



EDUCATIONAL SPACE: POST-NON-CLASSICAL PERSPECTIVES

Monograph

Varna University of MANAGEMENT

**EDUCATIONAL SPACE:
POST-NON-CLASSICAL
PERSPECTIVES**

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The monograph presents: modern approaches to the study of education in the post-non-classical perspective; interpretation of the totality of meanings of education in the context of the modern socio-cultural situation; significant post-non-classical imperatives in relation to the system of education and upbringing; types of innovations in the system of higher education, related to the real situation of post-nonclassical.

For lecturers of higher educational institutions, students, graduates, scientists.

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PREFACE

The present time is characterized by deep changes. Modern society, science and culture are on the threshold of the post-non-classical era. Post-classical reality penetrates in all spheres of cultural existence. The influence of post-non-classical reality is usually reflected in education. In the modern socio-cultural situation, the need for a new understanding of the education as a phenomenon, the relationship of its modern form with the original concept or its idea is intensified; the need to substantiate the educational strategy itself and the logic of education is also considered.

New challenges require modern approaches to the study of educational field. The given monograph is an attempt by Bulgarian and Ukrainian researchers to summarize modern approaches to the study of education in a post-classical perspective, to define and substantiate the conceptual foundations of the content of education based on the value paradigm of modern post-classical culture.

The chapters of the monograph present the concepts and principles of a new scientific direction – innovations in higher education; types of innovations in the higher education system that can lead to innovative changes: innovations of the organizational type; educational and pedagogical innovations; means and tools of innovation management in education.

The monograph examines the main ideas of the theory of constructivism as a component of the modern philosophy of education and substantiates the role, purpose, functions, and values of the teacher of a higher school in the context of the modernization of the educational space of higher education institutions. The work clarified the main components of the process of organizing a personal learning environment for students in the challenging conditions of the information society as the ones for their successful integration into the modern system of higher education, disclosure and realization of individual inclinations and students' abilities in the educational process by making a personal educational network.

The monograph defines the essence of multidimensional pedagogy in the conditions of the reality of a changing world space.

The educational space of continuous education of pedagogical workers is considered from the perspective of a facilitative approach. Based on the practical achievements of modern researchers, the monograph offers an effective system for organizing the continuous education of pedagogical workers, the transition of continuous education from "Education 1.0" to "Education 4.0", which will contribute to the further development and self-development of the skills of pedagogical workers as facilitators, their social and reflective competencies.

The post-non-classical characteristics of continuous professional training of social

workers have been studied. The content of the inclusive competence of a social worker is defined, the specifics of the formation of the inclusive competence of a social worker are substantiated. The theoretical foundations of the introduction of therapeutic technologies into the process of training social workers are given.

The theoretical and practical principles of improving the continuous professional training of specialists in socio-economic specialties through the study and adaptation of progressive ideas and experience of Canada are substantiated.

The study of personal and professional features of future specialists in the process of their training in the post-classical paradigm of science was conducted; and substantiated the basic principles of designing a model of professional profile of a specialist in university educational environment.

The issue of developing a unified strategy in the system of professional training of various categories of specialists was considered. Innovative aspects of the university education development in the world are represented by the systematic justification of the modernization of specialists' professional training (on the basis of the law profession) in the system of classical universities of the world.

Focusing attention on the justification of theoretical and applied aspects of post-non-classical perspectives of higher education in the modern socio-cultural situation determined the structure of the monograph.

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FUNDAMENTALS OF THE INNOVATICS OF HIGHER EDUCATION

Abstract

The purpose of the article is to develop the concept and principles of a new scientific direction – the higher education innovatics. Higher education innovatics studies and summarizes the theoretical issues and practice of implementing and managing innovative activities of higher education institutions, scientific institutions, organizations, and management bodies related to the higher education system.

The article analyzes innovative changes in the system of higher education caused by the environment of academic capitalism. Innovative activity in the field of higher education and science leads to serious innovative transformations both in the entire field of higher education and science and in its subjects - universities, research institutes, related organizations, and institutions. Academic entrepreneurship is considered as an economic category in the system of socio-economic ties and relations of an integrated economic system in the modern knowledge society.

Key words: higher education innovatics; innovative development of higher education; academic capitalism; entrepreneurial university.

Introduction

The environment of academic capitalism, encompassing almost the entire field of science and higher education, has greatly accelerated the commercialization of applied research and development results by universities and research institutes and has allowed these institutions to greatly benefit from their intellectual capital. This gave impetus to the development of progressive innovations and outstanding inventions. Since the adoption by the US government of the Bay-Dole Act (the Law on Patents and Amendments to the Trademark Act) on December 12, 1980, the era of rapid economic growth in the country began, which became a prerequisite for the phenomenon of “academic capitalism”. The “Bayh-Dole Act”, one of the best

legislative acts in the United States law, “enables universities, nonprofit research institutions and small businesses to own, patent and commercialize inventions developed under federally funded research programs within their organizations.”(Ezell 2019).

Earlier higher education and science belonged to the non-commercial sphere of intellectual activity of society and were called upon to find, generate and disseminate knowledge for the benefit of all mankind. Further, in the environment of academic capitalism higher educational institutions (HEIs) and scientific institutions (SIs) have transformed from “temples of knowledge” into participants in the market of educational and scientific services with strict market economic rules.

Having studied and analyzed a significant amount of useful information about the emergence and impact of academic capitalism on the socio-economic and public-humanitarian sphere of human activity, its positive impact on the emergence and spread of innovative activity in the field of higher education and science, the authors proposed to create and introduce a new scientific and applied direction – innovatics of higher education(Romanovskii 2012).Higher education innovatics is designed to systematize a comprehensive study of innovative changes in the field of higher education and science with the aim of their further dissemination in the systems of higher education and science of various countries (Romanovskyi & Romanovska 2020)

The fundamentals of the study

The fundamental foundations of the theory of academic capitalism, the theory of innovation, innovation management, academic or university entrepreneurship, and innovation activity in higher education and science considered in the different works, which formed the basis of the theory and practice of the multidisciplinary direction of higher education innovatics. Within the framework of higher education innovatics, the authors will consider the types, varieties and direction of innovative (transformational) changes in the field of higher education and science. The main goal of all such changes is building an innovative model of the higher education and science system aimed at creating a knowledge society.

According to S. Slaughter, and L. Leslie, “the essence of *academic capitalism* is the transformation of scientific and teaching activities into a kind of entrepreneurship: the implementation of research projects is directly dependent on the receipt of cash subsidies from individual corporations: Academic capitalism deals with market and market-like behaviors on the part of universities and faculty.”(Slaughter&Leslie1997, p. 21). Within the framework of “academic capitalism”, the activities of research institutes and centers within the university structure are aimed at increasing the potential for public application of knowledge. The authors give the following

interpretation of the definition of academic capitalism: “To maintain or expand resources, faculty increasingly had to compete for external dollars that were tied to market-related research, which was referred to variously as applied, commercial, strategic and targeted research, whether these monies were in the form of research grants and contracts, service contracts, partnerships with industry and government, technology transfer, or the recruitment of more and higher fees-paying students. We call institutional and professorial market or market-like efforts to secure external monies academic capitalism.”(Slaughter&Leslie1997, p. 17).Note that the “term *academic capitalism* was first introduced by E. J. Hackett to denote important structural changes in science.” (Hackett 1990).

“*Academic capitalism* sets new directions for the development of modern higher education and manifests itself on three levels: institutional, departmental, individual. Academic capitalism at the institutional level is realized against the background of changes in the funding of higher education institutions, the reduction of public funding, and the need to find sources of additional funds. The study of academic capitalism at the departmental level is of interest because it is here that various activities are carried out, employees adapt to new values. At the individual level, within the framework of academic capitalism, there is a revision of the distribution of time between the main activities of the teaching staff: teaching, research, services.”(Leslie, Oaxaca & Rhoades 2001).

In its essence, the environment of academic capitalism, which has covered the sphere of higher education and science (as well as all other social, public, and humanitarian spheres of human activity) with market, and market-like relations, is also a new phenomenon in the general system of capitalism. It was in the environment of academic capitalism that the powerful innovative development of both the socio-humanitarian and industrial spheres of human activity began. Accelerated innovation has spawned the digital revolution and has become an objective reality for today's globalized world.

The complete description of innovation processes was done by J. Schumpeter: “he analyzed the *new combinations* of changes in the development of economic systems. He added a definition of innovation as *new combinations* of new or existing knowledge, resources, equipment and so on”.(Schumpeter 1934, p. 65). Also, he “underlined that innovation needs to be distinguished from invention: he saw innovation as a specific social activity (function) carried out within the economic sphere and with a commercial purpose, while inventions in principle can be carried out everywhere and without any intent of commercialization. For Schumpeter innovations are novel combinations of knowledge, resources, etc. subject to attempts at commercialization (or carried out in practice). This *combinatory* activity he labeled *the entrepreneurial function* and the social agents fulfilling this function

entrepreneurs.”(Fagerberg 2008, p. 21). Also, Schumpeter (1976) and Mensch (1979) introduced the term *innovation* into scientific circulation, which was defined as the embodiment of scientific discovery in new technology or product.

Different surveys of the literature in the sphere of innovation have found a great number of varieties of definitions. Thus, “in 2009, Baregheh et al. found around 60 definitions in different scientific papers.”(Baregheh, Rowley & Sambrook 2009, p. 1325), “while a 2014 survey found 41 ones.”(Edison, Ali & Torkar 2014, p. 1394). Based on their survey, Baregheh et al. attempted to define a multidisciplinary definition and arrived at the following definition: “Innovation is the multi-stage process whereby organizations transform ideas into new/improved products, service or processes, in order to advance, compete and differentiate themselves successfully in their marketplace”(Baregheh, Rowley & Sambrook 2009, p. 1334).

In an industry review of how the software industry defines innovation, the following definition was found to be the most comprehensive, based on the definition of the leadership of the Organization for Economic Co-operation and Development – OECD: “Innovation is: production or implementation, assimilation and use of new products with added value in the economic and social spheres; updating and expanding products, services and markets; development of new production methods; and the creation of new control systems. This is both a process and a result.”(Edison, Ali & Torkar 2014, pp. 1400-1401).

“Two main dimensions of innovation were degree of [novelty] (i.e. whether an innovation is new to the firm, new to the market, new to the industry, or new to the world) and types of innovation (i.e. whether it is product, process, market or organizational innovation).”(ibid, pp. 1394-1395).

Well known and influential scholar Everett Rogers “offered the following description of an innovation: An innovation is an idea, practice, or project that is perceived as new by an individual or other unit of adoption.” (Rogers 2003, p. 12).

Peter Drucker defined the essence of innovation as follows: “Innovation is the specific function of entrepreneurship, whether in an existing business, a public service institution, or a new venture started by a lone individual in the family kitchen. It is the means by which the entrepreneur either creates new wealth-producing resources or endows existing resources with enhanced potential for creating wealth.” (Drucker 2002).

Theoretical foundations of innovation, innovative development, and innovation management, include a global study of innovation management 2006-2016 given in the book “The Quest For Innovation”(2006), in an articles of Chen, Viardot and Brem (2019), and Bouwer (2015; 2017).

In his comprehensive book, F. Damanpour “synthesises research from the past 50 years of innovation studies, addressing the main elements of innovation and

providing a connected perspective on innovation within organizations. The author provides an overview of key concepts, terms and theory, explores the generation and adoption processes of technological and non technological innovations, and examines innovation activity and internal mechanisms and procedures in organizations.” (Damanpour 2020).

This research is based on the following “conceptual foundations of innovative development of higher education: a) the H. Etzkowitz's concept of innovative development of society by the *triple helix* model (Etzkowitz 2003; 2008; 2019; Viale & Etzkowitz 2010; Dzisah & Etzkowitz 2012; Cadorinet al. 2019), which is successfully used in many developed countries (USA, UK, Canada, Australia, Japan, Germany, Sweden and many other countries of the EU) and in the developing world (China, Brazil, some other South American countries, etc.);b) B. Clark's concept of transformational changes of conventional universities into innovative universities focused on in-house entrepreneurial activities (*business universities*) (Clark 1998;2000; 2004), which has been validated in higher education systems in many countries of different continents (North and South America, the United States of America, Western Europe, Japan, Africa).” (Romanovskyi & Romanovska 2020).

Also, the authors paid great attention to the following problems of innovation: “Promoting innovation in higher education.”(Haddawi & Igel 2006); “The emergence of a real opportunity for the commercialization of R&D results, which led to the rapid development of university and academic science and technology.”(Slaughter & Rhodes 2009) and others.

For more than 50 years, the sphere of higher education and science has been subject to various innovative changes, the direction of which depends on the goals set by the innovators. Since almost all areas of social, economic, and public-humanitarian activities of mankind are connected with the sphere of higher education and science, it is advisable to investigate, identify, and group innovations according to the areas of application and the tasks assigned to them.

To systematize and comprehensively study the innovation theory and practice in the field of higher education and science, the authors of this article have developed and proposed a new scientific and applied multidisciplinary direction – *higher education innovatics*. (Romanovskyi & Romanovska 2020).

Relevance of the topic

Higher education plays a crucial role in the development of human society, both historically and in modern conditions. The integrated role of universities in the period of globalization is presented in the publication (Altbach 2008). Universities are the engines of socio-economic development of societies and their national institutions. They play a central scientific role in society, in the multiplication, preservation, and

dissemination of knowledge, and are defined as intellectual centers and international organizations. It is the universities that must ensure the accessibility of higher education and the fair provision of educational services to all layers of the population. Universities should solve the problems of both general education and develop economic science and academic (university) entrepreneurship. They must realize their historical prospects for the further development and improvement of humanity. Therefore, the broad and purposeful introduction of innovations, best practices, techniques, and technologies in the field of higher education and science should ensure the implementation of the integrated role of universities in the period of globalization.

The authors believe that “to build a knowledge society with an innovation-oriented type of economy in any country requires fundamental reform of its socio-economic and humanitarian spheres, innovative development of the system of higher education, science, and scientific and technical activities. At the same time, a reasonable combination of the best foreign experience with national traditions is necessary. The priority of the state policy of innovative development of higher education requires the early introduction of innovative entrepreneurship of various types and organizational and legal forms. At the same time, the basis of economic reform and the main lever in the new model of the economy is the activation of all types of entrepreneurship, including innovative academic or university entrepreneurship, as an integral socio-economic process. Accelerated creation, development and implementation of innovations in higher education and science, promotion of innovative methods, technologies and innovative entrepreneurship are especially important in the period of search for new economic models and strategies that will contribute to the accelerated development of the social and economic system. In this regard, it is necessary to study and develop the theory of innovation in higher education, to determine the types and directions of innovations for the early implementation in this area.” (Romanovskyi & Romanovska 2020).

Statement of the problem

According to the authors, “innovation in higher education studies, systematizes and expands interdisciplinary scientific and applied fields in higher education and science.

Innovation in higher education studies the innovative transformations of subjects of higher education and science in the context of academic capitalism.” (Romanovskyi & Romanovska 2020).

This study is devoted to the study of the processes of innovative development of the higher education system in Ukraine and other countries during the formation of the knowledge society.

“The spread of market mechanisms in all spheres of social, economic and humanitarian activities of mankind, the emergence of the phenomenon of academic entrepreneurship, the commercialization of knowledge and R&D requires the development and scientific substantiation of the theory and practice of innovative development of higher education and science.”(ibid).

The novelty of the research lies in identifying areas of practical implementation of innovative changes, searching, studying, and choosing relevant ways, indicating methods and mechanisms for innovative transformation of the higher education sector as a whole, as well as its constituent parts – HEIs, SIs, organizations, and institutions related to higher education and science sphere.

Analysis of recent studies and publications

Among the latest publications on innovations in higher education, the following works seem to be interesting. In the work of Eddie Blass and Peter Hayward (2014) “Innovation in higher education; will there be a role for “the academe/university” in 2025?” the authors “presents five scenarios for the future of higher education underpinned by drivers of funding, the ownership and exploitation of *research*, the provision of good *teaching*, and the potential missing link of social innovation development. The authors emphasize that by refocusing on facilitating social innovation, the university can find a new means of adding value to society that will sustain its existence beyond 2025.”(Blass& Hayward 2014).

In his paper, Dustin Swanger (2016) “explores the current state of higher education and the pressures facing colleges. He also explores innovation and some of the challenges to innovation in higher education, as well as some of the successes. This paper will recommend some changes that can be implemented on any campus to improve outcomes and efficiencies.” (Swanger2016).The full report reference, specially prepared for the 2nd Summit of the Global Education Industry, held on September, 26-27,2016 in Jerusalem, “covers the available evidence on innovation in education, the impact of digital technologies on teaching and learning, and the role of digital skills and the education industries in the process of innovation, using data from OECD surveys.” (OECD 2016, p. 9). “Understanding the education industries better, including their market structures and innovation processes, would help to create a more mature relationship with the education sector. Innovation in the industry – which develops the products and services that could drive innovation in schools – does not happen in isolation from what is happening in the education sector. Only when there is an innovation-friendly culture in education systems, supported by an innovation-friendly business environment and policies, will industries start to engage in risk-intensive research and development. Governments can support this by fostering a climate of entrepreneurship and innovation in

education.” [ibidp. 10]. Also, the report underlines that: “Innovation in the public sector in general, and in education in particular, could be a major driver for significant welfare gains. Governments provide a large number of services in OECD countries and these services account for a considerable share of national income.” [ibidp.13].

The article of P. Serdyukov (2017) is devoted to the problem of innovation in American higher education. Analyzing publications of American experts in the field of higher education and innovation, studying the existing situation with regards to innovations in higher education institutions, he made several valuable conclusions and recommendations. The paper is based on a literature survey and author research. The author emphasizes that “Actually US education badly needs effective innovations of scale that can help produce the needed high-quality learning outcomes across the system. The primary focus of educational innovations should be on teaching and learning theory and practice, as well as on the learner, In the parents, community, society, and its culture. Technology applications need a solid theoretical foundation based on purposeful, systemic research, and sound pedagogy. One of the critical areas of research and innovation can be cost and time efficiency of the learning.” (Serdyukov 2017, p.4). Some practical recommendations are given in this paper: “how to create a base for large-scale innovations and their implementation; how to increase the effectiveness of technology innovations in education, particularly online learning; how to raise time and cost efficiency of education.” (ibid p. 4).

Unbundling is the process by which products previously sold together are separated into their component parts. In his work T. Mc Cowan (2017) notes that “unbundling is the process by which products previously sold together are separated into their component parts.” The author states that in “higher education there is a dynamic separation of teaching and research. This dynamic was driven primarily by financial motivation and was driven by the commercial sector, but also had pedagogical motivation through an emphasis on personalization and employability. The article presents a theoretical analysis of the trend and proposes new conceptual tools with which to map regulatory implications.”(McCowan2017).

The article of M. Jakovljevic (2018) devoted to the “institutional innovation and some models of innovation in higher education. The author concludes that contemporary innovation research informs us of models and the nature of innovation and its basic facets: a) TAR model; b) A stakeholder model; c) The structural model;d) Governance structured models and e) Triple helix and quadruple helix innovation models.” (Jakovljevic 2018).

In their book, J. Branch et al. (2018) are presenting “primary examples of innovative teaching and learning practices in higher education. The book is truly international, containing contributions from Australia, Denmark, England, Hong

Kong, Italy, Qatar, Scotland, South Africa, Tasmania, Vietnam, and USA. Although the educational contexts are very different across these countries, there appears to be a striking similarity in the approach to innovative teaching and learning.” (Branch et al.2018).

The following works are devoted to a critical study of the problems of academic capitalism.

In the article “On academic capitalism” B. Jessop (2018) is considering “the increasing trend toward academic capitalism and profit-oriented entrepreneurial practices in the fields of education and research discusses in the work. This occurs as universities, in different ways and subject to greater or lesser financial, administrative, and ideological pressures, act less like centers of disinterested education and research and more like economic enterprises that aim to maximize their revenues and/or advance the economic competitiveness of the spaces in which they operate.” (Jessop 2018).

The article of P. Somers et al. (2018) “provides a definition of academic capitalism and overview of the research literature, presents the prospects for academic capitalism in the Americas, and discusses the implications of academic capitalism for Latin America. Estimates are given of what is useful in academic capitalism for Brazil.” (Somers et al. 2018).

In his work, R. Münch (2020) describes the most important “features of academic capitalism and their impact on science, as well as on the evolution of scientific knowledge; notes that academic capitalism is located in the intersection of scientific research, economic profit maximization and innovation policy; examines the institutional conflicts of interest associated with corporate research funding. He argues that academic capitalism is a unique hybrid that combines the scientific search for truth and the economic maximization of profit and turns universities into enterprises competing for capital accumulation, and enterprises into knowledge producers looking for new discoveries that can be turned into patents and profitable goods.” (Münch 2020). The book “The International Encyclopedia of Higher Education Systems and Institutions” edited by editors-in-chief P. N. Teixeira and J. C. Shin (2020) includes most topics from higher education and is available for comparison with other sources. The book examines the problems of higher education in the twenty-first century, analyzes the changes that have taken place and new challenges that may face future scientists and possible research directions. (Teixeira& Shin 2020).

In their article, M. Muftahu and H. Jamil (2021) considered that “one of the most difficult tasks in HEIs is to implement effective and constructive changes in the already functioning system.” They point out, that the “resistance and unwillingness of the members of the institution are the main obstacles for the institution to implement

the necessary changes.” The authors suggest “how to facilitate the flow of knowledge and adopt an innovative way of thinking in the context of higher education or higher education institutions.” The paper also analyzes “three areas of a comprehensive implementation plan or change management: structure, culture, and strategies.” The authors propose their program to manage changes. They explain “how a change initiative can be undertaken in a higher education institution in the context of the flow of knowledge and the adoption of innovative thinking. The main message of this publication is that, according to the authors, the institutional mission, vision, and priorities must be clearly understood by every employee in order to support and promote change and innovative thinking.” (Muftahu & Jamil 2021). In the paper, which contributes to the discourse on the future of learning in higher education the author D. W. Stoten (2021) “focuses on the utility of the MBA as a management qualification to those that adopt a more holistic perspective of the development of managerial capability in an uncertain and volatile world.” (Stoten 2021, p.53).

In their research S. Mazzioni et al. (2021) analyze the degree of interconnectedness of processes with organizational innovations, with efficiency in the field of products, market, technical and other innovations, and with social and environmental sustainability. The authors “proposed a theory that allowed us to understand the mechanisms of this relationship by analyzing the impact between innovation and sustainability mediated by efficiency.” (Mazzioni et al. 2021, p. 527).

The study of M. J. Mayhew et al. (2021) has the purpose “to test the effectiveness of a theoretically developed pedagogical exercise designed to help students develop their innovation capacities during a single-semester course.” (Mayhew et al. 2021, p. 3). Researchers “organized the theoretical perspectives and empirical literature base through the use of two broad categories: innovation capacity theory and pedagogical frameworks, respectively.” (ibid p. 3). Authors stress that “good teaching is the crucial link between the aspirations of undergraduate education and their subsequent realizations; between collegiate environments and desired outcomes”. (ibid p. 17).

The author of the next study S.Y. Tan (2021) suggests that “thinking can be perceived as an ambiguous task that allows for different interpretations. From the students' point of view, reflection was often characterized as a product that was one-layer (not repetitive) and monologic, rather than iterative and dialogical.” (Tan 2021). Also, he points out “the need for a deeper understanding of the student's point of view and its consideration in context in order to develop a teaching methodology that would better support and strengthen the reflective approach to learning.” (ibid).

Purpose of the article

The main purpose of this article the authors consider further development of the theory and practice of interdisciplinary scientific and practical direction of

innovations in higher education and science, as well as the definition of objectives, directions, and features of innovative transformations in this sphere. An important research problem is the effective organization of management in the field of innovative transformations in the main components of the higher education and science sphere – universities, SI, and related organizations.

Authors stress that university innovations are the result of the development of academic capitalism and studies mainly both its market innovation processes spreading to the sphere of higher education and their impact on the socio-economic sphere of society.

Methodology and the research methods

The study was conducted as follows: a) a comprehensive and purposeful literary and documentary search was carried out; b) the main areas of search are identified: academic capitalism; academic (university) entrepreneurship; innovative development of society according to the “triple helix” model; a variety of innovative models, directions and ways of implementing innovative transformations in the field of higher education and science. The authors used a dialectical approach to the analysis and comprehension of the content and features of the innovative development of higher education based on the phenomenon of academic (university) entrepreneurship. In the article, academic entrepreneurship is considered as an economic category in the system of socio-economic ties and relations of an integrated economic system in the modern knowledge society. With the help of abstraction methods, system-structural and information-theoretical methods, the conditions for the formation of academic entrepreneurship, the features and essence of university entrepreneurship, and its impact on the competitiveness of the economies of countries are studied. Methods of analysis in synthesis were used to study and form directions and ways of innovative development of higher education and science.

All drawings presented in the article (Fig. 1 – Fig. 8) were developed by the authors.

Presentation of the main research material

As higher education innovatics is a branch of knowledge aimed at studying, creating explaining, and effectively implementing innovations in the sphere of higher education and science, authors will consider the main results of their research of types of innovations in higher education and science and direction of their implementation as the practical use of innovatics theory and practice.

The core of higher education innovatics as a science is the general organizational theory of innovation with a focus on application in the sphere of higher education and science including academic or university entrepreneurial activities.(Clark 1998; 2000;

2004).

The object of research in the higher education innovatics is the process of conducting innovations in the sphere of higher education and science; the subject is the theoretical, methodological, and organizational bases for implementing this process; the product is a system of scientific and practical provisions that ensure the development, implementation, and support of innovations in the sphere of higher education and science, as well as their explanation and foresight.

The basic issues of the organizational theory of higher education innovatics include (Fig. 1): classification of innovations in the sphere of higher education and science by their focus on the types of activity; classification of innovations in the sphere of higher education and science by their focus on the types of activity; classification of innovations by their type and model used; stating their goals; identification of conditions and methods of innovation; forecasting and planning; risk assessment; error prevention.

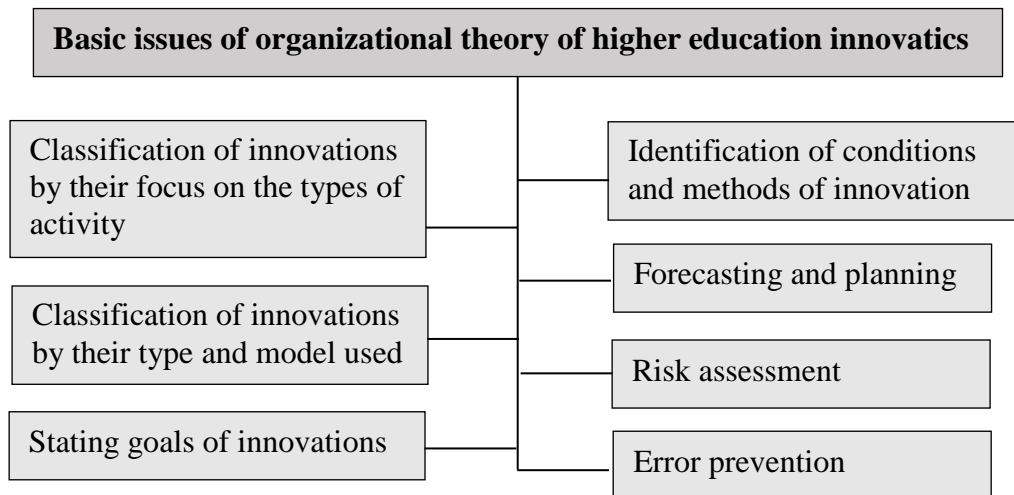


Fig. 1. The basic issues of the organizational theory of higher education innovatics

There are two general types of innovation: sustaining innovation or disruptive innovation. (Bower & Christensen 1995).

Such models of innovations can be used: radical, incremental, architectural, or modular. (Henderson & Clark 1990).

Also, innovation can be used for profit generation (commercial), or non-for-profit purpose: social, sustainable, or green innovation and responsible innovation. (Schiederig, Tietze & Herstatt 2012; Blok & Lemmens 2015).

The organizational theory of higher education innovatics covers such groups of problems as scientific (basic and applied); educational and pedagogical; managerial; technological; informational; legal; organizational; financial and economic; socio-psychological and cultural; personnel (HR).

The latter group is of particular importance and results in the basic principle of innovation. Innovations are formed and implemented by people (personnel).

Therefore, the main actor in any innovation process is a person and the basic principle of higher education innovation can be formulated as follows: the effectiveness of the innovation process in the field of higher education is ensured by managers and participants in this process, their creative potential, energy, and talent. Since the innovation process in the field of higher education takes place at different levels, accordingly, managers and participants in this process should be persons who are endowed with appropriate official powers, as well as have the desire and internal strength to experiment, a vision of the problem and prospects, creativity, the courage to take responsibility for the development and implementation of changes, and other properties and character traits necessary for innovation. The ability to work in an ever-changing world is a necessary quality for both senior management personnel, as well as for specialists of all other management levels.

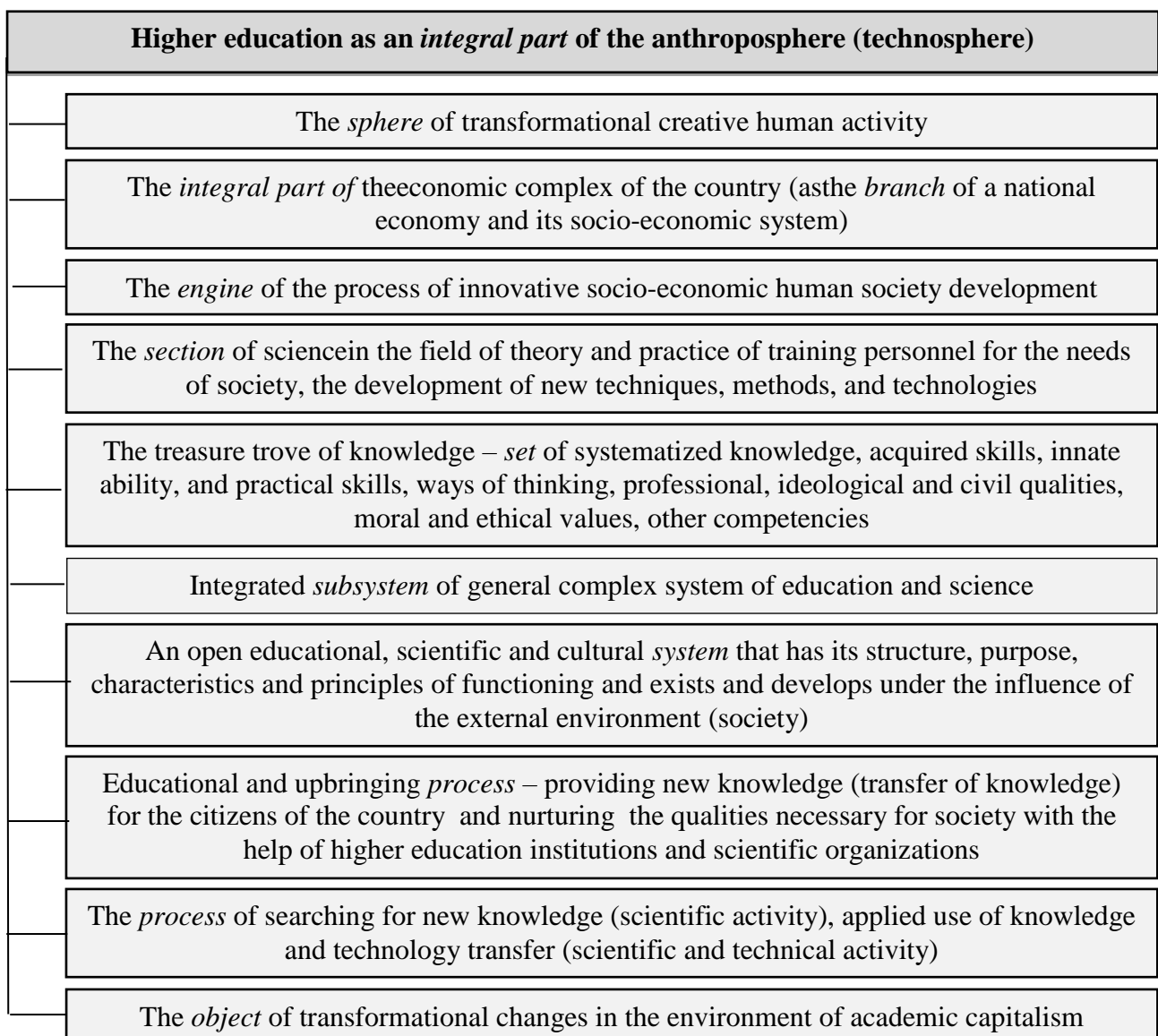


Fig.2. The unique characteristics of higher education

A very important reflection of the crucial importance of innovation in the field of

higher education and science is the innovation policy, innovation relations, and innovation culture of the subjects of this field. This sphere is including all higher educational institutions, scientific institutes, organizations, and legal entities involved in the educational and scientific sphere. The problems of innovation policy, innovation relations, and innovation culture of the subjects of higher education and science-universities, scientific (research) institutions, and other organizations related to these areas, which find themselves in the conditions of academic capitalism, require further research. Also, in our opinion, a very important issue for further research is the formation of a corporate innovation culture of employees at all levels of higher education and science in the conditions of academic capitalism. In future publications authors will consider the main provisions concerning innovation policy, innovation relations, and innovation culture of HEIs on the example of innovation-oriented entrepreneurial universities.

The unique characteristics of higher education as an integral part of the anthroposphere (technosphere) can be formulated as follows (Fig. 2).

Innovations implemented at the regional level are medium-sized. Individual innovations are carried out at the level of HEIs, SIs, and their individual divisions.

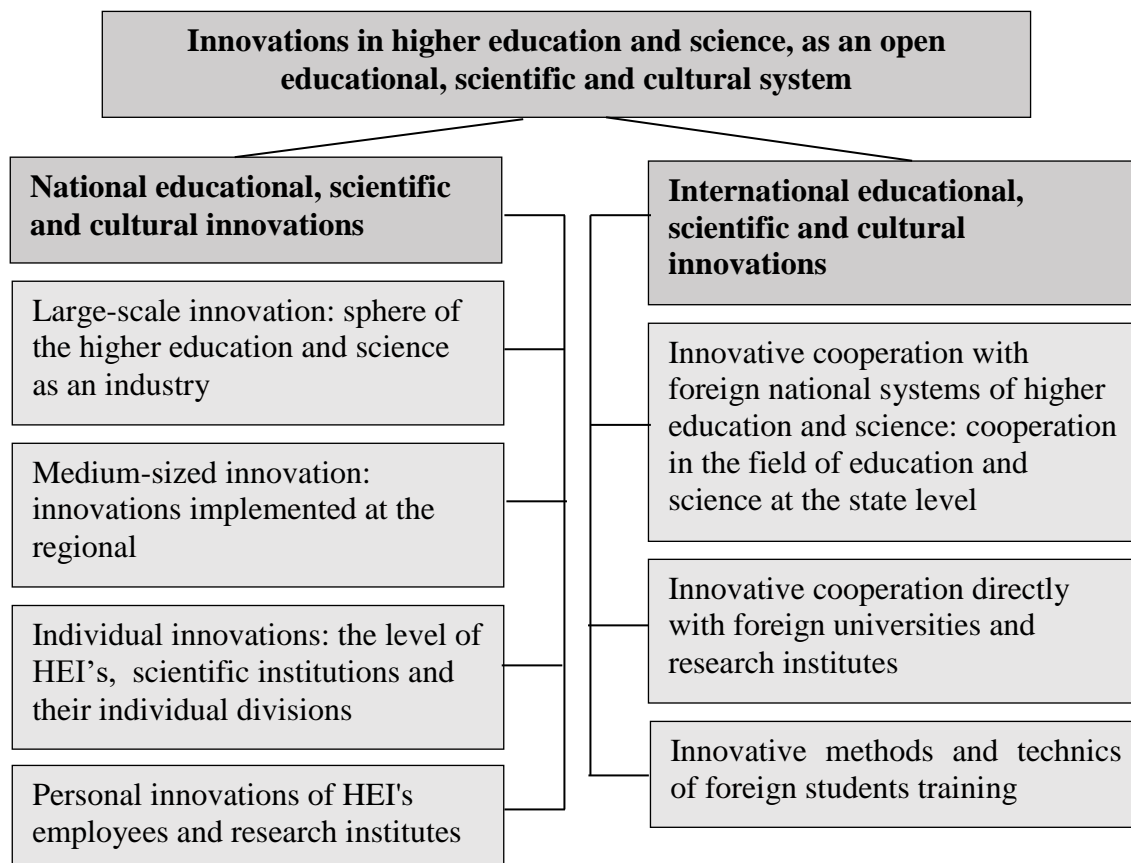


Fig. 3. National and international components of the innovations in the sphere of higher education and science, as an open educational, scientific and cultural system

Taking into account the level of significance, it is advisable to distinguish

international and national educational, scientific and cultural innovations that are aimed at services in the field of education, science, and culture by their scope of application (Fig. 3).

