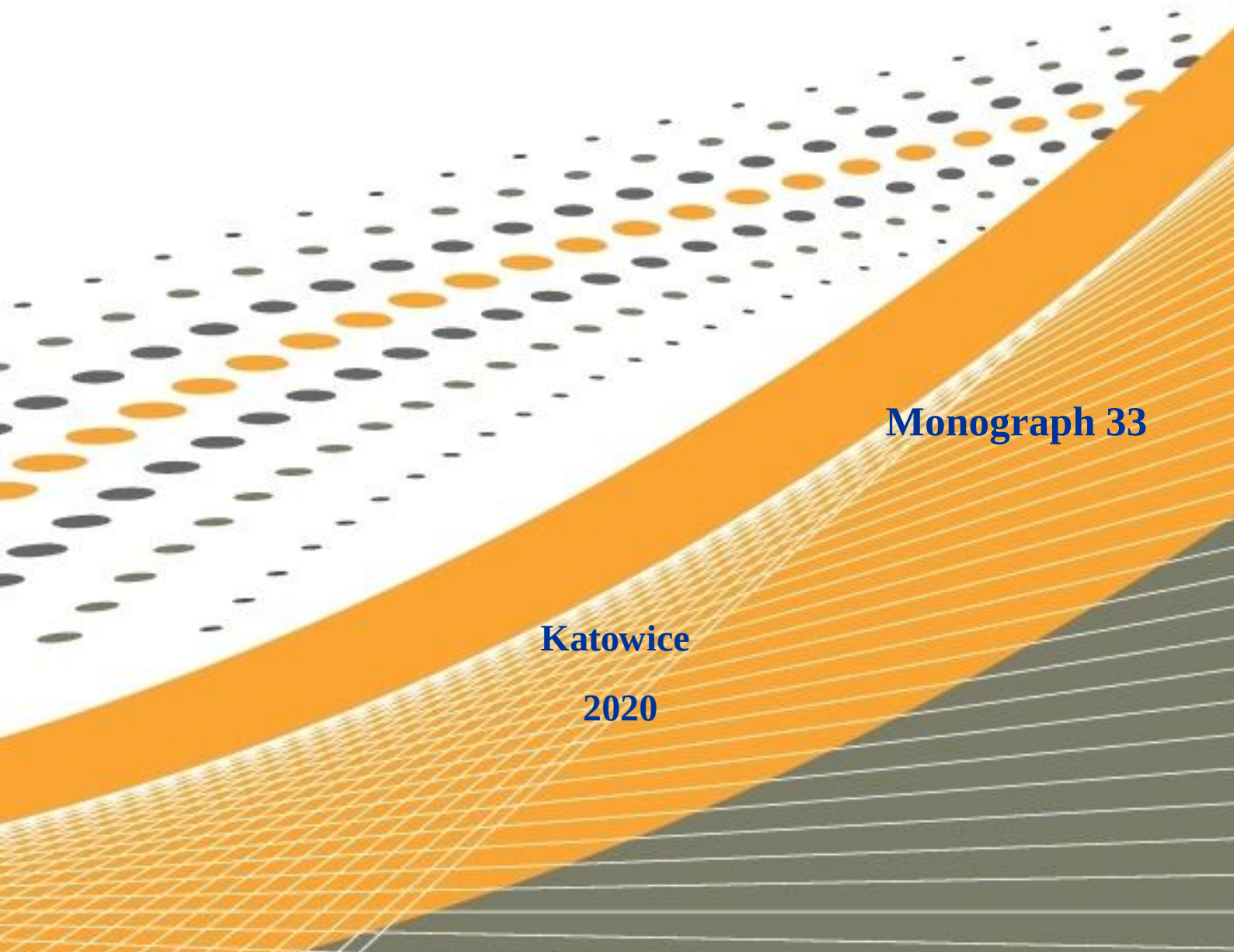
THEORETICAL AND APPLIED ASPECTS OF SUSTAINABLE DEVELOPMENT



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THEORETICAL AND APPLIED ASPECTS OF SUSTAINABLE DEVELOPMENT

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2.1. THE CONCEPT OF SUSTAINABLE DEVELOPMENT AS A METHODOLOGICAL BASIS FOR THE ECOLOGICAL OF EDUCATION IN HIGHER PEDAGOGICAL INSTITUTIONS

For the first time, the term sustainable development was used in a report by the International Union for the Conservation of Nature and Natural Resources in the 1980 World Strategy for Nature Conservation, which stated that nature conservation is the management of human use of biosphere resources, which can bring other sustainable profits to the current generation without compromising the potential to meet the needs of future generations. However, this concept has received particular attention since the publication of the report Our Common Future (1987) by the United Nations Commission on the Environment and Development (Brundtland Commission). It was the conclusion of this commission that formed the basis for the decisions made about the need for society to reach a level of sustainable development at a conference in Rio de Janeiro in 1992.

During the last quarter of a century, the scientific community has been debating the meaningful implementation of sustainable development strategies and ways of implementing them in the educational, scientific, economic and environmental systems of all countries. Consider what scientific concepts have become the basis for formulating the fundamental provisions of sustainable development of nature and society and the mechanisms for its implementation.

Analyzing the doctrine of the noosphere V. V. Vernadsky, we can conclude that it is his fundamental principles that underpin the understanding of the further development of civilization as a result of the interconnection of natural phenomena of the biosphere and social processes caused by human activity. In the noospheric concept of V. V. Vernadsky proclaims the dialectical unity of the evolutionary process of mankind and the biosphere, whereby human consciousness and activity are given the role of one of the leading geological factors on a planetary scale.

