationalization, educational space, internationalization of educational space, the level of internationalization of educational space, commercialization of education.*