The problem of innovation management in the field of higher education is not to optimally implement individual innovative projects, but to build structural-transformational innovative techniques and qualitative structures of new mechanisms, methods, and forms of activity. At the same time, the primary principle of the process of organizing innovation activities in the higher education system is the purposefulness and specificity of innovations. The goal system should have a well-built hierarchical structure. Also, it is very important for the country's population to understand and support the goals and directions of innovation in the field of higher education and science.

Analysis of the direction and impact of innovation processes in the field of higher education and science on the objects and subjects of innovative transformations certifies the necessity and importance of intensifying the processes of search and formation of new knowledge and identification their scientific, technical, and applied significance for the further socio-economic development of society, science, and technology.

That is, the development of mechanisms for effective search and further accelerated use of newknowledge is the core of innovative transformations both in society as a whole and in its individual branch – the system of higher education and science.

In the field of higher education, new socio-economic mechanisms of innovation activity should certainly include university oracademic entrepreneurship, the latest methods of accelerated transfer of technologies, the formation of start-up and spin-off business structures, and so on.

Let's consider further the types of such innovations in the higher education system that can lead to innovative changes and their classification. Most of them are either directly or indirectly initiated by academic capitalism.

Innovations in higher education and science can lead to the innovative change of the following types: economic and market; technological; organizational; structural and pedagogical; educational and pedagogical, moral, ethics and ecological upbringing; cultural and artistic; other innovations caused by global changes, emergency and force majeure circumstances. In the conditions of academic capitalism, the function of academic or university entrepreneurship, which is performed by entrepreneurial universities, as well as entrepreneurial-oriented research institutиї, is extremely important.

The main task of innovative development of higher education in any country is

the creation of the necessary conditions for a direct purposeful organizational-economic, scientific-educational, and engineering-technological activity aimed at the formation of a knowledge society with an innovative oriented type of economy of the state. Further, in Fig. 4, the authors identified and presented the fundamental tasks of innovative academic (university) entrepreneurship:

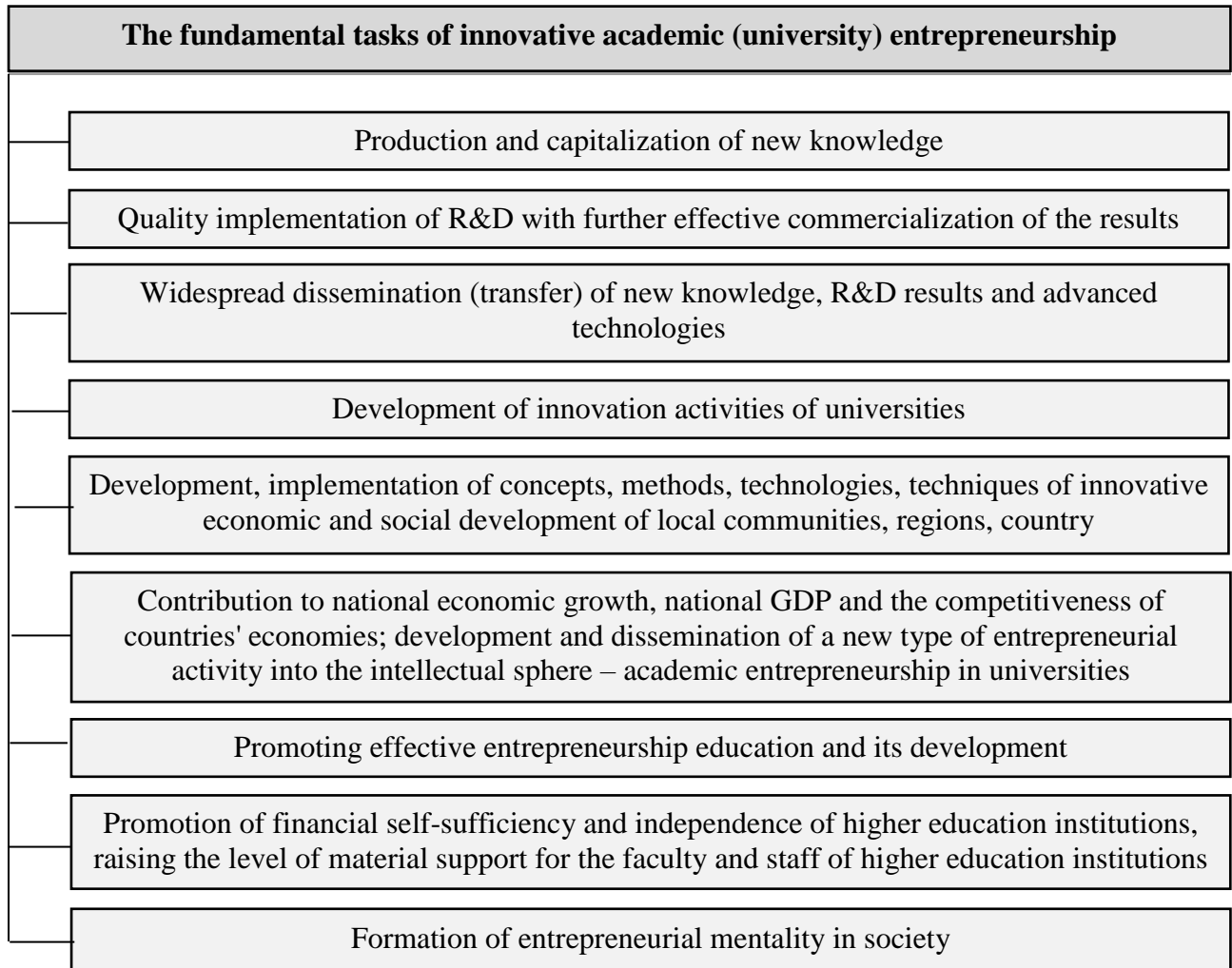


Fig. 4. The main fundamental tasks of innovative academic (university) entrepreneurship

The main objects of innovative activity in the field of higher education and science are presented by the authors of this study in Fig. 5.

The authors determined that “the subjects of innovation activity in the field of higher education and science are individuals or legal entities (HEIs, SIs, structural units of the educational and scientific system, etc.), that carry out an innovative activity, attract property and intellectual values, invest their own or borrowed funds in the implementation of innovative social-economic, public and humanitarian activity in the sphere of national projects.

The authors identified the general “orientation of processes of innovative activity in the field of higher education and science on objects and subjects of innovative transformations. Innovative activities in the field of higher education and science are

aimed at:

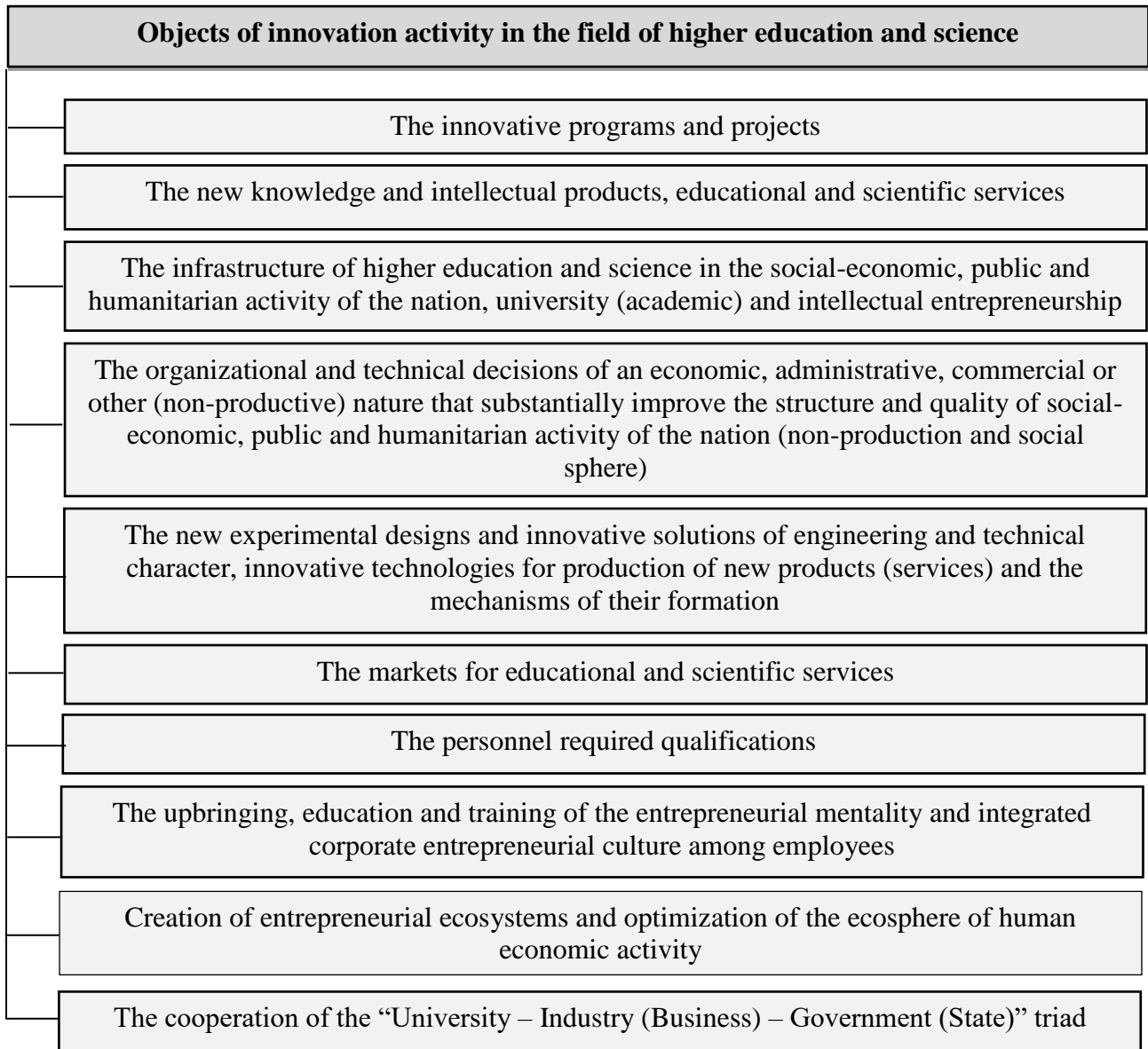


Fig. 5. The main objects of innovation activity in the field of higher education and science

1. Search, formation, accumulation, and analysis of new knowledge.
2. Use and commercialization of basic R&D results, applied research, design, development, and implementation of new equipment and technologies.
3. Transformation of scientific research and development, other scientific and technological achievements into new or improved products, technologies, services introduced to the market, into a new or improved technological process used in practice, or a new approach to social services.
4. Academic (university) entrepreneurship, technology transfer, formation of start-up and spin-off structures.
5. Formation of entrepreneurial mentality and corporate entrepreneurial culture in subjects of innovative activity in the system of higher education.

6. The use of new tools, methods, and technologies to accelerate the economic growth of society

7. Formation of intellectual and formation of human capital.

8. The formation of an innovative climate in the system of higher education and science, the development of higher education innovatics as a scientific-applied and practical direction of transformation and improvement of the sphere higher education and science.”(Romanovskyi & Romanovska 2020).

Also, the authors determined the “influence of processes of innovative activity in the field of higher education and science on objects and subjects of innovative transformations. Thus, the “innovative activity in the field of higher education and science affects the objects and subjects of innovative activity for the formation of:

1. Innovative programs and projects.

2. New knowledge and intellectual products, educational and scientific services.

3. Innovative infrastructure in the field of higher education and science in the national system of the socio-economic and public development, security of human life, support of academic (university) and intellectual entrepreneurship.

4. New organizational and technical solutions of economic, administrative, commercial, or other (non-production) nature, which significantly improve the structure and quality of the national system of the socio-economic and public development as well as the security of human life (non-productive and social spheres).

5. New experimental samples and innovative solutions of engineering and technical nature, innovative technologies for the production of new products (services).

6. Academic (university) entrepreneurship, technology transfer, formation of start-up and spin-off structures.

7. Innovative mechanisms: a) formation (formation) of markets for educational and scientific services; b) training of labor resources of the necessary qualification; c) education of employees' entrepreneurial mentality and integrated corporate entrepreneurial culture.” (ibid).

Innovative changes in the field of higher education and science occur at the state, industry, regional, and domestic (at the level of subjects of the higher education and science system) levels. State administration of scientific, technical, and innovative activities in the sphere of higher education and science is an integral part of the country's socio-economic strategy. So, it should be carried out by means of:

a) monitoring and analysis of the state of achievements of the world and national systems of higher education, science, and technology, technologies and innovations;

b) development of an image of the future (expected) state of the higher education system, its provision with the necessary scientific, technical, and human resources;

- c) justification of key areas of development of the higher education system in the short, medium, and long term;
- d) creation and support of innovation infrastructure, including its environmental component;
- e) legal support of state support for innovation activities;
- f) financial support for priority areas of innovative development of the sphere of higher education and science;
- g) targeted funding for education and basic research.

State measures should also ensure that:

- a) capital inflows to innovative development of higher education;
- b) a high level of innovation is required;
- c) training a sufficient number of engineers, scientists and management personnel;
- d) facilitating access of national higher education and science to foreign markets.

The role of the state in the management of innovation activities in the field of higher education and science is an important task of the state. For the state, it is necessary to solve the certain most important tasks (see Fig. 6):



Fig. 6. The most important tasks of the state in the management of innovation activities in the field of higher education and science

1. To determine the technological and economic main goals, and develop a plan for macroeconomic transformations that will mobilize society with a single focus on innovative development.

2. Creating the necessary conditions that best contribute to the innovation and investment process.

3. Combining the efforts of government agencies with business to support innovative initiatives of higher education and science subjects, stimulating innovation management in this area, and spreading innovations in this industry. Support and practical implementation of H. Etzkowitz's concept of innovative development of society by the “triple helix” model (Etzkowitz 2003; 2008; 2019; Viale & Etzkowitz 2010; Dzisah & Etzkowitz 2012; Cadorin et al. 2019).

4. To use and improve the advanced world experience in the field of innovative development of the sphere of higher education and science.

5. Actively promoting the creation of entrepreneurial intelligence and innovative thinking in society

Innovation management should turn into a consolidated interaction of government and business mechanisms. Creating conditions for achieving agreement between the interests of the state and the employee in the field of higher education and scientific and technical activities is the main task of the state level of management. This level becomes strategic, giving tactical and operational control to new innovative individual firms and specialized structures in the field of higher education and science.

At the same time, academic or university entrepreneurship was noted as one of the main motivators and engines of innovation in the sphere of higher education and science.

Summarizing the results of a comprehensive study of the phenomenon of academic (university) entrepreneurship authors noted that entrepreneurial institutions of higher education implement their activities in higher education in the current market laws of the economic system, interacting with internal forces of society (with response to its challenges and inquiries) under the influence of globalization pressure of the world community. The authors argue that innovations in the field of higher education and science must link to lead to innovative changes. It is reasonable to consider HEI's innovative activity in the higher education system as an economic category related to the capitalization and commercialization of intellectual products – knowledge, technology, educational and scientific services, etc.

Innovations in higher education and science can lead to innovative change. These can be innovations of the following types (Fig. 7): economic and market; technological; organizational; structural and pedagogical; educational and pedagogical. Most of them are either directly or indirectly initiated by academic

capitalism.

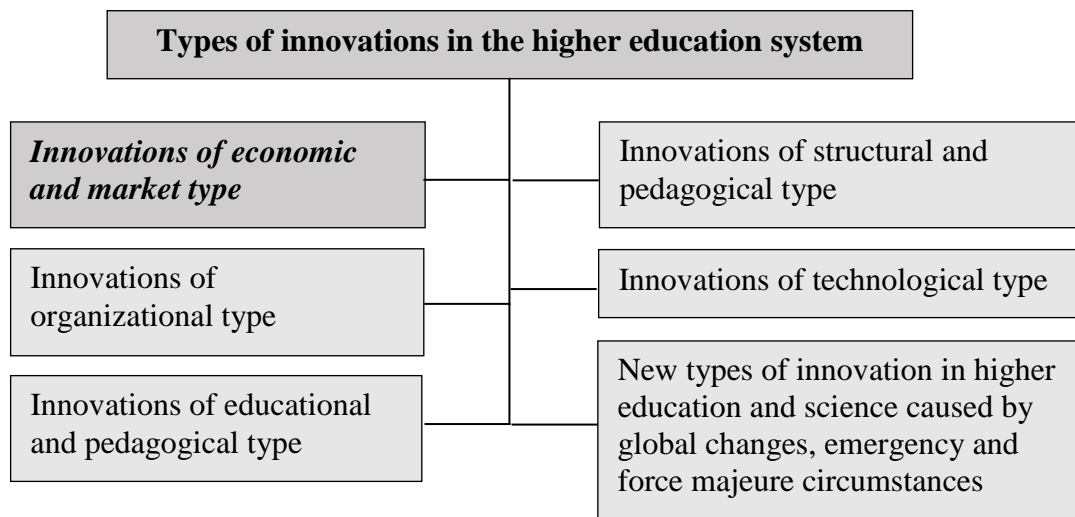


Fig. 7. Types of innovations in the higher education system that can lead to innovative changes

The authors determined that “*Innovations of economic and market type* (Fig. 8) united novations caused by the scientific, technical, industrial, and economic development of society and the spread of market economic relations in all areas of socio-economic activity of mankind, the commercialization of educational and scientific and technical activities of HEI and all higher education (*innovations of economic and industrial development, depending on market requirements*).” (Romanovskii 2012).

Economic and market innovations include such innovations that allow to reduce the budget funding for higher education and science to obtain the necessary resources not only for survival but also for the prosperity of HEI. They are:

1. New forms and types of financing of education and crediting of educational services, educational institutions of various types, statutory (including – educational, R&D, technological and cultural) activity of educational institutions; diversification of funding sources; formation of various funds, grants, endowment institute, etc.

2. Commercialization of educational results (contract forms of education, educational, consulting, expert, and other services), scientific and scientific-technical activities (R&D, transfer of technology) HEI, obtaining additional financial income from extracurricular activities (lease of property, organization of mass activities for local and regional communities, etc.).

3. Participation of HEI in innovative socio-economic local, regional and national development, opening of new directions of business activity, enterprises, and spheres of industry.

4. Close cooperation with industry and business: joint implementation of R&D, targeted training, opening and supporting joint ventures, joint participation in joint-

stock companies.

5. Active participation of HEI in business development; education, training and preparation of entrepreneurs of different types and leaders for industry and social sphere; developing and lobbying the necessary regulations for the development and support of entrepreneurship; promoting the competitiveness of the country's industrial and economic potential.

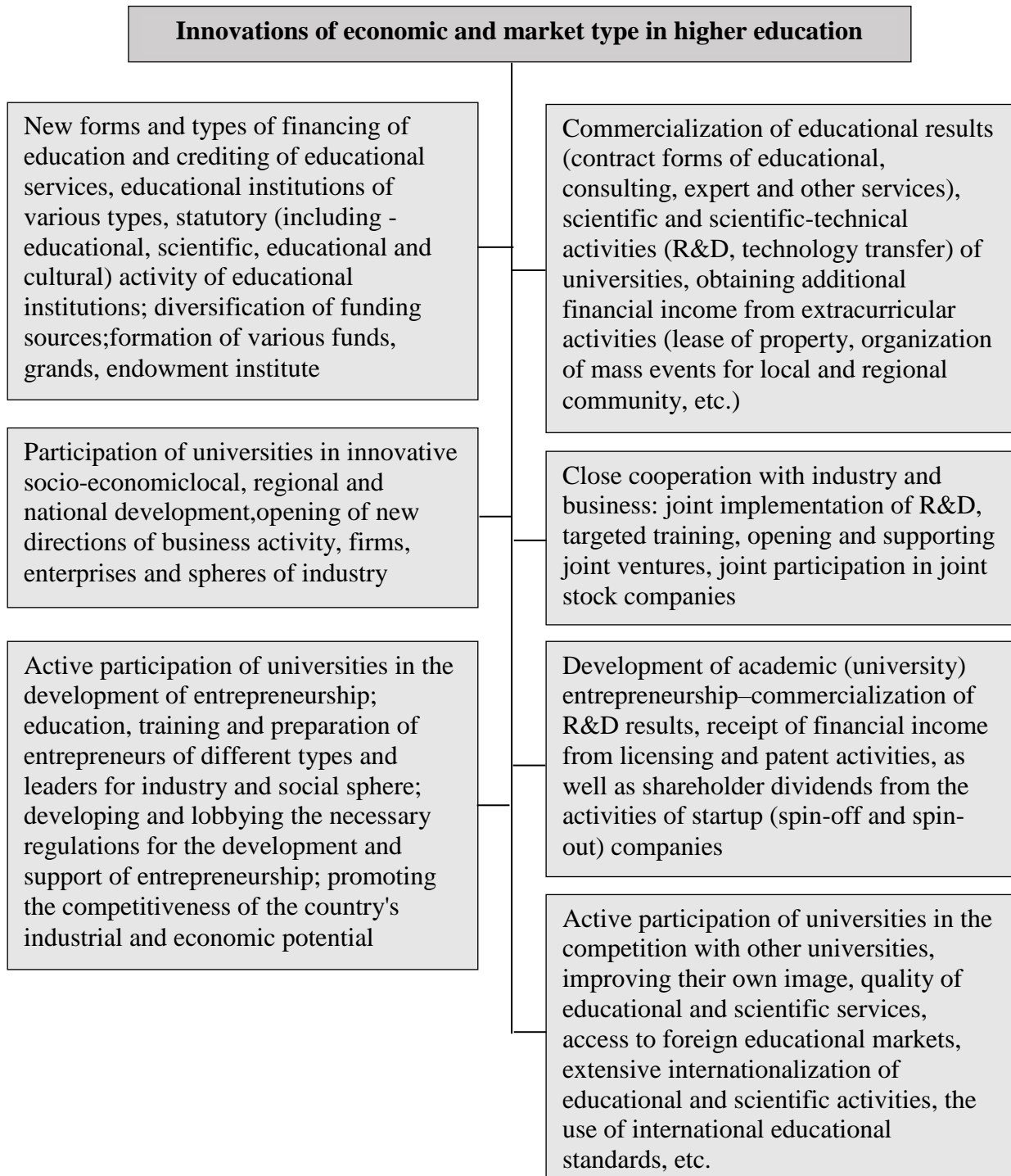


Fig. 8. Innovations of economic and market type in higher education

6. Development of academic (university) entrepreneurship - commercialization of R&D results, receipt of financial income from licensing and patent activities, as well

as shareholder dividends from the activities of startup (spin-off and spin-out) companies.

7. Active participation of HEI in competition with other HEIs, improvement of own image, quality of educational and scientific services, access to foreign educational markets, wide internationalization of educational and scientific activity, use of international educational standards, etc.

Note that *innovations in economic and industrial development, dependent on market requirements*, are the most painful, debatable, and unacceptable for a significant number of educators and scientists. The intrusion of market mechanisms into the academic sphere contradicts in many respects the notion of “pure science and education”, which are independent of financial interventions and financial pressure. However, it is also clear that in the context of total commercialization of all spheres of human life, global financial crises, and the constant reduction of funding for science and education (and especially higher education), the question of “to be or not to be” really faces a significant number of HEIs and research institutions, and also a large number of educators and scientists in all countries of the world. In those countries where education and science are supported, the necessary conditions have already been created for their civilized alternative financial support.

It is necessary to stress that university innovations are the result of the development of academic capitalism and studies mainly both its market innovation processes spreading to the sphere of higher education and their impact on the socio-economic sphere of society.

Conclusions and recommendations

Higher education is associated with all spheres of human life because literate and trained people are needed for life. Thus, the innovation of higher education is one of the most interdisciplinary scientific and applied areas in the system of the diverse knowledge of mankind.

Innovative activity in the field of higher education and science leads to serious innovative transformations both in the entire field of higher education and science and in its subjects – universities, research institutes, and related organizations and institutions. Innovation activities, initiated and directed by academic capitalism in the field of higher education and science, are primarily aimed at commercializing the results and expanding the economic activity of universities and research institutes, and only with a focus on social and socio-humanitarian problems of society. The state initiatives in the field of innovative management of higher education and science in each country are designed to strengthen the social, non-profit component of innovation in this area.

Further expedient research in the field of innovation in higher education is the

study of the “human factor” during the period of innovation, namely: innovation policy, innovation relations, and innovation culture of subjects of higher education and science. The study of innovation in this area can be interesting and useful for a wide range of researchers since this area includes all higher educational institutions, scientific institutions, and organizations, as well as legal entities involved in the educational and scientific sphere. It should be noted that the problems of innovation policy, innovation relations, and innovation culture of universities and research organizations that find themselves in the conditions of academic capitalism require careful further research. And the formation of a corporate innovative culture of employees of all levels of higher education and science in the conditions of academic capitalism can be decisive in the implementation of the necessary innovative changes.

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**THE CONCEPTUAL IDEAS OF THE CONSTRUCTIVISM THEORY AS A
BASIS FOR THE MODERNIZATION OF THE EDUCATIONAL SPACE
AND THE ORGANIZATION OF THE PERSONAL LEARNING
ENVIRONMENT OF STUDENTS OF HIGHER EDUCATION
INSTITUTIONS**

Abstract

The article presents the main ideas of the theory of constructivism as a component of the modern philosophy of education and substantiates the role, purpose, functions, and values of the lecturer of a higher educational institution in the context of the modernization of the educational space of higher educational institution. The main components of the process of organizing a personal learning environment for students of higher education institution in the conditions of the challenges of the information society are defined and disclosed, as conditions for their successful integration into the modern system of higher education, disclosure and realization of individual inclinations and students' abilities in the educational process by making a personal educational network. Outlined a three-level pedagogical structure that professors and lectures can use to enhance self-regulated learning by means of PLEs.

Keywords: *theory of constructivism, model of innovative learning, active learning, interactive learning, Personal Learning Environment, Personal Learning Network, Learning Management System, Learning and Performance Support Systems, Self-regulated learning.*

The reform of higher education at the current stage of the development of democratic statehood in Ukraine is conditioned by global transformational processes in the field of education and meets the requirements of innovative changes. Global trends in the development of the world testify to the need to change and adapt the educational environment both from the point of view of public safety and from the point of view of personal adaptation to the changes that are taking place. Accelerating

trends in the development of technologies, digitalization and Internetization, as well as migration processes encourage the introduction of changes in the educational environment. Today, education is becoming the main productive force for the development of the socio-economical and spiritual potential of society, as well as the professional and personal self-determination of young people.

According to the definition of the World Economic Forum, among the top 10 skills (by 2025) there are the following characters of modern specialists: in the first place - analytical thinking and innovation, in the second place - active learning and educational strategies. The skill of complex problem solving, which topped the list for 2015-2020, is now in the third place. Critical thinking and analysis, creativity, originality and initiative remain traditionally important. Completely new to the list are digital skills: use, monitoring and control of technology and technological design and programming. Self-control skills are also in the top ten: stability, resistance to stress and flexibility are extremely important, as well as the ability to interact with others — leadership and social influence, the ability to argue views, solve problems and generate ideas (*Kiselyova, 2020*). In this regard, a significant trend in the development of modern education is the transformation of educational and cognitive activity into a continuous process, which enables an individual to function as a subject of his own life, self-development, which requires him to take an active position in the process of learning about the world and himself, the development and revealing one's own potentials.

A change in the educational paradigm means a transition from passive learning to active, productive, in the process of which each individual, instead of receiving and memorizing ready-made knowledge, "discovers" it for himself, constructs his own understanding and vision of objective phenomena, independently creates scientific terms and concepts; from the transmission of knowledge by the teacher to the process of active learning by the student, through search, research; from memorization to own understanding and "discovery"; from reproductive to productive, critical and creative thinking and a combination of individual and cooperative, interactive forms of educational and cognitive activity. Therefore, the philosophy of positivism and the psychological theory of behaviorism, as the defining principles of traditional education, are replaced by the concept of constructivism, as the main component of the modern philosophy of education, which considers the process of education as a person's creation of his own ideas and knowledge about the objective world (*Ravchyna, 2020*).

The purpose of the research is to determine the main ideas of the theory of constructivism as a component of the modern philosophy of education and to substantiate the role, purpose, functions, and values of the teacher of a higher school in the context of the modernization of the educational space of higher education

institutions, as well as to determine and reveal the main components of the process of organizing the personal learning environment of students, which, in the conditions challenges of the digital information society, will contribute to the successful integration of students into the modern system of higher education, the disclosure and realization of their individual inclinations and abilities in the educational process through the creation of a personal educational network.

Revealing the purpose of the research, it should be noted that the theory of constructivism did not arise out of nowhere, but developed on the basis of the achievements of outstanding teachers and psychologists of the past. The main provisions of this concept are the embodiment of the ideas of the free development of the personality (J. Zh. Rousseau), its natural and active learning (Y. A. Comensky), learning in various types of practical, labor activity (I. G. Pestalozzi), reliance on personal experience in the process of cognition (I. G. Herbart), conscious, meaningful and systematic learning (K. D. Ushinskyi). Constructivism is a development of the ideas of progressive education associated with the name of J. Dewey. Important provisions of this concept in relation to educational and cognitive activity are revealed in the scientific heritage of H. Vashchenko. Its key positions are based on the concepts of the psychological development of the personality of J. Piaget and L. Vygotsky, echo the cognitive theory of D. Bruner and the theory of activity of O. N. Leontiev.

The theory of constructivism, as a component of the modern philosophy of education, is inextricably linked with humanistic psychology, the theory of postmodernism, and is a manifestation of a human-centered approach to the organization of the educational process in secondary and higher education institutions. Its conceptual provisions correspond to the personally oriented paradigm as the defining one in domestic pedagogy. The main ideas of person-oriented education, in particular - the organization of training as the acquisition of subjective experience, establishing the relationship of new scientific information with this experience, are substantiated in the works of I. D. Bekh, I. O. Zimnaya, V. V. Rybalka, O. Ya. Savchenko, V. V. Serykova, I. S. Yakymanska.

The theory of constructivism is important for the modern philosophical interpretation of education, in particular higher education, because it substantiates the nature of the process of cognition, in which the student performs the functions of an active subject and instead of memorizing ready-made information, builds his own knowledge based on the experience gained in the process of various types of activities and interaction with environment Constructivism is considered as an epistemology that offers its own explanation of the nature of knowledge, the process of cognition and learning, during which a person constructs his own understanding of the world, seeks the meaning of new information for himself by harmonizing it with

acquired ideas and beliefs (*Malkova, 2008*). An analysis of the conceptual ideas of the theory of constructivism makes it possible to single out its main provisions in the context of student education in higher education (*Pedagogy, 2005*):

- Knowledge cannot be completely transferred to another person or reproduced, since he acquires it in the process of cognitive activity;
- a person independently creates a subjective image of objective reality, constructs knowledge by searching for his own understanding, determining the meaning of real objects, giving them personal meaning;
- the individual constructs knowledge on the basis of acquired experience, own cognitive schemes;
- a person gets to know real, not abstract objects as a result of interaction with them, as well as solving authentic problems related to real life;
- a person constructs his own knowledge in the process of interaction with others, exchange of his own experience, his own interpretations.

Thus, constructivism, which has not lost its relevance for two decades, refutes prescriptive teaching, considers the learning process as the organization of cognitive activity of students, in the process of which they do not reproduce the received information, but create their own knowledge by matching new impressions, new information with acquired experience – knowledge, experiences, skills (*Lefrancois, 2006*). According to modern approaches, such training is centered on the personality of the student, not on the teacher, and acquires meaning for him if he interprets scientific information, makes sense of educational actions through the prism of his own experience, views, and culture. The starting point in the educational process is not the didactic materials and the content of the educational material, but the subjective experience of the students, which ensures the individual nature of cognitive activity, is constantly enriched under the influence of new information, and forms the basis according to which socio-historical experience is constantly coordinated. The significance of the constructivist concept is growing in the conditions of the development of a modern informational, democratic and civil society, as it proves the ability of an individual to make independent choices, to be aware of his own responsibility, to successfully solve problems and make changes in the social environment (*Ravchyna, 2020*).

According to the mentioned understanding of the essence of the process of cognitive activity, the role of the teacher of the higher school is changing. It acquires a different meaning in the context of the modern philosophy of education compared to the traditional system. However, the practice of pedagogical activities of many teachers proves that in the system of modern secondary and higher education of Ukraine it is still possible to trace a traditional, stereotypical approach to the organization of the educational process, as a one-sided influence in the form of

presentation of ready-made knowledge and assessment of the level of their assimilation by students. The lack of readiness of many teachers to change their own pedagogical positions, views, and the use of technological innovations in accordance with new educational challenges prevails. First of all, it is difficult for some teachers to change established attitudes about the essence of the processes of teaching and educating students, to develop their own understanding of their role as subjects of self-development who, as a result of internal activity, form personal scientific and social knowledge, change or improve their own behavior.

Modern pedagogical science, in particular the theory of constructivism, consistently asserts that the teacher does not transfer, does not "put" knowledge into the heads of pupils, students, but only organizes the process of achieving their personal understanding of objective processes, scientific information, helps them "discover" for themselves new theoretical rules, laws, to learn the essence of subjects, phenomena that are being studied (*Kozlenkova, 2007*). The teacher de-emphasizes the statistical goals related to the content and qualitative explanation as the basis of teaching, and transfers it to the organization of the learning process.

The main task of the teacher in this sense is to organize the process, but not as the preparation of educational materials and the teaching of scientific information, but as the application of various types of educational and cognitive activities in which each student is involved, in the process of which he has the opportunity to make scientific discoveries for himself, reach independent conclusions, gain cognitive experience. In modern psychological and pedagogical literature, different definitions of a teacher as an organizer of the educational process are distinguished: manager, director, mediator, facilitator, tutor and psychotherapist. Regardless of certain differences in meanings, these concepts consider the essence of the teacher's activity precisely in the organization of the system, the process in which students are able to freely and actively learn, develop their own understanding of scientific theories, personal vision and solution of professional problems, etc.

Therefore, in the context of modern educational changes, the purpose and content of the higher school teacher's activity are functionally changing. Teacher:

- ceases to be the only source and translator of knowledge, becomes a carrier of scientific information;
- organizes the process of construction of new knowledge by students, search for own understanding, formation of own judgments, conclusions, views;
- involves every student in the learning process, stimulates his activity, supports posing new problems, communicating his own opinion, original ideas, does not require "correct" answers;
- fascinates the learning process, develops the internal motivation of students' activities, contributes to the satisfaction of their educational needs and interests.

The change in the priorities of the pedagogical activity of a modern teacher of a higher school is justified by his new values, in contrast to the traditional ones (directive, pedagogic-centric). The main values of the teacher from the perspective of constructivism are democracy, the democratic process of formation and implementation of the content of education, the personality of the student, her right to choose (*Dmitriev, 2008*). The teacher's democratic values determine his orientation to the participant of the pedagogical interaction as a value, not a means. This approach recognizes the partner's right to be who he is, to have his own opinion and position. Accordingly, the teacher is guided by attitudes towards cooperation, creation and maintenance of equal relations, dialogue in interpersonal interaction (*Korneeva, 2007*).

By systematizing scientific information, we will single out the values of a higher school lectures in the context of modern philosophy of education:

- The personality of the student, his experience, needs, interests;
- The student's right to his own opinion, his own choice;
- Pluralism of opinions, alternative decisions in the educational process;
- The student's responsibility for the learning process;
- Positive orientation of the learning process.

Taking into account all of the above and focusing on the ideas of constructivism, it is important to note the relevance of the introduction of innovations in education, focusing on the fact that innovative education is not some specific educational technology, but the principle of adequate use of the potential opportunities of known elements of the educational process system that are opening up again. The innovative learning model provides:

- 1) active participation of the student in the learning process;
- 2) possibilities of applying knowledge in real conditions;
- 3) presentation of concepts and knowledge in a variety of forms (and not only in text form);
- 4) approach to learning as a collective (co-creation, interaction) rather than an individual activity;
- 5) emphasis on the learning process as learning something new, rather than memorizing information. Innovative teaching methods are new and effective methods of the educational process (acquiring, transferring and producing knowledge), which contribute to the intensification and modernization of education, develop the creative approach and personal potential of students of higher education (*Bystrova, 2015*).