Based on the concept of V. V. Vernadsky, N. N. Moiseev treats sustainable development as a transition strategy, which may result in a mode of coevolution of man and nature, which maintains stability and balance in the system «Nature – Human – Society».[135]

The concept of «sustainable development» O. K. Drejer, V. A. Los` is offered to be considered in narrow and broad interpretations. In the narrow sense, attention is paid to the need to optimize human activity in the environment while preserving the natural resource potential of the biosphere, that is, to envisage such activity management, which calculates not only the economic effect, but also the social and environmental consequences of activities at local and regional level. In a broader interpretation, the authors consider the approach to the level of sustainable development as the result of a new type of functioning of civilization, based on a radical change in the historical structure of its basic parameters: economic, social, environmental, cultural and other.[136]

Despite the large number of approaches to understanding the phenomenon of sustainable development, they are united by several common features, including understanding the need:

• conservation of the environment, its natural resources and biodiversity;

• limiting the growth of quantitative consumption of natural resources while preserving the quality of life on the basis of balanced environmental management;

• redesigning the environmental model of industrial countries as leading to degradation of the biosphere;

• changes in traditional consumer attitudes towards nature, which primarily implies the transformation of the ecological worldview and consciousness of humanity in general, and individually of each individual in particular.

[135] Moiseev N. N. (1993): XXI century – an age of accomplishment.

[136] Drejer O. K., Los` V. A. (1997): Ecology and Sustainable Development: Study Guide, p. 10-11.

According to the authors of the manual «Philosophy of Education» «... new ways of world awareness, the development of multivariate social imagination, the extremely developed ability of the individual to self-organization and social responsibility before himself and society – these are the most powerful tool for the co-evolution of man and society in the XXI century ...».[137]

In the context of our study, the point of view of L. N. Nemecz, according to which, at the stage of transition to sustainable development, the mental-forming function has a major role to play. Its task is to reorient social consciousness to universal values, to the awareness of the self-worth of all living things on the planet, including the human.[138]

Therefore, the civilization of the 21st century is forced to refocus on a new way of life, the formation of an ecocentric ecological worldview, which relies on environmental value orientations in relation to the environment. The question of the dominance of ecological and ethical values over material needs has become an unconditional issue for the survival of mankind, and «the model of the educational system of the 21st century should be guided by the model of sustainable development of society».[139] Therefore, greening education is now a priority mechanism for socio-economic progress and sustainable development of any state.

During the last decades, at the International Conferences and World Environmental Forums dedicated to the problems of overcoming the ecological crisis and defining the main vectors for the safe development of society (Rio de Janeiro, 1992; Johannesburg, 2002; Vilnius, 2005; Kyiv, Environment for nature, 2003; Rio de Janeiro, 2012), the conceptual bases of our civilization's approach to the level of sustainable development are substantiated and, accordingly, it is proposed to make changes in the content of higher professional education in order to increase the environmental competence of the future and their readiness for effective professional, including management activities. The resolutions adopted emphasize that the main cause of the destructive relationship between nature and society is the low level of ecological culture and ecological outlook of specialists who, as a consequence, are not able to successfully address the urgent environmental problems of their region and the country as a whole on the basis of balanced nature.

In order to fulfill the objectives of the Agenda for the 21st Century, approved by the UN Conference on Environment and Development in Rio de Janeiro, a Strategy of education for sustainable development was adopted in 2005, emphasizing the need for its inclusion in the system of education and development of principles and methodological principles for its reform.

Thus, it was proclaimed the need to reorient the vector of society's development from consumer attitude towards the natural environment and resources to the formation of ecologically safe world economy based on co-evolutionary development of the system «Nature – Human – Society» and harmonization of the interrelations of its constituent elements. In this case, special status should be acquired by ecological education of the population. In this regard, noted that ecological education will be able to take a proper place, provided that it itself becomes a postulate orientation to sustainable development.

Ecological education and upbringing in higher education institutions is an extension of the previous stages of environmental education (kindergarten, secondary school, family) and the next, higher level in the system of continuous multi-stage ecological education. Higher education institutions should cultivate a sense of high responsibility for the conservation and reproduction of natural resources by students on the basis of a balanced use of nature and the idea of sustainable development of nature and society.

Therefore, it is of particular importance that continuous ecological education is focused on the conservation and reproduction of natural resources on the basis of balanced environmental management and providing of sustainable development of nature and society. A significant component of this education is the professional training of an ecologically competent teacher, able to implement adequate ecological education and upbringing of pupil youth in accordance with the requirements of today.

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[137] Philosophy of Education: Tutorial / For the General. ed. V. Andrushchenko, I. Peredborska (2009), p. 265.
[138] Nemecz L. N. (2003): Sustainable development: Socio-geographical aspects (for example, Ukraine), p. 232.
[139] Ursul A., Romanovich A. (2002): Educational Perspectives and the Security Problem, p. 14.

The introduction of a competent approach to ecological education in higher education today is extremely relevant and in demand, because it allows to reveal the current world trends in the development of education on the one hand, and on the other, to modernize the environmental training of future teachers in accordance with the new social and ecological environment and the transformation of public environmental views and attitudes. And if the first task involves the construction of an organizational and content structure of environmental education, then the second task is to understand its general conceptual basis, ideology, and axiological bases. In our opinion, these determinants determine the fundamental problems and tasks of the development of ecological education in higher education institutions and determine the prospects for further research in this field.

