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RISK MANAGEMENT AND FINANCING OF HIGHER EDUCATION INNOVATIVE DEVELOPMENT UNDER THE CIVILIZATIONAL CHANGES

GESTIÓN DE RIESGOS Y FINANCIACIÓN DE LA EDUCACIÓN SUPERIOR DESARROLLO INNOVADOR BAJO LOS CAMBIOS CIVILIZACIONALES

GERENCIAMENTO DE RISCOS E FINANCIAMENTO DO DESENVOLVIMENTO INOVADOR DO ENSINO SUPERIOR SOB AS MUDANÇAS CIVILIZACIONAIS

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Abstract: The research of the information and high-tech progress development in the socio-humanitarian aspect allowed us to reveal its consequences in the context of natural and civilizational challenges and areas of financing education. The risks management and general trends were clarified of innovative education development at the institutions in the era of information-high-tech progress and natural-civilizational changes, which have created fundamentally new opportunities for justifying educational strategies and should be based on the categories of pedagogy of the noosphere-space direction. Therefore, it is necessary to build new pedagogical theories on the synthesis of philosophical-educational, philosophical-anthropological, polyparadigmal, civilizational-formational and cultural approaches. According to this principle, lifelong learning becomes important in order to meet the challenges of modern progress and counteract destructive natural and civilizational changes.

Keywords: Innovative; Society; Risks management; Financing education.

Resumen: La investigación de la información y el desarrollo del progreso de alta tecnología en el aspecto socio-humanitario nos permitió revelar sus consecuencias en el contexto de los desafíos naturales y civilizacionales y las áreas de financiamiento de la educación. La gestión de riesgos y las tendencias generales se aclararon del desarrollo educativo innovador en las instituciones en la era del progreso de la alta tecnología de la información y los cambios naturales y civilizacionales, que han creado oportunidades fundamentalmente nuevas para justificar las estrategias educativas y deberían basarse en las categorías de la pedagogía. de la dirección del espacio noosférico. Por lo tanto, es necesario construir nuevas teorías pedagógicas sobre la síntesis de enfoques filosóficos-educativos, filosóficos-antropológicos, poliparadigmales, civilizacionales-formativos y culturales. De acuerdo con este principio, el aprendizaje permanente se vuelve importante para enfrentar los desafíos del progreso moderno y contrarrestar los cambios destructivos naturales y de civilización.

Palabras clave: innovador, sociedad, gestión de riesgos, financiación de la educación.

Resumo: A pesquisa da informação e o desenvolvimento do progresso de alta tecnologia no aspecto sócio-humanitário nos permitiu revelar suas consequências no contexto de desafios naturais e civilizacionais e áreas de financiamento da educação. A gestão de riscos e as tendências gerais foram esclarecidas quanto ao desenvolvimento inovador da educação nas instituições na era do progresso da informação em alta tecnologia e mudanças civilizacionais naturais, que criaram fundamentalmente novas oportunidades para justificar estratégias educacionais e devem basear-se nas categorias de pedagogia da direção noosfera-espaço. Portanto, é necessário construir novas teorias pedagógicas sobre a síntese das abordagens filosófico-educacionais, filosóficas-antropológicas, poliparadigmais, civilizacionais-formacionais e culturais. De acordo com esse princípio, a aprendizagem ao longo da vida se torna importante para enfrentar os desafios do progresso moderno e combater as mudanças naturais e civilizacionais destrutivas.

Palavras-chave: Inovadora; Sociedade; Gestão de riscos; Financiamento da educação.

Introduction

At the present stage of the world society development, there are fundamental changes of civilizational scale in the life of mankind, especially young people, as the most dynamic part of the society, which determines the future of mankind due to the influence of Information High-Technology (IHT) progress. The new achievements of mankind, first of all IHT, have actualized the defining and vital aspects of human existence, in particular, education and upbringing, and, accordingly, the formation of fundamental spiritual values.

In the period of transition to the IHT society, it is necessary to prepare the young person for rapid perception and processing of large volumes of world information, for mastering modern information technologies, methods and technology of working with them. Therefore, we have to apply to the basic philosophical and educational foundations, because education and its acceleration is not only the accumulation of scientific and technical, space, technological,

information, innovative and humanitarian knowledge; this is the development of high spiritual thinking, strengthening faith in your own strength, this is the ability to act, that is, to build your relationship with the world on a responsible basis – not to violate the world's natural, environmental and climatic conditions, which have reached critical parameters now.

Literature Review

The specificity of the research area of the problem is very broad and was developed by the efforts of famous philosophers, scientists and psychologists, the works of the following authors were of particular importance for the study of this problem: Bodnar, Mirkovich, Koval (2019), who developed the problems of education; Andrushchenko and Gershunsky (2015), who justified projects for the modernization of education and the formation of a new teacher in the XXI and next centuries; Voznyuk (2014) studied the directions of globalization and civilizational development of mankind; Schewe (2003) highlighted the role of noosphere and space education, environmental consciousness, the search for educational and spiritual landmarks in the context of modern challenges and the formation of the human future. Also the works of Fukuyama (2002) and Lem (2013) were important for the study, which presented the forecast of the post human future and the consequences of the influence of the techno sphere on the biological nature of man and the transition to the IHT society.