In this regard, one of the tasks of introducing innovations into the system of modern higher education is the organization of *a personal learning environment* as an active element of a new educational space for integrating knowledge and taking into account various interdisciplinary aspects of teaching, that is, creating conditions for

students in which they can and want to intensively exchange the acquired knowledge, which will contribute to both individual and collective growth of their level of knowledge and expertise.

A Personal Learning Environment (PLE) is a term that appeared in Western literature and spread in massive open distance courses MOOC (Massive Open Online Course).

A Personal Learning Environment (PLE) is potentially promising to (Dabbagh & Kitsantas, 2012):

- integrate formal and informal learning using social media and to support self-regulated learning for students in higher educational contexts;

- conceptionally connect the PLE to social media and to self-regulated learning, and

- to provide the three-level pedagogical structure for the use of social media to generate PLEs that promote self-regulated learning.

A personal learning environment is formed with the help of a group of services based on the active participation of users in the process of creating content. These services were called "social services" and form the basis of the modern concept of Web 2.0, the key feature of which is the "use of the collective mind" (Gee, 2005).

Learners can be active co-producers of content. They seek information to address a problem at work, school, or just satisfy a curiosity. To do so, they take advantage of digital and networked technologies not only to seek information, but also to share information. Additionally, learning in the context of social media has become highly self-motivated, autonomous, and informal, as well as an integral part of the college experience (McGloughlin & Lee, 2010).

Modern learning, from the simple transfer of data, turns into collective creativity based on joint work. When creating an individual information environment, the personal inclinations of students and the opportunities that the education system can provide should be taken into account. Therefore, the problem of the possibility of creating an individual educational information space for a student is relevant both for the student himself and for the organization of an effective educational process in general.

Current higher education institutions focus more on traditional ways of teaching, such as course and learning management system. Most of the institutions did not pay much attention on pedagogical strategies such as applying social media and social networks to give learners the opportunities to create a better learning environment. This learning environment can help learners build connections and create their learning activities with peers. College students are incorporating social media in their learning in formal and informal ways, and the number of college students who used social media for collaborative project has increased (Dabbagh & Kitsantas, 2012).

Participants of open distance courses create information connections, independently acquire and transfer knowledge, and ultimately use it.

A PLE is a new structure in social media-based e-learning literature and continually builds on e-learning as an efficient learning platform. The PLE's in addressing learner monitoring and personalization issues often occurring in organizational e-learning LMS – Learning Management System, gradually become effective. PLEs can be perceived as both a technology and a pedagogical method that is student-designed around each individual's goals or a learning approach "chosen by a student to match his or her personal learning style and pace" (*Johnson et al., 2014*).

A main element of a PLE is that the student creates an internet image in which a custom-made teaching atmosphere sends messages that encourage the learner to communicate, to communicate, to communicate and to efficiently mix official and informal learning (*Dabbagh & Kitsantas, 2012*).

The minimum set of PLE tools, according to Western experts, should include (*Kompen et al., 2019; Dabbagh & Kitsantas, 2012*): blog, e-Portfolio, microblog, twitter and other web tools.

Web 2.0 social services, with the help of which remote users can not only communicate with each other, but also, most importantly, create the content of web pages themselves, include the following communicative interactive platforms (*Kompen et al., 2019*)::

- Blogs and microblogs (Twitter, Blog.com, LiveJournal, etc.); •
- a personalized start page or a personalized Internet portal (iGoogle, Netvibes), implemented on the basis of user interfaces of web applications, in which the web page, without reloading, sends requests to the server in the background and uploads the data required by the user from there;
- Social networks and social presentation systems (Facebook, Instagram, Ning, MySpace);
- Wiki projects (Wikipedia open encyclopedia);
- Social bookmarks (www.diigo.com, www.delicious.com);
- Multimedia information distribution systems (Flickr, SlideShare, YouTube);
- Systems of joint editorial offices (Google.docs, Spread-sheets);
- mashup and bricolage services (mashups & vricolage), which provide the ability to format and mix different formats of data presentation, processing a web page without knowledge of the HTML language (PingMe services, Delicio.us, SkypeMe, Yahoo Pipes);
- Webinar is a designation of various online events: seminars, discussions, presentations, trainings and network broadcasts of any events (during a webinar, communication between participants is supported via the Internet on the basis of a special web platform – Dimdim, Wiziq, "virtual class" Web-soft companies);

- knowledge maps – a convenient alternative recording technique (bubbl.us), a method of depicting the process of general system thinking using schemes (mindmap);

- Modern RSS (Really Simple Syndication) information syndication and notification technologies, which allow you to publish and broadcast almost any material from the Internet (starting with news and ending with personal network diaries).

Self-regulated learning can be viewed as a capacity in which learners should understand how to achieve objectives, what is necessary to accomplish them and how these objectives can be achieved. The three phases model of self-regulated learning seeks to clarify why and how learners perform in the academic field. The first stage is the preliminary stage. In this step, learners have a predefined collection of knowledge (for example, setting targets and scheduling) and self-confidence (e.g., job engagement, auto efficiency) in order to affect how they handle the job before taking part in the teaching assignment. The second stage, the stage of success, involves learners in the behavior needed to reach their objectives effectively. In particular, learners track their development and use certain approaches to conduct teaching duties. Students use self-monitored results to create judgments concerning their efficiency at the final stage, the self-reflection stage (*Dabbagh & Kitsantas, 2012*).

Self-regulated learning enables students to participate in behavioral and self-motivating processes in an independent and proactive way, these abilities will help the students to achieve the goals (*Zimmerman, 2002*). Self-regulated learning encourages students to set goals, take actions to achieve the goals and accomplish the goals. In particular, lectures should promote learners to utilize personal media, including websites and wikis, on stage 1 of the educational system to develop a PLE to enable them to participate in Zimmerman's self-regulating teaching procedures in the foresight stage such as target setting and scheduling. On stage 2, lectures should encourage learners to use social media to participate in fundamental communication and cooperative operations. For instance learners can allow the comments function of the blog to allow the instructor's and peer feedback. In this context, students use social media to promote informal learning communities around the topics of the course, extending the PLE from a personal area to a social place for learning. On stage 3, educators promote learners to use social media to synthesize and combine data at levels 1 and 2 to impact on their general teaching practice. Their role is to encourage them to use the social media (*Dabbagh & Kitsantas, 2012*).

The main methods of forming and using PLE are (*Loertscher & Koechlin, 2012*):

- the method of initial creation of a personal learning environment - contains the main functions that are characteristic of PLE, as well as the tools necessary to

perform these functions;

- the method of setting up and adapting the created PLE to the defined research topic - contains approaches to filling the PLE with information sources, links and resources related to the given topic;

- PLE development methodology – involves changes in PLE in the process of moving along a personal educational trajectory, as well as approaches to learning in this environment, to the use of communication technologies for PLE participants in the educational process.

The second well-known approach to the organization of the active learning format is the use of learning management systems – LMS (Learning Management System) (*Travkin, 2012*). Such systems, in particular, include the Moodle system, which provides centralized management of the educational process. A feature of such systems is the almost complete lack of personalization of learning, since learning materials are created centrally without taking into account the personal characteristics of students, and the role of the lectures is more emphasized in the process of selecting learning materials. In order to increase the student's active position on the LMS platform, the lecturer can create educational tasks of different levels of complexity, which would be creative or problem-searching in nature, at the student's choice. This, in turn, would motivate students to fulfill them and stimulate the educational process.

From the point of view of the use of technical means and implementation of functions, the approaches based on LMS and PLE can both complement and contradict each other. A fairly successful attempt to combine these approaches is the Learning and Performance Support Systems (LPSS). It was developed within the PLEAN (Personal Learning Environment and Research Network) project (*Travkin, 2012*). The purpose of this system is to create additional opportunities for students' personal development. It consolidates data from various information sources (in particular, institutions of higher education, subjects of educational activity, employers, social networks, etc.). Each student has the opportunity to create a personal portfolio and library. This data must be stored in cloud services and can be accessed from any device connected to the Internet. Thus, the student gets the opportunity to create his own educational trajectory and form individual educational goals within his personalized educational environment, which ensures the use of individual information sources and forms a personalized circle of communication of the participants of the educational process.

The implementation of such a system has great prospects. However, for its wide implementation in institutions of higher education, it requires significant costs regarding the reorganization of the educational process, professional development and the level of motivation of the teaching staff. In addition, educational work should be carried out with students to clearly show them the advantages of using

personalized learning trajectories.

Conclusions

Reforming and modernization of higher education in Ukraine are urgent tasks on the path of innovative, European development of Ukrainian society. In the context of the modern philosophy of education, in particular the theory of constructivism, the essence, purpose, functions of the higher school lecture's activities are significantly changed compared to the traditional approach, according to which he generally performs the role of a translator of knowledge and an expert on student success. According to the modern educational paradigm, the lecture is responsible for the organization of the educational process, which is based on the principles of cooperation, provides favorable conditions for the self-development of each student, his activity as a subject of educational and cognitive activity.

Innovations in education begin with respect for the individuality of the student and the transformation of the traditional model of the "lecture-student" relationship into the "person-person" model, which imposes a kind of taboo on the idea of a student as a "vessel that must be filled" and the transition to the setting - "student as a set of mental processes" that should be developed.

One of the urgent tasks of innovative education and the most promising processes for the training of modern specialists in the higher education system is the creation of a personal learning environment (PLE) for students, which provides the opportunity to take into account the individual inclinations and abilities of students in the educational process and allows better integration into the requirements of the information society, having the opportunity to study what they need and when it is convenient for them. Self-regulated learning can be seen as the ability by which students must understand how to achieve goals, what is needed to achieve them, and how these goals can be achieved. PLE is not only a comfortable environment for activities, but also a means of creating a personal learning network, where it is possible to interact not only with colleagues, for example, members of the Ning community or mailing list, but also with their partners in joint activities. This significantly expands the circle of communication. The process of filling the PLE is individual and will largely depend on the final goal. However, the competences of the end user are formed from the invariance of the PLE, its content. PLE needs to be constantly developed taking into account new social services that are constantly becoming easier to use.

The outlined three-level pedagogical structure, which professors and lectures can use to improve self-regulated learning with the help of PLE, makes it possible to take into account the interests and abilities of students as much as possible and emphasizes their active role in the educational process.

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NEW PARADIGM OF EDUCATION OF THE XXI CENTURY

Abstract

The changes taking place in a society inevitably influence education. After all, it is for the education to ensure the sustainable development of a society. Education is, in a sense, a guarantee of the existence of a society. However, the channels through which education is carried out and its content itself undergo significant changes over time, actualizing and bringing to life the need to think about the feasibility of certain forms of education and its existing paradigms. Modern education is increasingly becoming a process of life-creating and sense-forming.

Key words: education, classical education system, new paradigm of education, modernization of educational content, educational technologies, innovative nature of education.

Introduction

The twentieth century showed an increase in the dynamics of social life and impressed with the profound changes in the economy, politics and culture. The uncertainty of the historical process makes people look around and ponder about the events taking pace in the modern world. Today, we have lost faith in the ability to overcome poverty, hunger and crime. Attempts to turn our planet into a place where a society takes care of everyone and each person finds a worthy place under the sun have long turned into a utopia.

It seems impossible to predict the future vectors of the world's development and cover it in all its diversity. On the one hand, the process of globalization is evident, relations between nations are being strengthened, and the principles of democracy and market relations in the world economic space are being established. But along with the positive trends of free dissemination of ideas, views, beliefs and cultural integration, the negative consequences of globalization are becoming more noticeable, in particular, the threat of national identity loss, the aggravation of

social, interethnic and interfaith relations, aggravation of confrontation between individual states, enlargement of the gap between the rich and poor etc.

Many countries of the world are deprived of the opportunity to adequately respond to the challenges of globalization. Their economic, political and cultural development plans are inefficient, and their technologies are outdated. There is a shortage of people with their necessary moral and intellectual potential, able to take responsibility for new directions of social development.

The world is in search of a new way of preparing a person for life, which should be based on education that can respond to the challenges of modern civilization and at the same time the needs of humanity in self-realization and finding its place in the new global space. Thus, the epicenter of the discussions in the intellectual space at the turn of the XX and XXI centuries is the organization and directions of education development, its content and educational technologies. In other words, we are talking about developing a new paradigm of education that will be able to ensure a comfortable human existence in the world. Although the main directions of education development in the West have already been identified, there are still more questions than answers.

Problems of modernization of the education system

The modern era poses considerable challenges to a traditional society, nation-states and cultures, ways of preparing a person for life, and education is a necessary precondition giving humanity the opportunity to move forward towards the ideals of peace, freedom and social justice.

Today, education is becoming the main factor in human development. The role of knowledge in the economic development of the countries worldwide is growing rapidly, displacing the importance of means of production and natural resources. The monumental challenges facing education and the low efficiency of the classical education system make scientists around the world look not only for new forms and methods of teaching, but also for a new educational paradigm.

Over the past decades, a number of educational innovations have been introduced at the world level, aimed at modernizing the education system in accordance with the latest achievements of science, culture and social practice. The educational process should indicate the nature of the life process, its contradictions, positive and negative aspects. An applicant should be focused on what he will see outside the educational institution, what reality he will meet when he takes an independent life path. He must be prepared to overcome life obstacles arising along the way.

In this situation, the problems of a person's worldview orientation, awareness of their place and role in a society, the purpose and meaning of social and personal activity, responsibility for their actions and the choice of forms and directions of their activities become a priority.

The modern era is defined by such fundamental phenomena as globalization and information revolution. Their impact on various aspects of human and social life is so powerful and comprehensive that none of the processes taking place in the world today can be rationally known without their analysis. Economics and politics, interpersonal communication and morality, culture and art, as well as science and education are influenced by globalization and the development of information technologies and cannot but respond to them. Thus, they acquire new features while transforming.

The success and achievements of a society largely depend on the education system, on the general and professional training of the younger generation, ideological and moral values.

During the periods of cultural crisis, the role and importance of the education process, determining the ways of effective training of the younger generation, which can solve the problems of modern civilization, especially increases.

Education is a system functionally connected with all spheres of social life. It contains a huge experience accumulated by the humanity over the centuries. Being a dialectical process, education possesses certain contradictions, the main one of which is the contradiction between the existing education system and the needs of a society, life itself. This contradiction remains relevant throughout the existence of a certain education system and determines the essence and forms of other contradictions. It can be resolved through qualitative changes in the content, management and functions of education.

The intensive development of science and technology and mass accessibility have made education one of the largest branches of human activity. According to many researchers, the global crisis of education has developed along with this indisputable advantages, which manifested itself in the lag in the pace of education development from the pace of scientific and technological progress and the gap between the growth of information and the ability to assimilate it. This situation actualizes the problem of finding a new paradigm of education since the possibility of sustainable development of a society, successful overcoming of global problems, regional and national conflicts characteristic of the present, is closely related to the level of education of all members of modern society.

The classical model of education provided mainly for mastering a set of ready-made knowledge and standardized methods of thinking, which was primarily associated with the social order for specialization and functionality of a person in a society. The transition to a new paradigm of education that meets the requirements of the information age, is associated with a change in the role and status of a person, with the formation and development of creative thinking, with the integration of various ways of cognition and self-knowledge.

The modern world is becoming more diverse and unstable, the habitual stereotypes are being destroyed in it, methods and types of human activity are rapidly changing, the intellectual potential and creativity of a person, his communicative competence are becoming of a key importance. Under such conditions, education as a social institution and a means of human socialization should focus on a new strategy, new methodologies of thinking and cognition, due to the fact of the existence of an open, changing, nonlinear world. Presently, knowledge is increasingly turning into a product that «spoils quickly». Therefore, people should learn to give up outdated knowledge in time, as well as how and when to replace it with the new ones, that is, they should learn to learn.

To this end, scientists are looking for a paradigm of education aimed not just at transmitting usually outdated knowledge, but at perceiving information that can contribute to a way out of the global crisis. Hence, modern education should form the consciousness in people that will work ahead of schedule and allow them to effectively resist a new reality.

A new system of education should be based on the ideas of integrity, individualization and fundamental knowledge, but not in the classical sense of basic sciences, which was taken as a principle for the education of the industrial society, but taking into account the changes in science and technology at the turn of the twentieth and twenty-first centuries. Education reform cannot be reduced to superficial actions, it must be associated with a radical expansion of the concept of fundamental education, providing a holistic vision of nature, man and society in the context of interdisciplinary dialogue. Thus, today education should perform not only a traditional function of transmitting social experience, but to a greater extent an advanced, preventive function of preparing a person for life in an era of crises (Andrushchenko 2019).

XXI century sets new challenges for education. The aggravation of global problems, which are increasingly threatening the destruction of humanity, requires significant changes in the entire strategy of our activities. This, in turn, requires the formation of a new type of practical worldview, which determines this strategy. Education should play a major role in solving this problem, which has become the most important not only for thinkers and politicians, but also for the whole society. All efforts should be focused on finding a new paradigm of education that will help to positively solve global and other problems of modern civilization.

One of the main problems of our time is the modernization of the education content, bringing it in line with the latest achievements of science, culture and social practice. The priorities of modern education include the ability to operate with technologies and knowledge that meet the needs of the information society and prepare people for new roles in it. It is important today not only to be able to operate

with your own knowledge, but also to be ready to change and adapt to the new needs of the labor market, to operate and manage information, to act actively, make quick decisions and learn throughout the whole life.

In the XXI century a person faces a new task to learn to study. Nowadays, education is dominated by the trend of mastering a kind of basic minimum of knowledge, on which the next set of knowledge, skills, skills and competencies is built, a holistic perception of the world is formed, the content of traditional disciplines is updated, new normative and special courses are introduced. And the content of social and natural disciplines is aimed at the formation of spiritual culture, resolving interethnic and interfaith conflicts, developing tolerance, humanistic values, a democratic worldview, preserving the environment etc. Due to changes in the content component of education, technologies for its implementation are also being rethought. Information and distance learning technologies are coming to the fore (Das 2019).

Another important problem today is ensuring a high quality of education, which is a key factor for the development and a necessary condition for the successful existence of any country. The quality of education is determined by means of monitoring, consisting of systematic procedures for collecting data on important aspects of education at the national, regional and local levels in order to continuously monitor its condition and predict its development. It is necessary to obtain objective information about the state of national education systems and their place in the world ranking. Its data are used to develop educational policies of individual states, which make it possible to assess the situation in the education system in comparison with other countries.

Monitoring is used to analyze the demographic, social and economic situation in the country; resources included in education (condition of buildings, equipment, provision of didactic materials); the educational process (number of academic hours, days, etc.) and learning outcomes (percentage of students who successfully passed final exams and entered higher education institutions).

One of the most striking innovative manifestations of global trends in social development is the establishment of information civilization and the corresponding information culture of a society and an individual. This process introduces fundamental changes in the education system, sets new challenges and at the same time opens up new horizons for a creative search. The information society is changing both production and the entire way people live. It is based on computer technologies with their main function to enhance human mental work. Intellectual production is gradually becoming the leading branch of public production. The importance of information as a strategic resource of civilizational growth is developing intensively, the role of mass communication media is increasing, the

process of preparing a person for life, the nature of education and upbringing is changing. The most priority areas include science, which produces new knowledge and education, which translates it and ensures individual development, socialization.

The changes taking place today in the information, technological, economic, social and communication spheres, as well as the dynamism and diversity of knowledge associated with them, are raising education to a new level. At the same time, the aggravation of crisis phenomena in the world highlights the problem of finding new ways to further develop it. The movement towards a new paradigm of education that meets the requirements of information civilization is associated with a change in the role of a person, with the development of his creative thinking, the integration of scientific knowledge and self-knowledge. This sets unprecedented requirements for a person, and, consequently, for education, but at the same time opens up new opportunities.

Present day education should not be encyclopedic. The knowledge included in its content, on the one hand, must be sufficiently thorough and fundamental to help master modern sciences. At the same time, this system must be open and mobile in order to respond quickly to changes. Such knowledge should include the main methods of scientific research and open up the potential for creative activity for those who have mastered them, that is, today it is necessary to move from factual pedagogy to methodological.

The main trend in the development of education in modern conditions should consist of a two-pronged approach: on the one hand, in the desire to give young people deeper knowledge in various fields of both exact, natural, technical, and humanitarian sciences. Humanization of knowledge through teaching of such disciplines as philosophy, sociology, political science, psychology, etc. helps to eliminate the gap between natural and technical sciences, on the one hand, and with the sciences of society, on the other, and also increases the general erudition of applicants for education. On the other hand, in the era of the information revolution, a technically illiterate person cannot be considered a good specialist. Therefore, applicants for the liberal arts education also need to master natural and engineering sciences, mathematics etc. This approach will overcome the historical confrontation between the exact sciences and the humanities (Mozhova 2020).

Teachers should not give applicants ready-made answers to questions, they should equip them with knowledge of the basic concepts of the modern science, arouse interest in creativity and teach them methods of scientific research. If a student knows how to learn, he is able to achieve goals, if he knows how to work with information, search and find the necessary materials, then in the future it will be easier for him to improve his professional level, retrain, acquire any new additional knowledge because this is exactly what is needed in life. If they do not know how to

work independently with information and acquire knowledge, they will not be successful in the Information society of the XXI century. An education system based on such principles can train people with the critical thinking skills, active knowledge and the ability to apply them in practice. These people are able to enrich the scientific and technical sphere with new discoveries and inventions.

So, the information society needs independently thinking people capable of self-realization. Under such conditions, self-education becomes important, since it is a means of resolving the contradiction between the continuity of processes of a rapid change of equipment and technologies and the need for an appropriate level of education and qualification of an individual. A person has to solve this problem throughout his life in the process of independent activities and world cognition. So, self-education as a creative component of human activity will gradually take the position of a leader among other types of activities. It is one of the forms of self-organization of a person, the leading means of his personal development at different stages of life.

The tendency to actualize the need for independent knowledge acquisition leads to the fact that people are increasingly using various forms of self-education, but not to classical educational institutions. This is due to the fact that self-education has some advantages, namely: flexibility, adaptability, variability etc. A person has the opportunity to build their own trajectory of acquiring knowledge. Thanks to this, self-education contributes to the maximum satisfaction of the educational needs of people, especially those who have certain difficulties in obtaining educational services in traditional institutions due to their inflexibility and strict binding of the educational process to a specific place and time. Moreover, it provides conditions for permanent improvement of the level of knowledge and professional skills of people whose opportunities in this area are currently limited (for example, disabled people).

This trend indicates that today the classical education system has exhausted the possibilities of its development and has a serious competitor in the form of self-education. Therefore, it is forced to actively rebuild, carry out a creative search to preserve its effectiveness and social significance (Samoilenko 2018).

So, self-education lays the foundations for the fundamental training of specialists of the XXI century, provides universality and mobility of the use of acquired professional and socio-cultural knowledge and skills, and also stimulates the need for self-development, mastering a creative lifestyle, it is the most important element of the system of continuing education. Given that self-education will continue to play a leading role in the process of continuous self-improvement of the personality in the information society, the main task of the modern education system is to prepare a person for non-stop and independent deepening and updating of knowledge. If a person is not taught this, they will not be ready for fierce competition in the rapidly

changing labor market. thus, the priority task of a new type of education is to form a person's need, desire and habit in self-education.

The implementation of the ideas of self-education and lifelong education in the information society gives rise to another, perhaps the most important problem, the issue of human and information interaction. If the classical education system assigns a defining place to the teacher, who transfers knowledge to applicants on the principle of «do as I do», and they must understand this content, then in the conditions of self-education, the individual deals by himself with the necessary information. At the same time, it is important to emphasize that we are talking not only about techniques and methods of independent search for information, but also about forming an attitude to the acquired knowledge. This way of acquiring knowledge is more effective than the reproductive one, since knowledge acquires the status of «personal» one. This means that it is more thorough, meaningful, and of greater value to an individual. Therefore, the information society is interested in people being able to independently, actively act, make decisions, adapt to changing living conditions. For this purpose, education should be personality-oriented, which implies a differentiated approach to learning, taking into account the level of intellectual development of an applicant, the peculiarities of his emotional and spiritual development, abilities and inclinations.

In the conditions of the XXI century, in comparison with the classical education system, a teacher also receives a new role and function in the educational process. In the past, a teacher and a textbook were the main sources of knowledge, but in a new educational paradigm, a teacher appears as an assistant, consultant and organizer of an independent active cognitive activity of educational applicants. His professional activity should be aimed not just at monitoring the knowledge and skills of applicants, but at diagnosing their activities in order to help timely eliminate possible difficulties in learning and applying knowledge. This role is much more complex than in the traditional education system and requires a higher level of pedagogical skill from a teacher.

In the modern world, the learning process, the way a student and a teacher interact, turns into mutual cyclical determination and mutual construction, formation and development. Learning nowadays is not just the transfer of knowledge from one person to another, but the creation of conditions under which the processes of generating knowledge for a student, his active and productive creativity become possible. It is a situation of an open dialogue, direct feedback. Thanks to joint activity in such a situation, a teacher and a student begin to function at the same speed, live at the same pace. A teacher does not just ask questions that he knows the answers to in advance, although this is the case at the initial stages of training. He poses problems in such a way as to start a joint research, so that the student is surprised, understands

the inexhaustible knowledge of the world and learns to «acquire» knowledge.

Not only a teacher teaches a student, but a student also teaches a teacher, they cooperate with each other. A teacher must learn to see what the student is hiding and learn to understand it. In the process of learning the one who does not know turns into the one who knows when a teacher himself also changes.

At the same time, the content is changing together with the teaching methods. New educational challenges in the XXI century need the use of innovative pedagogical technologies associated with the art of understanding and high communicative culture. Organic is the need to create a multiplicity of educational trajectories, which are characterized by a variety of methods activating mental processes and creatively organize the educational space (Moshinski, Pozniakovska, Mikluha, Voitko, 2021).

Currently, a competence-based approach is being implemented in education. It turns a person's focus on specific results expressed in the language of competencies, that is, knowledge, skills and abilities in their practical application. In a simplified version, it is a list of what a person should know and be able to do after completing the educational program or its course.

Conventionally speaking, competencies can be divided into three main groups:

- academic competences, which include knowledge and skills in the disciplines studied, ability to learn;
- socio-personal competences that provide cultural and value orientations of an individual, knowledge of the moral values of a society and a state and skills to observe them;
- professional competences, which consist of generalized knowledge and skills to formulate problems, solve problems, develop projects and ensure their implementation in a particular field of activity.

Each of these competencies is formed using different methods and educational technologies, both traditional and innovative. Traditional technologies, as you know, are focused on preserving an extensive path of development: the more knowledge a person has acquired, the higher the level of education. Training and diagnostics of the quality of knowledge, skills and abilities acquired as a result of mastering specific academic disciplines, training modules, practices is carried out in traditional ways, and the technologies are chosen in accordance with the traditions developed in the past.

From the standpoint of the competence approach, the importance of knowledge is not denied, however the emphasis shifts from the scope and breadth of knowledge to the practical competencies formed on their basis, that is, the ability to act, quickly apply knowledge adequately to a situation. Educational technologies are also changing accordingly: they are aimed not only at mastering ready-made knowledge,

but also at mastering work methods and mode of thinking.

The technologies developed in the format of a competence approach correspond to the directions of a creative search in pedagogy of the last third of the XX century. They are related to the implementation of the ideas of personality-oriented education, pedagogical cooperation, and problem-based learning. Problem-modular, modular-rating, communication-cognitive, project-based, game-based, programmable, and other technologies are used to achieve these goals. They solve the problem of motivation of educational activity, rational structuring of the educational content and assessment of the quality of its assimilation, establishing an optimal model of relations between the subjects of the educational process, developing cognitive independence, individualization, etc. All these technologies combine their personal and developmental nature and humanistic orientation, which makes it possible to fully integrate them into social and professional life of a society.

Describing modern educational technologies in the context of the competence approach, it should be noted that each of the competencies has its own technological basis, which is determined by the essence of the competence itself. Thus, academic competencies involve deep, critical knowledge to understand the laws of social development and nature.

They are considered to be general metacompetences due to the analysis of academic competences. Both traditional technologies and advanced ones can be widely used to master them, e.g. information, problem-modular, modular-rating, communication technologies, etc. The choice is determined by the particularities of the academic discipline, its contribution to the formation of a personality structure of the applicant for education.

Social and personal competencies are a set of personal characteristics of an applicant, which are important for his successful socialization, adaptation to the world around him and future professional activity.

Socio-personal competences include:

- ability to understand the key problems of modern life (environmental, economic, political, organizational and managerial, civil law, intercultural interaction, etc.), that is, to solve social problems;
- ability to perceive the world of spiritual values of different cultures and worldviews, that is to solve axiological problems;
- ability to solve problems related to the implementation of certain social roles (a voter, a citizen, a consumer, an organizer, a family member);
- ability to adhere to the norms of social behavior accepted in a society;
- ability to address the problems common to different types of activities (ability to work in collaboration, ability to search and process information, communication skills).

Social and personal competencies develop mental activity, contribute to the formation of critical thinking and social adaptability of an individual. When forming them, emphasis is placed on personal development technologies based on active, reflexive-activity teaching methods. Interactive technologies, which include dialog, training, game, and problem technologies, play a special role. They are focused not only on the information exchange, but also on the exchange of feelings, values and thoughts. Dialogic relations appear to be an important level of social interaction. They are most organic to the nature of a person, optimal for his normal development. The dialogue interaction helps students gain experience in creating their own reflexive models of social behavior. These interactive technologies are characterized by the variability of participants' experience, emotional and personal inclusion in the activity, the presence of a situation of external discussion, the obligation of individual and group reflection, etc.

When forming social and personal competencies, cognitive-oriented technologies (cognitive maps, instrumental and logical trainings, seminars-discussions, etc.), activity-oriented (organizational and active games, simulation and game modeling of social processes) and information technologies (multimedia, computer, internet technologies) are also activated.

Professional competencies provide adequacy of professional activities for the growth of production rates and social changes in the world around them. They consist of generalized knowledge and skills to formulate problems at the appropriate qualification level, solve professional tasks, develop projects and ensure their implementation. This, in turn, implies the inclusion of problem situations in the content of training, that is, the organization of an artificial learning environment that models elements of a real activity of future specialist.

When forming professional competencies, training technologies, aimed at processing models of productive behavior of specialists in real situations of professional activity, are widely used. It is also noted that it is necessary to involve students in professionally important extracurricular work contributing to conscious professional self-development. These technologies involve gaming (business and role-playing games simulating the future professional activity of a person), project technologies focused on the request of employers, problem-based research, self-education technologies, technologies that develop functional competence (skills and know-how).

It should be noted that these competencies are disunited. They are formed on the basis of synthesis, in interaction. Educational technologies are also linked. It is hardly possible to name at least one of them that would be focused only on the formation of an academic, social or professional competence. Being by its definition a set of the most rational ways of scientific organization of activities, each technology can

produce different forms of educational and cognitive activity, or a combination of them.

Modern education as a means of assimilating the world should ensure integration of various ways of understanding it and thus increase the creative potential of a person for awareness of their actions and a holistic open perception and awareness of the world. Integration of various ways of human comprehension of the world: art, philosophy, mythology, science, etc., has not yet been properly represented in the education system. It affects the further subject differentiation of scientific knowledge. The education system sometimes still blindly imitates rapidly differentiating sciences, trying to seize the unseizable. Narrow specialization results in fragmentary knowledge and its isolation from an individual. Along with the ready-made differentiated knowledge absorption, applicants for education continue to grasp the reproductive nature of thinking. Therefore, nowadays it is desirable for the education to be built not on the study of individual disciplines, but on the basis of studying the problems of the real world (Panfilov, Romanova (2019).

Therefore, it is necessary to continue to review the content of traditional disciplines, taking into account the specifics of global and information problems of our time. Such courses should not begin with the study of the historical formation of a particular discipline, but with the clarification of the essence and causes of a particular problem of our time and the search for alternative methods of solving it. A new paradigm of education should be focused on the spiral construction of educational material, allowing the students to repeatedly return to the covered material. This method of teaching expands a general scientific base of applicants with a significant reduction in training time, strengthens the links between the previous experience and new knowledge and should contribute to the formation of ideas about the openness of the world, the integrity and interrelation of a man, nature and society.

Not only the direct communication with the teacher, but also a free use of various information systems is also rather crucial today. Processing and integration of various kinds of information initiate the emergence of new forms of organization and order. Lack or incompleteness of the information used results in the destruction of the system.

Unlike animals, humans can transmit information not only through the genetic code, but also through training, which is limited in the animal world. That is why learning is seen as a new way to transfer information from one generation to another. But in this case, due to the constant growth of the amount of knowledge accumulated by the humanity, certain difficulties arise. Therefore, it is important to find common unified ideas and principles to handle the vast amount of information. Obviously, this problem is related not only to the search for a unified scheme, but, first of all, to the development of the infosphere, the possibility of operational use, storage and

processing of information, the inclusion of education in a single information process.

In recent years, the use of new types of electronic communication has intensified: instant messengers, e-mail, computer conferences, telecommunications. Information and communication technologies are extremely attractive primarily due to the speed and accessibility of participation in communication for an unlimited number of participants, the openness of this community, which makes it possible to involve any applicant for education, any specialist in solving certain problems.

The innovation approach to education

The changes taking place in a society inevitably influenced the education. After all, it is for the education to ensure the sustainable development of a society. Education is, in a sense, a guarantee of the existence of a society. However, the channels through which education is carried out and its content itself undergo significant changes over time, actualizing and bringing to life the need to think about the feasibility of certain forms of education and its existing paradigms. Modern education is increasingly becoming a process of life-creating and sense-forming.

Education has undergone significant changes in its content development. Initially, it was understood as the transfer of skills for physical survival. It can be said about an individual dimension or an individual goal of education that is for the sake of a particular individual. Later, education takes on a social dimension and appears as a problem of transmitting social experience, the importance of education changes the center of gravity from the individual to the level of a society, the condition for the existence of a society. The experience carrier as a carrier of socially significant information was essential for the physical survival of a community. Experience was not reproduced through practice, but through knowledge. Education was aimed at the formation of social qualities that are important both for existence in a society and for the creation of such a society. It was this approach that lasted the longest period of time. With the entry of the information society into the arena, knowledge is undergoing significant transformations. Knowledge is simplified and often replaced by information. And now, to emphasize once again that education is for a person, education is aimed at forming processes that would stimulate a person's self-development. Now a person determines own coordinate system and determines why and what kind of education is needed, important and useful. Education becomes a factor of personal growth.

Modern education is becoming multi-vector and the goal setting of these paradigms has not disappeared. On the contrary, they are updated by the innovation of modern approaches to education understanding.

A modern innovation paradigm focuses on the advanced nature of education. Innovation from Latin is a renewal, a change, in its initial meaning the concept

provided for the introduction of one culture into another. This initial importance of innovation is crucial for understanding a new paradigm in education. First, education experiences blending of existing paradigms. Second, the best practices of education models from national to continental mix up. Third, education uses tools that were not previously typical of the field of education. An example of this is project-based and competence-based approaches in education. Innovation in its modern meaning involves the use of the latest elements in order to fundamentally increase efficiency. Innovation is an important element of intellectual activity, creativity, and scientific knowledge. Innovation is a consequence and requirement for almost any professional activity. The question arises: is it possible to teach innovation? It is assumed that the transition of education to innovation should be organized and managed.

Discussions about the theory of innovative development, research of innovative technologies in education have been held since the middle of the twentieth century. In the domestic practice, the term «innovation in education» begins to be used only at the end of the XX century.

Since the beginning of the XXI century, education has undergone changes and, most importantly, it itself must generate certain changes in a society. The post-industrial wave of social development, determined by the market economy, open societies, the total spread and use of Information technologies, make education reconsider its purpose and forms. Digital technologies are changing our way of life, means of communication, way of thinking, channels of influence, social skills, and social behavior.

New economic conditions have turned innovation into a key factor for increasing competitiveness, ensuring economic progress, improving the standard of living of the population, as well as ensuring the country's defense, economic, technological and environmental security. Innovations ensure the transition to a new technological base, the production of new outputs and, ultimately, the entry into the phase of economic growth.

As a result of the increasing role of innovation in all spheres of human activity, information, data and knowledge about natural phenomena, technological and social changes are produced, updated and disseminated rather rapidly. In this regard, the role of systemic, interdisciplinary human knowledge, which a person needs in a system of constant changes that require decision-making to solve non-standard problems, significantly increases. In this new paradigm, the most important place is given to the analytical abilities of specialists, that is, their ability to search and find the necessary information, accurately formulate problems and hypotheses, see certain patterns in data sets and find solutions to complex interdisciplinary problems.