Thus, ecological education is essential in building the content of the higher education system to ensure the sustainable development of society. And if the strategic task of ecological education in higher education institutions is the formation of ecocentric ecological outlook of students, then the tactical is to gain experience of using the system of acquired ecological knowledge and skills and the formation of spiritual needs of a person who self-improves, self-fulfills, seeks and professes ecologically high values ethical principles of behavior and activity in the environment. In other words, we are talking about the creation of a certain educational environment in institution of higher education, which implements all the conditions for the formation and development of environmental competence of a future specialist.

Group of authors headed by M. I. Drobnokhod proposed model of education based on the national concept of Ukraine's transition to sustainable development and should include all groups and levels of education. Scientists define the functions of ecological education by the following provisions:

1) reveal human communicative capabilities by explaining concepts that are a necessary component of each individual's modern communication minimum, regardless of their educational and social status;

2) performs an informative function as citizens acquire data about the natural environment, natural resources, the place of man in nature, its connection with it and the universe;

3) shapes the personality of the student, young man and citizen, revealing its emotional and intellectual spheres, the ability to think logically, the ability to anticipate the consequences of their behavior in nature and society.[140]

Despite the urgency of the tasks set, the implementation of the education for sustainable development strategy in Ukraine is slow. A group of authors headed by O. I. Bondar a draft concept of a national education system for sustainable development was developed, which remains to be considered at the state level to this day.[141] Scientific analysis of a wide range of issues related to sustainable development and the role of education in this process, its tasks and directions of improvement at each stage of continuous education and upbringing was carried out in fundamental collective work, edited by V. G. Melnyk.[142]

However, there is no consensus on the form of educational support for the concept of sustainable development: some authors believe that education for sustainable development should be implemented in the educational process as an independent industry, others – within the environmental education, enriched by the basic provisions of the education for sustainable development. Most domestic scientists are working to give ecological education a qualitatively new status, when the formation of a system of environmental values based on moral and ethical attitude to the environment is of particular importance. N. A. Pustovit developed educational and methodological approaches for the formation of environmental competences of students in the context of education for sustainable development. After all, the formation of environmental

[140] Drobnokhod M. I., Volvach F. V., Ivashchenko S. H. (2000): The conceptual basis of the environmental education and health needs of people who will be in harmony with nature.

[141] The concept of the national system of education for sustainable development / O. I. Bondar, T. V. Tymochko, H. B. Marushevskyi and others (2011).

[142] Sustainable development: theory, methodology, practice: textbook / Under. ed. L. G. Mel`nik (2009).

competence of students has become an integrated indicator of the quality not only of school ecological education for sustainable development, but also the willingness of teachers to implement its basic tenets in their professional activity.[143]

With regard to the introduction of education for sustainable development into higher education practice, there are currently a number of scientific developments to train future environmental specialists and students of technical higher education institutions.

In particular, a number of disciplines devoted to the study of the basics of sustainable development are included in the educational and professional training programs of bachelors and masters of the specialty «Ecology» and for some administrative specialties of technical higher education institutions: «Development of strategies for sustainable development of settlements», «Socio-economic potential of sustainable development»,«Monitoring of Sustainable Development Indicators»,«Sustainable Development Strategy» and others. Scientific and educational support of the teaching of these disciplines is carried out by the works of O. I. Bondara, T. V. Timochko, G. B. Marushevsky, G. O. Bilyavsky, Yu. M. Satalkina, V. G. Melnika, M. Z. Zgurovsky et al. Teaching these courses is an extremely important task: not only to provide a certain amount of knowledge, but also to teach students to think, to instill the right moral and ethical values in relation to nature, to develop management decision-making skills, consistent with the principles of the concept of sustainable development.

However, building up the content of ecological education on the basis of sustainable development in higher education institutions has remained beyond the reach of scientists. At the same time, the higher professional pedagogical school faces the task of social importance – to ensure the formation of environmental competence and readiness of future educators for ecological education and upbringing of the younger generation.

It should be noted that a characteristic feature of the education for sustainable development is its interdisciplinarity, which in turn imposes its imprint on the integration of educational ideas for sustainable development into the educational process. In particular, one of the core objectives of the education for sustainable development is to acquire teachers knowledge that allows them to integrate sustainable development into the content of the disciplines they teach and essentially pursue two goals: to ensure the harmonization of curricula with key topics of sustainable development and to train and retrain teaching staff. Measures aimed at achieving this goal offer curricula to properly reflect key themes of sustainable development, such as poverty eradication, gender equality, health, environmental protection, rural development, human rights, sustainable production and consumption, promotion of ecocentric determinants, taking into account national peculiarities of mentality and culture, settlement of armed conflicts, etc. The methodological support of the educational process is based on a continuous, consistent, progressive and logical presentation of the concept of sustainable development, focused on preventing the emergence of new and solving existing problems.

In order to substantiate the mechanisms of introducing ecological education on the principles of sustainable development into the higher education system in Ukraine, we analyzed the experience of foreign countries in the implementation of sustainable development ideas in the educational process of higher education institutions.

The UNECE Strategy states that ecological education plays a fundamental role in the long-term process of becoming an integrated system of education for sustainable development. Over the past 20 years, new approaches to sustainable development education have been introduced in different countries of the world. In particular, since 2003, the University of Ulster (Northern Ireland) has started a distance master's program «Education for Sustainable Development» for secondary school teachers. The program includes four modules:

- education theory and principles for sustainable development;
- methodology and practical exercises on education for sustainable development;
- economic, legal and political aspects of sustainable development;

[143] Pustovit N. A. (2010): Ecological competency as a goal of education for balanced development.