From the philosophical and educational point of view, IHT progress should be considered as a global civilizational process that already has a significant impact on almost all aspects of life as an individual and society as a whole, in particular, the education of young people, and in the future it will determine the spiritual face of the future highly intelligent noosphere-space IHT society-a new civilization of the XXI and further centuries (Polischuk, 2018).

Kaku (2011) gives a description of the civilizations of different authors. Thus, the civilizations of I, II, III types (according to the rating that was firstly proposed by the Russian astrophysicist Nikolai Kardashov in 1964) are characterized by the amount of consumed energy: the civilization of the first type is a planetary civilization, the civilization of the second type is a star civilization, and the civilization of the third type is a galaxy civilization. Our civilization is in a state of transition from type 0 to type I. The Internet is the beginning of a planetary telephone system of type I. When the society reaches the status of the type II civilization, it will become immortal, learn to control the weather, deflect meteorites and comets

from a dangerous trajectory in time, colonize not only its own star system, but also the nearby stars of neighboring galaxies. When the civilization reaches the status of the type II civilization, it will study and master most of its galaxy. Sagan (1973) has proposed a different scale of civilizations, from A to Z, based on the ability to process information. There is also a classification of civilizations by the level of entropy (Kaku, 2011). So, the transition from our current type 0 civilization to the future type I civilization (highly intelligent noosphere-space – *author*) is the most important in the history. It is up to it whether humanity will go ahead and develop or perish because of its own stupidity (Kaiku, 2011). Thus, we need to pay maximum attention to the spiritual and moral education of the young generation in order to get rid of cruelty both to their own kind and to nature, from the accumulation of nuclear, chemical, biological weapons, from the wars financing.

The famous teacher Voznyuk (2014) considers the essence and mechanisms of civilizational changes in the modern era of transition to the era of a new civilizational formation-the information society, which occurs in the conditions of a global system crisis in the life of mankind due to the synthetic revolution in the mechanisms of civilizational development, which covers the system, human, intellectual-innovative, qualitative, reflexive-methodological and educational revolution. Also Voznyuk (2014) has found that the system of civilizational changes, which implements the transition of humanity to a new information-human-dimensional state, covers the following trends: educational and pedagogical (transition to a new educational paradigm of pedagogical reality), socio-economic (strengthening of socio-economic integration of the world through globalization processes and crystallization of qualitatively new socio-economic relations), historical and cultural (transition to a qualitatively new historical era, which characterizes the corresponding cultural and civilizational state of mankind), worldview-ideological (formation of the integral worldview and system of values that correspond to the new state of civilization), scientific paradigm (the formation of post-non classical – nonlinear, cholecystic-continual scientific paradigm), environmental and demographic (migration of the human species Homo sapiens into a new organism state – "new race" with qualitatively new characteristics, due to the evolution of planetary-earthly humanity to the noosphere and space colonization), population genetics (genetic variation of the human population).

The purpose of the article is to find out the general trends of innovative development of education in educational institutions in the era of IHT progress and natural and civilizational changes.

Materials and Methods

The methodological base of the research is based on the principles of system, objectivity, integrity, historicism and development, and is also determined by a set of general philosophical, general scientific and special research methods, which make it possible to ensure the validity and reliability of scientific results. We use traditional descriptive and analytical methods: analysis, synthesis, abstraction, comparison, systematization, classification, etc. The conceptual approach to the study of this problem has been based on the identification of the following methods: 1) the dialectical method, through which it is possible to present the subject of the research in all its social and other mutual relations and dependencies, as well as in the process of dynamic development; 2) the historical method, which allows to identify historical patterns, trends and features of the deployment of IHT; 3) the method of interpretation has allowed to substantiate the phenomenon of spirituality in the modern educational system of young people with regard to natural-civilizational changes as a renewed spirituality; 4) hermeneutical method has opened the possibility to penetrate to the inner essence of spirituality, identify its key components and their implementation in the present and future educational process; 5) scientific and philosophical method of synergetic has allowed to consider the nature, the world, man as a complex self-organized system and allowed to penetrate deeply into the essence of the process of spiritual formation of personality in terms of IHT progress, to identify and explore the role of education as one of the main factors and resources; 6) application of structural-functional method has ensured isolation and relatively autonomous consideration of the elements of the system of spiritual education of the youth in the era of IHT progress and the structure of the head of the educational factor noosphere cosmically-oriented pedagogy; 7) the use of the system analysis method has allowed us to trace the mutual relationships and dependencies of the elements of the system of spiritual education and the revolutionary development of society in the global perspective of the development of the IHT civilization; 8) based on the analytical and prognostic method, we have made reasonable conclusions and generalizations regarding the forecasts and prospects for the future existence of mankind in the era of natural and civilizational changes, the need to use noosphere space-oriented pedagogy, in the context of which it is possible to consider and implement educational strategies for the formation of youth spirituality in the era of IHT progress in the XXI and further centuries.

Results

Nowadays some issues aren't studied properly. They emphasize the study of man in the Ukrainian society under the impact of modern IHT progress, in particular: reducing the role of the human factor in public, production and educational processes; a shift of emphasis on the inner moral life of the human person, its subjectivity and sociohumanistic component; insufficiency of additional investments in people, its education, training and retraining, training for life; insufficient health protection, resulting in higher mortality than the birth rate; unfavorable environmental environment (Borychenko et al., 2019); intensification of migration processes, resulting in a catastrophic decrease in the number of students in higher education institutions, and, consequently, the educational qualification of the population of Ukraine is correspondingly reduced.