It should be borne in mind that the national economies of most countries of the world are built on the innovation principles. They combine such important social

components as production, science, education and business into a single innovative model of a country, industry or campaign, forming an educational cluster where the association takes place around the education and institution of innovative development. Hence, the importance of the interdisciplinary trend and the need for an education applicant to possess not only imagination, but also holistic knowledge of market and social innovation mechanisms and be able to apply them in practice.

The term «innovation» was first coined by the Austrian scientist, founder of the innovative theory of economic development J. Schumpeter. In the work «Theory of Economic Development» (1912), he defined innovation as a «new combination», which means a different quality of the factors of production, which is achieved not by small improvements to old equipment or the existing organizational scheme, but discretely, next to it, through the introduction of new factors of production or systems of its organization (Bazhal 1996, p. 39). Innovation motivates the creation of both new products and new types of production, which, in turn, generates logical changes in a society, education appears as a new driving force. Education is an institution of innovation enhancing the influence and significance of education for a society.

The national economies of most countries of the world are built on the principles of innovation. Such economies combine important social components such as manufacturing, science, education, and business into a single innovation model of a country, industry, or campaign. This requires a modern specialist to possess holistic knowledge of a market and social innovation mechanisms and be able to apply them in practice.

Innovation processes in education involve its structural changes and changes in tools. It is necessary to change the goals of education, update the educational content, develop and use new methods and forms of teaching and upbringing, elaborate and apply new educational technologies.

To implement innovations in education, such factors as creating conditions stimulating the development of innovative activities and ensuring the perception of the results of such activities and the readiness of the subject itself for innovation activities should be taken into account. It is in the second context that it is advisable to pay attention to teachers whose activities are innovative and should lead to the stimulation of innovative thinking and activities among educational applicants.

Thus, the innovation process appears as a system for creating and using innovations. In education there are two parallel processes that is training and upbringing. Now there is an advantage of training over upbringing. Therefore, a logical question arises. Is it possible for education be innovative? Education, in our opinion, serves to make understanding and use of learning become attractive and meet the requirements of a society and the latest social challenges. Education has not lost its role of adjustment to social existence, but it has also taken on elements of

persuasion in the forms of learning and in the attractiveness of education itself.

It is also worth highlighting the important areas for implementing innovative education. First, it is the formation of a new innovative content. Such a process should not be aimed only at stating for the purpose of reproduction, but rather the ability to identify and pose problems without providing an algorithm for solving them will add innovation to the content. Therefore, the subject of education, a teacher should have broad thinking, be erudite and rely on interdisciplinarity. Secondly, it is the development and use of the latest pedagogical technologies. Given that the information society provides for digitalization, it is information technologies that seem to be the main ones on this path. Third, it is the creation of new types of educational institutions. Modern institutions are already inherent in education as a process – author's schools, conceptual educational institutions, non-formal education institutions - all these types of institutions are aimed at innovative development, but by different means to achieve this goal.

The innovative paradigm of education changes the very understanding and creates new meanings of education. Now education has a fairly broad understanding. Education in modern conditions can be understood as the process itself, and as the result of education. It is also important to perceive education as a value or civilizational feature of a society. A social medium spent time and money to build an education system in order to preserve and develop a society itself in a long-term way. Modern trends only accentuate that education is designed to be a value for an individual, because a person spends a long time of his life in the process of learning, education during life is life itself (lifelong learning). The idea of lifelong learning is associated with the concept of half-life of knowledge. It was proposed in the 20th century by the Austrian-American economist Fritz Mahlup. The essence of the concept is simple: the world is changing so dynamically, and new information is spreading so quickly, that some knowledge is no longer relevant even before we get it. At the same time, we should not forget that education is also an influential social institution with an extensive own infrastructure, economy, content, governing bodies etc.

Modern education can be considered of innovative. When the category «innovative nature of education» is used, it often refers not only to the level of implementation of pedagogical innovations, but also to the participation of higher education institutions in innovation activities or attracting innovations to the educational field.

In particular, all over the world the creation of high-tech zones is a promising direction for attracting innovation to the educationa sector. The most common form of «high-tech zones» is technoparks, aimed to strengthen the link between science and education. Most often, they are created on the basis of universities and research

centers engaged in fundamental developments, have a strong human resources potential and combine education and science. This is a colossal productive, intellectual, creative force able to solve economic and social problems facing a state and society.

Developed universities in the country should have their own laboratories, production facilities that can provide small enterprises and firms; conduct marketing research and provide assistance in identifying market sectors or individual consumer groups; train specialists for small firms and enterprises, provide consulting services, lease equipment, office equipment, vehicles, etc. As a result of these actions, science will have great opportunities to quickly introduce its scientific developments into production; universities will have places for practical training of future specialists who will be able to apply their knowledge in practice at the first stages of training.

In order for this scheme to work, we need not only strong support at the state and regional levels, but also changes in the education system itself – educational innovations themselves. A significant update of the content and methodology of training, inclusion of managerial, economic and legal knowledge in the curriculum, in-depth study of information technologies, the basics of intellectual property, foreign languages, etc. becomes relevant. Education of the future is modeled by the processes of emergence of new centers of reference knowledge, new potential sites, which, playing out the advanced educational function in society, in the future are quite likely to turn into new types of educational institutions.

Synergistic perception of the world significantly helps understand the innovative nature of education. From the point of view of the modern educational paradigm, the innovation of education is also a kind of release and understanding of the student's own strength and abilities, motivation to search for individual ways of development. With this understanding knowledge will not just be layered on the structures of an individual, will not be imposed on them, it will stimulate their own, perhaps even undetected, hidden strategies for the development of an individual. As a result, evolutionary and historical layers are revealed in each student, hidden opportunities are revealed and an individual develops according to his personal aspirations.

The philosophical and methodological basis of the innovative approach in education is the humanistic trend of human development, which is based on the principles of free individual creative development, taking into account individual capabilities. Innovations in education should provide conditions for the rapid growth of human needs throughout his life. The development of individuality is considered the highest spiritual value of a society, the main productive force in which the organic unity of purpose and means is manifested.

The traditional paradigm of education is characterized by the constant reproduction of certain knowledge and skills and it is aimed at maintaining and

reproducing the experience of a person and a social system as a whole. The essence of traditional education is to simulate pedagogical experience according to a given sample.

Innovative education concerns not only the development and implementation of innovations i.e. a new content, new pedagogical technologies, but also the process of comprehensive educational reforms, qualitative changes in the way of a person's activity, lifestyle. The main goal of the innovation system is to learn the ways of human activity in an unfamiliar situation, provide experience of creative independent activity and create conditions for the growth and expansion of personal experience.

Therefore, due to the innovative nature, they often explain a change in the goal, requirements for education, and a change in the education paradigm itself. Since today the main goal of learning is no longer to acquire new knowledge, skills and abilities, but to develop the ability to navigate in new living conditions determined by the increasing complexity of the world, to make reasonable decisions and to take responsibility for them. A new paradigm of education involves the development of creative abilities, various forms of thinking, cooperation with other people, the formation of interest in knowledge and the need to obtain it. This means that the teaching philosophy itself is being radically revised, which involves the transition from lecturing to encouraging and controlling students' independent studies and research. That is, now not a person is taught, but a person learns, and in this training the key is the principle of creation, in contrast to the principle of reproduction-repetition. Thus, classes in an educational institution become the classes of co-creation, joint thinking, partnership, where everyone can and should have their own opinion, without adapting to someone, see the prospects for the development of their specialty, inform their own competencies in accordance with the needs aimed at teaching them to fully live and work in the information society.

The main principles of the innovative nature of education can include, in particular, the following principles: pluralism, variability, alternative and continuity of education; the principle of personality-oriented learning; the principle of partnership between the subject and the object of learning (pedagogy of cooperation); the principle of searching for non-standard methods and forms of learning (increasing freedom of teaching creativity). Until 2020, distance-active forms of training were added to innovation. After all, modern technologies in education increase the coefficients of influence and prevalence of educational technologies in the thousands. The impact of a single teacher and trainees through asynchrony and distance is even difficult to measure. But under such conditions, the principle of deep motivation of an applicant for education comes to the fore. Now it is relevant to apply on a large scale innovative pedagogical technologies based on the fundamental epistemological and hermeneutical aspects of pedagogy and didactics related to the art of understanding

and high communicative culture.

It is important to lay in the minds of students that in the current conditions of competition in the «labor market», continuity of education means a constant process of improving a person's professionalism, ability to self-education, as well as an independent and creative approach to knowledge throughout active life. It is necessary to formulate the ability of applicants to independently acquire the necessary knowledge, choose the one that best meets the formulated tasks in a large amount of information on a specific problem and work it out creatively. In modern conditions, this is a very essential life orientation, the lack of which in many (even very gifted) does not allow them to resist difficult external circumstances. A rapid adaptation to external changes is achieved both through a variety of fundamental training and by creating opportunities for retraining within the existing education system. In addition, as education begins to transform from a specific time-determined process (4 years of Bachelor's degree, 2 years of Master's degree) into a continuous one, the infrastructure of the institute of education should change, transforming into educational centers or, conversely, into educational clusters focused on the peculiarities of regional development and on the individual characteristics of those who study in them.

A special role in understanding the innovative nature of education belongs to the teaching staff. Authoritarianism and innovation are not compatible enough. This process depends on the professional skill, creative potential, innovation of a teacher himself, on his psychological, pedagogical and communication competence, motivational readiness and mastery of interactive technologies. When implementing certain innovations in the educational process, each teacher should adhere to the basic principle of teaching activity – do no harm. And when making a decision to introduce an innovation, you need: not to copy someone's samples, but to take into account your own realities, including the country (region), traditions of each educational institution. Innovation cannot be implemented by means of violence, it is necessary include the testing stage for reasons of urgency and cost savings; keep in mind that innovation can become real only when the actors are motivated to transform.

Since the innovative nature of education imposes certain requirements on scientific and pedagogical communication between teachers and students, such communication should be considered as a joint activity, all participants of which relate to each other and to themselves as subjects, as well as as interaction, participants of which relate to each other as a goal. There is a need to include methods of active socio-psychological training in the educational process, future specialists should see themselves and their actions from the perspective of another person. By exchanging their skills in solving problem situations with students, a teacher becomes a production source of these qualities for them. Under such

conditions, students, as objects of self-creation, critically process these skills and abilities and, as their own, «fit» them into the structure of a personal self-concept.

Thus, the focus on personal self-development as a worldview dimension of innovation in education becomes more dynamic and at the same time pragmatic. It becomes important for university graduates to assert themselves in real life, and not just in the intrapersonal space or in the student group. The teacher, trying to develop students' own abilities for planning, reflection, goal setting, focuses his didactic techniques on the subjective experience of a student. As a result, not only the activity of students in mastering educational material increases, but also his education, that is, a new search thinking is created that meets such criteria as the ability to learn, creativity, and intelligence.

At the same time, it is very important to review approaches in the existing education system, which is focused on memorizing a large number of facts, theoretical provisions and abstract categories. As you know, a person best remembers what affects various areas of his intelligence. Unilateral use of brain resources associated with overloading the left hemisphere of the brain leads to the formation of erudites who understand a lot on a verbal level, but are not able to use superficially acquired knowledge in practice in new circumstances. Therefore, such areas of activity that activate the right hemisphere of the brain, help to increase the motivation of learning, the manifestation of intuition and the development of creativity are of particular importance:

- formation of skills in design and modeling, use of intuition development technology, synectics method;

- accumulation of experience in studying various algorithms of intellectual and managerial activities, providing opportunities to independently develop schemes for certain functional processes;

- development of a dialog form of training, use of game techniques, brainstorming methods, simulators, accumulation of decision-making experience in various extreme conditions of future professional activity;

- study of specific historical conditions for the implementation of scientific discovery, the personality of a scientist, the role of scientific discovery in the life of a society;

- using the problem-based learning method, developing skills and abilities to independently formulate a problem that fully reveals cognitive contradictions.

It is necessary to analyze more carefully the progressive style of teaching and teaching materials using specific examples, the method of analogies, and the narrative style of writing scientific manuals.

Today, innovation in education is considered not only as a factor of improving its quality and efficiency, the basis for the development of all spheres of public life, but

also as a factor of increasing the demand for educational services and changing the motivational readiness of adults to learn.

Pedagogical theories and problems are considered not only from the point of view of internal relations between the student and the teacher, but also as the ability to form a special social environment open to innovation and dynamic changes. Therefore, when forming subject competencies, social and communicative, life competencies are simultaneously projected. After all, new paradigms of education provide for interaction between the state and the education system, this is the level of macro-influence of education on a society and a society on education.

Among the features of innovative training, it is worth highlighting the following: openness to the future and readiness to meet with this future; focus on an individual and its development: the presence of a creative approach to problem solving; the ability to form and use partnerships.

A new paradigm of education draws attention to the problems of modern philosophy of science, strengthening epistemological trends – the belief that the human potential for knowledge is unlimited, stimulating nonlinear thinking, implementing the pedagogy of success.

It is important that innovation focuses on the individual, the so-called personality-oriented learning, student-centered learning, which involves synergistic, systematic approaches, dialogism, and so on.

Conclusions

A modern paradigm of education defines purposeful and multi-level learning, which includes not only a wide range of information knowledge, skills, but also information competencies related to the search, acquisition and critical analysis of information, the ability to independently acquire and produce new knowledge. That is, in fact, we are talking about the formation of an information culture of the future specialist. It is important to stimulate students' cognitive activity, which is based on the dialogue and exchange of views on possible ways to solve the problem.

Innovative education is understood at the consumer level as heuristics, problem-based learning, cross-discussions, debates etc.

The innovation of education is generated by competition in the labor market. In order for a specialist to be in demand, they must have training that will meet not the requirements of «today», but the requirements of «tomorrow». In the field of education, there is a conscious contradiction between the social demand for education and traditional teaching methods. The result is an active search for the latest (innovative) teaching methods that promote personal development. Novel methods are designed to solve new problems that cannot be solved with the previous tools. At the same time, a traditional learning paradigm creates a foundation for a new,

innovative one. Traditional training ensures consistency in education and is applied in areas acceptable for this approach. Innovation is a new ideology of education of the current society, a world educational trend, globalization and diversification of education.

Innovation still creates a «subject – subject» system. A teacher makes his own decisions on content design, methods, and learning strategies, and the education applicant adjusts them to suit his own needs. A state in education is implemented through a teacher. An important task for a teacher is the constant rethinking and development of his pedagogical potential, under the influence of which and in accordance with his requests, an active and competent person is formed.

Education of the XXI century has the ability to quickly but organically change. We are witnessing a paradigm shift. But that does not mean it is the last change.

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PERSONAL-PROFESSIONAL CHARACTERISTICS OF FUTURE SPECIALISTS IN THE PROCESS OF PROFESSIONAL TRAINING IN THE POST-CLASSICAL PARADIGM

Abstract

The aim of this article is to investigate the personal and professional characteristics of future specialists in the process of their preparation in the post-classical paradigm in science. The contribution is in solving general problems related to the person in the complex self-organizing system: higher education-business-management, with a perspective of constructing adequate principles, methods, and realistic adequate measures of its new quality.

Historical, interdisciplinary, and synergetic approaches of analysis reveal that personal-professional characteristics change, determine the type of presence (position) of the specialist that higher education prepares. Their change is related to new requirements imposed by each new era in the development of society in all its spheres. The analysis of different theories of management reveals the transition in the development of the personal-professional characteristics of the person, which goes from the "silent" (passive) subject in the classical era through the prepared, administrative-"orderly", creative non-classical subject to the self-organizing, self-learning, charged and giving energy to others post-classical subject-student and specialist. The future specialist with its characteristics is a necessary equal complement to the personal-professional characteristics of both the university teacher and the manager in the workplace.

Keywords: post-classical paradigm, specialist, personal-professional characteristics, university didactics, management

Essence of the matter

The generations of contemporary students who have grown up in ever-changing socio-economic conditions bring to the university characteristics and needs that take on particular significance with generational novelty. They make it a renewed "*picture of the world*" that requires a new culture of academic dialogue between students and faculty, understood in the postclassical paradigm as a dialogue of cultures (Stepin, V. S., 2003). Both the academic "*world picture*" in the university and the new dialogue of cultures have caused the increased interest in the characteristics of the post-neoclassical paradigm, which have a direct impact on the current state of higher education. And not only there. Insufficient knowledge of the personal and professional characteristics of future specialists in their universality and hesitation in taking decisions for a clear methodological and meaningful response on the part of teachers to their manifestation turn them into problems. They in turn hinder the effectiveness of the educational process conducted at the university and the training of future specialists themselves.

The authors of this article believe that the main missing link for the renewal of the methodology and, consequently, for the realization of a higher quality of training refers precisely to the knowledge and development of the personal and professional characteristics and the needs of modern students. And this is because if you don't know something, how are you going to develop it? Even though more and more often theoretically the modernization of higher education is associated, albeit partially, with the changes associated with the post-classical paradigm, in practice, however, teachers are either still not interested in the individual characteristics of the student's personality, or do not try to discover them to build the educational process according to them. Or feel powerless to adapt the teaching content, methods, and technologies to the specifics of human potential. As a result, teachers are increasingly demotivated by low student interest and performance, and future professionals themselves are dissatisfied with the quality of higher education. On the other hand, the business sector is constantly alarming about inadequate preparation of graduates for the requirements of the economy, which is anticipating the features of the post-classical paradigm.

Therefore, the authors of the article undertake a post-classical approach of exploring relatively common personal and professional characteristics of future specialists by synergistically relating the development of management as theory and practice with university didactics. The effect sought is, on the one hand, to

complement each other in two areas, relatively distant, but with a common object - human development - and with a common element - the management block in the complex self-developing economic and didactic system. In the name of business, education prepares the person and person the latter sets the direction of human resource preparation for education. On the other hand, such a research-interdisciplinary approach to the dialogue of two relatively different "cultures" will more comprehensively, densely, and deeply justify the hopes of business for adequate preparation of the person - a common object of study with common problems, but considered with different disciplinary approaches, in different aspects (Kamenova, D., 2012).

On the third hand, the authors direct the study of the personal and professional characteristics of future professionals through the resources of the historical approach, which is innovative in the postclassical paradigm. Its use provides an opportunity to illustrate the change of personal-professional characteristics through the transition from classical through non-classical to post-non-classical era. For educators, and for management, it is crucial not only to recognize the specificity of the human professional in the different eras, but also to use adequate methods and technologies in relation to still available paradigmatically different personal-professional characteristics.

Objective of the article

Thus, the aim of this article is to investigate the personal and professional characteristics of future specialists in the process of their preparation in the bosom of the post-classical paradigm to solve problems in the complex self-organizing system: higher education-business-management, with a perspective of constructing adequate principles, methods and realistic adequate measures of new quality.

Presentation of the main study material

At the border of the nineteenth and twentieth centuries, the non-classical paradigm (from the Greek "*paradeigma*" - "*para*" - from above, though, near, "*deigma*" - manifestation) as a model, a system of theoretical, methodological, axiological views and ideas, is accepted by the members of a community as an approach of decision and implementation (Pedagogical encyclopaedic dictionary (Electronic resource). 2002), proclaiming the system-structural approach of renouncing the relations of subordination valid for the classical paradigm and a single universal method of explaining the world, recognizing multiple ways to reach the truth. In contrast, the postclassical paradigm is currently leading to a crisis both in science and in various professional spheres, associated with "ignoring the complex worldview of modern

person, with a transformation of philosophical positions, and with it the need to develop new methodological principles and value-purpose attitudes for education" (Benin, V.L., pp. 31-40).

Post-classical science turns "*to super-complex self-evolving systems, involving the person as an essential element of their functioning and development*". It demonstrates respect for "interdisciplinarity, for the creation of complex research programmes by specialists from different fields of knowledge. The ideas of evolution and historicism become the basis of a comprehensive picture of the historical development of nature and person, infused with the ideas of global evolutionism" (Benin, V.L., p. 39).

In the search for the personal-professional characteristics of the student in the postclassical paradigm, we are guided by three main theses related to its particular features.

The first thesis is related to a **new type of rationality**. To the extent that rationality as a thinking activity is related to productivity (Popov, V.V., Shcheglov B.S., 2006; Stepin, V. S., 2003), in the sphere of higher education it is understood as a transition from achieving more and more effective preparation of the future specialist to strengthening its further self-training.

The second thesis is related to the learning process itself, understood as a new type of interaction between teacher and student/students - as achieving a **new type of sociality** (Akhiezer, A. C., 2006; Buber, M. I., 1995; Levinas E., 1998), based on partnership between equal subjects, bearing their own culture, rather than violence and subordination. Dialogical interaction is of a different order - it is not the exchange of information that is the priority, **but the changing of the boundaries of thinking** of the two subjects. At first approaching the student and the teacher, and next between the specialist and his manager. Not only by virtue of hierarchy, nor by virtue of the existing standard of training. In the interaction between professor and student, the postclassical idea of synergistic complementarity takes the lead. The more the two subjects realize the mutually reciprocal need for complementarity of one subject by the personal-professional characteristics of the other, the more reliably they will measure their mutual accomplishments - each in its own activity - teaching and learning - and derive measures for continued development - faster, cheaper, and more perfect. Incidentally, this is probably what should be meant by the continuous production of know-how in university didactics in logic: practice, analysis of results, setting new measures as new characteristics of achievement itself, and again practice, again analysis, and again new measures. And so on, until that moment of realization of the lack of necessity of such complementarity between particular subjects in their path to self-development.

The third thesis of the postclassical paradigm is the achievement of a dialogue of cultures (Akhiezer, A. C., 2006; Bibler, V. S., pp. 159-183). In the sphere of

didactics, especially university didactics, this means that the teacher must be aware that his "product" - the student's preparation - is a product of culture. On the one hand, a product of the lecturer's own culture, not only a product of specialized preparation through teaching content, methods and technologies, and on the other hand, of the culture of the student himself (Bondarevskaya E. V., 1997; Buber, M., 1995; Kamenova, D., 2012, pp.27-44). That is, higher education is placed in a much broader context than other social areas, putting its own imprint on the collaborative work and joint achievement of teacher-student interaction. Therefore, the need for the lecturer to focus not so much on the learning process, but rather on the educational route or educational trajectory of the particular student, the future professional, becomes increasingly evident (Mednaya T. A. 2015).

Therefore, in a much broader aspect, the post-classical paradigm lays down the learning outcomes (as a new type of rationality) and the learning process itself as a new type of interaction based on non-violence, on the contrary, tailored to all the cultural, inherited and competence characteristics of the student (a new type of sociality) as achievements - markers of a new type of culture of dialogue. In other words, higher education must assume the mission, and in particular university didactics, of producing through the student a representative of the culture of his time.

The postclassical paradigm poses the problem of a new type of rationality (Popov, V.V., Shcheglov B.S.; Stepin, V. S. 2003) of didactic interaction in an unambiguous way. In our view, it is conceptualized as dialogue insofar as it, the paradigm, is constructed from the thesis of the dialogue of cultures (Bibler, V. S., 1995). In this sense, didactic interaction, or didactic dialogue in an academic setting, is conceptualized as a complex self-organizing the concept of a *didactic practicedidactic practice* \Leftrightarrow *newdidactic practice* \rightarrow *a new type of rationality of higher education*.

This new type of rationality is based on the intention to measure the product of the activity against the necessity of its creation. Thus, all the functions of university didactics related to the tasks of "production", i.e. the educational service - planning, organizing, guiding for implementation, as well as those related to the improvement of the specialist, placed in the complex self-organizing professional area - are focused in the dimension of measurement. It is a mapping of the idea, image (or standard) of the preparation of the professional that higher education "produces", as a response to a societal need, against itself as a didactic learning outcome. Measurement, in turn, always requires the mental (rational) correlation of the finished "product" with the idea, or standard, of its very production. The procedure of this type of measurement follows a certain path, the goal of which is to draw lessons or conclusions:

1) what resources, including faculty and university culture, were invested in the creation of the professional

2) for how long and in what cultural space as a context was the professional created, and

3) what methods were used relative to available resources (knowledge, skills, and experience) in moving the student to embody their professional readiness for specialized work (Kamenova, D., 2014, 67-72).

The lessons or conclusions of the measurement are knowledge, skills and experience of the future professional, which are objectified in measures for further activity of both the university teacher and the student - the other subject of the didactic interaction. Knowledge from measurement provides knowledge about/of the product, but in the logic of its achievement it is knowledge about the professional as a human achievement. In other words, in the postclassical logic, it is not the exam grade that is important, but achievement as the practical application of knowledge and skills. Achievement is actually found in the inputs of knowledge, skills, abilities and experience, i.e. competence. Therefore, this first level of analysis of postclassical didactics justifies the change of focus of training - from focusing on the personality of the professional - to focusing on subjective human achievement [ibid].

It so happens that the product and the process of its becoming as an achievement pass into another - rational-contemplative - form of existence. The unification by synthesis of the conclusions drawn from its measurement as a subjective given creates the logic of the achievement of a product. Thus, through correlation, going from the achievement through its measurement to new measures of its improvement, the mental image of the learning process as human achievement takes shape. Such a mental image, through which other subsequent achievement-products can be measured, takes the shape of a theory (logic) of learning, or postclassical didactics.

Hence, it can be said that the post-classical approach to the training of professionals shifts the focus from the objectively observable product - the result of an examination - to its creator - and teacher, but most importantly the student. That is, a focus is realized not on the subject as such, but on the **achievement** as a particular opportunity or resource of its creator.

Therefore, in the post-classical form of university education based on the complexity of disciplines, the authors of this article undertake the study of the characteristics of the modern specialist based on the comparative chronological approach in the theory and practice of management, correlated to university didactic science and practice. *"But modernity changes everything, with every year we notice the spread of the non-classical form of university education, which is based on the complexity of disciplines, their integration and active penetration of each other. This is what gives rise to the interdisciplinarity of modern education"* (Mednaya T. A.,2015).

Results of the study

The analysis of the different schools, trends and theories in management does not claim to be fully comprehensive. It is not the aim of the analytical-historical review, but a tool. What is important in this case is to highlight the types of dialogical interaction in the different stages of development, which construct specific personal-professional characteristics of the specialist in them. As will be seen historically, the conceptualization of the specialist as a presence in dialogical field moves from the "silent" (passive) **classical subject** through the noticed (in the sense of prepared, administrative-"orderly", creative, etc.) **non-classical subject** to the organizing, learning, energizing others and innovating **post-classical subject** as a necessary complementarity of both teacher and manager. The ascent of the specialist from the role of object to that of active subject in dialogic interaction marks the transition from classical through non-classical to post-non-classical paradigm.

We are undertaking a journey through the history of management and human resource management in order to highlight the professional characteristics of the required professional based on the dialogue of cultures - from the origins of management to the philosophy of management of modern societies and organizations in relation to the training of modern professionals. The types of interaction through which managerial activity takes place will be problematized in a historical perspective, insofar as a key element of didactic science is the management of didactic dialogue-interaction. On the other hand, such an approach represents the truest verification of the relevance of the research undertaken - to search for, investigate and derive the personal-professional characteristics of the contemporary specialist - the subject of training in higher education, in accordance with the post-non-classical paradigm. (In this study, the use of the terms "**classical**", "**non-classical**" and "**post-non-classical**" is correspondingly borrowed from the contemporary theory of rationality (Popov, V.V., Shcheglov B.S. p. 67).

The historical approach helps to identify the interrelationships between the different subjects - manager and collaborators (performers), which are also directly or indirectly reflected as a pattern of didactic interaction. It makes it possible to trace what type of dialogical interaction takes place in the course of the genesis of management, and also to trace the mutability of the dialogue itself between the different theories of management, carrying out the development of the scientific thought about it itself. At the same time, the historical approach helps not only our awareness of the emergence and disappearance of management schools, theories, and trends, but also our understanding of the development of didactic interaction itself, and hence the training of professionals adequate to the times. We are talking about external contextual factors - social, political, and economic - as well as their determining power on the sequence, continuity, and dynamics of human and societal development in the transition from classical through non-classical to post-non-

classical types of organization as a self-organizing system (Stepin, V. S., 2003).

1. From the Ancient to the Classical Paradigm

The "Silent" Actor on the Stage of Antiquity¹

The roots of government, and of learning, can be traced back to the dawn of "society." Antiquity provides astonishing achievements of ambitious projects - military, civil, economic. Written monuments testify to the relationship between the rulers and the executors - the "specialists" - based on the unequal distribution of power between the ruler and that silent mass of people whose manpower was harnessed to the realization of cultural masterpieces. The man of Antiquity "speaks" solely through the results of his labour. It is this mass of men that we here call the "silent" specialist of antiquity.

Of course, a true interaction between the great mass of laborers and the Great Personality, exceptional for his organizing talent, cannot be spoken of from today's point of view. The performer, by virtue of the mass in which he fits, is impersonal and voiceless. The dialogical model that is imposed is more of the "me versus you" type. In it, the professional is absent as a speaking Other. In this sense, interaction, in its contemporary understanding as mutual complementarity between subjects, as well as the unique personal characteristics of the professional, could not be spoken of.

A similar dialogical pattern, unfortunately, can still be found in university halls. However, students need to be noticed, to have a voice in the organization of the educational process. The teaching content as well as the teaching methods should not be designed for the mass of students, but according to the level of experience and knowledge the university should offer different educational routes for everyone.

"The Rejoicing Believer"

Materially oriented and spiritual) performer in the Middle Ages

The period of the Middle Ages, following the collapse of ancient civilizations in Europe, came with the changing need for a specific, distinct specialist. The Church and its Ruler remain an example of a brilliant organization with a relatively simple hierarchical organizational structure. Grandiose projects for its time engaged popes, cardinals, archbishops, bishops, and parish priests, and for more than eleven centuries it paved the way for Europe's great dialogue with other peoples and cultures beyond. But what kind of professional was needed for the times of the Middle Ages? What type of interaction was required, between rulers and performers, and how did it affect the educational model of the time?

The achievements of Christianity are based on the successful reconciliation of interests, on the "delicate" mechanism of motivation, fidelity, and inspiration of the executing professionals and on the strict control regarding the implementation of

decisions (Buber, p. 74).

The "me versus you" dialogical model practiced since antiquity gradually began to bifurcate. On the one hand, the "me and you" by virtue of the conquering crusades in which the performer, though in the army, can be identified as the "exultant", the "professional" - realized through conquests and plundered riches - it is known from history that most of those involved in the crusades were people in a deadlock before physical survival. The true motive for allegiance to the one God is the significantly stronger energy source for participation in conquest. A new pattern of inner dialogue is also emerging, one of prayer, of inner conversation as an exultant "reaching out" to the deity and the saint. The communicative acts relevant to the Middle Ages, such as the sermon, liturgy, saints' lives, prayer, and several others, giving a particular divinity to speech, created the practices of inner dialogue in the model of "self with self" - self, as behaviour (sinful or righteous), with self, as self-consciousness and self-evaluation. This inner dialogue invariably involves the Third in the dialogue. Its role is understood as an Instance - whether in the form of the Ten Commandments or as a model of behaviour, it becomes a reference point in the individual's self-awareness and self-appraisal. It lays the foundation for a personality characteristic - that of the "believer" who rejoices in survival and turns his gaze inward. It establishes a coordinate system for the laying down of man in the world through physical survival and spirit, which is why the Middle Ages prepared the education, culture and science of Classicism and the Enlightenment.

2. The "Classical" Specialist

2.1. The "Noticed"

With the emergence of industrial production in the seventeenth century and its expansion in the eighteenth and nineteenth centuries, there was a need for new knowledge and skills possessed by both the owners of enterprises and the workers in them. The beginning of management science was laid - it was itself born in the roots of the dialogue between practice and its logical construction as a theory. The development of the economy also imposes a new paradigm in the education of man, hitherto a silent passive performer.

In the context of the rapid development of technology in the nineteenth century and the related drive for profit under unbearable working conditions for the performers, unrestrained exploitation led to a decline in labour productivity. In such conditions, the American engineer-researcher Frederick Winslow Taylor (1856-1915), regarded as the founder of the scientific theory of management and the first theoretical and practical studies of human resources (Benin, V.L., p. 19) in the mid-nineteenth century enunciated the idea of people as the most productive factor of the

production process. Thus, the Other Actor on the stage of management "emerges" from the table as highlighted above the technique as the "*Noticed*" but not yet individualized character. The classical strand in the establishment of management as an independent science in the late nineteenth and early twentieth centuries is associated with the emergence of factory production, posing new problems and tasks. These were mainly related to the supply of more modern equipment, more structured organization, and more complex production processes, necessitating the need for specialized training of workers.

2.2. The “Economically Rational“

The development of conceptions of man in the labour process and its management gradually shaped the independent theory of human resource management developed in the late nineteenth and early twentieth centuries within the general concepts of organizational management (Chopov, D., Atanasova, M. pp. 32-37). The first to study human beings at work is F. Taylor. His concepts, which have remained in the history of management under the collective name of "taylorism", preserve the belief that success requires harmony between the manager and the performer. A second thesis holds that if the two parties unite rather than oppose each other, they increase labour productivity many-fold. This allows the achievement of "*economic rationality*", understood as: one gets a higher wage for the work done and the other gets bigger dividends, more income at lower prices. Therefore, in the classical economic paradigm of managerial interaction, two new features are introduced for the first time: on the one hand, "*harmony*" as mutuality instead of the "*bitter, traditional opposition*" and, on the other hand, an increase in productivity.

The economically rational person is guided by the belief of utility (as the meaning of labour activity) that the greater the income, the greater the welfare. In terms of structuring the interaction model, the doctrine of the economically rational person brings in precisely these two inalienable characteristics of the economically rational person: reciprocity and rational utility. Obviously, they as a residual marker mark to a high degree the specificity of labour interaction today. Among the personal-professional characteristics of the student both can still be found. The teacher should find a way to satisfy them as well as to develop them, gradually laying them in a post-classical context.

Taylor also advances a third thesis, considered fundamental in viewing man as a machine. According to her, to work well, man must be cared for as a machine: 1) placed under good conditions; 2) well trained; 3) well paid. Hence important to make sense of are the main prerequisites for high labour productivity postulated by him, expressed in:

- 1) proper selection of people for work;
- 2) their selection of the best method of doing the work;

- 3) preparing workers for the choice of the best method;
- 4) using the most appropriate tools and implements;
- 5) giving such wages as will induce the worker to do the work as quickly and as well as possible;
- 6) establishing a system of control to ensure that the set objectives are achieved.

The transfer of these characteristics to didactic classical interaction mirrors the specificity of interaction in the economic sphere. As an interaction between economically rational subjects - the communicative initiative is entirely in the hands of the managerial subject - the teacher-manager, directed towards the relatively 'silent-victim' learner. The postulated "*care for the human*" as for the machine becomes evident as an activity manifested by the lecturer in the direction of: selection - as a motivated choice of a specific student, orientation in the method and means of labour, rewarding the result of the labour (again by his decision), control - in the sense of measuring the achievement of the goals set again by the lecturer. In relation to the components of didactic interaction, the basic functions of the classical type of lecturer in the university could be deduced already here: to select (select, but also attract only given students), motivate, orient, control.

And secondly, the highlighted content characteristics and functions of classical management provide the basis for its transposition into classical didactic terms through components: motivated choice (of students according to the goals of the activity); orientation - what (as tasks) and with what methods and means the expected results will be achieved; achieving results as performance and measuring them as availability (but hardly as utility) to be rewarded.

The above theoretical propositions, as applied by Taylor to human behaviour in the labour process, form the notion of the so-called economic type of person. In our search for the place and role of the professional, it can be said that he still remains '*silent*', externally coercively active. The worker's (and the student's reciprocally) behaviour is determined by remuneration as the main source of his existence. In accordance with this understanding, he develops the principles for the scientific normalization of the worker's labour. One can easily draw an analogy with the norming of labour in education and assessment as '*receiving a kind of wage for the labour done by the learner*'.

In the classical period of the development of economic and didactic interaction, there is another contribution to the division of labour as one of the basic principles of organization: the more differentiated the labour in the organization, the greater the specialization of workers, the less the time and resources for their training and the greater the level of productivity. Therefore, the classical viewpoint implies that the efficiency of the economically rational person is tied to his preparedness for work - not for development! Thus, even at the dawn of the emergence of management

theory, the accompanying educational activity resulting in the preparedness of the specialist emerged as its necessary attribute. However, it is necessary to emphasize thickly that the decision on preparation is made by the manager, and not by the working, not yet active subject of his own personal-professional development.