• sustainable development management.

The final result of the master's program is the completion of a diploma thesis on the implementation of education for sustainable development at the local level.

The Danish Ministry of Education organizes seminars for teachers from the Baltic region related to sustainable development in agriculture, energy and green tourism; each seminar focuses on one aspect of sustainable development. For example, the seminar «Sustainable Energy Consumption: New Millennium Energy» discussed the issues of alternative energy, energy efficiency, environmental impact and human health. Practical classes analyzed the daily use of energy at home, developed recommendations for savings, made an excursion to a local power plant, evaluated the economic feasibility of its work and environmental impact.

At the Russian University of Chemical Technology named after D. Mendeleev since 1995 lectures are given on the course «Sustainable Development», which include the following issues:

• basic concepts and principles of the Sustainable Development Concept;

• information about the Earth's biosphere and the concept of the biosphere as a dynamic system;

• the concept of stability and balance of dynamic systems;

• quantitative and qualitative criteria for sustainable development;

• modeling of social development;

• decision-making problems.

In Bulgaria, there is a network of eco-schools that has received the support of the Bulgarian Ministry of Education and the municipalities. Since 1998, the annual Education for Sustainable Development conferences have been held for members of the network, attended by teachers from schools, non-governmental organizations and staff from the Ministry of Education. The topics of the conferences are cultural, historical traditions and interfaith relations as important components of sustainable development, the role of educational institutions in the dissemination and perception of environmental information.

In the UK, sustainable development education is seen as a synthesis of ecological education and development education. The field of education for development has expanded significantly due to the persistent actions of some non-governmental organizations, such as Oxfam. Ecological education, development education, and environmental education disciplines share leading positions in the concept of sustainable development.

At the Baltic University (Uppsala, Sweden), a group of authors from the Baltic region has developed and implemented an Education for Change project aimed at helping teachers and other education workers introduce the concept of sustainable development into the educational process. As a result of his work, a manual was created with the same name for teaching and learning about sustainable development strategies. The guide sets out practical recommendations for teachers of schools, teachers and students of pedagogical institution of higher education on the study of the concept of sustainable development and the development of methods for its implementation in the educational process. The authors of the project believe that the introduction of environmental component in formal education, which became widespread at the end of the twentieth century, can not fully meet all the challenges facing the education for sustainable developmentand needs to be supported by means of non-formal education (training courses, trainings, rounds experience to improve the qualifications of educators on education for sustainable development).[144]

Thus, there is no consensus on the form of educational support for the concept of sustainable development: some authors believe that education for sustainable development should be implemented in the educational process as an independent industry, others – within the framework of ecological education enriched by the basic provisions of the education for sustainable developmen. It should be noted that in Ukraine the vast majority of representatives of national pedagogy are supporters of the latter approach.

[144] Education for Change: A Handbook for Teaching and Studying Sustainable Development / under. ed. Gitte Yutvik, Inese Liepina (2012).

Similar dual tendencies are observed in the development of education for sustainable development in other countries. For example, a group of American scientists identified the following approaches in implementing the concept of sustainable development in the education system:

• recognize sustainable development as a paradigm for educational change;
• to fill with ecological content all subjects;
• develop ecological education programs for specialization in most colleges and universities;
• intensify research on a wide range of environmental and cultural issues;
• to compare education reforms with the development of ecological education at the national and international levels.[145]

Most domestic scientists are working to give ecological education a qualitatively new status, when the formation of a system of environmental values based on moral and ethical attitude to the environment is of particular importance. A significant component of this education is the professional training of an environmentally competent teacher, able to implement adequate ecological education and upbringing of student youth in accordance with the requirements of today. The opinion of L. B. Lukyanova: «…ecological education is not a part of education, but a new meaning and purpose of the modern educational process – a unique means of preserving and developing human beings and continuing human civilization».[146]

In Ukraine, not only is the greening of the education system, but also the greening of all sectors of the economy. Therefore, the problem arises of the training of pedagogical staff for ecological education of specialists in various fields of economy and social sphere, able to implement the ideas of sustainable development in their professional activities and daily life. There was a need to saturate educational and professional training programs for future teachers of all, without exception profiles with environmental content, adapted to the relevant subject area of education.

Analysis of the current state of environmental literacy of future teachers shows that a large part of this category of young people is dominated by a utilitarian approach to nature, environmental problems are not included in the system of personal values, are not part of their moral convictions, and for many of them there is a passive-consumption level by nature. Often environmental knowledge obtained in the process of education are disordered, haphazard in nature, skills and skills of environmental orientation are mainly narrow conjunctural color, do not correlate with the axiological vitality – the harmonization of society and the nature of human values, necessity environment.