According to the socio-political system, an important function of education as socialization: a person who has graduated from a higher education institution has a scientific and philosophical view of the world, better analyzes information, and is more inclined to make rational choices. That is, higher education is not only getting a profession, but also a scientific and ideological approach to reality, rather than a simplified, consumer approach: to calculate and save money; education is the foundation of society and the state, and if you don't invest in education and develop it, you will have to build prisons. Therefore, higher education should become a necessary flagship that will ensure the future of the nation and the quality of its life.

Medynska (2018) analyzes factors that affect the quality of human life and provides a combination of factors such as: 1) objective, these include: material (physical) existence (environment, working conditions, life, leisure, education, goods and services, including the level of health care); political and economic conditions; spiritual and moral status in society; the ability to creative self-expression and self-identification; 2) subjective, which includes: cognitive and emotional factors. Medynska (2018), Bodnar, Mirkovich, Koval (2019) identify a number of factors that negatively affect the quality of life in Ukraine: 1) low level of economic diversity in many areas; 2) insufficient innovation that does not meet modern requirements; 3) difficult demographic situation due to numerous migration and natural population decline; 4) slow growth of productivity and investment in the reproduction of human capital; 5) physical and moral depreciation of fixed assets. Medynska (2018) sees a way out of this difficult situation in increasing the welfare of the population through the introduction of high social standards, the development of affordable and continuing education, the health system, the

regulation of environmental conditions, and so on, in order to create conditions for the realization of human needs and the qualitative improvement of social security (Koval, Pukała, 2017; Bukanov et al., 2019). Therefore, the priority for the government should be the humanitarian sphere in shaping the quality of life in Ukraine. According to Zlotnikova (2016), the reduction of expenditures on the humanitarian component of human life is accompanied by huge economic losses of a spiritual and moral nature.

Therefore, a person should take the first place in the era of IHT progress and the future highly intelligent noosphere-space civilization. And it is not just a person, but a highly educated and cultural person, creative and initiative, with a high level of intelligence, professionalism and mobility, and most importantly, with the desire to learn throughout life and retrain in new conditions of life, production and education.

A report "New trends and forecasts of educational technologies development in the world for the next five years" based on "NMC Horizon Report >2016 Higher Education Edition" (2016) is devoted to the study and expert analysis of key trends and forecasts of educational technologies development in the world that will have most tangible impact on the coming future of technology in higher education, in particular: Bring Your Own Device; learning analytics and adaptive learning; technologies of augmented and virtual reality; maker space; information and robotic technology. The report is intended to help universities and educational leaders to approach the upcoming development of teaching, learning, and creative research in higher education. But it should be noted that many of the above educational technologies are already used in the educational process with students, including the use of their own gadgets and online training and expanded access to information sources. The problem is in the financing of educational institutions, which determines the possibility of implementing these technologies.

During the last decade several trends in higher education in Ukraine emerged, which have led to the formation of a set of imbalances, that, in turn, will exacerbate the rigidity and inertia of universities in the process of their adaptation to the global and local challenges. Among the main ones are:

- Negative demographic changes and the military and political situation increase the competition among universities for potential contingent. Thus, in the 2007-2008 academic year in Ukraine, the maximum number of students in universities was reached 2372 thousand people. Then their numbers have fallen by 44%, with a maximum drop of 16.6% in 2014-2015, comparing to an average annual decline of 5 - 8%. These trends naturally correlate with the fall

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in admission to higher education since 2007, with sharp falls in 2011 by 20% and in 2013 by 16%. As a result, the number of entrants in 2017-2018 was equal to 1997. Meanwhile, the number of higher education institutions did not change at the same rate: their number decreased by only 23 institutions in 2013. Consequently, the number of students by one higher education institution (HEI) of III-IV levels of accreditation in 2017-2018 was reached a minimum 4,6 thousand students. To reach the corresponding maximum of 6,7 thousand persons for HEI such reduction should reach 32%, and their total number should achieve 196 institutions. Looking at the prospects for changes in the contingent over the next 15 years and comparing the number of young people and children by the number of population in Ukraine in 2016, none of the age groups born after 1996 exceeds the number of those now 20- 24 years (Fig. 1).