The analysis of theories of classical management also refers to the following reflection: it is likely that the division of labour, embedded as a basic principle of production, leading to an increasing differentiation of labour and to an increasingly strict distinction of one activity from another, and hence to an increasing specialisation of employees, has led to an increasing division between people and cultures. This division between individuals within a community is likely to continue to cause problems - cognitive, emotional and praxeological - in today's needy but not yet convergent world of dialogue of cultures for a long time to come. Perhaps this division causes the "opposition" presented by Taylor as a problem, against which he raises the principle of "harmony" in relations between rulers and ruled. It is easy to mentally attribute the causes of opposition - it is about the use of power as a seizure of initiative by the learner and the working man and as violence - which is why opposition still exists today in the university.

2.3. "The Learner"

The theoretical constructs of Frank Gilbert and Lilian Gilbert have a special contribution to the development of economic rational man. Ф. Gilbert (Chopov, D., Atanasova, M., pp. 38-39). They study the movements of the working man and, excluding the superfluous (parasitic) ones, determine the best way to perform the work, as well as to prepare him for its performance. Perhaps, in the conceptions of the two researchers, for the first time with acuteness is raised not only the problem of didactic approach of the manager to the working person as a specialist, but also that of the effectiveness of preparation by the best way. Hence, correlatively, one can relate management as an activity to the subject of work to the educational phenomenon as an activity responsible for ensuring the employability of the working person. This conclusion justifies the synergetic approach of the authors of the present work.

Moreover, the two researchers highlight characteristics of the educator himself, carrying out the training of workers. His functions consist not only in training workers with the best methods, but he himself must be the best trainer. This is how, in the very birth of management as a theory, from the bowels of practical managerial activity the accompanying educational activity is imposed and introduced, in the same configuration of interaction - one subject active, the other passive. Still the worker is the learner, the object of the preparer, albeit in the best way. His employability has not yet become an inner necessity that develops him into a subject of his own professional value - an irrevocable requirement of the post-classical

paradigm.

L. Gilbert are more focused on the human aspects of work and the author is considered a pioneer in the field of organizational psychology and human resource management (Kamenova, D. 2012, p. 233). The application of her main ideas is related to: a) the development of standard procedures for each type of activity; b) the pre-selection of workers possessing the appropriate abilities; c) training in the most effective methods of work; d) securing the process of work tasks and e) the removal of possible obstacles.

Obviously, these ideas form an "economic" repertoire of interaction between manager and workers, such as: the work standard, instructions (for each procedure); the use of selection procedures; and synchronizing work requirements with personal abilities (to work together); training in the best method of handling duties; striving to avoid conflicting dialogue, etc. Therefore, scientific management is also a turning point in which the "silent" specialist gradually stands out with his abilities as "noticed" among the mass and unfortunately, a similar economic repertoire of interaction with students can still be found in universities, confining them to a passive position of learners but not of self-learners.

3. *The non-classical specialist*

Further analysis of key theories in management will reveal the gradual transition from a classical to a non-classical attitude towards the working person, the specialist. Alongside this will be revealed the emergence of the need to develop not only professionally standardised characteristics, but also the increasing role of personality,

3.1. The “Motivated” specialist

A landmark non-classical approach to understanding man in the labour process was the so-called Hawthorne experiments at the American Western Electric Co. in Hawthorne, near Chicago, conducted from 1924 to 1931 by Elton Mayo and team. The results of the experiments revealed the parameters of motivation for the highest labour productivity related to the environment and the person in it. They are the first substantial critique of Taylorism about economically rational man.

Briefly, the main findings, which correlate with the change in a non-classical didactic paradigm as well, are that:

↘ The productivity of labour in an individual workplace is not only a consequence of the level of technique, technology, organization, and conditions of the production environment. It is also a social phenomenon, governed by the *collective atmosphere, the attitude of workers towards work, colleagues, and supervisors.*

↘ Under certain conditions, it is not the remuneration, the way it is determined or the conditions of the production environment that are decisive for employees' motivation, but the employees' *needs for recognition of achievements, social identification, respect for their personal dignity.*

↘ Professionals' attitudes towards work and the organisation depend very much on the attitudes of the *informal group* that currently dominates. Under certain conditions it can silence and modify the personal interests and attitudes of its members and of all other workers.

↘ The decisive factor for the behaviour of people in the labour process is the informal leader and the informal authority of the leader, his *personal* charm, competence, and fairness, to faithfully evaluate the achievement and to *consider the opinion* of those he leads (Chopov, D., Atanasova, M. pp. 41-44).

It is becoming obvious that the focus is more and more on characteristics that define the personality of the professional, not so much his or her professional profile. It is proving that the most important factor in human behaviour at work is not control, sanctions or rewards, but human attitudes and the development of one's own self-esteem - good advice for the personable, humanised maintenance of didactic interaction for many academics today!

3.2. The "Creative" specialist

First among the researchers, Mary Parker Follett, defended the thesis that man in the labour process develops, that he can show *creativity* at work and that the most ordinary worker possesses *intelligence and imagination*. The manager's job is to unlock this. And is it the job of the university lecturer to do that? And if so, is he willing and able to do it?

Her second thesis has to do with success, the factors of which in any work are found not in the principle of "power from above" but in power exercised with all on whom the success of the common cause depends. Unfortunately, within the framework of this study it is not possible to seek out, uncover and analyse in detail the particularities of the feminine type of *managerial/didactic discourse*. But from the analysis of L. Gilbert and M. P. Follett's analysis, it is obvious to link it with relatively "*softer*" values [On the difference between the so-called "*soft*" and hard values in human resource management, see more sub. (Chopov, D., Atanasova, pp. 22-23, Bondarevskaya E. V. pp. 47-53). Again, the question arises, does the university lecturer recognise and differentiate between them in his/her approach to students for the sake of their individual development?

3.3. The "Administrative" specialist

So-called "Administrative" type of specialist in management theories is framed in a specific way by Henri Fayol's maxims, which are schematically presented below:

↘ Clear and correct formulation of decisions - unclear decision creates doubt, uncertainty, unwinding of the people;

↘ Putting each where it's most appropriate;

↘ The "*pay and promotion*" system must provide rewards for commendable performance - the organisation can only develop quickly and effectively when people

are rewarded for taking initiative, for taking responsibility, even when this may lead to mistakes and shortcomings;

✚ Rules and procedures are not an end in themselves but a means to an end;

✚ Divide-and-rule politics to achieve superiority inevitably ends in the destruction of the organization. The theoretical constructs of the "*administrative*" specialist bring additional detail to the overall non-classical picture and to didactic interaction. It is effective when: **First**, in the decision of the governing clearly present to the specialist task - unfortunately and today practice reveals a lack of clarity in the messages of the lecturer to students; **Second**, decisions must be correct - this requirement means addressing a task precisely to the right person (or people) at the right time: vague and inaccurate statements create hesitation, uncertainty and disorientation in the person receiving the task. **Third**, a job well done must be accompanied by encouragement for a praiseworthy performance, for the initiative and responsibility taken by the specialist. As it were, this specific characteristic is still too deficient in didactic interaction in the university; a **fourth** characteristic is the embedded tendency to normalize the behaviour of the specialist - i.e., to a large extent, interaction, that is, impact, has a prescriptive, determinative character of the behaviour of the specialist, but, as rightly pointed out above, rules and procedures should not be an end but a means to an activity. And today, all too often, everyday practice reveals exactly the opposite situation in the university as well.

3.4. The "Self-validating" specialist

In the attempt here to highlight in chronological order the types of interaction and the personal-professional characteristics of the specialist in the different paradigms, it is not possible to list all directions, schools, and theories. Therefore, the research analysis focuses only on those that provide sufficient grounds for tracing paradigm shifts. For example, from the concepts of Oliver Sheldon (18, pp. 46-48), besides ensuring a "decent minimum of employees", as well as providing sufficient rest and conditions to maintain the health and efficiency of workers, one finds the introduction of a requirement for management to provide interesting work that corresponds to education and qualifications, as well as inclinations, gifts, and abilities. There is a call for respect for the individuality of each person, through which the professional now actively stands out for his or her own competence. Gradually, the discovery of what is unique in the specialist's individuality is being imposed as a task in both management and didactics, thus concretizing and expanding the concept of human resources as opposed to using the concept of human personnel. Not only specific professional knowledge and skills are considered important, but also the general gifts, inclinations, and abilities of a person. Sheldon also appeals to the provision of interesting, attractive work for the worker, which in turn corresponds to the postmodern individual's aspiration for life and work as fun.

Abraham Maslow is credited with being the first to identify people as the most important resource of the organization, bringing to the forefront of interaction personal needs as the primary instigator of work behaviour. According to Maslow, the motivating agent of work behaviour is not every human need, but only those that are not satisfied. Without going into the details of his, recently much disputed and criticized, theory, what is relevant for the present study is the proposition of the individual's need for success and the need to publicize individual achievements after others. It (the need) ascends to the need for self-realization and self-assertion as the source of full development of the individual's overall potential (Chopov, D., Atanasova, M., 1998, pp. 45-47).

Developed by E. Maslow's theory of the most enlightened (eupsychian) management emphasizes.

1. High performance is achieved on the basis of honesty and integrity in the employee/employer relationship;

2. Every worker strives to improve his/her work - create the conditions for him/her to do so;

3. The worker strives to achieve excellence in the relationship - help him do it. Workers would rather work than do nothing;

4. When fear of punishment dominates the organization, workers do not take responsibility and prefer to be passive;

5. Expectation of recognition from work done is a human need which has the nature of instinct;

6. Work provides the best opportunities for people to develop and fulfil themselves.

3.5. The “Changing” specialist

In view of the credible research quest of the increasingly "*respected*" professional as an active subject looking inward, as creating his own individuality, Douglas McGregor's (1906-1964) postulations may also serve. They refer to the rejection of the philosophy of the stick, materialized in the authoritarian model of management, as well as to the aspiration of the worker to the new, to change as his natural need, and hence the generation of a desire to increase skills. Thirdly, the thesis can be presented that each person values his personality and works best when he loves his work. Fourth, that, along with material reward, man especially values freedom, hard and challenging work (Chopov, D., Atanasova, M., 1998, pp. 47-48).

Summarizing the characteristics of the increasingly willing to change professional, by implication, two more personality and professional characteristics can be differentiated to be on the first line in higher education. On the one hand, sustaining the aspiration of the future professional to the new, to development, and on the other hand, to be inspired by providing freedom through increasingly challenging,

progressively more complex activity that sustains inspiration.

The measures of complication are defined by L. Vygotsky's "*zone of proximal development*" - if the difficulty of the task crosses into the zone of a more distant temporal development of a future specialist, then the task will not only prove to be unattainable to perform but may also demotivate him for a long time.

The juxtaposition of the so-called '*classical*' specialist in managerial and didactic interaction with its 'non-classical' version over time reveals a gradual shift in focus: from managerial and teaching disinterest in the personal life and potential of the worker and student to gradually providing the conditions for the worker's active presence in the interaction. However, the autonomous expression of both the specialist and his teacher unfolds in post-classical conditions, when he reasserts himself as an individual equal to his manager and teacher - not as a position, but as a consciousness of self-value with its attendant psycho-social constructs - knowledge, skills, abilities, experience, and culture.

2. The "Post-nonclassical" specialist

The continuously complexifying environment of work and training in terms of the diversity of individuals creates the conditions for a different portrait of different "post-nonclassical" professionals. The analysis of different theoretical constructs as models for management and for training reveals the creation of conditions for a diverse personal presence through opportunities for the synchronous use of more than one style in management and in HR training.

4.1. The "Different" specialist

For example, according to RensisLakehart (Chopov, D., Atanasova, M. pp. 51-53), four different styles can be distinguished in human resource management, named by him:

- Exploitative power style - the "stick" style in which orders, supervision, strict control and sanctions prevail, creating distrust and considered as the least effective;
- benevolent-power style has been termed the economic baiting style of the manager, favourably supporting the worker's drive to make a career, who in turn develops a tendency towards servility. This style is assumed to be slightly more productive than the authoritarian style;
- consultative style, implemented in collaborative decision-making - characterised by the worker's conscious attitude to work and by providing greater opportunities for productivity gains;
- collective style - through which cooperation and mutual trust are developed, decisions are made by the collective, and therefore provides opportunities for achieving significantly higher productivity.

In terms of didactic interaction, the theoretical differentiation of the different

management styles ensures freedom in their choice. Not only that, the management style is not only linked to a specific style of verbal expression, but also predetermines the expectations of the manager and the teacher regarding the type of performance of the specialist himself.

4.2. The “Constant Learner” specialist

The concepts of the continuously learning organization and the human being in it are related to the contributions of the "father" of modern management and entrepreneurship" Peter Drucker. They relate to the subject of the study as follows:

1) the vitality of any organization depends on two things - first, on the people in it, and second, on how the managers have organized the work with them;

2) in order to prosper, the organization must follow a human resources policy specifically designed by the organization, within which the most important element is the selection and training of employees for work in the organization;

3) a priori, people are intrinsically motivated to work, preferring to work more than to stay, and by nature strive for improvement;

4) the worker should be provided with freedom to work and encouraged to express their latent abilities in seeking and implementing the most effective solutions, etc.

Thus, the postulated management policy of the modern post-classical organization and of human resources in it corresponds to management styles that form an entrepreneurial type of organizational culture and that provide for an entrepreneurial type of human behaviour inside a concrete and business and didactic environment, which in turn leads to the transformation of management and didactics into leadership, and of professional competence into talent.

4.3. The “Flexible” specialist

The Nobel Prize winner in economics, Herbert Simon (Chopov, D., Atanasova, M., pp. 61-63) develops the view of the "administrative" man, as the antipode of the theoretical scheme of the "economically rational man", in another plane, transferred to the inner plane of the person himself. He views the "economically rational man" as an individual who knows his needs accurately and can calculate his real income, plan his behaviour, and achieve his goal of maximizing his desired real income without hindrance. For the author, this notion of the man at work is illusory, so he presents a theoretical construct of the new "*administrative*" person, parameterized by:

1) Uncertainty and risk in the real world confront people with many barriers to make sense of their aspiration to maximize wages according to their intended behaviour.

2) Barriers force the individual to continually make adjustments to his or her original ideas, to manoeuvre between difficulties, to develop alternative goals and paths to achieve them, hence here referred to as the "flexible" professional, in the

sense of adhering to a tendency of continuous variability in thinking and behavior to the conditions at hand.

3) Simon's "*administrative*" person knows that he cannot achieve everything he desires - he is not possessed by excessive ambition and is content with enough income he can nevertheless obtain. 4. The "administrative" person replaces the economic man's slogan "Work for maximum reward" with the slogan "*Work for optimum reward.*" The "flexible administrative" person is considered to have a better chance of success in today's imperfect world than the economically rational person.

The trends observed in today's economic environment outline the current situation - more and more often "voices" of the so-called among the younger generation "new managers" are heard. These are usually graduates of the younger generation who are bored by a series of professional disappointments - poor training, poor management, unworthy remuneration, poor working conditions, and undignified treatment of their personal needs. In applying for a job, they start to impose their own demands on employers, instead of the usual reverse situation.

4.4. The "Independent" specialist

The above research theses on the development of the personal-professional characteristics of the future professional are naturally linked to and complemented by the notion of the person in the organization as a person-energy revealed by Chris Argyris. His ideas support the analysis of the specialist in postclassical didactic interaction in the following directions:

1) the organization is an energy system with mechanical, electrical, thermal, raw material and human energy as its subsystems necessary for the implementation of the production process (Stepin, V. S,2003).

2) Human energy, according to him, has two independent elements - physical energy and mental energy. The mental energy of the working person is generated by his thoughts, feelings, imagination, inspiration by ideals, etc. It is not a constant quantity and under certain conditions it may decrease or increase. The main problem of human resource management is how to multiply the mental energy of the working person and how to use it to increase the physical energy expended in the labour process;

3) the mature human personality develops, and the characteristics of development are increasing work activity from the beginning of work activity to the mature years; as the person becomes more mature, his behaviour becomes more flexible; increasing importance for the person of more permanent interests in his value system; increasing his aspiration for freedom, self-awareness, self-control and self-discipline. These tendencies, characteristic of the developing human personality, cannot usually be reconciled with the demands of many organizations, and in the university. A reference point for effective higher education today are the following research

findings of K. Argyris - according to him, the mature person in the work process → strives for independence, → wants to be active, wants to make full use of his abilities, → insists on controlling his individual world; wants his personality to maintain its personal integrity.

As a result of the incompatibility of the work and university environment, the specialist becomes frustrated, unpromising, conflicts arise, hostility is generated. For university didactics it is particularly useful to consider that the behaviour of the mature human personality for K. Argyris is the resultant of four groups of motives, (for more on these see Chopov, D., Atanasova, M., 1998). but the most important is the third in order: motives generated by the needs and interests of each employee, arranged in a certain structure in his or her value system.

4.5. The “Self- Developer”

The analysis of several other concepts takes into account the growing interest in the personal-professional characteristics of the modern professional - in his not only professional but also personal characteristics. Therefore, in the last three or four decades, the theory and practice of management in relation to human resources in the organization has been enriched with several concepts such as: theories of goal-oriented employee management; theories of flexible strategies; total quality management; motivation and commitment of employees; organizational change; theories of human capital; theories of talent development in associates, etc. Theories that it is time to find a respectable place in the humanized construction of higher education.

Conclusion

The study of the specific characteristics of the specialist in contemporary interaction in the different schools, directions and theories of management does not claim to be complete. It is not the aim of the analytical-historical review. What is important in this case is to highlight the types of dialogical interaction and the place of the specialist in it. As seen historically, the conceptualization of it as a presence in the dialogical space moves from the "*silent*" object through the revelatory (in the sense of prepared, administrative-"*orderly*", creative, etc.) subject to the organizing, learning, charging, and giving energy to others subject as a necessary complementarity of both the teacher and the manager. Uncovering the specific personal-professional characteristics of the specialist involved today in the post-classical didactic interaction, and tomorrow in the working environment through the historical-interdisciplinary analysis of two scientific fields - management and didactics - proves to be a difficult but fruitful task with its results. It helps to reveal reasons hindering the modernization of higher education, which does not consider the personal and professional characteristics of the future specialist and does not develop

them. Secondly, the study outlined relatively uniform obstacles facing contemporary business and higher education, provoked by the unmet transition from a classical to a non-classical to a post-classical paradigm. The under-experiencing creates in both business and higher education a cocktail environment in which an extraordinary variety of attitudes, methods and mechanisms of interaction exist vis-à-vis the leading role of the individual in increasingly complex systems oriented towards self-organization.

The hope of the authors of the present study is focused in supporting to develop in contemporary academics a sensitivity to remnants of the classical and non-classical paradigm that hinder productive dialogue between student and teacher. They also appear to be reciprocal for manager-associate interactions in the business environment. It is believed that knowledge of them will assist in their removal and innovative efforts to move progressively closer to significantly more modern post-non-classical characteristics as the goal of education.

For the authors, the very process of exploring the specific personal and professional characteristics of the contemporary professional is a challenge and an experience provoked by the principles and methods of the post-classical paradigm. Its inherent interdisciplinary approach, the historical approach used in the analysis to reveal the gradual enrichment of societal needs from impersonal, standardized characteristics to increasingly personal ones in the contemporary professional, also a product of higher education, proves to be an invaluable experience as a journey to higher qualification as successful educators.

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TYPES OF INNOVATIONS IN THE HIGHER EDUCATION SPHERE

Abstract

Innovative information technologies, information and innovation management, as well as innovative marketing are widely used in the management of innovation in education and uniting in the group of means and tools for innovation management in education. They can take place in almost all types of the innovations in the education system, which can lead to innovative changes to achieve new quantitative and qualitative parameters of education. They can take place in almost all types of the innovations in the education system, which can lead to innovative changes to achieve new quantitative and qualitative parameters of education. This article analyzes types of innovations in the higher education system that can lead to innovative changes: innovations of organizational type in the higher education sphere; innovations of educational and pedagogical type in the system of higher education; means and tools for innovation management in education; problems of the forced or emergency distance learning, etc.

Key words: innovations of organizational type; innovations of educational and pedagogical type; means and tools for innovation management; forced or emergency distance learning.

Introduction

The impetus for the development of progressive innovations and outstanding inventions was the Bay-Dole (Patents and Trademarks Amendment Act) Act passed by the US government on December 12, 1980. This began an era of rapid economic growth in the country. The Bayh-Dole Act, one of the finest statutes in US law, "allows universities, nonprofit research institutions, and small businesses to own, patent, and commercialize inventions developed through federally funded research

programs within their organizations." (Ezell, 2019).

Earlier higher education and science belonged to the non-commercial sphere of intellectual activity of the society and were called upon to find, generate and disseminate knowledge for the benefit of all mankind. Further, under the conditions of academic capitalism, higher education institutions and scientific institutions have turned from "temples of knowledge" into participants in the market of educational and scientific services with strict market economic rules.

The study and analysis of useful information about the emergence and dissemination of innovative activities in the field of higher education and science made it possible to identify the main types of innovations. Innovations in higher education lead to transformational innovative changes in this area and allow both to qualitatively improve its activities and significantly increase its efficiency.

Actuality of the topic

It is widely known that all processes, types, stages, levels, methods of education and methodology of teaching need innovations.

The publication of F. Altbach (2008) presents the integrated role of universities in the period of globalization. In his work, universities are defined as "engines of socio-economic development of society and as national institutions" (pp. 1-2). Universities fulfill a "central academic role" in society, in the multiplication, "preservation and dissemination of knowledge". (p. 2) Universities are defined as "intellectual centers" (p. 2) and "international institutions". (p. 3) Author also underlined that: 1). Universities should ensure that higher education is accessible and that educational services are provided fairly by modern higher education institutions. 2). Universities should solve the problems of general education. 3). Universities should develop economic science and academic entrepreneurship, as well as implement their historical prospects for further development and improvement. (ibid, pp. 4-10). It is the broad and purposeful introduction of innovations, advanced methods, methodologies and technologies in the field of higher education and science that should ensure the implementation of the integrated role of universities in the globalization period.

The authors argue that the "prospect of building a knowledge society with an innovation-oriented type of economy in any country requires a profound reform of the national economy humanitarian sphere, innovative development of higher education system, science and scientific-technology activity. This should be done on the basis of reasonable combination of the best foreign experience with national traditions." (Romanovskyi & Romanovska, 2020). Also, according to the authors of the study, "the activation of all types of entrepreneurship is both a priority of state policy in the field of innovative development of the higher education sector, the

introduction of innovative entrepreneurship of various types and legal forms, as well as the basis of economic reforms and the main lever in the new model of the national economy.” This includes: “innovative academic or university entrepreneurship, which is an integrated social-economic process; accelerated development of both national science and higher education, as well as innovative processes, technologies, and innovative entrepreneurship, which is especially relevant in the period of searching for new economic models and strategies that contribute to the accelerated development of the national production sector and the economic system. Further improvement of the legal and institutional environment for innovation in the state, disclosure and development of the country's entrepreneurial potential as the main institutional resource of the market economy, achievement of higher competitiveness, and raising social standards is clearly necessary.” (ibid).

Formulation of the problem

Based on the study and analysis of the theory and practice of innovative development of higher education and science systems in the leading countries of the world, it is necessary to develop the principles, directions and tasks of innovative development of higher education and science in Ukraine. in order to create and implement national programs for transformational changes in this area.

Of interest is the study of the main types of innovative transformations in the field of higher education and science.

The fundamentals of the study

The research is based on the conceptual foundations of innovative development of higher education:

- the H.Etzkowitz's concept of innovative development of society by the “triple helix” model (Etzkowitz 2003; 2008; 2019; Viale& Etzkowitz 2010; [Dzisah& Etzkowitz](#) 2012; Cadorinet al. 2019);
- the B. Clark's concept of transformational changes of conventional universities into innovative universities focused on in-house entrepreneurial activities (Clark 1998; 2000; 2004);
- the theoretical studies in the sphere of higher education innovstics (Romanovskyi & Romanovska2020; Romanovskyi et al. 2021).

Analysis of recent studies and publications

Some of the publications on innovations in higher educationseems to be interesting. For example, Eddie Blass and Peter Hayward (2014) in the work “Innovation in higher education; will there be a role for “the academe/university” in

2025?” presents five scenarios for the future of higher education underpinned by drivers of funding, the ownership and exploitation of research, the provision of good teaching, and the potential missing link of social innovation development. The authors emphasize that by refocusing on facilitating social innovation, the university can find a new means of adding value to society that will sustain its existence beyond 2025.”(Blass& Hayward 2014).

Dustin Swanger (2016) in his paper “explores the current state of higher education and the pressures facing colleges. He also explores innovation and some of the challenges to innovation in higher education, as well as some of the successes. This paper will recommend some changes that can be implemented on any campus to improve outcomes and efficiencies.” (Swanger2016).

Very interesting is the full report reference, specially prepared for the 2nd Summit of the Global Education Industry, held on September, 26-27, 2016 in Jerusalem. It’s “covers the available evidence on innovation in education, the impact of digital technologies on teaching and learning, and the role of digital skills and the education industries in the process of innovation, using data from OECD surveys.” (OECD 2016, p. 9). “Understanding the education industries better, including their market structures and innovation processes, would help to create a more mature relationship with the education sector. Innovation in the industry – which develops the products and services that could drive innovation in schools – does not happen in isolation from what is happening in the education sector. Only when there is an innovation-friendly culture in education systems, supported by an innovation-friendly business environment and policies, will industries start to engage in risk-intensive research and development. Governments can support this by fostering a climate of entrepreneurship and innovation in education.” (p. 10). Also, the report underlines that: “Innovation in the public sector in general, and in education in particular, could be a major driver for significant welfare gains. Governments provide a large number of services in OECD countries and these services account for a considerable share of national income.” (p.13).

The important article of P. Serdyukov (2017) is devoted to the problem of innovation in American higher education. The paper is based on a literature survey and author research.

The work of M. Jakovljevic(2018) is devoted to the “institutional innovation and some models of innovation in higher education. In the book (Mandel, 2018) the modern problems of pedagogical science and education are studied.

In the book,J. Branch et al. (2018) are presenting primary examples of innovative teaching and learning practices in higher education in different countries.

The following works are devoted to a critical study of the problems of academic capitalism.

The book “The International Encyclopedia of Higher Education Systems and Institutions” edited by editors-in-chief P.N.Teixeira and J.C. Shin (2020) includes most topics from higher education and is available for comparison with other sources. The book examines the problems of higher education in the twenty-first century, analyzes the changes that have taken place and new challenges that may face future scientists and possible research directions.

D. W. Stoten (2021) in his paper which contributes to the discourse on the future of learning in higher education the author “focuses on the utility of the MBA as a management qualification to those that adopt a more holistic perspective of the development of managerial capability in an uncertain and volatile world.” (p. 53).

The study of M. J. Mayhew et al. (2021) has the purpose “to test the effectiveness of a theoretically developed pedagogical exercise designed to help students develop their innovation capacities during a single-semester course.” (p. 3). Researchers “organized the theoretical perspectives and empirical literature base through the use of two broad categories: innovation capacity theory and pedagogical frameworks, respectively.” (p. 3). Authors stress that "good teaching is the crucial link between the aspirations of undergraduate education and their subsequent realizations; between collegiate environments and desired outcomes". (p. 17).

The big number of publications are devoted to the problems of organization the distance learning education process in the pandemic period of COVID-19. In the works “Coronavirus and Higher Education Resources” (2020), “Guidance for Interruptions of Study Related to Coronavirus (COVID-19)” (2020), and in the publications of Grajek (2020), and Hodges et al. (2020) the authors study the information, communication, organizational and pedagogical problems of organizing distance learning in periods of natural disasters and force majeure conditions. Also, in the context of the Covid-19 pandemic, one of the noteworthy innovations is Active Learning Classes (Copridge et al. 2021), helping teachers and their students “to provide: teacher visibility and presence, better feedback and learning, and personal conversations and student dialogue.” (p. 205).

Methodology and the research methods

In the course of the study, a thorough literary and documentary search was carried out; the following main areas of search were identified: innovative development of society according to the “triple helix” model of H. Etzkowitz; various innovative models for transforming universities into entrepreneurial corporations (according to B. Clark); directions and ways of implementing innovative transformations in the field of higher education and science.

The study identified the main types and directions of innovation in the field of higher education and science; analyzed and compared with the Ukrainian academic

entrepreneurial activity of foreign universities.

The dialectical method is used in the analysis and understanding of the content and features of the innovative development of higher education. Methods of analysis and synthesis are used in studying and formation directions and ways of innovative development of higher education and science.

All drawings presented in the article (Fig. 1 - Fig. 5) were developed by the authors.

Presentation of the main research material

Innovations in higher education and science can lead to innovative change. These can be innovations of the following types (Romanovskiy et al. 2021) (Fig. 1). Consider some types of these innovations.

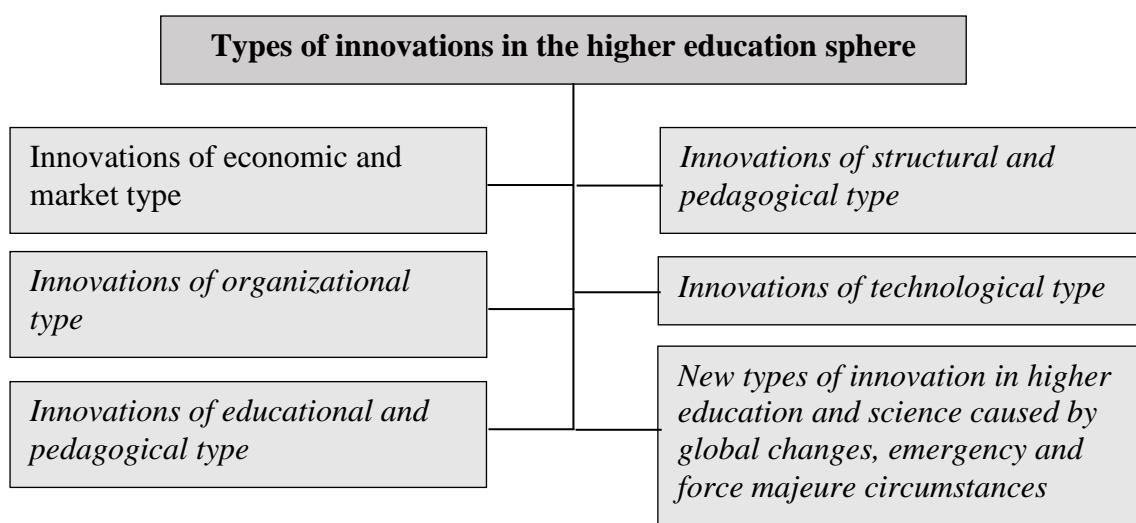


Fig. 1. Types of innovations in the higher education system that can lead to innovative changes

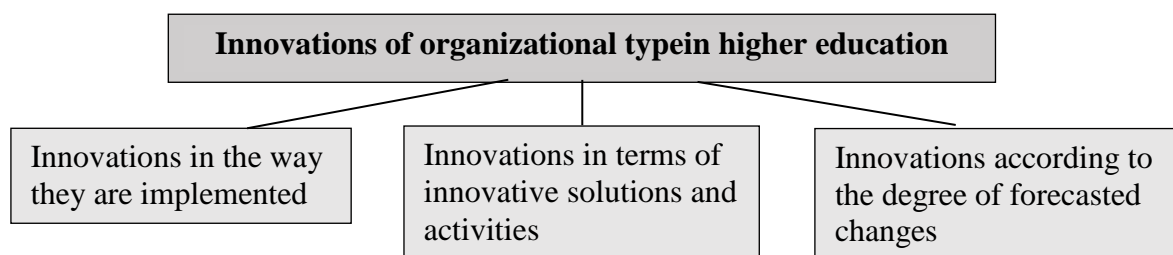
The authors emphasize that “*Innovations of technological type* are innovations in the system of education and pedagogical activities caused by the development of science and technology, search and acquisition of new knowledge, dissemination (transfer) and introduction of new knowledge and new technologies, application of innovative information technologies, computer equipment, remote forms of training, web design, use of information and communication networks, Internet and Intranet, information and innovation management, as well as innovation marketing (*innovations of scientific and technological progress*).

Fig. 2. Innovations of organizational type in the higher education system

a) planned, systematic, periodic, urgent, sudden, spontaneous, random innovations (innovations in the way they are implemented); b) innovations local, mass, global, etc. (innovations in the scope of innovative solutions and activities); c) innovations that correct, modify, improve, modernize, radical, revolutionary, etc. (innovations

according to the degree of predicted changes).

Innovations of organizational type (Fig. 2) are:



Innovations of educational and pedagogical type (Fig. 3) are:

a) innovations in the educational process, training course, in the field of education, at the level of the education system, in the management of the educational process (education), etc. (*innovations in the pedagogical process*);

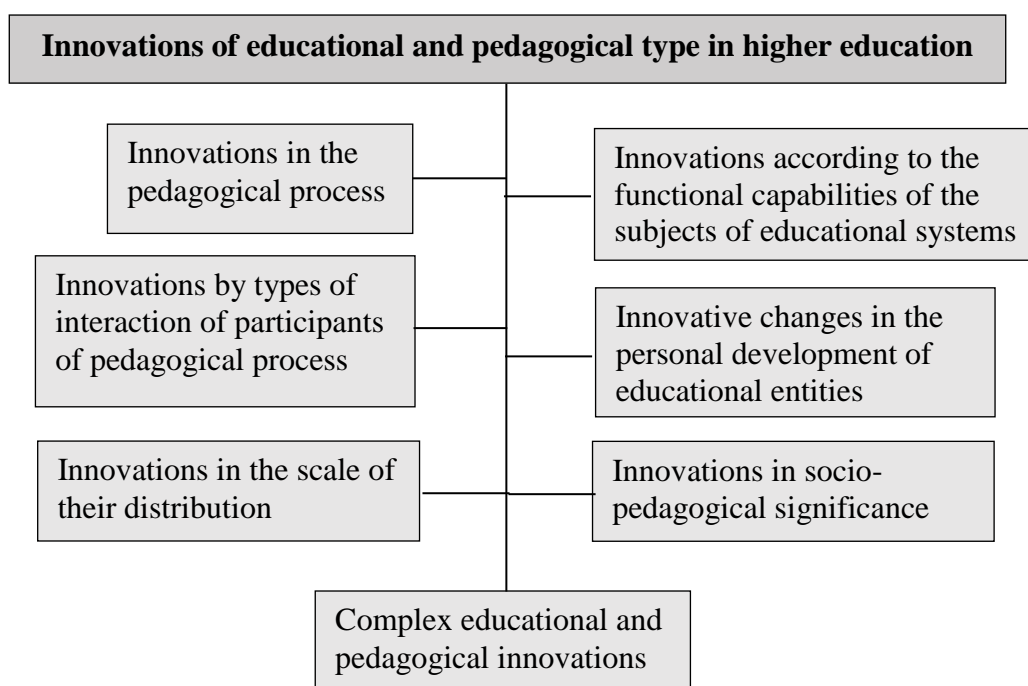


Fig. 3. Innovations of educational and pedagogical type in the system of higher education

b) innovations in the educational process, training course, in the field of education, at the level of the education system, in the management of the educational process (education), etc. (*innovations in the pedagogical process*);

c) innovations in collective and group education, in individual types of education (under the guidance of a teacher), tutoring, alternative, family education, etc. (*innovations by types of interaction of participants in the pedagogical process*);

d) innovations in the development of certain abilities of students, teachers, educators, namely: development and improvement of their knowledge, skills, abilities,

competencies, etc. (*innovative changes in the personal development of educational entities*);

- e) innovations-conditions that ensure the renewal of the educational environment, socio-cultural conditions, etc.; innovations-educational products (pedagogical tools, projects, technologies, etc.); managerial innovations – new solutions in the structure of educational systems and management procedures that ensure their functioning (*innovations in the functionality of the subjects of educational systems*);
- f) innovations in the activities of one teacher, methodological association of teachers, at school, in a group of schools, in the region, at the state level, at the international level, etc. Innovations in the activity of one HEI teacher, faculty and of all HEI, all HEI of the region, state, at the level of the system of international higher education (*innovations on the scale of their distribution*);
- g) innovations that combine different types of pedagogical innovations in the education system and are innovations in educational institutions of a certain type, for specific professional and typological groups of teachers (*innovations in socio-pedagogical significance*);
- h) innovations that combine different types of pedagogical innovations in the education system (*comprehensive educational and pedagogical innovations*).” (Romanovskii,2012).

The authors defined that **”Innovations of structural and pedagogical type** are innovations in the formation of goals, objectives, and content of education (teaching and education), in forms, methods, techniques, in learning technologies, in teaching aids, in the diagnostic system, in control, in the evaluation of results, etc. (*innovations in the structural elements of educational systems*).