Analyzing the educational programs and curricula of training of specialists of the educational qualification level «Bachelor» in the specialty 014 «Secondary education» in the subject specialties: Mathematics, Informatics, Physics, Chemistry, Biology, Geography, History, Ukrainian language and literature, Foreign language, Physical education , we came to the conclusion that there are no norms in the plans for environmental education. It should be emphasized that 5-7 years ago the discipline «Fundamentals of ecology» was included in the list of compulsory university courses, and in the National Strategy for the Development of Education in Ukraine until 2021 one of the strategic directions of development is the general greening of higher education.[147]

At the same time, only in some institutions of higher pedagogical education the variant component of educational and professional programs contains the disciplines «Ecology», «Fundamentals of ecology», «Socioecology», the amount of which is only 3 ECTS credits. There are no environmental components at all in the curricula for the training of specialists of the educational level «Master of Science» in the specified specialty. It is clear that this is not enough for the formation of a system of environmental knowledge and skills of students necessary for the

[145] Berbenet W. G. (1989): Education for sustainable development: A call for reform, p. 123.
[146] Lukianova L. B. (2006): Theory and practice of ecological education at professional technical mortgages: dis. dr pedagogical of sciences, p. 54.
[147] Presidential Decree of June 25, 2013 No. 344/2013.

effective preparation of the future teacher for the organization of ecological education and upbringing in general educational institutions.

Thus, in order to accomplish these tasks, it became necessary to identify ways to implement the ecological education system on the principles of sustainable development in all higher education institutions, including pedagogical ones. The priority in this is the greening of the educational process, which, in our opinion, should provide the conditions and opportunities for students to acquire scientific knowledge about the interconnections in the system «Nature – Human – Society»; nurture an understanding of contemporary environmental issues, an awareness of responsibility at global, regional and local levels; to develop the ability to make responsible decisions about environmental problems, to master the norms of environmentally sound behavior and activities in the environment and to develop the value-motivational sphere of personality in relation to nature.

Mechanisms for implementation of the ecological education system on the principles of sustainable development in the educational process should consist of the following steps:

• integrating the concept of sustainable development into all future teacher education programs;

• inclusion of sustainable development issues into the work programs of vocational-oriented humanities and socio-economic training cycles;

• inclusion of sustainable development issues in the curricula of general, professional and practical training courses;

• inclusion in the curricula of preparation of bachelors in specialty 014 «Secondary education» of the disciplines «Fundamentals of ecology», «Ecological education and upbringing in school» with a volume of at least 6 credits and courses «Concept of sustainable development in education» and «Methodology of environmental work in educational institutions» for the preparation of masters;

• taking into account local, regional and national environmental conditions and problems while studying these disciplines;

• involvement of student self-government bodies in carrying out environmental actions and activities, participation in the work of the student scientific society on education issues for sustainable development, public environmental organizations.

The teaching of these courses should be based on the following principles: integrity, continuity, systematic and systematic, which are generally aimed at forming a coherent scientific picture of the world, which is revealed in the interaction of natural science and socio-humanitarian knowledge; interdisciplinarity and integrativeness, which will promote awareness of the universal value of nature and itself, as an integral part of it, by means of both humanities, social, and natural and technical disciplines; principle of regionality – provides coverage of environmental problems not only at the global, regional, but also at the local lore; principles of orientation of training for development of value-motivational and activity-practical sphere of personality - ensure formation of comprehensively educated socially active personality.

In the course of teaching the offered academic disciplines, new approaches to education for sustainable development are introduced and students' abilities to acquire communicative competence are realized: to express and defend their own point of view; think critically; make informed choices between alternatives; learn to work as a team, negotiate and respect democratic decisions.

Student youth are an active part of society, which is usually well aware of the environmental problems of their region and takes an active public position to raise and resolve them. However, given today's realities, to overcome the environmental crisis it is necessary to have environmental competence based on a new ecocentric value system in relation to nature. Currently, ecological knowledge, environmental thinking, environmental ideas are transformed into the material force of the progressive development of science, technology and culture and become the driving force for the sustainable development of society.

Thus, in the current context, questions are being raised not only about the development and improvement of environmental education, but about its new status and important role in the

development of education systems for sustainable development, when the formation of environmental ethics and morals are of particular importance and increasingly concern the world community. Pedagogical institutions of higher education have an extremely important task: not only to provide access to knowledge, but also to teach them to think and to instill the correct moral principles accepted by society. It is the habit of caring for the environment that should be the basic norm of any person's behavior, which must be developed from an early age.

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ANNOTATION

Part 1. THE ECONOMIC COMPONENT OF SUSTAINABLE DEVELOPMENT

1.1. Nataliia Hembarska, Khrystyna Danylkiv, Khrystyna Gorbova. SOCIAL RESPONSIBILITY FOR BUSINESS AS AN INTEGRATED SUSTAINABLE DEVELOPMENT

The essence of the concept of sustainable development and the components that provide it in the process of doing business have been clarified. Priorities in achieving the desired results of sustainable development have been identified. The interpretation of the concept of corporate social responsibility by international organizations is considered. The characteristics of sustainable development have been isolated and their alignment with the components of business social responsibility according to international standards has been carried out. The models of corporate social responsibility are indicated. The conclusions about the causes and purpose of the concept of corporate social responsibility and its impact on sustainable development are made.

1.2. Nadiya Dubrovina, Oksana Tulai, Erika Neubauerova. TENDENCIES OF FUNDING HEALTH CARE IN EU COUNTRIES: THE FEATURES AND PERSPECTIVES

The article considers the problems of functioning and financing mechanisms of national health care systems in the EU countries. The characteristics of the distribution of total government expenditure on health as percentage of GDP were studied on the sample of the values for EU countries for period of 2000-2018. The tendencies of the dynamics of total government expenditure on health as percentage of GDP were analyzed by means of linear trends and Holt's models and predicted values for next time period were given.