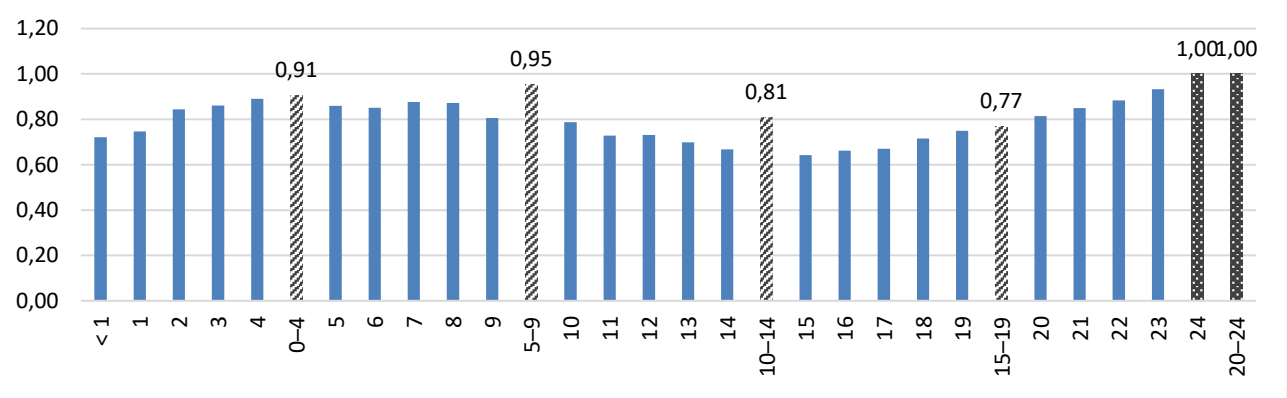

Fig.1. Population by an age group comparing with the population 24 years old (20-24 age groups)

The potential contingent of students also depends on the gross enrollment ratio. For Ukraine, this figure is one of the highest in the world and according to the World Bank it was 83.4% in 2014. Over the past 18 years, it has grown almost 2-fold, playing the role of a certain social elevator, which was supported by the tendency to increase access to higher education based on the use of a certain model of public financing contrary to the modest development of the Ukrainian economy. Thus, countries with a model of full public funding have comparable rates of enrollment in higher education: Finland - 87%, Denmark - 81.1%, Norway - 80.5%. Countries with high tuition fees, but significant government support in the form of grants, scholarships and credit, also have high rates: Canada - 90%, the Netherlands - 80.4%, New Zealand - 81.8%. In the United States, 75% of students have public financial support for higher education. The average enrollment rate for graduates in OECD countries is 72.8%, Europe - 71.9%. At the same time, countries with a median income according to the World Bank are

covered by 36.8% of the population with higher education, with below-average income to which Ukraine belongs - 23.5%. At the same time, given the model of financing that currently exists in Ukraine, which is characterized by low tuition fees and low state support, the "target" level of this indicator is more likely to be compared with similar countries with the corresponding model - in such OECD countries it is 56%. Thus, most likely, due to the scenario of reduced access and competitiveness of higher education in Ukraine, this indicator will continue to decline in the future (Mushynska, 2018).

- intensification of inter- and intra-regional competition between universities due to outflows to the capital and certain top regions (Kharkiv and Odessa according to the CEDOS survey). Thus, comparing the dynamics of the contingent in the HEIs by regions during 2010 - 2017, which in general fell by 37.6%, the regions suffered the most. In addition to the clear loss of the contingent of Donetsk and Luhansk regions (which amounted to 81 and 82% respectively), the decrease of the contingent of the Kirovograd region reached 55%, Khmelnitsky - 39%, Sumy 34%, Kharkiv - 34%, Rivne - 33%, Mykolaiv - 30%. It should be noted that naturally these processes affected students studying at the expense of individuals - Donetsk and Lugansk regions lost 86% of fee-paying students, Kirovohrad - 66%, Khmelnitsky - 51%, Sumy - 52%, Chernihiv - 50%. It should be noted that according to CEDOS research, it is in these regions that the largest outflow of entrants to other regions is observed - from 50 to 70%.

- Higher education financing model in the country, which determines the amount of budget allocations, their structure and, accordingly, the dependence of higher education institutions on public funds. Expenditures on higher education (higher than 3-4 levels of accreditation) to GDP in Ukraine in 2017 amounted to 0.7%, which is 2 times less than in 2012. The share of these expenditures in the expenditures of the State Budget was 2.7%, which is also the minimum for the last 8 years. At the same time, the share of expenditures for all higher education, including HEIs with the level 1 and 2 of accreditation, is 3.5%, which generally corresponds to their average level in the world, in particular in the OECD countries - 3.18%. Meanwhile, more informative is the indicator of public expenditures per student as a percentage of GDP per capita, which takes into account both the economic development of the country and the priorities of the state. In Ukraine, it amounted to 36%, which characterizes it as a rather costly direction, because on average in the world it is equal to 26%. It should be noted that the general pattern is the growth of this indicator with a decrease in per capita income (Fig. 2). At the same time, countries that have GDP per capita comparable to Ukraine are characterized by

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rather modest values of the above ratio: Georgia with $ 10,000 income per capita, given its purchasing power parity, spends 11% on higher education, Armenia - 10%, Brazil - 29%.