Innovative information technologies, information and innovation management, as well as innovative marketing are widely used in the management of innovation in education and uniting in the group of means and tools for innovation management in education.” (ibid). They are means and tools for innovation management in education (Fig. 4).

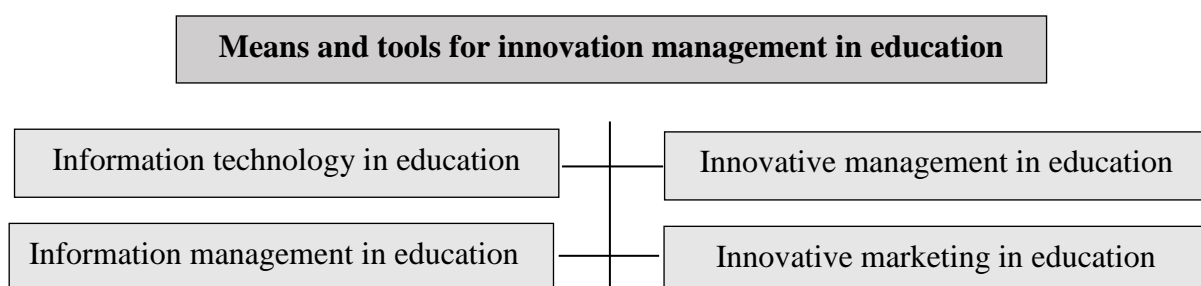


Fig.4. Means and tools for innovation management in education

They can take place in almost “all types of the above pedagogical innovations in the education system, which can lead to innovative changes to achieve new quantitative and qualitative parameters of education.

Information technologies in education use computer technology, Internet and Intranet, remote methods of organization and management of educational activities, are used to develop a variety of information retrieval systems and information, advertising, and marketing materials (using web design).

Information management in education, based on the use of information technology, is a subsystem of decision-making and aims to manage the processes of creation, processing, and distribution of information in the field of education. One of the main functions of information management in the field of education is to develop an organizational structure that would provide timely and objective information in the right place, at the right time, and in a convenient way to make effective decisions. The introduction of information management in education is dictated by the following circumstances: scientific and technical development of society, integration and effective use of funds for development, application and effective use of information technology (set of information resources, tools, methods, and technologies that contribute to the effective management of educational activities). including – development and implementation of management decisions in the field of education); the need to integrate all the data that determine the efficiency and effectiveness of the education system as a whole and each of the educational entities (its components).” (ibid).

Innovative management in education “is a system of strategic management of innovation processes in order to study the main directions of educational, scientific, technical, and industrial activities and justify a set of measures for the implementation of innovation strategy. Its tasks are:

- a) development of plans and programs of innovative activities in the field of education;
- b) development and implementation of a unified innovation policy in the field of education;
- c) training of scientific and pedagogical specialists and providing all areas of educational activities;
- d) providing educational activities with the necessary resources (material, labor, financial, information);
- e) planning and selection of the best projects of educational innovations (innovations) and control over its development;
- f) creation of special groups of management and control over innovation activities in the field of education at all stages.

Innovative marketing in education ensures the effectiveness of the educational

system and educational institutions in the market of innovations in education, aimed at forming or identifying demand for educational services in order to best meet market demands and the needs of society. Innovative marketing is based on the use of new ideas for educational services and technologies that best contribute to achieving the goals of the education system and individual educational institutions.

Innovative marketing in education is a function of innovation management in education. It begins with the search for new ideas for educational services and technologies that can best meet existing and potential demand with their subsequent materialization and commercialization, and ends with the stage of saturating the life cycle of innovation. Carrying out marketing researches is necessary for the purpose: studying a conjuncture of the market of educational services; identification of inquiries, tastes, and preferences of consumers of educational services; forecasting the dynamics of demand for educational innovations; developing a marketing strategy for innovation in education, etc.

The purpose of innovative marketing in the field of education is to achieve the final practical result of innovation. It is focused on: gaining a certain market share of educational innovations in accordance with the long-term goal for which the innovative project was developed; integrating research, production, and marketing activities into the educational management system; the long-term perspective, which requires marketing research, obtaining on their basis innovations that ensure highly efficient economic activity in the field of education, adapting to the requirements of potential consumers of innovation in education with a simultaneous targeted impact on their interests.” (ibid)

Let us consider in more detail the content of innovations of the types discussed above, as well as some possible areas of practical innovation in higher education and science.

Innovations of scientific and technological progress. These “may include:

a) use of information technologies in the process of innovation management of the education system (including – HEI as a subject of the higher education system): information and innovation management, as well as innovation marketing;

b) organization of distance learning – implementation of distance courses (disciplines, subjects from the curriculum), automated control of students' knowledge (testing), teleconferences and Internet conferences and seminars based on online information technologies, software platforms such as Blackboard, etc., use of local intranet communication systems, etc.;

c) use of information technology in the educational process: learning web design and the use of IT technology in professional activities, including e-business, automation of research and design, automation of decision-making and production processes, information technology in business, management, marketing, etc.;

d) organization of distance learning courses according to the scheme: invitation of foreign specialists – teachers of foreign HEI for teaching (reading) introductory (instructional) lectures → distance learning of the discipline (course) → remote 3-4 intermediate tests in the presence of a dean's representative → conducting the final exam according to the course (subject) - remotely, in the presence of the dean (deputy dean) → remote assessment → enrollment (entry) of the assessment in the electronic record book (transcript) of the student;

e) the use of the latest methods and technologies in the implementation of universities and other HEI and research institutes of basic and applied research; search, comprehension, and dissemination of new knowledge; design and construction of new equipment; development and transfer of new advanced technologies; implementation of R&D results for local (local), regional and national socio-economic innovation development;

f) creation and launch of new spin-off and startup companies by research business universities.” (ibid).

Innovations in the structural elements of educational systems. “The main purpose of such innovations is the training (education and upbringing) of a modern specialist of international level, who: is fluent in the national, state (Ukrainian) language, foreign languages – English and second (European or Eastern), Russian; has the necessary professional knowledge and skills; is able to use a computer, information technology, and software; is able to work in a team; has high moral and ethical principles and humanistic beliefs; focused on a healthy lifestyle and environmental behavior; patriotic and ready for integration into the international community.

The following new progressive tendencies in forms, methods, receptions, and technologies of training are important for improvement and increase of efficiency of experts training:

a) organization of included training – study abroad: study of courses according to the curricula of American or other foreign HEI, theoretical and practical (industrial) internship in foreign (abroad) and joint (with foreign and Ukrainian capital) companies, firms, corporations, financial institutions, enterprises;

b) organization of international theoretical and practical seminars for students, scientists, teachers, and staff on business management, the role of leadership in socio-political life, and economic activity of the world with the invitation of foreign experts;

c) invitation of specialists from foreign countries to deliver individual lectures, lecture series, and teach courses according to the curriculum in English or other languages.

The practice of combining different types of HEI in training, research and production complexes, and technology parks is also very important for the integration

of scientific, pedagogical and logistical potential, and the introduction of innovations in education, science, and technology, development of new technologies, and new knowledge” (ibid).

The authors also highlight innovations related to the pedagogical and educational processes. *“Innovations in the pedagogical process.* Such innovations include:

- a) introduction of a system of credit-module training, intermediate (3-4 times during the semester) testing for each course (discipline) with the issuance of an integrated assessment for the entire passed (mastered) course (discipline);
- b) maintaining an electronic transcript (transcript) of each student, abandonment of the practice of *rearranging* unsatisfactory grades (scores) from exams (exams, tests, tests) with the right to re-listen to the course (discipline);
- c) organization of the educational process on the principles of interdisciplinarity and multidisciplinary. This allows HEI students to plan their workload and time in such a way as to gain more useful knowledge, to choose at will those additional courses (disciplines) in which there is a need, to receive (if necessary) a related (second) profession (specialization).

Innovations by types of interaction of participants of the pedagogical process. The use of the latest information technologies, Internet and Intranet networks, distance learning systems in HEI lead to the reformatting of the division of students from academic study groups, courses (in their usual sense) into virtual temporary units (individual choice of students). Depending on the students' choice, they can study remotely or individually (individually) or in a group (collectively). You can study remotely both at HEI and at home.

Innovative changes in the personal development of educational entities. This type of innovation includes new forms and methods of testing the knowledge, skills, and abilities of pupils, students, teachers; continuous improvement of knowledge of HEI graduates, employees, and teachers through continuous training and professional development throughout life; organization of systematic exchange of students and teachers between domestic and foreign HEI, as well as - exchange of HEI experience of different countries; invitations for teaching activities - lectures, seminars and workshops of famous scientists, specialists in various fields of economics, successful entrepreneurs; organization of theoretical and practical training of students in real conditions of economics, research and economic activity.

Innovations in the functionality of educational systems. Innovations-conditions that ensure the renewal of the educational environment, socio-cultural conditions, innovations-educational products, and management innovations may include:

- a) organization of the educational process according to the curricula of leading HEI economically developed countries. From business – entrepreneurship, marketing, and

management (including management in the field of international business) – primarily in the American BBA and MBA programs, as well as curricula and HEI programs of other countries (UK, Germany, France, Spain, Scandinavia countries, Benelux countries, etc.);

b) combining Ukrainian standard curricula with the curricula of leading foreign HEIs in order to integrate the best achievements of domestic and foreign higher education systems in a specific field of knowledge, science, and technology;

c) democratization of the educational process, providing students with greater opportunities for free choice of disciplines from the curriculum, expanding the list of disciplines of free choice of students and HEI in the curriculum;

d) involvement of student assets of HEI and the public in the process of improving the educational process and statutory activities of the institution.

Innovations in the scale of their distribution. It is desirable to innovate in the activities of each individual teacher of a particular educational institution, and all educational institutions: in the region, at the state level, at the international level (innovations and innovations in the activities of each HEI teacher, faculty, all HEI, all HEI region, state, at the level of the international higher education system).

Innovations in socio-pedagogical significance. Important at the present stage of globalization of the world economy and social globalization processes is the creation of innovative international temporary teams of teachers. This primarily applies to Ukrainian HEIs. Invitation of well-known specialists in various fields of knowledge, science, and technology will improve the quality of the educational process, encourage students to learn English (international language of business, science, and technology) and other foreign languages, allow them to communicate freely with colleagues from abroad, read foreign literature in the original, independently study the world's scientific and technological achievements.

The complex or *comprehensive educational and pedagogical innovations* that combine different types of pedagogical innovations in the education system include: creation of innovative educational institutions: virtual HEI; open HEI; international (joint) institutions, including – institutions of international education; creation of international education programs, based on a combination of foreign and domestic curricula and programs with teaching disciplines in both native, national language and foreign (English or other) language; creation of innovative educational programs based on interdisciplinary and multidisciplinary curricula, new information technologies, distance and open learning, individualization and intensification of learning.” (ibid).

Innovations in the way they are implemented. It is advisable to carry out planned, systematic, and periodic educational innovations, namely:

a) introduce new technologies, develop new and improve basic educational

technologies, organize the educational process and research activities in HEI;
b) develop new forms, methods, and content of education, respond flexibly to the demands of social development, the market of educational services, the requirements of economics and production.

The following innovations are also important.

“Innovations in terms of innovative solutions and activities. Innovations should take place both in individual departments of educational institutions and in educational institutions as a whole. Innovations in public, municipal, and private HEIs contribute to the spread of innovations throughout the education system.

As for *innovations according to the degree of forecasted changes*, all types of innovations that lead to the further development of science and technology, the formation of a modern specialist of international level are necessary.

Innovations of economic and industrial development, depending on market requirements, create new opportunities, forms, and sources for further development and support of the education system, its structural components, the opening of new specialties, professions in educational institutions, promote compliance of education, research, and educational-cultural services to the market needs of society. These include:

- a) participation of private capital in the creation and financing of educational institutions of various levels, educational and research programs, lending to students and researchers;
- b) creation of new (own) educational institutions for corporations, companies, productions, and enterprises in vocational training, advanced training, provision of related professions;
- c) creation of the latest training, research, and production complexes (with the participation of various types of HEI, research institutions, and industrial enterprises), technology parks, etc.;
- d) development of academic (university) entrepreneurship: interest and stimulation of teachers and scientists to carry out research, discoveries and inventions, disclosure of information on the results of R&D, their patenting and licensing for further practical implementation;
- e) commercialization of educational results: contractual forms of providing educational, consulting, expert, and other professional services;
- f) commercialization of the results of scientific and scientific-technical activity of HEI through patenting and licensing of discoveries, inventions, other important results of R&D; technology transfer; formation and launch together with industrial enterprises (business structures) of new companies (spin-off, spin-out, startup), etc.”(ibid).

It is also worth emphasizing that these innovations can be of the following

types:

- a) radical (basic) innovations – revolutionary changes in the development of technology and society, the formation of new industries;
- b) increasing, modifying innovations – improving the properties of existing equipment, technologies, and services.

From the above, we can conclude that “innovation in higher education is a process of creating, implementing and disseminating in the practice of higher education new ideas, tools, scientific, pedagogical, organizational and managerial and economic methods and technologies, which increase the achievement of structural components of the higher education system and its transition to a qualitatively higher level. This activity is aimed at building a knowledge society with an innovation-oriented type of economy and is related to formation and accumulation of new knowledge; use and commercialization of research and development results; transformation of scientific research and development, other scientific and technological achievements into new or improved products, technologies, services introduced to the market, into new or improved technological processes used in practice, or new approaches to social services; formation of intellectual and formation of human capital; the use of new tools, methods, and technologies to accelerate the economic growth of society.” (Romanovskyi & Romanovska, 2020).

From this point of view, innovative activities in the field of higher education, science, educational, scientific, and cultural services have a socio-economic essence, combines a set of organizational, economic, and social actions aimed at creating a knowledge society with the innovation-oriented type of economy. Such innovative activity is associated with the formation, capitalization, and commercialization of intellectual products – knowledge, technology, educational and scientific services, etc. and is one that should develop faster, contributing to real reform and renewal of education according to new requirements, demands, and challenges of society and time. One of its most important components is the innovative activity of entrepreneurial universities, which is essentially “academic” or university entrepreneurship, characteristic of the new capitalist environment – “academic capitalism”.

Information technologies and information management in higher education and science are the most important components of means and tools for innovation management in education. It is the distance learning methods and online learning technologies implemented with the help of the Internet that allowed all of humanity to maintain the possibility of communication and created the conditions for communication during the COVID-19 pandemic. Specialists of the higher education system, science and engineers, and technologists in a short time created and implemented innovative methods of online communication and online management,

which saved the world economy and helped the world community to overcome the problems with COVID-19 and recover.

New types of innovation in higher education and science caused by global changes, emergency and force majeure circumstances. Forced or emergency distance learning (F/EDL) is a temporary transition of teaching to an alternative mode due to crisis circumstances ([Coronavirus and Higher Education Resources](#) 2020; [Guidance for Interruptions of Study Related to Coronavirus \(COVID-19\)](#) 2020; Grajek 2020; Hodges et al. 2020). This type of training is extraordinary and is characterized by the fact that: first, online learning is becoming the main type of teaching and learning, but not all teachers and students of many universities around the world are ready to constantly work on the internet remotely. Secondly, the educational and methodological support of training courses for use exclusively online has not been massively developed and implemented in the higher education system of many countries. Third, after the end of the crisis circumstances, most universities in the world will return to the usual classroom hybrid full-time and distance learning, which the vast majority of students and teachers dream of. The innovation of F/EDL lies in the instant transition from the usual form of university education, based on direct classroom face-to-face contact between teachers and students, to the remote location of students from teachers and classrooms on university campuses.

In addition to an insufficiently developed educational and methodological base, a successful educational process can be hindered by students' lack of control during testing and passing exams online. New technological and methodological developments are needed to solve these problems.

The main feature of F/EDL is the difference between the delivery of online courses and distance teaching (training by professors) and distance learning (studying by students) of these courses. For the successful organization of long-term online training, it is necessary to simultaneously solve problems of information and communication nature, organizational, pedagogical, and methodological nature, as well as problems of ethics and integrity in the process of independent training of students and monitoring their progress (Fig. 5).

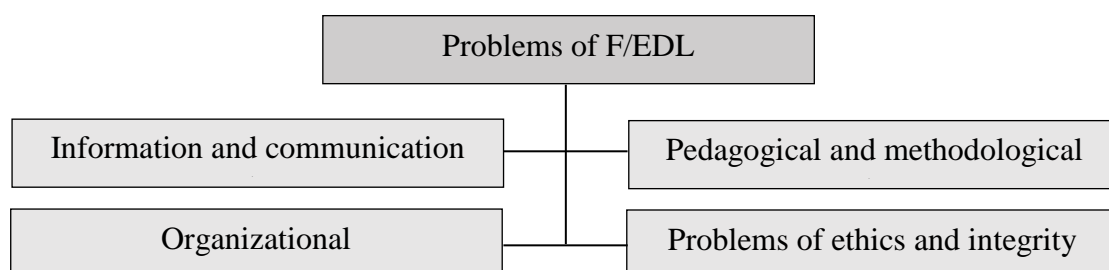


Fig. 5. Problems of the forced or emergency distance learning

Conclusions and recommendations

The innovative development of higher education is critical. The main scientific results of the authors are the proposed main types of innovations and the classification of both theoretical and practical significance for the development of domestic science and higher education. Summing up the results of a comprehensive study of innovation in university education as a factor in the sustainable development of society, it should be noted that innovation in higher education is a complex interdisciplinary scientific field that is directly applied in the field of knowledge and economic activity.

For further research, it is proposed to deepen the study of the possible impact of innovative development of higher education on the social and public sectors of society, including the use of smart business for health in the COVID-19 pandemic..

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MULTIDIMENSIONAL PEDAGOGY: SUBJECTIVE VIEW

Abstract

Multidimensional pedagogy of the educational space is defined as a set of provisions that reveal the essence of manifesting human realities at various levels of being. Conventionally, they are divided into levels of manifesting the realities of elementary dimensions, that is, the supremacy of material values (initial, passive, adaptive and moderate) and productive dimensions, that is, the supremacy of spiritual values (optimal, productive, constructive, creative). People's creation and manifestation of their realities at the designated levels is possible horizontally and vertically.

Keywords. Reality, dimensionality, educational space, levels of realities' manifestation, the supremacy of material and spiritual values, multidimensional pedagogy.

Introduction

The world, divided by the two prevailing ideologies to which most states are subject, namely, autocratic and democratic, is undergoing tremendous changes. Their confrontation is manifested through aggression, accompanied by hatred and the destruction of lives on both sides of the barricades. The life reality of the citizens of Ukraine and Russia in 2022 testifies to the ambiguity of the ongoing events, the peculiarity of which testifies to the separation, non-coincidence of ideologies, positions regarding truth and lies, good and evil, the so-called "liberation" and the seizure of territories through violence and the imposition of "Russian peace" by the Russian Federation. The heroic resistance of the population of Ukraine testifies to the rejection of the dictatorship of the Russian Federation. However, there is an insignificant part of Ukrainian citizens who are collaborators, and there are those who have not finally decided on their ideological views, and those who, for a fee, support the Russian Federation.

Why have the majority of Russian citizens supported the country's leaders, which allowed themselves to violate the peace agreements and carry out the

annexation of Crimea in 2014 and provoke a war in the Donetsk and Luhansk regions? Why is there still a wave of hatred and cruelty that has swept over the majority of the inhabitants of the Russian Federation? How has darkness enveloped the souls of many people and been introduced into their lives? How have the false notions succeeded in replacing the true ones? Why is killing each other the norm? How did in the categories right-wrong, good-bad, light-dark, white-black, fair-unfair, corresponds-does not correspond, etc., the second categories take the place of the first and became prevailing? How did low moral feelings take precedence over high moral feelings?

Everything that happens in the course of hostilities is contrary to the humane principles declared in pedagogical textbooks, and this is contrary to the religious principles of any denomination that professes morality. It turns out that education, an indicator of which is the morality of citizens of any country, excludes the ability to think elementarily and independently critically, not to mention the ability to think globally, that is, to understand the essence of the harm done to all of humanity as a whole. By critical thinking I mean the ability of a person to recognize and defend their own positions in matters of morality, but not the position imposed by the media. It is also the understanding that everything, both bad and good, that people see in others means that they have it themselves. All that the citizens of the Russian Federation accused us of, for example, nationalism and militarism, was clearly demonstrated by themselves in the worst case. What good has the “Russian world” demonstrated, except for aggression, hatred, anger, brutal murders, destruction of vital infrastructure, etc.?

Thus, instead of demonstrating a moral, educated society of citizens of the Russian Federation, we, Ukrainians, saw a society of illiterate, demoralized, zombified by propaganda people. Does that mean we should be the same? After all, evil does not cure evil, hatred and aggression do not relieve hatred and aggression, etc. What is the point of using war, if instead of the evolutionary development of people, the creation of their activities, it promotes the destruction of their lives, the destruction of the vital values created by them? Obviously, war is not a way to “tame” another nation, and an understanding of this truth must be formed in all people on our planet. Is it necessary to tame another nation, is it necessary to instill your own ideology in it? In any case, this is violence, which will lead to resistance in proportion. The reality of current events testifies to the search for other options of contact between opposing ideologies.

Of course, there are law enforcement agencies in the global space that benefit from the production of weapons and trade in them, while earning a lot of money, not caring about the consequences. This also applies to those structures that traffic in people, produce drugs, alcohol, cigarettes, etc., in order to obtain material benefits.

Does this mean that our planet is a destructive space of the rule of law of real material values, declared by an ideology, the basis of which is material gain for some people and death for others? The answer is obvious.

I believe that it is necessary to overthrow and change the generally accepted idea of the supremacy of the material values of civil society, which create a very real destructive space that still imposes double standards on humanity. Namely: on the one hand, it promotes humane values in textbooks, on the other hand, it produces a variety of weapons to destroy them.

The reality of the current moment in the life of people on planet Earth, and hence in the entire Universe, testifies to the possibility of alternative reasoning about the essence of its manifestation in various spaces of people's existence with the help of pedagogical categories: upbringing, education and development.

Analysis of my own publications on the research topic

The reality that Ukraine plunged into in 2022 provoked a desire to reflect on the multidimensionality of pedagogy as a conscious phenomenon in our lives. I draw the right to these reflections from almost 50 years of experience in the pedagogical field. This experience allows me, without regard to the judgments of my colleagues, to have my own view of modern pedagogy and its purpose. All the ideas and provisions on the upbringing, education and development of the younger generation, recorded in the author's textbooks: "Integrated Course of Pedagogy" (1996), "Pedagogical Innovatics (2000)", "Modular Course of Pedagogy" (2007), "Social Pedagogy" (2008, 2013), reflected the generally accepted ideas. I changed only the form of their presentation, which reflected the new technologies that replaced the old ones, including information-modular technologies. The approach of integration of educational material was used. The nature of the pedagogical provisions set out in the manuals reflected the ideological messages of the state of Ukraine. The time has come to decide on our own views, in connection with the war, on the current pedagogical processes in the education system in general and, in Ukraine, in particular.

Purpose of the study

To determine the essence of multidimensional pedagogy in the reality of an unstable world space.

Presentation of the main material

Let us consider the reasons that led to the definition of the essence of multidimensional pedagogy. The possibilities of heartfelt knowledge were studied as the reasons for its appearance.

The first possibility of heartfelt knowledge. There are various spaces created by human realities. They arise in the process of people adjusting their realities to certain levels of their manifestation. For example, there are unproductive spaces of

elementary dimensions, in which the tasks of developing and improving one's inclinations, abilities, potentials are neglected, and there are spaces of productive dimensions that ensure the fulfillment of these tasks.

Let us consider the space woven by the information and material activity of people co-attuned to manifesting their realities in the education system. An indicator of the manifestation of their realities, for example, can be the degree of their natural individual potential's realization and the degree of mastery of their emotional intelligence. The possibilities of manifesting people's realities in such a space are multidimensional – from the initial level to the creative one.

The current military situation indicates the presence in the educational space of a subspace of the manifested destructive world, in which there are low vibrational levels of consciousness of a large number of people, aimed not at developing and improving their inclinations and potentials. Herewith, they are co-attuned to replace true values with false ones. I believe that this world, formed on the territory of the planet, is supported by the destructive forces of people from different states who have chosen the path of personal degradation. The destructive world is trying with all its might to maintain its positions, for example, with the help of propaganda to connect an increasing number of people with destructive realities. The dimensionality of these spaces is elementary, manifested at the initial level, passive, adaptive and moderate. The marked levels demonstrate that people limit their realities by manifesting low vibrations of the development of spiritual, personal qualities and properties, conscious thinking and emotional intelligence.

Thus, the reality of the destructive world is woven from the realities of those people who were and are subject to quite certain pedagogical processes.

People gained knowledge, exactly that knowledge that was pleasing and corresponded to a certain ideology of the destructive space, starting from historical events of the past and ending with current events. Substituting true facts with the false ones has been a perfectly acceptable practice for centuries. An example is the distortion of knowledge in favour of the ruling state and religious figures, that is, the distortion of religious teachings, scientific facts, historical events, archaeological research, etc. False knowledge, which was imposed earlier and is now being imposed on the citizens of the planet, carries a low vibration, its energy charge corresponds to the manifestation of people's consciousness at the level of fear, anger, pride, etc. People have gained and are gaining such knowledge in abundance.

The educational process for those citizens of the planet who were imposed a false context of knowledge was aimed at their separation and stratification, at confrontation and hostility, at distrust and neglect of each other, etc. Education contributed to the distortion of the perception of man by man and his essence of life.

The development in such a space of the rule of lies and fear is aimed not at

person's awareness of the essence of their development and the manifestation of their reality, but at attuning it to other realities that are destructive in nature.

Thus, the destructive subspace of manifested realities has been formed and is being formed by individuals who are distortedly aware of the tasks of their development and improvement. This refers to the tasks aimed at developing and improving one's natural individual potential as a whole. Accordingly, a low level of development of independent thinking and a high level of using the imposed way of thinking of interested people are manifested. The development and improvement of their natural individual potential in designated citizens is reduced to the creation of unproductive realities, where the supremacy of material values prevails. Such a subspace is easy to manage and manipulate, which the leaders of the destructive worlds have used and are using.

The second possibility of heartfelt knowledge. There is an informational destructive subspace of the propaganda world. False knowledge, false attitudes, positions, interests, values that the propagandists of the destructive world filled the information air with, testify to the low energy level of their consciousness and the low level of spiritual qualities and properties' development. According to a very simplified scenario, the information subspace of the destructive world is permeated with the vibrations of people with a low level of mental and spiritual manifestation. False information given by individuals of corresponding low vibrations is directed at those who perceive and disseminate it. This indicates that the creators of such a subspace are interested in co-attuning a large number of people to the realities where material values prevail. People with such realities, who profess the supremacy of material values, are easier to manage. However, the organizers of the destructive information subspace themselves cease to be aware of the inferiority of their mental and spiritual development, thereby showing a low level of comprehending their natural individual potential.

I think that the previous Earth civilizations of prevailing material values were doomed to self-destruction. The same will inevitably happen to the current destructive space.

Does this mean that the space of the supremacy of material values has reached the peak of its manifestation? Does this mean that its pedagogy, as the interconnection and interpenetration of the three main processes of upbringing, education and development, has fully realized itself in this space? The answer is obvious.

The third possibility of heartfelt knowledge. In the educational space of the supremacy of material values, the Creator's intention regarding the unity of the manifestation of everything that exists in nature, that is, everything belongs to everyone, and we are all equivalent grains of a single whole, was not taken into

account. It was not profitable for the world of prevailing material values to use this truth.

The experience of the current moment of earthly life testifies that the Creator's plan, unequivocally, is not taken into account in pedagogical processes even now. Today's educational space of the destructive world still declares the supremacy of material values. Such a space in the existing world will manifest itself as long as fear, anger, aggression, pride prevail for obtaining material benefits over acceptance, reason, love, harmony and joy for the development of spirituality.

In the pedagogical paradigm of the destructive world, what is good and what is bad to think, what is right to think and what is wrong, and so on was and is now clearly defined. This served and continues to serve as the basis for building a disciplinary society of the supremacy of material values, which allowed and allows to suppress and impose one's ideology in order to prevent independent, critical thinking. It was allowed not to think about what is good for some, bad for others, right for some, not right for others, etc. In general, ideology as a material value for one state is not such for another.

The space of the supremacy of material values on planet Earth builds its ideology in such a way that the majority of those for whom material gain is more important than spiritual development suppress the minority, so that the majority impose their will on the minority. At the same time, it severely persecutes the minority for disobedience and demands that their ideas should be supported and disseminated, including tools of propaganda and manipulation of the truth. For example, the declaration of freethinking and its implementation are not the same thing, the main thing is to create the illusion that everyone can think independently. Thus, from early childhood, the education system provides for the education, upbringing and development of children in such ways that it is convenient to manage and manipulate them.

The fourth possibility of heartfelt knowledge. In the educational space of the supremacy of material values, the Creator's intention was not taken into account and is not taken into account from another significant position. Namely, the unity of all existing Universe of nature is manifested with the help of various light radiations. Everything consists of light, and darkness is formed only by closing it. We are people, woven from light, as particles of the entire Universe of nature, we are called upon to spread it, and not to close it. If people knew that they are all cells of a single organism of the Universe of nature, regardless of location and worldview, would they mindlessly harm themselves? Blocking the light of one of the cells, you close the light to yourself and become dark instead of a luminous spot. Thus, instead of developing and creatively improving oneself, one is engaged in own destruction, own degradation. This truth was absent and is now absent in the space of the supremacy of

material values.

The fifth possibility of heartfelt knowledge. It can be assumed that the construction of another pedagogical paradigm, taking into account the above mentioned possibilities of heartfelt knowledge and at the same time ignorance of the consequences of one's actions, will allow a person to create their own reality in the space of the supremacy of spiritual values. The designated space manifests the reality of people who profess true spiritual values: readiness, kindness, courage, acceptance, reason, love, joy, harmony etc.

On the essence of multidimensional pedagogy: conceptual foundations

I offer these reflections on multidimensional pedagogy for those who will accept my views and supplement the missing information.

Basic concepts (categories) of multidimensional pedagogy

I interpret *reality*, in a broad sense, as a set of manifested all vital processes implemented by people in space on a cosmic scale. The Cosmos is represented as an infinite multiplicity of Galaxies.

I define *vital processes* as those that reproduce life, support and improve it. For example: the process of reproduction by a person of their own kind; the process of obtaining education in general and professional sphere in particular; the process of creating new activities to replace obsolete ones.

I define *reality on planet Earth* as the totality of all the vitally important processes of the citizens who inhabit it. It has its own characteristics, reflecting to some extent the ideologies of states on the world stage.

The ideology of the state is represented as a system of spiritual and material values, reflecting the totality of ideas, views, positions, attitudes, moods, interests, etc., ruling power and citizens who sympathize with it. Significant influence on the construction of the state ideology has the education system in the country and the education of its citizens, which is provided by the pedagogical processes of upbringing, education and development. These processes form every person on our planet.

The reality of a person manifests itself as a set of vital processes that determine their individuality. It reflects the degree of a person's comprehension of their natural individual potential and the degree of mastery of conscious thinking and emotional intelligence, namely: worldview, culture of behavior, system of values, level of education, level of awareness of thinking, level of mastering emotions, level of psychophysical state of the body, level of development of personality's qualities and properties, manifested energy level of consciousness, etc.

The dimensionality of the reality manifested by a person is determined by the degree of comprehension and the degree of fulfillment of the vital tasks set by the Creator.

The tasks conceived by the Creator, in a broad sense, are designated as ways of manifesting the divine principle and expanding the boundaries of the Universe of nature. In a narrow sense, each person determines the tasks independently, while paying attention to the degree of comprehension of their natural individual potential and the degree of mastery of conscious thinking and emotional intelligence.

Space in the broadest sense is defined as all that exists, originally set by the Creator at different levels of existence manifestation.

The educational space is defined as a set of realities created and implemented by people at different levels of manifestation of being with the help of the processes of upbringing, education, and development.

Existence is defined as the fulfillment by people of all sorts of different vital tasks conceived by the Creator, in potential and real manifestations.

These considerations lead to the idea of a plurality of external worlds, that is, spaces and levels of their manifestation. The essence of these worlds-spaces allows us, humans, to create our own realities on each of them and, at the same time, to cognize and manifest their existence.

Creating your own reality of existence horizontally means attuning to the reality already created by someone, thus connecting to a certain space of their manifestation. For example, a multi-level space of spiritual activity based on religious sensibility. Or, for example, a multi-level space of spiritual and material activity in the systems: education from family to professional; music from folklore to classical; sciences from local to global; arts from elementary to highly intellectual; medicine from folk to scientific; technologies from low to high productive etc. The reality of each person in different spaces manifests itself at different levels, depending on the comprehension and fulfillment of the Creator's tasks.

Co-attuning to the reality of other people means receiving, reading the information that they own.

Creating your own reality of existence vertically. I suppose that we, people, are given free will, that is, the freedom to choose the vectors of building our reality both horizontally and vertically. For example, creating our own reality vertically means doing it at the local, regional, state, noospheric, planetary, cosmic level and etc.

A multidimensional man is characterized by the creation of their reality in different spaces of existence with different levels of their manifestation horizontally and vertically.

The soul of a person is a receptacle for a wide range of energies of the Creator, its beginning, which ensures the comprehension of all vital processes. It is the core, selfhood, the essence of each person, conditioned by their spiritual qualities, personal properties and energy of consciousness.

The natural individual potential (NIP) of a person is characterized by the

degree of comprehension of one's spiritual qualities and personal properties, which depends on the energy level of consciousness manifestation.

The degree of a person's comprehension of their natural individual potential (NIP) is an indicator of their sincerity. The higher the degree of person's comprehension of their own NIP, the brighter their sincerity manifests itself.

The spirit of a person is determined by their individual energy potential of consciousness (EPC). For example, a person's EPC is characterized by the ability to control their conscious thinking as a control over mental activity and to control emotions as a manifestation of emotional intelligence. Together they ensure the manifestation of the potential energies of a person's consciousness, reflecting their strength and the power to control them.

The energy potential of consciousness (EPC) of a person is characterized by the manifestation of potential energies that depend on the ability to control one's mental and emotional activity.

The degree of a person's control over the energy potential of consciousness (EPC) is an indicator of their spirituality. The higher the degree of man's EPC control, the more powerful their spirituality is.

The human biological field, or biofield, reflects the characteristics of the energy states of the three main components: mind-body-spirit. The indicators of the biofield are the degree of person's comprehension of their NIP and the degree of their EPC control.

The individuality colour type (ICT) or the colour type of a person indicates the emotional and energy state of the human biofield. The indicators of the colour type are: the main colour of the biofield, shape, size, brightness, balance of energies, mastery of control.

The multidimensional pedagogy of the educational space is defined as a set of provisions that reveal the essence of the manifestation of human realities at various levels of being. Conventionally, they are divided into levels of manifesting the realities of elementary dimensions (initial, passive, adaptive and moderate) and productive dimensions (optimal, productive, constructive, creative). Creation of their realities by people at the designated levels is possible horizontally and vertically.

The Creator (Creator) is a comprehensive self-creating power of nature, creating its Universe and everything that exists in the Universe at the current moment.

The fundamental idea of multidimensional pedagogy: the presence of the Creator as a comprehensive self-creating power of nature, covering the entire Universe.

The intention of the Creator, in my opinion, presupposes the unity of the ubiquitous manifestation of all living and non-living things in the space of the

Universe of nature. Existence is an integral comprehensive network of the Universe of nature, consisting of an infinite number of its various manifestations in the form of a set of real vital energy processes: distribution, expansion, creation, development, formation, etc. The manifestation of the integral space of the Universe of nature occurs with the help of the highest level of various energy vibrations, for example, electromagnetic, gravitational and others, which support the above-mentioned processes. We, people, are an integral part of the space made up by the Creator of the Universe of nature. The Creator manifests Himself in each of us as a soul and spirituality, which are His essence, providing vital energy processes. Each incarnation of a person on Earth means the continuation of the fulfillment of the tasks conceived by the Creator, with the aim of spreading, expanding, creating, developing, forming, etc., the processes mentioned. One of the tasks, for example, is the reproduction of their own kind in order to continue life on Earth.

Thus, each human life is reproduced with the aim of creating a reality that reflects the degree of comprehending the Creator's tasks and the degree of their fulfillment in order to contribute to the development of the entire Universe of nature. This means pushing the boundaries of a person's manifestation of their reality and, thus, spreading, expanding the spectrum of their energy influence on other people. This is the sense, in my opinion, of a person's stay on planet Earth, that is, construction, creation, development, formation of their reality, expanding the boundaries of the entire space of the Universe of nature.