1.3. Nataliia Ivasyshyna, Anton Palchyk. EVALUATION OF THE TOURIST ROUTE OPTIONS

The article describes the method of comparison of options of choice of tourist routes is considered in the work. A method of comparing passenger transportation routes with regard to the cost of transportation and the socio-economic cost of time spent by passengers is proposed. The cost of transporting passengers by bus depends on many factors: geometric elements of the highway, weather conditions and type of buses. It is suggested to take into account the speed reduction in settlements, at pedestrian crossings. The end result will be the sum of the cost of transportation and the monetary expression of the time spent by the bus passengers.

1.4. Olha Khaietska. INVESTMENT ATTRACTIVENESS OF UKRAINIAN REGIONS IN CURRENT CONDITIONS

Attracting foreign investment is an important and topical issue for Ukraine. Improved investment attractiveness will lead to the emergence of new opportunities for the development of promising industries and regions of the country, improving economic stability, increasing business activity, will ensure the country's GDP growth.

The article defines the integral assessment of the investment attractiveness of the region and the factors that influence it. The importance of the factors and indicators that determine the investment attractiveness of the region is noted. The dynamics of capital investment by regions of Ukraine presented and analyzed, places of individual regions of Ukraine for the assessment of capital investments has identified, and it have noted that it is necessary to make a region in order to get a high rating.

The strategic goals and guidelines for enhancing the investment attractiveness of the national economy and the stages of the process of development of the investment infrastructure of the region are proposed.

1.5. Olena Polova. CONCEPTUAL FOUNDATIONS OF UKRAINE AGRARIAN SECTOR DEVELOPMENT

The emergence of global economic chains has led to an intensification of competition between countries. For Ukraine, the agro-industrial complex has traditionally remained a priority and strategically important sector of the economy. The full utilization of the export potential of the country's agro-industrial complex plays an important role in its integration into the world economic space. Therefore, it is relevant to determine the conceptual basis for the development of the agricultural sector of Ukraine in the conditions of increased international competition. Ensuring the sustainable development of the agrarian sector of the economy is based on the realization of its multifunctional mission as a whole and the harmonization of the main components (economic, social and environmental) in particular.

1.6. Valentyna Smachylo, Taras Nalyvaiko. ADAPTIVE CONTROL OF THE PERSONNEL OF THE ENTERPRISES: THE THEORETICAL ASPECT

The category “adaptive control” was identified, the basic approaches to its conception were determined and the author’s vision statement was provided. The concept “the personnel of the enterprise” was defined. The structural and logical scheme of adaptive control was suggested, and also the hierarchy of adaptive control of the personnel of the enterprise was defined.

1.7. Yulia Stavska. THE COMMUNICATION COMPETENCE AS THE BASIS OF PROFESSIONALISM IN SOCIO-ETHICAL MARKETING

The article examines the views of domestic and foreign scientists on the reorientation of production from the mass to the individual consumer; In a context where job creation in manufacturing is usually preceded by marketing research on individual demand, social communications begin to fulfill the functions of the "central nervous system", which provides vitality for the economy as a whole organism. The essence of the category "social and ethical marketing" is considered. It is proved that in the theory of social communication it is accepted to distinguish between practical and proper communicative effectiveness of social interaction. It is determined that the communication competence of the personal sale operator is defined as the system unity of four factors: communication knowledge, creativity, responsibility, initiative.

Part 2. THE ROLE OF EDUCATION IN SUSTAINABLE DEVELOPMENT

2.1. Inna Siaska. THE CONCEPT OF SUSTAINABLE DEVELOPMENT AS A METHODOLOGICAL BASIS FOR THE ECOLOGICAL OF EDUCATION IN HIGHER PEDAGOGICAL INSTITUTIONS

The article highlights the main approaches to understanding the concept of sustainable development in education. Its realization in higher pedagogical education of other countries is analyzed. The characteristic features of education for sustainable development are highlighted. The ways of introduction of education for sustainable development in the system of professional training of future teachers are established.

2.2. Zhanna Chernyakova, Mikhail Lyannoy, Tetiana Buhaienko, Yurii Kurnyshev. KEY COMPETENCIES IN THE CONTEXT OF EDUCATION FOR SUSTAINABLE DEVELOPMENT

The main aim of the scientific study is to analyze the normative documents and recommendations in order to define the essence of the term «education for sustainable development». The pedagogical approaches to the education for sustainable development have been

described: the competence approach, the emancipatory approach. On the basis of analysis of normative documents and literature the classification of the key competencies is presented in the research. The characteristics of the competencies (systems thinking, anticipatory, normative, strategic, collaboration, critical thinking, self-awareness, integrated problem-solving)are offered.The pedagogical methods which help to foster the mentioned competencies are characterized and outlined in the study.

2.3. Tetiana Khrystova, Yevhen Karabanov, Inessa Rebar. IMPROVEMENT OF PROFESSIONAL COMPETENCE OF PHYSICAL CULTURE TEACHER IN THE SYSTEM OF POSTGRADUATE PEDAGOGICAL EDUCATION

Based on the systematic analysis of scientific and pedagogical literature and generalization of own experience, the pedagogical conditions are grounded, which determine the level of professional competence of the teacher of physical culture in the postgraduate education system. A detailed description of each pedagogical condition is provided and its informative components are revealed, which positively influence the professional development, self-development and self-improvement of the teacher of physical culture during the period of advanced training, pedagogical staff. The generalized algorithm of technology of organization and holding of master classes in physical education at secondary school, which most effectively influence on dynamics of professional competence development of the teacher, is given.