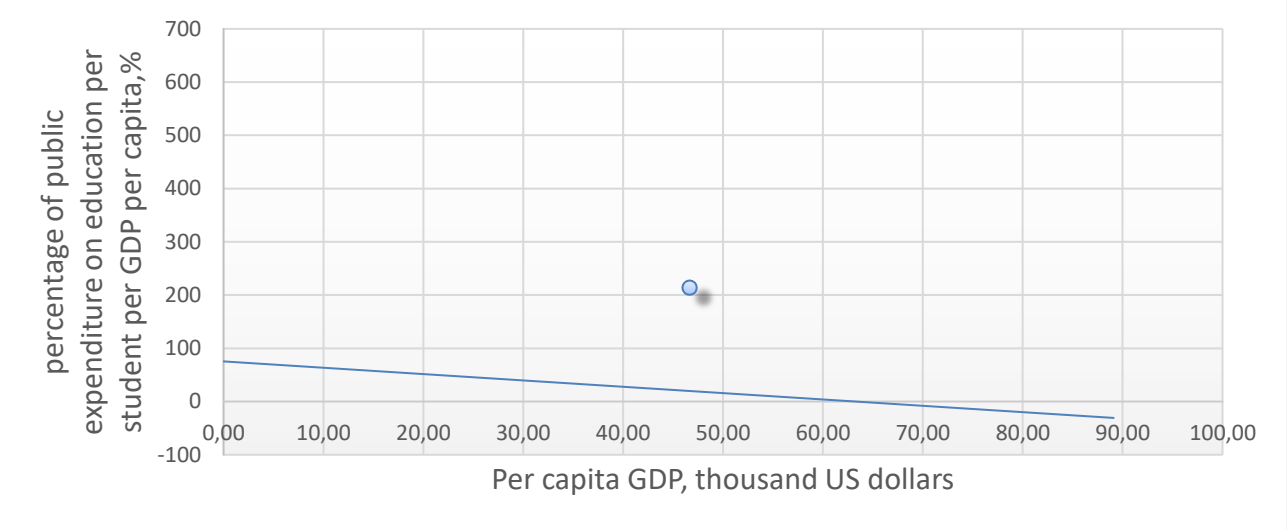

Fig. 2. Public expenditure on education per student per GDP per capita and Per capita GDP

In a situation of limited potential for GDP growth and high inflation, which only increases the expenditures on higher education, a significant increase in the efficiency of these expenditures and spending of funds by the state is promising in the coming years.

Analyzing the dynamics of the State budget expenditures for higher education (upper and third levels of accreditation) and the contingent of students during 2010 - 2017, it is necessary to note several unbalanced tendencies from the point of weak correlation between them, which supported the created imbalances of financial support of educational processes. During this period the general expenditures of the state increased by 1.82 times, including the General Fund - by 72%, the Special Fund - by 102% (Fig. 3). At the same time, the contingent of students-state employees decreased by 25%, fee-paying - by 45%. Despite deflation in 2012, spending on the funds increased by 47% and 54%, respectively. After adjusting in 2013, they tended to increase, but at a slower pace than inflation, gradually recovering their balance sheet.

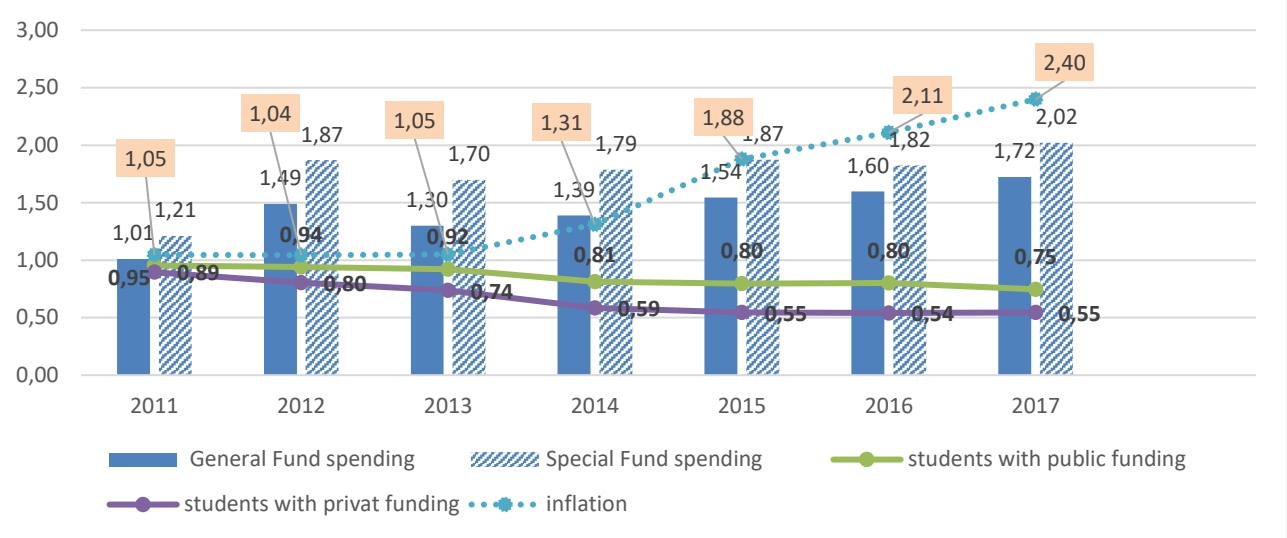

Fig. 3. Dynamics of the number of students in universities and expenditures of the State Budget of Ukraine

It should be noted that at the expense of outstripping the growth of expenditures under the Special Fund of the State Budget, the imbalance of the expenses on education of students of state budgets and fee-payers decreased to a certain extent: in 2010 the ratio of expenditures of the General Fund per 1 student with public finding and expenditures of the Special Fund per student with private funding was 3,08 times, in 2017 this gap narrowed to 2 (the cost of teaching a student by the state was 21.34 thousand UAH, for fee-payer - 11.22 thousand UAH (regardless of the form of study).