According to David Hawkins scale, it is generally accepted that low-level energy fluctuations of consciousness: 20, 30, 50, 75, 100, 125, 150, 175 points, respectively, belong to the perception of life by a person with the help of such qualities as: destruction, elimination, renunciation, despondency, running away, addiction, aggression, swagger. The energy level of consciousness, respectively, manifests itself in the form of: shame, guilt, apathy, grief, fear, desire, anger, pride, accompanied by such emotions as: humiliation, accusation, despair, regret, anxiety, longing, hatred, transformation.

It can be conditionally assumed that the listed levels of a person's perception of life and the energy potential of consciousness, accompanied by the corresponding emotions, indicate an elementary level of manifestation of their realities. The manifestation of realities, in turn, indicates the appropriate level of comprehension and fulfillment by a person of the tasks conceived by the Creator. The degrees of such realities' manifestation can be designated, for example, as initial, passive, adaptive and moderate. The listed conditional dimensionalities testify to the degree of a person's comprehension of their natural individual potential (NIP) and the degree of controlling the energy potential of consciousness (EPC).

Thus, the reality of a person is manifested through the implementation of a set

of vital processes or tasks, taking into account the degree of comprehension by a person of their natural individual potential (NIP) and the degree of controlling their energy potential of consciousness (EPC).

The degree of a person's comprehension of NIP is determined by identifying the level of formation of spiritual qualities and personal properties, and by the degree of controlling mental and emotional activity. Consequently, the level of a person's neglecting or fulfillment of vital tasks conceived by the Creator, is determined.

An advanced level of energy vibrations of consciousness: 200, 250, 310, 350, 400, 500, 540, 600, 700-1000 points belongs to people whose life perception is realized through such qualities as: brevity, liberation, intentions, superiority, generalizations, revelations, transformations, inspiration, pure consciousness. The energy level of consciousness, respectively, manifests itself in the form of: courage, neutrality, readiness, acceptance, clear mind, love, joy, harmony, enlightenment, accompanied by such manifestation emotions as: affirmation, trust, optimism, forgiveness, understanding, respect, peace, happiness and bliss.

Conventionally, the listed levels of a person's perception of life and the levels of energy fluctuations of consciousness, accompanied by corresponding emotions, can be designated as productive. Realities created by people with high vibrational levels of consciousness are aimed at the development, formation, creative implementation of vital processes or tasks. The dimensionality of the manifestation of such realities is: optimal, productive, constructive, creative. It is determined in accordance with the degree of a person's comprehension of their natural individual potential (NIP) and the degree of controlling their energy potential of consciousness (EPC), that is, comprehension and fulfillment of the tasks conceived by the Creator.

Thus, the productive level of a person's manifestation of their reality indicates an advanced level of a person's comprehension of their NIP and a degree of EPC control. The dimensionality of the productive reality is determined at: optimal, productive, constructive and creative level. It means an advanced level of formation of a person's spiritual and personal qualities and properties, depending on the degree of controlling conscious thinking and emotional intelligence. The advanced level indicates the fulfillment of the Creator's tasks by a person, realizing His plan.

Summing up this reasoning, I believe that a person, knowing the Creator's intention by comprehending the spiritual principle, makes their own choice on how to create and develop their reality, neglecting the Creator's tasks or fulfilling them. Conventionally, a person's manifestation of reality can be at different levels: initial, passive, adaptive, moderate, optimal, productive, constructive, creative. The indicated manifestations of realities depend on the degree of a person's comprehension of tasks, while neglecting them at the levels: initial, passive, adaptive, moderate. The degree of a person's fulfillment of the tasks conceived by the Creator occurs at the

levels: optimal, productive, constructive, creative.

Special attention should be paid to the created reality, an indicator of which is a high level of human spirituality, depending on such dimensionality of control over energy potential of consciousness (EPC) as enlightenment. The manifestation of such a reality is creative.

Conceptual provisions of multidimensional pedagogy

Provision one. Man is multidimensional in the educational space of manifested realities. He is the creator of his reality, using the right to choose. A person receives this right and awareness of themselves as the creators of their reality according to the Creator's plan.

The interaction of the three main pedagogical processes in the educational space, namely: educating, teaching and developing, allows a person to independently create, form, develop and manifest their reality.

The educational process is responsible for obtaining knowledge, the upbringing process is responsible for consciousness, that is, for collective knowledge about vital processes, and the developing process is responsible for the awareness of creation and manifestation of one's reality.

Thus, a person realizes themselves creating their reality in the educational process, like a god, while the most important thing in these arguments is that a person takes responsibility for the created and manifested creativity.

The manifested realities of a person in different living spaces, that is, at different levels of being, will be different. A person, obviously, adjusts to one or another level of manifestation of the space of being, which corresponds to the degree of their comprehension of their natural individual potential (NIP) and the degree of controlling their energy potential of consciousness (EPC). It is necessary to distinguish between the spaces of human being with well-defined levels of dimensionality, for example: earthly; noospheric; the planetary solar system which our planet belongs to; galactic, which the solar system belongs to; intergalactic, which our galaxy belongs to; universal, which many galaxies belong to, etc.

The examples of destructive subspaces of the educational space, considered earlier, testify to the elementary level of people's manifestation of their realities. They point to their unproductive energy potential of consciousness, to a low level of development of spiritual and personal qualities and properties, to a low level of control over independent thinking and emotional intelligence. The dimensionality of their realities can be, for example, at: the initial level of manifestation, passive, adaptive and moderate.

The initial level of manifestation of one's reality in the educational space indicates a person's neglect of revealing the degree of comprehending their NIP and the degree of mastering the EPC. The passive level is characterized by a chaotic,

insignificant desire to comprehend one's NIP and a degree of mastering the EPC. The adaptive level indicates not a stable desire, but a moderate level of an interested desire to identify the degree of comprehending the NIP and the degree of mastering the EPC.

It can be conditionally assumed that reading information from higher planes, from productive levels of being, is possible for people with a higher degree of comprehension of their natural individual potential (NIP), which depends on the degree of controlling their energy potential of consciousness (EPC).

Provision two. Each human reality has its own characteristic features and idiosyncrasies in accordance with its real and potential manifestation in the educational process. The interaction of one reality with others can occur as chaotic, arbitrary, destructive, unstable in the process of education, upbringing, development. In order to avoid such interactions, participants of the educational process can learn to take into account their own and others' degree of natural individual potential (NIP) and the degree of controlling their energy potential of consciousness (EPC), and then change the destructive interaction to a productive one.

It is obvious that chaos, arbitrariness and instability are determined by the fact that no one and nothing in the earthly space escapes the processes of education, upbringing and development, which immerse themselves in the uncertainty of the results obtained. Uncertainty is generated by the presence of a number of situations in educational processes and processes of interaction with other realities. The indicated processes depend on many factors that produce them. The most significant factor of influence is people, in the form of parents, teachers, educators, friends, idols, leaders, etc. Each person generates certain brain, heart and other energy vibrations. They, vibrations are the basis of interaction, energy exchange between people. The energy level of human vibrations coloured by an emotional component, that is, by the manifestation of emotions in the process of interaction, determines the influence of each other depending on life situations. This can be interpreted as an exchange of energies of different levels of manifestation, creating resonance or dissonance, occurring in vital events of the educational space.

Vitaly important events in the processes of education, upbringing and development are formed and created by the participants themselves with their thoughts and actions. Therefore, it depends on them whether there will be a chaotic, arbitrary, unstable, destructive interaction of manifested realities or a managed and controlled one, which takes into account the degree of cognizing one's own and others' natural individual potential (NIP) and the degree of mastering their energy potential of consciousness (EPC).

Provision three. We, people, possess a biofield that emits photons of light, moreover, of a different predominant colour of the spectrum known to us. A photo of

a biofield or aura, that is, a photo of a cocoon with a luminous shell around a person, testifies to the colour type of their individuality.

Today it is already known that, for example, brain cells and heart cells glow, and the whole person has a luminous shell in the form of a cocoon, an aura. The presence of the amount of light in this shell and its colour in different areas of the human body allows us to judge the manifestation of their various characterological features. Since people themselves decide what kind of reality to create and what, and how much they need to realize the potential laid down by the Creator, their aura, a luminous shell, will reflect the amount and quality of the efforts expended by a person.

The creation and manifestation of reality in the educational process depends on the harmonious state of the human body, consisting of the components: mind – body – spirit. The manifestation of the energy state of this system makes it possible to judge: about the focus of a person's attention on a certain component of the system; about emotional reactions, thoughts and feelings; about the state of the body and mind; about the balance and imbalance of the feminine and masculine nature; about the level of vibrations of various energy channels and their balancing; about the level of the physical body state in terms of relaxation-stress; about a colour type of individuality; about characterological manifestations of human realities in various spheres of life.

Another indicator of a person's reality, created and manifested in the process of education, upbringing and development, is the state of their biofield, the peculiarities of which are revealed using the characteristics of the individuality colour type (ICT).

Provision four. The essence of multidimensional pedagogy is defined taking into consideration the above-mentioned ideas, interconnected by the idea of a set of human life processes, which are created from their realities, created in the educational space of the supremacy of spiritual values. The creation and manifestation of realities is possible with the help of various vital tasks, which are conceived by the Creator in a broad sense as ways of manifesting the divine principle and expanding the boundaries of the Universe of nature. In the narrow sense, every person determines the vital tasks independently, while taking into account the degree of mastering their natural individual potential (NIP) and the degree of mastering the energy potential of consciousness (EPC), that is, conscious thinking and emotional intelligence.

A lot of created productive educational spaces of human existence are possible with the help of realities of advanced dimensionalities: optimal, effective, constructive, creative level. Manifested realities are possible horizontally and vertically at various levels, for example: terrestrial, noospheric, planetary, galactic, intergalactic, etc.

Provision five. The creation of an educational space of the optimal level of

dimensionality means the organization of a system of training, education and development of all participants in the process, which realizes favourable conditions for creativity. The focus of the created educational space is aimed at the process of education, upbringing and development in the context of productive creativity. The conditions created allow all participants of the process (learners, teachers, parents, educators, students, professors, leaders, managers, the public) to creatively realize their natural individual potential (NIP) and creatively manage their energy potential of consciousness (EPC).

The educational process provides a creative presentation of knowledge containing information of high vibrations, the truth of which is understood jointly by all participants of the process.

The educational process ensures the adjustment of all educational space participants to the reality of people demonstrating productive creative activity. The specified activity is characterized by the manifestation of new realities of cognizing the NIP and managing the EPC.

The developmental process ensures that all its participants improve their natural individual potential (NIP) and creative realization of the management of conscious thinking and emotional intelligence (EPC).

The educational environment of the space of optimal dimensionality ensures the creative interaction of human realities at all levels of the process of education, upbringing and development horizontally and vertically. The designated environment allows joint efforts to change the manifestation of destructive realities of individual participants of the educational process into productive ones.

The creation of human realities horizontally means their existence at the level of the family, at the level of social institutions (for example: preschool, school, extra-curricular, vocational, university, academic), at the level of labour and united by interests: professional, domestic, leisure and etc.

The creation of human realities vertically means their existence at the level of a microdistrict, region, state, noosphere, planetary level, galactic, etc.

The existence of human realities at different levels of the optimal educational space or the educational space of optimal dimensionality means their manifestation taking into account the fulfillment of their own tasks and prospective planning to fulfill the tasks conceived by the Creator.

The creation of family realities by parents and other participants of an optimal educational space focuses on the comprehension of the natural individual potential (NIP) and management of their energy potential of consciousness (EPC) by all family members, as well as on the study of the biofield with the help of the individuality colour type (ICT).

Realities created by teachers, educators, lecturers, leaders of circles and clubs

are formed on the basis of improving their biofield with the goal of saturating it with vibrations of readiness, acceptance, courage, compassion, empathy, kindness, love, joy, harmony etc.

The sphere of education is subject to management, the reality of which is aimed at creating conditions for support, assistance, and improvement of vital processes related to education, upbringing and development of all participants. Manifestation of destructive realities in the sphere of management change to productive joint efforts of all participants of the educational space.

Provision six. The creation of an educational space of a productive level of dimensionality means the formation of a system of education, upbringing and development of all participants of the process, which realizes favourable conditions for spiritual creative activity. The focus of the created educational space is aimed at the process of education, upbringing and development in the context of the supremacy of spiritual values. The conditions created allow all participants of the process (learners, teachers, parents, educators, students, leaders, managers, the public) to creatively comprehend their natural individual potential (NIP) with the help of effective management of their energy potential of consciousness (EPC).

The realities created by the participants of the process take into account the experience of organizing an educational space of optimal dimensionality with the goal of saturating it with the results of spiritual activity permeated with the vibrations of unconditional love.

Provision seven. The construction of an educational space of the appropriate level of dimensionality means the modelling of the system of education, upbringing and development of all participants in the process, which realizes favourable conditions for the construction of various new models of vital tasks. The focus of the created educational space is aimed at the process of upbringing, education and development in the context of the creative implementation of new tasks. The assumed conditions allow all participants of the process (learners, teachers, parents, educators, students, leaders, managers, the public) to creatively model the realization of their natural individual potential (NIP) and to model the creative management of their energy potential of consciousness (EPC).

Participants of the process of fulfilling the Creator's tasks when creating their realities take into consideration the experience of forming an educational space of effective dimensionality. For this purpose, they saturate it with constructive models of spiritual activity, imbued with vibrations of the harmonious interaction of the energies of the mind, body, and spirit.

Provision eight. A creative educational space of the appropriate dimensionality presupposes the manifestation of the flow of enlightened energy in the process of education, upbringing and development. Enlightened energy is manifested

by the participants of the process who feel it and who perceive the reality of a wider spectrum. Setting up other participants in the process of fulfilling the Creator's tasks in the designated space is possible on the condition that they create and manifest their own realities that will resonate with Him.

The creation of an educational space of constructive dimensionality is possible taking into account the experience gained in: modelling the space of constructive dimensionality, forming the space of effective dimensionality, organizing the space of optimal dimensionality. The specified spaces are manifested at different levels of existence horizontally (from the family level to the professional level) and vertically (from the local to the cosmic).

Summarizing the discussion about multidimensional pedagogy, it should be noted that the creation of the processes of education, upbringing and development in various elementary or productive educational spaces depends on those tasks that humanity determines for itself in the categories of supremacy of material or spiritual values.

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EDUCATIONAL SPACE OF CONTINUOUS EDUCATION OF TEACHERS: A FACILITATING APPROACH

Abstract

The authors, relying on the practical work of domestic and foreign researchers, offer an effective system of organizing the educational space of continuous education of pedagogical workers on the basis of the facilitation approach. Taking into account the «digital revolution» and the possibilities of electronic (distance) learning, the transition of continuous education from «education 1.0» to «education 4.0» is proposed, which will contribute to the further development and self-development of the skills of pedagogical workers as facilitators, their social and reflective competencies.

The possibilities of using educational space based on information and communication technologies for the development of social and reflective competences of pedagogical workers in the institution of continuous education have been revealed. The specified educational space is characterized by: another goal of continuous education (awareness of the multifaceted nature of professional decisions); the democratic nature of the process of professional development, equality with other participants in this process (including organizers and authors of professional development courses); development of new social and reflexive competences, knowledge and skills among pedagogical workers in the process of co-creation; the clarity of the algorithms for the use of information and communication technologies in the system of continuous education, on the basis of which pedagogical workers develop social and reflective competences, a system of values,

professional attitudes, professional worldview, etc.

Keywords: educational space, facilitation, facilitation approach, development, information and communication technologies, «education 1.0», «education 4.0», e-learning, distance learning.

Introduction

The war of aggression of the Russian aggressors in Ukraine is another confirmation of the volatility, uncertainty, complexity and ambiguity of the modern world, or the VUKA world – an abbreviation from the English (I. Tsymbal, A. Zhovtun, O. Limanska, 2015, pp. 43–47).

Against the background of Russia's full-scale aggression against Ukraine, a strategically important direction for the development of the domestic system of continuous education is the organization and implementation of an educational space based on its remote form, which creates new opportunities for the professional and personal development of pedagogical workers. Also organizers of the educational space of continuing education and the pedagogical workers themselves should take into account the emergence of a new «digital» generation of children and youth with new personality qualities acquired by them, associated with the «digital revolution» and the information explosion. Before our eyes, a new «digital generation» of people appeared, who from an early age were in the conditions of the «digital revolution» and, as a result, have a different level of information knowledge, skills and abilities. They are ready to learn in a new way and, as «digital natives» (M. Prensky, 2001, p. 1–6), do not want outdated passive methods of «transferring» knowledge from «digital immigrants» – their teachers or professors. They want to independently build the process of their education (learning) in the way they are used to in everyday digital communication – in an interactive mode to acquire skills that contribute to the solution of their modern life problems (M. Prensky, 2001, p. 1–6; K. Robinson, 2011). Therefore, a revolutionary transition from «education 1.0» to «education 4.0» is necessary. A significant difference of «education 4.0» is large-scale informatization, in which the acquisition of knowledge goes beyond the boundaries of educational institutions to global digital audiences, and the gadget (English *gadget* – device) becomes the main source of innovations in education (V. Bazilevich, V. Osetskyi, I. Tatomur, 2019).

In less than fifteen years, the «digital revolution» has touched all spheres of human life. The world today is waiting for a new wave of innovation that can fundamentally change education around the world. The coming twentieth anniversary is expected to be the era of the most radical changes in education, probably since the moment when national education systems began to be created. The main source of these changes will not be the education system itself, but the fields related to

education, in particular, information technologies (O. Sokolyuk, 2017b, p. 49).

Means and technologies of information and communication networks (ICM), information and communication technologies (ICT), in combination with learning technologies based on the facilitation approach, contribute to the formation and development of a creative educational environment, fundamentally influencing the basic processes in the didactic system: the transfer and assimilation of knowledge, abilities and skills, formation/development of information, communication, professional, social, reflective and other competences, recording of educational achievements of education seekers, assessment of the quality of their education, creation of motivation and self-knowledge, etc.

The fundamentals of the study

The concept of creating a scientific and methodical system of organizing the educational space continuous education of pedagogical workers on the basis of a facilitative approach in conditions of military aggression includes methodological, theoretical and technological concepts.

The methodological concept reflects the mutual influence of various approaches, in particular facilitative, synergistic, systemic, activity, andragogic, acmeological, technological, personal, environmental, cultural, axiological, competence, deontological approaches to studying the problem of organizing educational space continuous education of teaching staff.

The theoretical concept defines a system of philosophical, psychological-pedagogical, professional-pedagogical, general cultural ideas, concepts, basic categories, basic concepts, definitions, evaluations, without which it is impossible to understand the essence of the problem under study, namely: philosophical positions of the theory of systems (G. Aleksandrov, V. Afanasyev, L. Bertalanfi, I. Blauberg, etc.); theories of scientific knowledge about the active role of the individual in knowledge and transformation of reality (M. Berdyaev, V. Bibler, H. Hegel, I. Kant, H. Skovoroda, etc.); philosophy of education (V. Andrushchenko, B. Gershunsky, I. Zyazyun, V. Kraevsky, V. Kremen, V. Lutai, L. Sokhan, etc.); theories of activity and development of the individual as a subject of activity (K. Abulkhanova-Slavska, B. Ananiev, I. Beh, L. Vygotskyi, V. Davydov, G. Kostyuk, O. Leontiev, K. Platonov, L. Rubinstein, etc.); theories of pedagogical (didactic) systems (Y. Babanskyi, V. Bepalko, T. Ilyina, N. Kuzmina, M. Makhmutov, P. Stefanenko, M. Fitsula, I. Kharlamov, A. Khutorskyi, P. Yutsyavichenye, etc.); theories of psychological and pedagogical design of educational systems (O. Bepalko, N. Bryukhanova, V. Dokuchayeva, O. Kobernyk, A. Ligotskyi, T. Podobedova, S. Sapozhnikov, S. Kharchenko, A. Tsimbalaru, O. Yaroshynska, etc.); theories of pedagogical mastery and pedagogical creativity (I. Zyazyun, A. Kuzminskyi,

L. Lukyanova, M. Leshchenko, V. Molyako, O. Otych, S. Sysoeva, N. Tarasevich, etc.) and features of subject relationships pedagogical process (I. Beh, O. Bodalov, V. Kan-Kalik, O. Koval, A. Mudryk, etc.).

The technological concept involves the development and implementation of a theoretically grounded scientific-methodical system of organizing the educational space continuous education of pedagogical workers on the basis of a facilitative approach in conditions of military aggression.

Relevance of the topic

The relevance of solving the problem of the formation and development of the educational environment of the institution of continuous education on the basis of a facilitative approach using information and communication technologies in the conditions of military aggression is due to the need to update the specified environment in order to bring it into line with the modern level of technological development of human society, the state and development trends society, taking into account forecasts regarding the further development of the education system (V. Bykov, 2005, 2012; O. Sokolyuk, 2012, 2016, 2017a, 2017b).

Statement of the problem Statement of the problem

The introduction of an educational space based on computer-oriented learning in institutions of continuous education should be aimed at the development of facilitation skills, improvement of social and reflective competences of a pedagogical worker, mobile, competitive, able to work at the level of world educational standards, ready for constant professional self-improvement throughout life (I. Bobrytska, 2012).

Analysis of recent studies and publications

The analysis of recent research and publications shows that the educational space based on the application of information and communication technologies in combination with learning technologies based on the principles of a facilitating approach can be based on the methodological works of U. Beck, R. Burt, M. Grannoverter, M. Castells, J. Coleman. Pedagogical approaches to informatization and computerization of the educational process (V. Bykov, B. Gershunskyi, M. Zhaldak, Yu. Mashbyts, I. Pidlasiy, etc.) are studied. problems of organization and use of the informational educational environment (R. Gurevich, Yu. Zhuk, etc.); theoretical and methodological foundations of digital humanistic pedagogy (P. Anderson, V. Bykov, O. Bjork, J. Brie, S. Warnock, S. Davidson, D. Jakaki, T. Kliment, R. Lanham, M. Leshchenko, R. Whitson, B. Hirsch, etc.); the concept of the evolution of education from «education 1.0» to «education 4.0» (D. Keats,

J. Lengel, J. Moravitz, J. Schmidt, etc.); promising directions of using web technologies in education (V. Kukharenko, N. Morse, J. Siemens, R. Willa, K. Franks, etc.).

Therefore, the problem of improving the qualifications of pedagogical workers using computerization and informatization of the educational process is popular among domestic researchers (O. Anishchenko, 2015; V. Andrushchenko, 2012; S. Arkhipova, 2020; V. Bazilevich, 2019; V. Bykov, 2005, 2012; N. Bilyk, 2020; V. Bobrytska, 2012; O. Buynytska, 2012; N. Dementievska, 2012; A. Zhovtun, 2015; Yu. Zhuk, 2012; L. Lebedyk, 2018, 2020a, 2020b, 2020c; O. Leshchynskyi, 2020; O. Limanska, 2015; V. Osetskyi, 2019; O. Sokolyuk, 2012, 2016, 2017a, 2017b; V. Pylypenko, 2020; O. Pinchuk, 2012; I. Tatomur, 2019; I. Tsymbal, 2015; S. Shostya, 2020, etc.). However, in these works, the researchers do not systematize the advantages of using information and communication technologies in continuous education, especially regarding the development of social and reflective competencies of pedagogical workers.

Also, in recent years, the number of publications on the problem of pedagogical facilitation has increased significantly. In particular, the following were investigated: facilitation strategies, tools and techniques for overcoming difficult situations (I. Bens, 2005); systems of group facilitation and group support (P. Bostrom, R. Anson, V. Clawson, 1993, p. 146–168); facilitation of groups of subsequent generations (B. Broome, D. Keever, 1989, p. 107–127); group or organization management practices that promote change (A. Church, J. Waclawski, W. Burke, 1996, p. 22–66); process projects for a qualified facilitator (A. Davidson, 2005, p. 107–114); the role of a facilitator in total quality management teams (W. Eakin, 1993, p. 73–77); principles of quality facilitation in adult learning (M. Galbraith, 1992, p. 10–20); the main facilitation styles for school effectiveness (G. Hall, 1984, p. 286–304); operational aspects of the profession of a facilitator (J. Jenkins, 2005, p. 473–494); a facilitative approach in the activity of a teacher as a modern direction of reforming higher education and as a condition for the organization of reverse training of future teachers (H. Voloshko, 2016, pp. 96–106; 2021, pp. 61–82); the essence and structure of the teacher's pedagogical facilitation (O. Galitsan, 2019a); the facilitation competence of a teacher of a higher school as a subject of pedagogical activity (O. Galitsan, T. Koycheva, Z. Kurlyand, 2019b, pp. 84–89); determinants of training future teachers for pedagogical facilitation in professional activity (O. Galitsan, Z. Kurlyand, 2020, pp. 170–173); the concept of facilitation, its types and some aspects of the manifestation of the main function (M. Kazanzhi, 2012, pp. 21–37); peculiarities of the diagnosis of facilitability (M. Kazanzhi, 2015, pp. 41–47); pedagogical facilitation as a meaningful phenomenon (O. Fisun, 2010a, pp. 133–139); formation of the teacher's facilitating position in the system of scientific and

methodical work of a comprehensive educational institution (O. Fisun, 2010b, pp. 20–27); theoretical aspects of teacher personality training for pedagogical facilitation in a higher education institution (S. Berezka, 2019); the essence, structure, place in the system of pedagogical facilitation of the facilitation skills of a modern teacher (G. Trukhan, 2019, pp. 148–158); ways of forming the ability to facilitative influences in future practical psychologists (O. Kondrashikhina, 2004); facilitative activity of the teacher in the context of the subject-subject approach to pedagogical activity (O. Levchenko, 2007, pp. 23–26); components of the development of the ability of future social pedagogues for facilitative interaction by means of social-pedagogical training (S. Borysyuk, 2011, pp. 180–182); the system of training future teachers for facilitating interaction with students of general secondary education institutions (I. Prokopenko, 2019, pp. 101–112); pedagogical conditions for the formation of facilitation competence of future teachers of humanitarian specialties in professional training (O. Foksha, 2018, pp. 203–207; 2019); pedagogical technologies for the development of facilitation of future humanitarian professionals (O. Romanyshyn, G. Byhar, 2018); facilitator as an important role position of a modern university teacher (N. Volkova, A. Stepanova, 2018, pp. 228–234); new roles of the teacher (and as a facilitator) in the context of modern Ukrainian school reforms (V. Husak, 2019); the teacher's pedagogical facilitation as a vitagenic pedagogical technology (Z. Kurlyand, O. Foksha, Yu. Popovskyi, 2018, pp. 168–176); pedagogical facilitation in the context of the teacher's professional competence (K. Shevchenko, 2014, pp. 258–263); facilitation as an innovative technology for managing pedagogical conflicts in higher education institutions (N. Koshechko, 2018, pp. 24–29); skills of a teacher-facilitator for the formation of professional competencies of dentists in the conditions of computer-oriented education (V. Strelnikov, N. Ilenko, I. Lytovchenko, E. Nikolishina, 2021, pp. 45–51); formation of the facilitation competence of the future teacher of vocational training (I. Uchitel, 2015, pp. 73–75); pedagogical facilitation as a mechanism for developing the leadership potential of students in the conditions of a technical university (T. Gura, 2014, pp. 32–44) and others.

At the same time, the problem of organizing the educational space of continuous education of pedagogical workers on the basis of a facilitative approach in the conditions of military aggression was not the subject of special pedagogical research, which determined the topic of the publication.

Purpose of the article

The purpose of the article is to generalize the practical work of researchers from the USA, Western Europe and Ukraine regarding the effective use of the skills of a facilitator in continuing education by a pedagogical worker for the development

of his social and reflexive competences in the conditions of war with the use of information and communication technologies.

The objectives of the research are: first, to determine the possibilities of using information and communication technologies in the educational process of the institution of continuing education; secondly, revealing the essence of the facilitating approach to the organization of the educational space of continuous education of pedagogical workers; thirdly, substantiation of the expediency of formation and development in the institution of continuous education of the system of effective skills of the pedagogical worker as a facilitator.

Methodology and the research methods

To solve the specified tasks and achieve the goal, a complex of complementary theoretical research methods was used, in particular: a systematic analysis of philosophical, psychological, sociological and pedagogical scientific literature dedicated to the study of the use of information and communication technologies in the educational process of an institution of continuing education, and educational, methodological and instructive methodical documentation for defining the conceptual and categorical apparatus; methods of system analysis used to consider the genesis of the facilitating approach in the organization of the educational space of continuous education of pedagogical workers; methods of causal and historical analysis, applied at the stage of determining the characteristics of continuous education of pedagogical workers, the adequate state of modern society; methods of comparative analysis – to determine the essence of the scientific-methodical system of organizing the educational space of continuous education of pedagogical workers on the basis of the facilitating approach in the conditions of military aggression and its differences from the existing education system; methods of direct structural analysis – for consideration of the structure and features of the organization of the educational space of continuous education of pedagogical workers on the basis of the facilitation approach as a system; methods of reverse or elementary-theoretical analysis – to determine the connections between the principles of organizing the educational space of continuous education of pedagogical workers on the basis of the facilitation approach in the conditions of military aggression and general didactic principles; theoretical modeling and generalization of the research results in order to reveal the scientific aspects of the specified problem.

Presentation of the main research material

Starting with the presentation of the essence and results of the first practical task of the research – determining the possibilities of using information and communication technologies in the educational process of an institution of

continuous education in war conditions, we note that information and communication technologies are considered by us as a set of methods, production processes, software and technical tools, which are integrated with the purpose of collecting, storing, processing, distributing, demonstrating and using information in the interests of its users (V. Strelnikov, N. Ilenko, I. Lytovchenko, E. Nikolishina, 2021, p. 47).

Among the organizational forms of continuous education, the current trend is online education, which in its essence is open education (O. Anishchenko, 2015, pp. 155–160). Online education is easier to measure and improve than offline education. Online education is one of the forms of distance education, training courses based on electronic learning technologies with mass interactive participation and open access to the Internet. Online education in the institution of continuing education, as massive open online courses, complements traditional materials of professional development courses in text, audio and video formats, algorithmized tasks for professional activity, control and self-examination, uses interactive forums of course participants, which help to create and maintain communities of pedagogical workers and teachers of continuing education institutions. The experience of the advanced countries of the world shows that in the future, professional development should take place in two ways: 1) on massive open online courses (massive open online courses – MOOCs), which are free, provide training according to the schedule and communication with teachers of the best universities (including part of foreign, mostly American, universities); 2) on open educational resources (open educational resources – OER), which involve the use of materials for self-education from leading institutions of higher education (O. Anishchenko, 2015, pp. 155–160). This will ensure access to continuous education of various categories of citizens through open educational resources in order to meet their cultural and educational needs.

This becomes possible in a society where there has been a transition from the «print» stage of its development to the «digital» one, accordingly, education has already undergone a transformation from verbal to printed, and is now moving from printed to digital. Modern researchers point to the essential feature of this transition associated with the emergence of the Internet as its very short historical period – from the end of the 1980s to the mid-2010s (O. Sokolyuk, 2017a, pp. 114–121).

Factors influencing the development of continuous education were: a) personal computers; b) Internet network; c) technologies for creating and maintaining information resources on the Internet; d) development of information and communication networks; e) Web 2.0 and Web 3.0 Internet technologies, which, in fact, are becoming basic, basic tools and technologies for educational environments (V. Bykov, 2012, p. 15). Therefore, in institutions of continuing education, the possibilities of information and communication technologies are realized with the help of technical means of education, which are equipment (specific carriers of

educational materials) and apparatus, which are used in the educational process in order to increase its effectiveness (O. Buynytska, 2012).

The means of information and communication technologies that determine the future development of continuous education, according to the conclusions of the international consortium New Media Consortium, include: a) mobile technologies that make it possible to use smartphones, communicators, laptops, netbooks in the educational process due to their ability to share access to resources and fast Internet connection; b) software, digital resources of high quality, free centralized access to them, which facilitates the free implementation of new methods and forms of learning, oriented to the active independent and productive activity of consumers of educational services, which can be implemented through the creation of educational portals); c) touch interfaces as a technology based on natural human gestures that allow easy control of objects on the screen, which contributes to the development of new models of interaction of people (teachers, teachers, students, students) with information and communication tools; d) data visualization (Educause Horizon Report, 2019). As for the visualization of information, the usual visualization in the form of drawings, diagrams, models, videos is now enhanced by augmented reality, which offers a combination of real and virtual objects, creating a completely new informational perception of reality (V. Strelnikov, N. Ilenko, I. Litovchenko, E. Nikolishina, 2021, p. 47).

Modern researchers have defined a typology of network information and communication technologies (ICT), which, supporting the informational educational space, provide new opportunities for the implementation of traditional technologies of continuous education (V. Bykov, 2005, 2012; O. Sokolyuk, 2016, 2017a, 2017b) (see Table 1).

Education models that use these technologies have been named «education 1.0», «education 2.0», «education 3.0», «education 4.0», respectively (Derek Keats, 2007; James G. Lengel, 2013; J. Moravec, 2019, etc.).

The development of education from «education 1.0» to «education 2.0», and the genesis of «education 3.0» is considered a potentially turning point, when serious changes in education take place, a deeper understanding of the educational process as a result of the development of information technologies, social networks (Derek Keats, 2007 etc.).

«Education 1.0» is compared by the authors to the first generation of the Internet and is considered, mainly, as a one-way process of information transfer from teachers to students who are consumers of information resources. «Education 2.0» is associated with the emergence, development and spread of «web 2.0» technologies, since the use of new generation web services in the educational process suggested new principles of its organization, rearmed teachers technologically (O. Sokolyuk,

Typology of web technologies for the continuing education system
(O. Sokolyuk, 2017b, p. 50)

Internet technologies	Information and communication networks (ICM)	Appointment
web 0.0	local	support of communications in local information and communication networks (without access to the Internet)
web 1.0	open	supporting communications in open information and communication networks, providing users with access to available content
web 2.0	open	support of communications in open information and communication networks, provision of access to existing content, provision of access to content editing, provision of the possibility of formation and distribution of own content, support of joint activities in the creation and distribution of collective content, provision of functioning of electronic social communities, support of communications in open information – communication networks, providing access to existing content, providing access to content editing, providing the possibility of creating and distributing own content, supporting joint activities in the creation and distribution of collective content, ensuring the functioning of electronic social communities
web 3.0	open	are based on the Web 2.0 technological platform, information search, including video and digital image search, based on metadata and metabase analysis, creation of high-quality content and services in open information and communication networks
web 4.0	open	further development of Web 3.0 information technologies with the addition of elements of artificial intelligence

Under «education 3.0», the consumer of educational services should become more independent and organized, because access to tools and technologies will help develop an individual educational trajectory. The «mobility of technologies» becomes an important component, the «group factor» is realized much more easily, which is important for the organization of the educational space of the continuous education of pedagogical workers on the basis of the facilitation approach in the conditions of military aggression. «Education 4.0» is based on information technology «web 4.0» and is training to order in real time in any place, at any time and on any topic (O. Sokolyuk, 2017 b, p. 51). The characteristics of «education 1.0» – «education 4.0» for the continuing education system are summarized in Table 2.

Characteristics of «education 1.0» – «education 4.0» for the system of continuous education

(O. Sokolyuk, 2017b, p. 51)

	Education 1.0	Education 2.0	Education 3.0	Education 4.0
Content of education	Dictated	Socially constructed	Socially constructed and updated depending on the context	It is created in the process of individual/group activity, through innovative activity
Knowledge transfer is carried out	From the teacher to the student of the courses	From the teacher to the student of courses and between students	Knowledge is constructed by course participants in the process of personally meaningful activities	Mutual exchange, cumulative effect, positive reflection of innovative activity increases. The 24/7 and 1:1 model is everywhere: in education, life, work
Continuous education is carried out	In the building of the institution of continuing education	In the building or on the network via a PC	With the advent of mobile devices – everywhere	Everywhere. In a global network that replaces the classroom
Equipment, software	Bought for a lot of money, but not used	Open and available at a low price	Available at low cost and used to create new knowledge	Updated daily, as all software is personalized
Mobile devices	Not used	Carefully accepted	Actively used, motivating to study in a personal educational space	Actively used, constantly changing due to technical evolution and innovation

Undoubtedly, the development of information and communication technologies leads to a change in the educational environment of continuous education. There is a transition from the traditional information closed educational environment to the open information educational environment of continuous education. The researchers conducted a comparative analysis of various models of educational environments according to the main features that characterize these models (Y. Zhuk, O. Sokolyuk, N. Dementievska, O. Pinchuk, 2012), and identified the typology of educational environments built on the basis of local and open types information and communication networks (V. Bykov, 2005, pp. 5–15), which are summarized in Table 3.