2.4. Kateryna Kovalova. COMMUNICATIVE COMPETENCE IN THE SYSTEM OF EDUCATIONAL TRAINING OF FUTURE ENGINEERS-AGRARIANS

The communicative competence in the system of professional training of future engineers-agrarians is studied. The structure of the professional competence of a specialist in which scientists distinguish communicative competence is examined. It is shown that the communicative competence is a necessary component of the professional development of future engineers-agrarians, which promotes their professional success, career growth and helps to meet the modern requirements of society. The specialists' communicative competence should include knowledge of professional terminology, the ability to use it in oral and written professional speech, based on their own internal motivation and experience, recognizing the need for self-improvement. In the article we define the model of formation of the communicative competence of a student. It includes motivational-emotional, gnostic, conative and reflexive components.

2.5. Olena Lakomova, Daria Shyian. TOURISM EDUCATIONAL PRACTICES AS THE TOURISM INDUSTRY SUSTAINABLE DEVELOPMENT GUARANTEE

Tourism educational practice use as the guarantee of tourism industry sustainable development is analyzed in the article. The practice organization and completion basic stages are discussed, the main tourist sites are highlighted according to the different tourism types, the professional skills and abilities acquired by the students during the tourism educational practice are clarified.

2.6. Diana Lohvinova, Oleksandr Lohvinov. THE PROBLEM OF COGNITIVE PROCESSES STUDY THROUGH THE USE OF COMPUTER TECHNOLOGIES

This article is devoted to the problem of attention development at school age, as well as the problem of development of methodological tools for studying its properties. The article presents a computerized method "Corrective Test", which allows to obtain quickly reliable data of concentration, switching and distribution of attention in a large sample of examined people, as well as to receive empirical data of high school students in relation to their educational progress at school.

2.7. Oksana Loiuk, Tetyana Gritchenko. THE ALGORITHM OF SCIENTIFIC CONCEPTS FORMATION IN THE JUNIOR PUPILS IN THE LEARNING PROCESS

The article reveals the urgency of the problem of scientific concepts formation in junior pupils. The algorithm for the scientific concepts formation in junior pupils has been based on the synthesis of M. Maslova's concept of thinking integrity; Y. Ponomariov's research on the inner action plan; Yu. Kulyutkin and G. Sukhobskaya's position on transition from the operational components of visual-thinking to the content components of the conceptual, research psychologists (O. Kulchytska, O. Luk, O. Molyako, etc.) about the creative process structure; P. Halperin and N. Talyzina's research results concerning mental actions and concepts formation.

The conclusions about the algorithm effectiveness for the scientific concepts formation in junior Pupils in the process of studying the disciplines "I am in the world" and "Natural science" have been presented.

2.8. Svitlana Skvortsova, Anastasiia Ishchenko, Tetiana Britskan. USING OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE PRIMARY SCHOOL TEACHER'S PROFESSIONAL ACTIVITY

The article is devoted to the study of peculiarities of the use of information and communication technologies (ICT) by primary school teachers in their professional activities, in particular, with regard to the use of various online services for teachers. The work functions of the Ukrainian primary school teacher have been studied and on this basis a set of online services has been selected to help the teacher in his professional activity. The advantages and disadvantages of using the online services included in the complex are revealed. The results of a survey of teachers of primary school of Odessa region on the use of ICT in professional activity are presented. The results of diagnostics are analyzed and the main reasons that hinder the implementation of ICT in the professional activity of primary school teachers are found out.

2.9. Yuriy Slysarchuk, Olha Slyusarchuk. FORMATION OF COMPETENCES IT-PROFESSIONALS DURING PROJECT STUDY

The ways of solving the problem of improving the quality of bachelor education in IT specialties are offered. Formation of competencies of future specialists is based on the technology of project-oriented study. Evaluation of competency formation indicators is made using scrum methodology

Part 3. APPLIED ASPECTS OF SUSTAINABLE DEVELOPMENT

3.1. Oleksandr Nepsha, Olga Levada, Iryna Arsenenko, Larysa Donchenko, Larysa Prokhorova. ENVIRONMENTAL ASPECTS OF SUSTAINABLE DEVELOPMENT

Limited natural resources are now becoming one of the most acute environmental problems. Solving environmental management tasks requires not only knowledge of the functioning of ecological systems, but also a certain moral education and awareness of the need to restructure social production and consumption. Environmental monitoring allows you to quantify all of the negative processes in nature that cause human activity. It also allows you to see the positive results of environmental measures.

3.2. Vadym Abyzov. SUSTAINABLE DESIGN. INNOVATIVE GREEN BUILDING MATERIALS

The need of creating a harmonious environment and solving diverse and complex aspects related to its development and construction in line with the concept of sustainable development is a major and urgent task in front of modern architecture and construction science.In this regard, the

article discusses and summarizes the features and advantages of using innovative building materials, and in particular such as: recycled materials; traditional natural building materialsmade on the basis of modern technologies; nanomaterials. Various examples of their successful application in modern buildings are given.

3.3. Ina Isac, Ana Simac. ENHANCING INTERDISCIPLINARY CONNECTIONS BY APPROACHING THE ARTISTIC POTENTIAL

The transmission of the values produced by experience from one generation to another gives rise to new needs, such as those of raising, socializing and culturalizing the younger generations. Educational systems reforms around the world are oriented towards global transformations with maximum efficiency in the educational process – what is learned should be attractive, easy to assimilate and useful. The development of creative-human skills allows the growth of an intelligent and praxiological generation. Arts have a substantial role in the realization of the meaning of learning contents and offer students an abundant source of means of self-expression in arts – both mental and communicative. These are essential for formulating their own meaning, but also for understanding the messages transmitted from outside and act as a link between all the cultural and scientific fields in school.