It does not contribute to the development of higher education and, consequently, to the improvement of its quality, that the structure of government spending on development of higher education is only 4% expenditure with their tendency to decrease - in 2000 the share of such expenditures for HEIs was 9%. A large proportion of the costs of wages, mainly of the teaching staff, determine the naturally high dynamics of higher education spending in the world. In Ukraine, this challenge is greatly exacerbated by demographic problems associated with the reduction of the number of students. As a result, the number of students per academic staff member has decreased by 17% since 2010, including 20% of full-time students (from 18 to 14 students). This determines the tendency for the balance to be restored in the future by reducing the teaching staff of higher education institutions.

- stronger international competition – according to UNESCO[1] analytics in 2017 the number of Ukrainian students who studied abroad reached 77639 (34,7 thousand studied in

[1] http://uis.unesco.org/en/uis-student-flow

Poland, 15,2 thousand - in Russia, 6,48 thousand - in Germany, 2.8 thousand - in Italy, 3,0 thousand - in Czechia, 1.74 thousand - in USA). The students' outflow is 40% higher than inflow in Ukraine. Ukrainians are the most numerous international students in Poland, 3rd in Czech Republic and 8th in Germany. It should be noted that the inbound mobility rate (total number of tertiary students from abroad studying in the country) n Ukraine is not є the highest in Europe (Bulgaria - 9.3%, Estonia - 7.8%, Latvia - 6.8%, Lithuania - 8.3%, Romania - 6.2%), but it exceeds the average one for European countries, where it is 3.2 - 4%. In the coming years, one should expect a balancing trend based on the decline in enrollment in Russia with a corresponding increase in students seeking education in Europe. At the same time, such trends qualitatively change the competitive field for domestic higher education institutions towards more competitive European higher education institutions.

- structural changes in higher education in terms of the spheres of knowledge. In recent years, the popularity of some spheres knowledge of studying in tertiary education has undergone significant changes, which was also due to changes in the priorities of the Ministry of Education and Science of Ukraine and corresponding changes in the structure of the state order. Thus, if in 2010 only 5% of the number of students were studying in pedagogical specialties, then in 2017, already 11% of entrants have entered higher education in this field of knowledge. Engineering majors have also undergone a positive structural change - with 13% of the university contingent, there has been an increase in admission in this field, which in 2017 was already 21% of entrants. Such changes were mainly due to more than double the number of entrants to information technology. Significant changes have also taken place in the health sector - compared with 0.4% of the contingent in 2010, in 2016 this sector accounted for 7% of entrants, in 2017 - 5%. The field of social sciences, business and law has not changed substantially, with 33% of entrants being selected in 2017, including an increase of 2% compared to 2016 for entrants to management and administration – on 2 p.p. and law – on 1 p.p.

The best results will be obtained by those who can combine technological literacy with emotional intelligence in the IHT society.

The Law of Ukraine about education clearly says that education is a foundation of intellectual, spiritual, physical and cultural development of personality, its successful socialization, economic prosperity, the key to the development of society; the role of education is to promote the comprehensive development of personality and the highest values of society, the formation of spiritual and moral values necessary for successful and creative self-realization

of competences, education of responsible citizens (Koval, Polyezhayev, Bezkhlibna, 2018; Luchaninova, 2019). Therefore, the state must make all necessary conditions for improving the educational level of citizens to ensure sustainable democratic development of Ukraine and its European choice. The National strategy for the development of education in Ukraine for 2012-2021 emphasizes increasing the availability of high-quality, competitive education in accordance with the requirements of innovative sustainable development of society, economy, and personal development of each citizen based on lifelong learning.

Recognition of the importance of lifelong education for human development led to the modernization of European education policy at the beginning of the 21st century. That is why the Lisbon summit of the Council of Europe in March 2000 adopted a “Memorandum of Lifelong Learning" (2000), which emphasizes that continuing education should become the main political program of civil society, social unity and employment. Later in 2006, the European Parliament and the Council of the EU adopted Recommendations 2006/962 / EU "about main competencies for lifelong learning", which set out the reference framework for core competencies as tools for personal growth: critical thinking, creativity, initiative, problem solving, risk assessment, decision-making, and the ability to constructively manage emotions. Today, the implementation of the "education during the life" model is relevant and feasible for Ukraine, which requires the state to support and develop subsystems of this model: informal and informal education, online education, and mixed learning models (Karpenko, 2017).

However, the reality is quite the opposite: according to the State statistics service of Ukraine, the number of educational institutions is drastically decreasing (Fig. 4). It seems that the higher levels of government believe that higher education is unnecessary and optional (and it is not surprising, because uneducated young people do not have the desire to read, think, analyze the state of country’s problems, society, and therefore do not ask awkward questions to the leadership, vote as indicated by politicians and campaign videos, etc; a manipulative person is formed who cannot comprehend and process information, think critically, and, consequently, have an opinion and most importantly defend it); archaic class-based secondary education does not provide the necessary quality of knowledge and parents are forced to hire tutors for their children to have quality education, otherwise it is impossible to pass external independent assessment tests for high scores, and, consequently, it is not realistic to enter a prestigious institution of higher education, but this problem is relevant for graduates of rural schools. As a result, the access to education for the poor is reduced; and, accordingly, the young people migration flows to other countries are increasing; funding for vocational education is transferred

to local budgets, which are always short of funds. Closure, or even a lack of any big fees in clubs, after-school centers of creativity development; reducing the number of health facilities, the deterioration of the ecological and demographic situation negatively affects the formation and somatic health in youth (Koval et al., 2019). The unsatisfactory state of mental health and the low level of spiritual, moral and cultural development of young people are also alarming. After all, educational institutions not only teach professions, but also creatively and critically think, carry out the educational process, instill cultural and spiritual values that are so necessary for modern youth both for their life path and for the education of future generations (Kvitka et al., 2019).

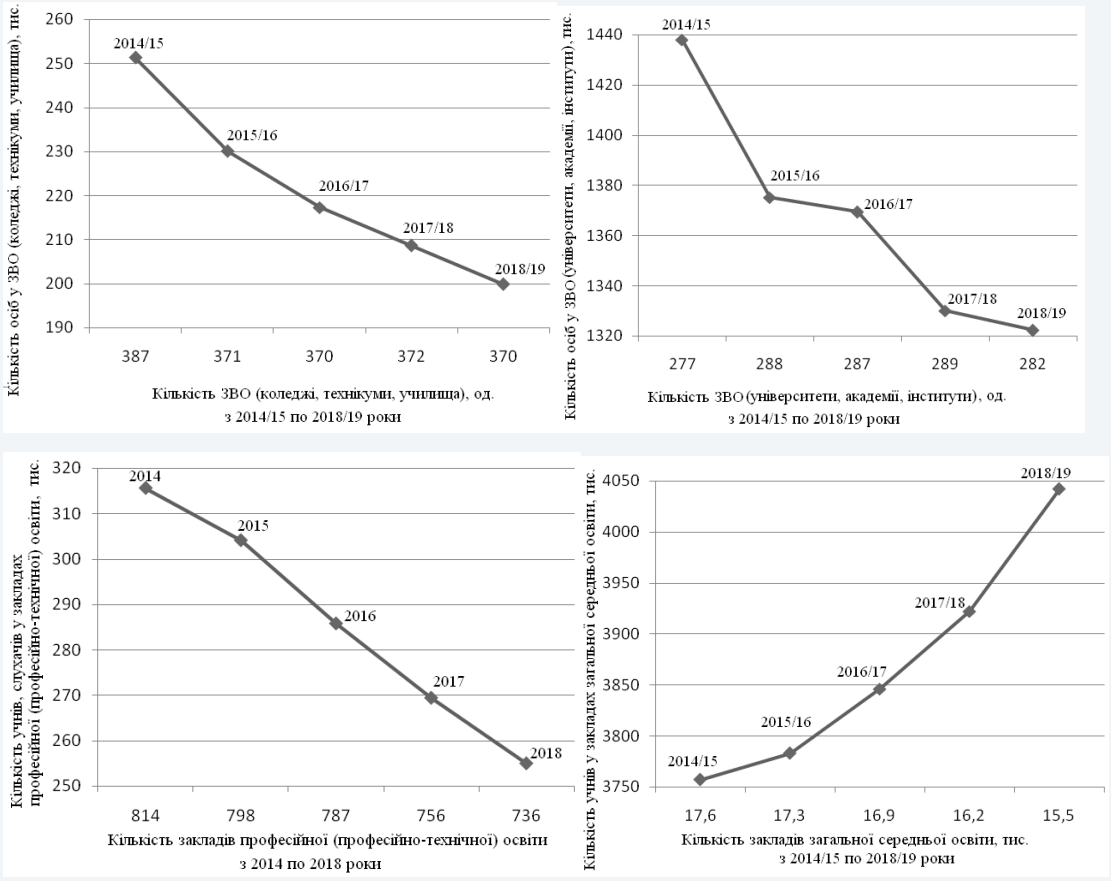

Fig. 4. Dependence of quantity of students (pupils) on quantity of educational institutions with 2014 on 2018

Of course, this is only part of the existing educational problems. It is a pity that the political elite forgets that education is a strategic resource of the state, helps to ensure national interests and strengthen international authority. Therefore, it is necessary to implement the National strategy for the development of education in Ukraine immediately, which should ensure innovative development of education in accordance with international standards, which

will contribute to a significant increase in the intellectual, cultural, spiritual and moral potential of both the society and the individual. As a result, there should be tangible positive changes in the socio-economic, scientific, cultural and political life of the country.

The new Millennium, new conditions of life, production, education, fundamental changes in both material and spiritual-mental life of people, a new person is formed under the influence of globalization and technological progress, the study of the spiritual and moral life of the human person is taken to a new level, which is associated not only with the present or near future, but also the more distant future of the existence of the person, nation, peoples and civilization (Polischuk, 2018). Therefore, the relationship (interaction) of science, engineering, technology, nature (its recovery), spirituality, progressive mentality, culture and man's responsibility – the most important condition for implementation of not only IHT progress, but also reproduction and development, both economic and social and humanistic components of human existence. The transition to a highly intelligent noosphere-space IHT society, in which science, information, innovation, high technologies and knowledge act as the main social value, predetermines radical changes in all public institutions and, first of all, in the educational, scientific, spiritual and mental spheres, which directly lead to an increase in the quality of life of society.