3.4. Tetiana Koliada-Berezovska, Olga Romanova. DIGITALIZATION OF EDUCATION FOR THE SUSTAINABLE DEVELOPMENT SAKE: LINGUISTIC ASPECT

The education is considered in the context of modern society's basic processes digital transformation, therefore analyzed are that digitization communicative, terminological, and linguistic aspects. Attention is paid to the most debatable categories of scientific discourse, new trends and opportunities in linguistics, while emphasizing the fact that digital technologies in the course of teaching a non-native language contribute to the sustainable development of the independent, extra-curricular work skills, since these types of educational activities are specific with their developing, stimulating and researcher functions, and the classes' distant-learning format gives every ground to speak here about a fundamentally new principle of linguistic-educational activity organization, based on a motivated attitude towards self-education and self-improvement as sustainable personal development components.

3.5. Andrii Lagun, Nataliia Kukharska. INTERDISCIPLINARY CONNECTS FOR EDUCATIONAL PROGRAMS IN THE SPECIALTY "CYBERSECURITY"

The nowadays issues of modern society is tied with cybernetic threats and terrorism and tell the universities requirements of quality of studies for future information security professionals. In this article it is considered features of creating the new education program following the new Ukrainian standard for preparation bachelors in the specialty "Cybersecurity". Also there are full analysis of interdisciplinary connects and features for creating new fundamental and professional modules using educational program. These modules were coordinated by employers.

3.6. Iryna Mironova. EDUCATION DEVELOPMENT OF THE POLISH POPULATION IN SOUTHERN UKRAINE (FROM IMPERIAL TIMES TO THE PRESENT)

The article covers the development of Polish community education in Southern Ukraine in the imperial, Soviet and modern epochs. It is specified number of the Polish population, the percentage of educated persons and the number of Polish educational institutions in the region by census results 1897, 1926 and 2001. The primary focus is on the opening of Polish language teaching schools. The negative ideological pressure of the imperial and Soviet governments on Poles' education, aimed at the continuous Russification of the population, is revealed. The role of the independent Ukraine government and non-governmental organizations in reviving the language, education and culture of the Polish population in the country is shown.

3.7. Tatiana Spirina, Marina Sytnik. AGGRESSIVE BEHAVIOR OF TEENAGERS: CAUSES AND CONSEQUENCES

In today's conditions of much more liberal values, a certain level of individual aggression becomes a factor not only of social adaptation and the survival of a part of the population. And in this context, an important role is played by the study of forms of its manifestation, which, in particular, may include criticism, humor, attempts to build a career by identifying the shortcomings of their competitors, unwillingness to start a family, participating in protests and active position in social networks. The article deals with the analysis of various manifestations of aggression and aggression in the teenage environment, and analyzes the causes and consequences of adolescent aggressive behaviour.

3.8. Inna Pidbereznykh. INTERNATIONAL EDUCATION STRATEGY IN THE ASEAN COUNTRIES' POLICIES

The current study explores contemporary trends, challenges, and opportunities in the ASEAN (Association of Southeast Asian Nations) region toward developing a culture of harmonization among all nations and determining how the internationalization of higher education can assist in this process. Explores different reform agendas undertaken by policy-makers of some South-East Asian countries and examines the development of the regionalization and inter-regionalization processes of higher education as a challenge to the narrow focus of a center-periphery framework. The internationalization of higher education over the last two decades has transformed the education sector into a globalized, interconnected knowledge-based society. Higher education institutions and national governments have been compelled to pay more attention to academic relations and knowledge exchange opportunities with partners in other countries, particularly in the same region. The current study aims to investigate the role of higher education internationalization in Southeast Asian nations for the development of a more harmonized region. An exploratory comparative approach has been used to identify and investigate recent internationalization trends in ASEAN member countries. The internationalization of higher education is a compelling and logical approach to increasing harmonization at the intra-regional and interregional levels. ASEAN has looked to the architecture and initiatives of the European Higher Education Area as a source of inspiration. Should it wish to, the approach to the development of an ASEAN Higher Education Area will be qualitatively different. This has as much to do with the paradigmatic differences between these two regional communities as their structural differences.

3.9. Nataliia Shevchenko. THE CONTRIBUTION OF POLISH SCIENTISTS TO THE DEVELOPMENT OF EDUCATION AND SCIENCE IN THE SOUTH OF UKRAINE (SECOND HALF OF XIX – BEGINNING OF XX CENTURIES)

The article highlights the contribution of Polish scientists to the development of education and science in Southern Ukraine in the second half of the XIX and early XX centuries. In particular, it is disclosed an activity of A. Artsymovych, as appointed trustee of the Odesa Educational District, his work in the course of reforming higher, secondary and elementary education in the region, as well as the opening of Novorossia University in Odesa. Particular attention is paid to the scientific activity in the field of natural sciences of the following professors of the University: L. Tsenkovsky, F. Kamensky, B. Verigo, V. Rotert, F. Porodko, B. Grinevetsky, L. Berkevych, O. Verigo. The role of J. Pachoski and S. Mokrzhetsky in the foundation of the Kherson and Tavria Natural and Historical Museums is shown.

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Part 3. APPLIED ASPECTS OF SUSTAINABLE DEVELOPMENT

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