The European teacher is called to find answers to the challenges of the era and to promote the students' entry into the field of the scientific knowledge progress, social and practical experience of generations, universal socio-cultural experience and values, the spirit of humanism and humanity. So, the special accent is made on the existence of a real danger of moral and spiritual degradation of humanity on the background of exhaustion of the natural resource potential of the planet, nuclear or environmental catastrophe, the deployment of other global problems and that the future of every nation, countries and peoples largely depend on the quality of training of future teachers both in the National strategy of education development in Ukraine for 2012-2021, and the "Pedagogical Constitution of Europe".

Sheiko (2001) argues that education in information civilization is an open, individualized, creative knowledge through continuous education and self-study throughout life, and informatization of education is a modern educational revolution, during which the educational system of information civilization is formed. And if in the twenty-first century it is not possible to turn the biosphere (and now it is the IHT biocosmosphere - *author*) into a noosphere, then the existence of a general planetary civilization will be called into question. That is why the study of historical and philosophical aspects of global scientific and technical

problems of civilization is of priority interest for modern society and determines its future. The factors for solving these issues are philosophy, culture, science and education (Shejko, 2001).

Professor Andrushchenko (2015), analyzing economic, political and socio-cultural trends, confirms that the qualitative characteristics of the age and parameters of development of its education form ("overcoming" the consequences of the last century), four main subjects: a) a scientist who will adopt the new public status of science, and with it the nature and content of current social processes; b) a politician, who will complete the formation of the political unity of Europe and begin the political consolidation of peace on democratic principles; c) a producer who will fundamentally change the contours of modern production, will make a mass transition to market relations; d) a confessor who will form a new spiritual atmosphere on the continent and in the world, will determine the parameters of cultural development in the national and universal dimension. After all, the next century will be the era of universal intelligence. Therefore, it is necessary to change approaches to higher education, the population, especially the younger generation, without exception, should be involved in the educational process, in the process of learning throughout life, in order to meet the challenges of modern IHT progress and counteract destructive natural and civilizational changes, so as not to remain unemployed, not to lose social status, which can lead to alienation, impersonality, isolation, boredom, loss of meaning in the life of young people, and most importantly, the spiritual component of a young person.

The future of civilization depends on science, the culture of society, and the renewed spiritual qualities of people. The highest goal of global civilization is to create a citizen of a single harmonious global human community. A person will need special mobility and communication skills, the ability to adapt to changing living conditions, changing professions, and cultural environment, to move forward and learn all his life (Lantsev, 2015). The goal of spiritualization of education is to develop and reproduce a new ideal of a future person with a new worldview. It is formed by philosophy, natural science, and the sciences of man through integrative processes, that is, holistic, representing the human world as a whole. The high spiritualization of education consists of returning to it the lost educational function. Culture, high spirituality is the foundation of future development, so the cultivation of high spiritual and moral values becomes the most important task of education (Lantsev, 2015). What will be the systematic training of young professionals if the state closes educational institutions? And at the same time, it has practically eliminated the educational, spiritual and creative development of young people, as well as the preservation of health.

Conclusions

1. The most significant impact on the nearest future educational processes in higher education will have the following trends: online learning, expanded access to information sources; the introduction of new technologies (adaptive learning, virtual reality, maker space, information, robotic, etc.). It can be argued that the current model of the class-based education system has almost exhausted itself, since it does not meet the requirements of modern society and production, not to mention the future development of civilization in the process of deploying IHT progress, in the context of which it is also necessary to find new educational strategies for the formation of worldview values of youth, taking into account modern and future natural-civilizational and geocosmic changes. Therefore, it is necessary to build new pedagogical theories on the synthesis of philosophical-pedagogical, philosophical-anthropological, poliparadigmal, civilizational, informational and cultural approaches. Noosphere space-oriented pedagogy can become such a pedagogical theory.

2. It is shown that in the twenty-first century, with all its natural-civilizational, global-social, political, technical, technological and scientific problems, there is still a search for new things in education, in accordance with the trends of society's development. However, modernization in the educational system encounters difficulties and often does not keep up with changes in the economy, science, technology, technology, culture, social relations and public consciousness.

3. It is revealed that all processes are reactionary, if a person is spiritually destroyed, then the state of the spiritual life of the nation is destroyed. A society that is concerned about the spiritual and moral enrichment of its citizens has a future, and it can successfully move to the heights of progress. Therefore, no other development – economic, scientific and technical, high-tech, innovative or informational-can bring humanity out of the historical impasse, if it is not supported by a spiritual revolution, as a result of a universal form of educational activity, as an institutional system and a special reality of the formation-development and self-affirmation and self-realization of a young person in the formation of a modern highly intelligent IHT society and a future noospheric space-oriented civilization.

4. Therefore, it is necessary to change approaches to higher education-the population, especially the younger generation, without exception, must be involved in the educational process, in the process of learning throughout life, in order to meet the challenges of modern IHT progress and counteract destructive natural and civilizational changes, so as not to remain

unemployed, not to lose social status, which can lead to alienation, impersonality, isolation, boredom, loss of meaning in the life of young people, and most importantly, the spiritual component of a young person.

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