According to the fourth model of the educational environment of continuous education, it is possible to form an informational educational environment as a set of conditions implemented on the basis of information and communication technologies

and information and communication networks. This model should be used to organize the continuous education of pedagogical workers on the basis of a facilitative approach in the conditions of military aggression, because it ensures:

Table 3.

Types of models of educational environments of continuous education

(O. Sokolyuk, 2017b, p. 52)

Models of educational environments of continuous education using:	Information and communication networks:	Software:
1) a local computer network for presenting educational information	local	communication support in local information and communication networks (without access to the Internet)
2) Internet resources for the presentation of training information by the teacher of advanced training courses	open	support of communications in open information and communication networks, access to available content
3) resources of the Internet network by course listeners directly at professional development courses in the process of independent cognitive activity	open	support of communications in open information and communication networks, access to available content
4) a student of the courses specially created by the teacher for advanced training courses of the educational Internet site/blog and Internet resources in the process of independent cognitive activity	open	support for communications in open information and communication networks, access to existing content, access to content editing, the possibility of creating and distributing own content, support for joint activities in the creation and distribution of collective content, the functioning of electronic social communities

a) the implementation of educational activities of the institution of continuous education in the conditions of expanding the information field; b) group communication, informational interaction of subjects of the educational process; c) increasing the capacity of the resource base for facilitating interaction based on pedagogically appropriate use of electronic educational resources; d) educational requests of modern consumers of educational services with their focus on active, practically oriented, pragmatic learning, which gives a personally significant result (O. Sokolyuk, 2017b, pp. 52–53).

The characteristic features of the fourth model of the educational environment of continuous education on the basis of facilitating interaction are: a) integration of information and communication technologies; b) use of local and open network resources; c) active use in the educational process of modern means of web technologies, in particular interactive methods and forms of learning, social network

services. In this way, techniques and methods from the environment of social interactions, mobile technologies, and virtual reality will be transferred to the educational environment of continuous education. This will create in the educational environment of continuous education new conditions for the development of social skills and competences of the teacher-facilitator among students of advanced training courses based on information resources and network communications of educational facilitating interactions (O. Sokolyuk, 2017b, p. 53).

At the Department of Philosophy and Economics of Education, Internet resources, computer equipment, television, video and multimedia equipment, general purpose search systems, text editors, cloud-based means of supporting joint scientific and research activities, etc.. In addition, teaching staff use their own smartphones, laptops, netbooks, tablets, etc. during advanced training courses.

We note the intensive involvement of multimedia tools in advanced training courses: during lectures, practical classes, independent work of teaching staff, individual work of teachers with students of advanced training courses. The wide application of information and communication technologies in the educational process of the department of philosophy and economics of education has a positive effect on the formation of informational, social reflective, and professional competences among pedagogical workers. So, on the website of the Department of Philosophy and Economics of Education of the M. V. Ostrohradskyi Poltava Academy of Continuous Education, the program and educational and thematic study plans of the invariant part 1.1 «Practical philosophy of the competence approach in education» of module 1 «Development of general competences of pedagogical workers», other educational and methodological materials that help pedagogical workers in studying the philosophy of education and organizing independent work. Information and communication technologies provide many powerful opportunities for teaching staff to take advanced training courses online, engage in self-education at a convenient time and in more favorable conditions, freely exchange useful and important materials, regardless of location, receive full-fledged consultations from the department's teachers in real time and in a short time. This is facilitated by placing the necessary materials and information on remote servers without being tied to stationary computers. A modern pedagogical worker must perfectly master information and communication technologies and apply them for his own professional development in his professional activity.

Thus, the use of information and communication technologies in the educational process of the Department of Philosophy and Economics of Education of the M. V. Ostrohradskyi Poltava Academy of Continuous Education remains a promising and relevant direction for the development of facilitation skills, improvement of social and reflexive competences of pedagogical workers in the institution of

continuous education.

However, the means of information and communication technologies of education by themselves do not provide a solution to the problem of the development of facilitation skills, improvement of social and reflective competences of pedagogical workers in the institution of continuous education, therefore it is appropriate to turn to the American, Western European and Ukrainian experience of the application of the facilitation approach and information and communication technologies, which are technologies of post-classical didactics. The experience of improving the qualifications of pedagogical workers at the Department of Philosophy and Economics of Education of the M. V. Ostrohradskyi Poltava Academy of Continuous Education shows that these technologies are able to solve the task of developing the social and reflexive competences of pedagogical workers, mobilizing their internal resources and organizing professional activities more effectively than traditional advanced training courses.

Therefore, according to *the second* task of the research, we will characterize the essence of the facilitating approach to the organization of the educational space of continuous education of pedagogical workers.

Regarding the concept of «facilitator», it was introduced into scientific circulation by Carl Rogers (English *facilitator*, from the Latin *facilis* – easy, convenient), by which is meant a person who ensures successful group communication (C. Rogers, 1980). The main task of the facilitator is to help in realizing the goals of the group's joint activities and to support positive group dynamics in achieving these goals by means of discussion. The facilitating role involves a neutral position in relation to the proposed positions produced by the members of the discussion group. The teacher-facilitator creates a comfortable atmosphere in the group, facilitates communication and works according to the principles of respect and tolerance. The facilitator's activity is based on a personal approach, which allows identifying the resource capabilities of education seekers, searching for internal motivation, demonstrating trust, activating thinking, etc. (V. Husak, 2019).

In previous studies (V. Strelnikov, 2021, pp. 45–51; 2021a, pp. 312–313; 2021b, pp. 533–538), we found out that professional facilitation is: 1) organization of the process of group work aimed at achieving the group's set goals; 2) a process that increases the effectiveness of the group's work, promotes the involvement and interest of participants, the disclosure and maximum inclusion of their potential; 3) the space in which insights, breakthrough solutions arise, collective intelligence is actualized; 4) the art of involving the understanding, thinking and energy of all participants in collective creativity; 5) sets of practices that facilitate the performance of tasks by the group, optimally use the individual abilities of each of its participants

and the time allocated for this; 6) not only by the sum of the efforts of group members, but by synergy in its best manifestations; 7) as a way to help the group think as best as possible; 8) peaceful revolution or collective evolution.

The facilitation approach differs from the traditional discussion in a group of trainees of advanced training courses in a fundamental way. Let's compare the following six positions. In particular, traditional work with a group is characterized by: 1) usurpation of most of the time by active pedagogical workers who think faster; 2) perceiving questions as challenges («did I say or do wrong?»); 3) interrupting, interfering with the conversation; 4) avoidance of different points of view, which are considered as conflicts; 5) lack of attention to the opinions of others, everyone's preoccupation with the formulation of their own; 6) the solution to the problem is when one of the trainees of advanced training courses formulates the correct answer.

According to the facilitating approach, these same six signs have a different, and even the opposite, meaning: 1) all pedagogical workers participate in the search for a solution; 2) questions are used to encourage group members, to clarify the essence of the proposed proposal; 3) every student of advanced training courses can freely express his opinion; 4) the coexistence of opposing points of view, the complexity of the discussed issue requires the opinion of each student of advanced training courses; 5) listening to everyone's opinion as important for solving the discussed problem; 6) the solution to the problem comes when all students of advanced training courses understand the best reasoning for their further actions and agree with it.

A pedagogical worker as a facilitator, an expert in methods of group interaction, must be able to: a) organize the educational process, involve all participants in it, structure the work of the group to achieve a common goal; b) create an educational environment, including a virtual one based on «education 4.0», where the process of group interaction is effective, where new ideas, knowledge, insights are generated through the creative interaction of participants (collective wisdom); c) monitor the performance of the task and the relationships of the participants, their positive feelings and worldview.

Facilitative competence is understood as the integrative personal formation of a teacher, which reflects the level of his ability and readiness to stimulate the development of the personal potential of students as subjects of cognitive activity through a special style of their interaction (H. Voloshko, 2021, pp. 61–82).

For successful facilitation, it is necessary to master: a) methods of managing group processes; b) methods of working with group dynamics; c) form an understanding of the specifics of working with different groups (by gender, age, profession, social status, etc.); d) acquire the skills to take into account the peculiarities of working with «difficult» group members; e) acquire skills of mediation, structuring, visualization, etc. (H. Voloshko, 2021, pp. 61–82).

The facilitator must: a) perfectly master communication technologies; b) be sensitive to changes and moods of the group in order to quickly respond to them; c) to be knowledgeable, qualified and flexible in order to easily select facilitation methods depending on the situation, problem and the group itself (O. Galitsan, 2019a; 2019b; 2020); d) possess non-violent communication according to the method of M. Rosenberg (M. Rosenberg, 2020).

The facilitator should develop the following abilities and qualities: a) directing and structuring the group's discussion during problem solving; b) orientation in different types of dialogues, conversations and meetings; c) the ability to leave the comfort zone and help participants in this; d) stress resistance; e) quick response to changing circumstances; e) motivation of participants for personal changes and self-development (S. Berezka, 2019).

Researchers consider the following skills to be important: a) the ability to reach consensus for group decision-making; b) empathic listening, careful observation of participants' behavior; c) establishment of effective communication in the group; d) correction of participants' actions and compliance with the rules of interaction; e) encouragement of active positive behavior; f) organization of safe feedback between participants of the educational process; g) demonstration of restraint and patience; g) advocacy of a neutral position during the evaluation of educational products. Thanks to such skills and personal growth, the facilitator implements a new teaching style (H. Voloshko, 2021, pp. 61–82).

Ways of interaction of pedagogues-facilitators with students of education assume: a) an individual and differentiated approach; b) paying attention to the feelings and experiences of education seekers; c) discussion of current issues, cooperation with education seekers during the planning of educational work; d) sense of humor; e) receiving feedback from students; e) granting education seekers the right to choose the form of education; g) joint evaluation of their knowledge with the students of education. The student is responsible for the learning results, the teacher-facilitator is responsible for his own professionalism (H. Voloshko, 2021, pp. 61–82).

Taking into account the above findings of scientists, moving on to the *third* task of the research, we substantiate the expediency of formation and development of a system of effective skills of a pedagogical worker as a facilitator in a continuing education institution. Here we will use the experience of conducting a practical class «Development of social skills and competencies of a teacher-facilitator» in an online format for students of advanced training courses at the Department of Philosophy and Economics of Education of the M. V. Ostrohradskyi Poltava Academy of Continuous Education.

We selected groups of skills that could be polished to the level of skills of a pedagogical worker as a facilitator, important in the conditions of computer-oriented

education. Among them are the following groups of skills: 1) the beginning and attitudes towards group discussion; 2) its course; 3) involvement of emotions; 4) completion of the group discussion.

The first group of skills of a teacher-facilitator, which relate to the beginning and attitude towards a group discussion, include: a) the skill of showing virtual patience, respect for the different communication styles of the participants in the discussion: authoritarian, businesslike, superior, conformist, indifferent, alienated, formally tolerant, aggressive; «joint creativity», «friendly affection», «flirting», «bullying», «distance», «mentoring»; b) the skill of questioning – to clarify the position of the participant in the discussion, clarify the essence of his solution to the problem, help him formulate his own idea; c) the skill of reflecting what the panelist said – to speed up the pace of slow discussions, improve the work of newly formed microgroups, and create trust between the panelists.

The second group of skills of a teacher-facilitator, which relate to the course of a group discussion, include: a) the skill of paraphrasing what the participant of the discussion said: repeating his thoughts in other words; with this, the teacher-facilitator makes it clear that he heard the participant of the discussion and thereby confirms his right to his own opinion; b) the skill of recording ideas – first they are written down, and then they are discussed and analyzed; c) the skill of stacking (from the English stacking – «stacking») – establishing the sequence of the statements of the participants in the discussion, the order, if there are several who wish to speak; d) the skill of tracking (from the English tracking – «tracking, support») – tracking several lines of discussion in case of branching ideas for solving the problem; later, their discussion is organized in groups or pairs; e) the skill of balancing the direction of the discussion, if it is set by the first participants and goes in the same «channel», alternative positions should be presented, the discussion should be expanded («Are there other views on this issue?»); f) the skill of engaging avid «silent» people in the conversation, for which you need to be attentive to non-verbal manifestations that testify to the readiness of the participant in the discussion to join the discussion process, to understand the emergence of a desire to express himself, to constantly emphasize the importance of everyone's opinion.

The third group of skills of a teacher-facilitator, which relate to engaging the emotions of the participants in the discussion, are: a) the skill of encouraging the participants of the discussion, which gives them the opportunity to express themselves, involves them in the dialogue («Who else wants to share their ideas? Do you have any examples?»); b) the skill of recognizing the feelings of the participants in the discussion, «joining» their inner world («You have the right to show your feelings...», «I'm sorry that you are probably upset now», «It's probably quite offensive (or scary, unfortunately, humiliating, shameful), when they say...»); c) the

skill of accepting another point of view, because any of them has the right to exist; to recognize different points of view without switching to one of them; d) the skill of empathy (understanding the relationships, feelings, mental states of others in the form of empathy) – mentally being in the other person's place («I feel how difficult it is for you to talk about this topic...»); e) the skill of deliberate silence, holding a pause (stopping if necessary discussion – «Let's pause so that we understand the consequences of what is happening...»); f) the skill of linking (composing), i.e. the ability to complete all the «incomplete» parts of the discussed project and link them together in an understandable completed format («How does your proposal relate to the project we are currently discussing?»); g) the skill of attentive listening, even in the presence of one's own, even opposing, point of view; it is necessary to indicate certain positions, based on the specific roles of the participants in the discussion (group leader, manager, active participant, observer).

The fourth group of skills of the teacher-facilitator, which relate to the completion of the group discussion, are: a) the skill of finding points of intersection to solve the project, which is necessary in the conditions of polarization of the discussion, the search for something common, unifying, although not obvious; b) the skill of summarizing the discussion, because in group work it is important to summarize it, make a summary, paraphrasing in your own words what happened, what was reached during the discussion; c) the skill of structuring the expressed ideas into extremely important, necessary and partially relevant ones and establishing the order of their further discussion and implementation («The identified issues relate to different topics, let's consider them separately in this sequence...», «The proposed solutions relate to different levels of generalization, each should pay attention to...», «How can you describe the structure of the solution to the discussed problem?»); d) the skill of formulating a conclusion («What words can most accurately describe the conclusion from the discussion?», «Let's formulate the conclusion in this way...», «Maybe there are other formulations?», «What are the advantages of the specified formulation?»).

This is not a complete list of skills that should be developed to automaticity and become the skills of a pedagogical worker as a facilitator, which are used in the conditions of computer-oriented «education 4.0» in the system of continuous education.

Summarizing the personal qualities of a facilitator, S. Berezka defines the following groups of characteristics:

1. Intellectual characteristics (awareness, flexibility in reactions to changes in group dynamics, variability in the use of work methods depending on the new situation).

2. Emotional characteristics (empathy, stress resistance, willpower, high level of

emotional intelligence, assertiveness).

3. Motivational characteristics (motives and personal needs are related to real help in the realization of the student).

4. Understanding oneself and others (objectivity, sensitivity, ability to reflect, openness, etc.).

5. Characteristics of communication (kindness in communication, ability to cooperate, sense of tact, pedagogical ethics, ability to motivate).

6. Business characteristics (the ability to organize, manage, accompany, plan) (S. Berezka, 2019).

Today there are different approaches to the formation of the facilitator's personality. Among the methodological concepts that underlie the development of psychotechnologies for the development of teacher facilitation, the following are defined:

1) the direction of humanistic psychology, which makes it possible to perceive the student's personality as a unique value and to see the unlimited potential for the realization of each personality;

2) the theory of social learning, which considers the importance of applying stereotypes of social behavior, imitation and assimilation of new models of behavior in the process of positive reinforcement;

3) neurolinguistic programming, which enriches the system of techniques for effective interaction in the field of interpersonal communication (S. Berezka, 2019; H. Voloshko, 2021, pp. 61–82).

Effective techniques are: dialogue lectures, diagnostic workshops, reflective seminars, personally oriented, communicative, intellectual and sensitive trainings. Particular preference is given to trainings for facilitators, in which methods of changing one's own behavior, techniques of forming new personal qualities are worked out, the mechanism of creating new tactics of professional behavior is activated, which gives an opportunity to form the facilitator's own practical skills (H. Voloshko, 2021, pp. 61–82).

In Ukraine, within the framework of non-formal education, there are associations of facilitators who provide educational services and carry out projects with the aim of training facilitation of educators who work with groups. Yes, there are such organizations: 1) «Community of education facilitators» (<https://www.facebook.com/groups/318920959240121/>); 2) «Facilitators of all countries» (<https://www.facebook.com/groups/975343552524281/about>); 3) «Other education»; 4) Center for Innovative Education «Pro.Svit»; 5) CEASC consulting agency, which offers thorough facilitation schools, online events, master classes (H. Voloshko, 2021, pp. 61–82).

For the purpose of developing humanistic attitudes and values, forming the

position of a teacher-facilitator, educational measures of the system of advanced training and additional professional education can be a significant help.

Among the online services, it is worth noting the Electronic scientific and methodical guide and the section «Humanistic orientation – the conceptual basis for the development of pedagogical competence of teachers». https://nmcbook.com.ua/Arhiw1/pedonetoo/modyl_1/modyll_1.htm), which can also be used for educational events and self-education (H. Voloshko, 2021, pp. 61–82). However, the most effective way to learn facilitation is by being in a facilitation environment and practicing facilitation techniques on your own.

Implementing a facilitative approach in the process of improving the qualifications of pedagogical workers at the Department of Philosophy and Economics of Education of the M. V. Ostrohradskyi Poltava Academy of Continuous Education, we use facilitation methods during offline and online interaction. The «World Cafe» method, which has wide possibilities of use in almost any educational topic, gives positive results (H. Voloshko, 2016). Invariable elements of facilitation are the stages of motivation at the beginning of lectures and seminars, as well as methods of reflection, self-evaluation and mutual evaluation. Forced distance learning, caused first by the pandemic and then by military aggression, led to the involvement of new digital tools for asynchronous and synchronous interaction of participants in the process of professional development: the MOODLE distance learning platform, electronic textbooks, audio and video materials, mobile technologies (Viber), cloud technologies (GOOGLE disk), online boards, educational task design sites. The most effective programs that can be used to facilitate lectures and seminars are ZOOM with the possibility of uniting teaching staff into creative groups in session halls for the purpose of solving educational tasks, as well as the Mentimetr platform – as a designer of educational tasks and a tool for collection of opinions and expectations of pedagogical workers of the whole group. With the help of this program, the lectures explore the values of modern education common to the entire group of teaching staff, which are visualized in a word cloud, determine the attitude of teaching staff to the possibilities of using methods of encouragement and punishment with statistics of the choices made. At the end of each lesson, a reflection on the achievement of their goal is carried out with the help of a chat, a white board of the ZOOM program, on which pedagogical workers put marks. Pedagogical workers also express their opinion, evaluating and reflecting on the activities carried out.

With such interaction, instructions and recommendations for the preparation of creative educational tasks are provided in the form of videos on the YouTube channel created by the teacher for pedagogical workers, and also promptly sent to the group of participants in Viber. In this way, the interactive technology «Six Hats» is used

during the analysis and resolution of pedagogical situations. Using the Miro online board completely replaces the facilitation board, to which virtual stickers are attached, and group products are created in the form of intelligence cards in asynchronous or synchronous interaction.

When choosing methods of pedagogical facilitation in various types of remote work, the following questions are used:

1. What goal should be achieved?
2. How will participants be involved?
3. What will be the sequence of task performance by a group of pedagogical workers?
4. How to effectively organize communication and feedback?
5. What resources will be involved?
6. What digital tools are optimal in achieving the educational goal?
7. How to create a safe and comfortable environment for participants?

Creative groups of various nature are used for interactive training: a) permanent groups for preparing projects; b) groups of variable composition for work at lectures and seminars. Of course, online learning has its limitations, it often causes discomfort in communication, and at the same time, such informatization has innovative potential, develops the professional skills of pedagogical workers, provides opportunities to implement a facilitation approach and a developmental environment for participants (H. Voloshko, 2021, p. 61–82).

Conclusion

Unfortunately, the mass application of the specified components of the development of social and reflective competences of pedagogical workers in modern conditions of military aggression is quite problematic due to material, psychological and organizational factors. However, in the process of improving the qualifications of pedagogical workers at the Department of Philosophy and Economics of Education of the M. V. Ostrohradskyi Poltava Academy of Continuous Education use of the facilitating approach in information and communication technologies of «education 4.0» proved their perspective and relevance for the development of the defined competencies of pedagogical workers.

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CONTINUING EDUCATION OF SOCIAL WORKERS IN THE POST-NON-CLASSICAL PERSPECTIVE: FOREIGN EXPERIENCE

Abstract

In the article continuing education of social workers in the post-non-classical perspective is analyzed. It was found that continuing education is considered a component of continuing professional training of social workers and includes involvement in both formal, non-formal and informal education, and as well as continuous improvement of professional skills based on the integration of theory and practice. Social work professionals demonstrate that they are maintaining and enhancing their competence throughout their careers. Continuing education is a self-directed process, which requires social workers to assume responsibility for their own professional development.

Keywords: post-non-classical perspective, social work, continuing education, continuing professional training, formal education, non-formal education, informal education.

Problem Statement

Science as a form of social consciousness has historically passed through three stages in its development: classical, non-classical and post-non-classical. Classical science assumed the elimination from the process of cognition of everything that has any relation to the subject and supposed that the results of cognition depend exclusively on the properties of the object. Non-classical science recognized the dependence of the results of cognition on the means and procedures of cognitive activity. For the first time, post-non-classical science introduces a human being into the scientific picture of the world and recognizes the influence of the subject and his/her value attitudes on the obtained scientific results. Formation of post-non-classical science in society marks a "methodological turn" in scientific knowledge.

Polyontology, multidimensionality, heterogeneity, mosaicity, chaoticity, probability, lack of rigid determinism, nonlinearity, and interdisciplinary nature are recognized as the basic essential characteristics of the world.

In the field of intellectual discussions, today arouses a new philosophy of education that should ensure a comfortable human existence in the 21st century, directions for the development of education, its organization, content, and instructional methods.

The new education tasks require application in a broad context of innovative pedagogical technologies, and the approval of the plurality of educational trajectories, which are characterized by the variability of methods that activate mental activity and creatively organize the educational space. According to scholars, the most promising innovative technology is the synergistic model of education (*V.H.Kremen, 2008; Dobronravova I. S, 2003; Vitvytska S.S.,2015; Tsykin V.O., Naumkina O.A,2009*).

The spread of synergetics as a methodology of future pedagogy (V.I. Arshynov, M.V. Boguslavskiy, V.G. Budanov, E.V. Bondarevska, S.S. Vitvytska, I.S. Dobronravova, S.V. Kulnevych, etc.) leads to the need for a theoretical description and practical testing of various scenarios for the construction of the educational process, which correspond to the logic of the development of post-non-classical science, society, and education in general (*Postneklassycheskye perspektyvy,2009*).

The modern science of education is becoming complex. It is developing as an interdisciplinary and interprofessional education. Recently, the science of education in its formation and development relies more and more on the modern socio-cultural and socioeconomic situation and proceeds from an extremely broad understanding and construction of education.

The scenarios of the transformation of higher education are related to the transition from a knowledge-oriented paradigm to a culture-oriented one, to the development of non-linear forms of organization of education in modern conditions, as well as to anthropology, informatization, and individualization of education. Each of the scenarios provides its own interpretation of the basic elements of higher school didactics (*Makarova, 2011; Kamenova, Arkhypova, 2022*).

The complexity and multidimensionality of modern social phenomena, the transformational and modernization processes of the information society, the rapidly changing appearance of social reality, the virtualization of educational processes and professional communication, as well as the processes of forming a new social and cultural innovation space actualize the forming of approaches to the continuing education of social work specialists (*Vusshaia shkola: problemy i perspektyvy,2018*).

The professional development of social workers is connected with the general processes of globalization and integration in society and education: "Currently, a new

pedagogy is being created, the characteristic feature of which is innovation - the ability to renew, openness to the new" (*Dychkivska, 2004*)

It should be emphasized separately that in social work in general feminist pedagogy is of great importance, which emphasizes not only openness to the new but the relationship between the educator and the student. Here, the focus is on issues of power, gender relations, various forms of oppression, and social justice. The heart of feminist pedagogy is the humanization of the educational process, in which "people who have been brought together by the meaning of education interact. ... In this context, the educational process should not be a goal, but a reason and condition for the interaction of direct participants in the pedagogical process..." (*Senko, 1997, s. 14*).

It is obvious that traditional pedagogical methods (lectures, reading, surveys, etc.) are still actively used today (*Kramer, & Wrenn, 1994*). However, traditional pedagogical relationships are now seen as a potential threat to a productive learning experience. As Cramer pointed out, traditional pedagogy involves the use of strict, authoritarian methods, which are based on hierarchical relations between the object and the subject of the educational process, which do not take into account previous experience and ignore the active position of the person who is learning (*Cramer, 1995, pp. 193–215*).

The purpose of the article is to study the post-non-classical characteristics of continuing education of social workers.

Basic presentation

Concepts supporting continuing education started to evolve in the 1960s and 1970s because economic success and efficiency were associated with education at that time. In addition, there was a constant political sustenance of continual learning and professional development (*Beddoe & Maidment, 2009*). In many western countries, Canada in particular, welfare systems have moved from programs of entitlement, which were aimed at helping to combat poverty amongst the most vulnerable members of the society, to a support provision and promotion of individual self-sufficiency through their active involvement in labor processes.

Formal education was no longer seen as adequate for a professional lifespan, predominantly in the context of speedily changing societies, globalization, and the emergence of new technologies as competence goes beyond acquiring formal education and qualifications. It involves constantly and thoughtfully reflecting on individuals' practices and seeking out new opportunities to grow as professionals. Concurrently, the usual moral and psychological norms of both society and individuals broke; the needs of people in the development of their personality started to grow; the spread of culture, the expansion of its influence on society and personality became more and more distinctive.

It became obvious that the level of education significantly affects the quality of a person's life, but the basic knowledge that an individual receives at a higher educational setting is relevant only for 10-15 years. Therefore, if people do not continue education in various forms and improve their qualifications, the quality of life decreases (*Zniatdynova, 1999*). A new definition of a person as an "individual who studies", i.e. "homo student" is becoming common (*Zmееv, 2007, s 5*)

According to the Organization for Economic Cooperation and Development (OECD), low-skilled workers are four times more likely to become unemployed than highly skilled specialists (*OECD Employment Outlook, 2004*).

Revision and changes of traditional approaches to education, as a tool of social development and a factor in the growth of social well-being, are due to the requirements of the time. Today, education is considered a resource not only for the individual, but also for the country, which contributes to the accumulation of its social and economic potential. One of the distinguishing features of a highly qualified specialist, in particular, in the social sphere, is his/her involvement in the continuing learning process during the career, not for personal gain, but, above all, for the purpose of providing the best services to clients.

Education becomes the field of educational services. Therefore, it is subject to the laws of market mechanisms, in particular, the laws of supply and demand, competition, and marketing. According to Zmееv, "the vector of education development at the end of the 20th - beginning of the 21st century can be defined as a way to overcome rigid determinism thanks to the expansion of the framework of traditional education systems, the elimination of various restrictions, the acquisition of greater "openness" and flexibility, the liberation of the individual in the learning process, the disclosure of his/her potential opportunities and turning him/her into a real subject of his/her own history" (*Zmееv, 2007*). In other words, the concept of "open" education has become an important factor for the organization and development of education.

Today we are talking about another concept of education development, namely, learning throughout the entire conscious life. Let us emphasize that the ideas of continuity of education are present in all world pedagogical concepts because in today's fast-moving socio-economic conditions, new educational directions and specialization profiles are constantly being created, and new jobs are appearing, which enables participants in the educational process to realize their own potential and achieve success in life.

The problem of continuing education is usually associated with the process of a person's assimilation of new life, social and professional experience. For the first time, Lengrand at the UNESCO forum presented the concept of continuing education in 1965. This idea caused a significant theoretical and practical response. A

humanistic idea is embodied in his proposed interpretation of continuing education. The idea is based on the educational principles of a person who needs special conditions for the full development of his/her abilities throughout life (*Prozorova, 2009*).

According to psychologists, another reason for striving for continuing learning is the inherent human desire for self-improvement. Due to the influence of objective and subjective factors, the urge to study is an essential vital need of a person. Nowadays, continuing education is a necessary element of human existence (*Zmeev, 2007, S. 44*).

International organizations such as United Nations Educational, Scientific and Cultural Organization (UNESCO), the Organization for Economic Cooperation and Development (OECD), the Council of Europe, etc., are guided by this idea in their activities in the field of education. In countries such as Sweden, France, Spain, Canada, Great Britain, Germany, and the United States, the concept of continuing education is officially the basis of state educational policy. In the education systems of many countries of the world, the development of continuing education is the goal or one of the most important factors influencing the implementation of educational reforms.

The development of education in the field of social work began, which contributed to the improvement of the quality of the provision of social services (*Millar, 1990, pp. 35–52*).

The idea of continuing education has gained impetus in the social work sector, chiefly due to the move towards better regulation of the profession. Hence learning, as a continuing process, ceased to be limited to educational institutions, but moved to organizations that became training sites. Continuing competence was differentiated from continuing education with the determination that continuing competence was more reflective of what social workers do to maintain competence throughout their careers. Continuing education was embodied in continuing processes of learning and career growth, which included both formal and informal elements and, as defined by Bubb and Earley, is "...a continuing process that includes formal and informal educational experiences that enable staff to reflect on their activities, expand the range of knowledge, skills and abilities, and improve service delivery" (*Bubb, & Earley, 2007*).

Kendall (2002) declared that the progress of social work in the present time has come through the firm work of educators and specialists to adopt values, construct knowledge and improve skills essential to a profession that syndicates compassion with competence in various relationships with vulnerable individuals and positive action on social problems. Taking this into attention, social work practice is now determined to strengthen its proficient competence (*Kendall, 2002*).

Terms such as “lifelong learning”, the “learning society” and the “learning organization” began to be widely used and contained the idea that learning should become an ongoing process not limited to schools, universities, or other educational settings.

Today, social work as a profession is based on the philosophy of lifelong learning. As already noted, it is important to understand that the development of continuing education is largely dictated by labor market conditions and is developing rapidly (*Statistics Canada, 1991*).

The concept of "learning organization", which started in the business environment, was successfully borrowed and adapted in the social sector. Gould defines this approach as “...a shift from distance learning as the only opportunity to gain additional knowledge in the workplace to an awareness that learning in the workplace is informal and unplanned, something that happens all the time, although staff consider it more as learning of practical skills, and not as teaching itself” (*Gould, & Baldwin, 2004*). There are many definitions used for continuing education across different professions, though almost all of them contain common features. In particular, the Ukrainian scholar Nychkalo, who considers continuing education as a philosophical-pedagogical concept, according to which education is interpreted as a process covering the whole life of a person, an important aspect of educational practice at various levels of the education system, which represents it as a person's constant purposeful mastering of socio-cultural experience of different generations (*Nychkalo, 2008, S. 10*). The dynamism of modern civilization, the strengthening of the role of the individual in society and production, the growth of his/her needs, the humanization and democratization of social relations, the intellectualization of work, the rapid change of techniques and technologies, and other trends, according to Ziazyun, make it necessary to replace the formula "education for life" with the formula " education throughout life" (*Zyazyun, 2000*). Kremen believes that the highest goal of the state and society is to create conditions for the development of the personality and creative self-realization of every citizen, to raise a generation of people who are able to work effectively and learn throughout their lives, to protect and multiply the values of national culture and civil society, to develop and strengthen a sovereign, independent, a democratic, social and legal state as an integral part of the European and world community. The priority directions of the development of the educational system among the first five include personal orientation of education; formation of national and universal values; creation of equal educational opportunities for citizens; constant improvement of the quality of education, updating its content and forms of organization of the educational process; development of the system of continuing education and lifelong learning (*Kremen, 2003*).

Today, "the meaning and purpose of education is a person in constant (lifelong) development. The final result of education is the internal state of a person at the level of the need to learn new things, master knowledge, produce material and spiritual values, help others, be a benefactor" (*Sysoieva, Aleksyuk, & Volovyk, ta in., 2001, s. 90*).

"Ukrainian Encyclopedia of Education" defines continuing education as a process that covers the whole life of a person, which ensures the gradual development of the creative potential of an individual and the comprehensive enrichment of his/her spiritual world, as a purposeful systematic cognitive activity regarding the mastering and improvement of knowledge, abilities and skills obtained in general and special institutions, as well as through self-education (*Zadorozhna, & Kuznetsova, 2008*).

In the analytical note on the analysis of the study of the world experience of the development of education throughout life, developed by the Ukrainian National Institute of Strategic Studies, it is emphasized that today it is not possible to prepare a person for a professional activity for a lifetime within five or six years since about 5% of theoretical and 20% professional knowledge update annually. The 50 percent unit of measurement of the aging of a specialist's knowledge adopted in the United States illustrates that for many professions this period occurs in less than five years due to the emergence of new information. That is, in the system of higher education in Ukraine, this happens before students graduate. This state of affairs necessitates the transition to education throughout life. Undoubtedly, in addition to the acquired professional knowledge, it is necessary to develop communication and self-improvement skills and abilities, that is, to prepare for further education throughout the entire professional life (*Natsionalnyi instytut stratehichnykh doslidzhen, 2017*). Dave believes that continuing education is directly related to both individual development and social progress in general (*Dave, 1976*).

Therefore, today continuing education should become the main vector in the strategy of building a new educational concept since its progressiveness and priority are not in doubt. That is why it is necessary to radically rethink the content, forms, and methods of modern education and involve new sources and resources in the educational process. In the pedagogy of different countries, the concept of "continuing education" can be denoted by different terms, such as "lifelong education", "continuous education", "adult education", "further education", and "renewable education", i.e. alternating education throughout life with other types of activities, mainly with work, "permanent education". Each of these terms emphasizes certain aspects, but the common theme is an ongoing learning process involving adults.

Cropley noted that as early as 1929, Yexley defined and substantiated the concept of continuing education, as he considered this process to be organic, one that helps a

person to adapt to the changing socio-economic sphere under the conditions of the capitalist system (*Cropley, 1978*).

In the "Dictionary of the English Language", continuing education is defined as "...the provision or use of both formal and informal learning opportunities throughout human life with the aim of ensuring the continuous development and improvement of knowledge and skills necessary for professional activity and personal development" (*Collins English Dictionary*).

The definition of continuing education presented in the technical task for the analysis of the needs of social workers in the educational process of the province of Quebec in Canada is significant, namely: "continuing education is educational activities, which take place after the end of formal education, which contribute to the improvement and modernization of knowledge, as well as the development of skills and abilities". Further, the expanded definition states that "...continuing education is a continuous process of acquiring skills and abilities by individuals or organizations throughout the entire cycle of their professional existence to improve their qualifications in a specific field of professional activity, which (skills and abilities) meet the needs of the individual, the organization, and society in general. It is also an educational process, such as training, seminar, workshop curriculum, which promotes involvement in continuing education" (*Terms of reference for training needs analysis. (Continuing education component, 2008, p. 5)*). Terms of reference for training needs analysis. In the process of obtaining continuing education, the principles of modern pedagogy and psychology should be applied to solve educational tasks. These principles, according to the definition of the UNESCO International Institute of Lifelong Learning (Hamburg, Germany), are humanization, the democratization of education, the flexibility of curricula and programs, alternative approaches to the organization of the educational process, special attention to the education of women, youth, and people with disabilities (*Khodakov, 1998*).

Separately, we will dwell on the definition of formal educational services. Formal education usually uses systematic, organized educational models, which are structured by laws and norms provided by rather strict rules regarding the formation of curricula, their content and methodology. It corresponds to the educational process adopted in schools and universities, which necessarily involves teachers, students and institutions in general. Official educational institutions are usually administratively, physically and organizationally organized and require maximum presence of students in the classroom.

Formal education is aimed at obtaining or changing the educational level and qualification in educational institutions in accordance with approved educational and professional programs and terms of study, state certification measures certifying the receipt of relevant documents about education; provides for all types of knowledge

acquisition within the framework of the national education system. Vocational education, education for persons with special needs, and individual components of adult education are often recognized as components of the formal education system.

However, there is an opinion that in the process of creating a formal education system, the individual characteristics of students, their values, and attitudes are not taken into account. In particular, Dib expressed the opinion that formal education generally ignores tasks aimed at the personal growth of students, because curricula do not take into account the basic principles of learning adults, which calls into question the productivity of the education system. He believes that in the process of formal education, teachers simulate teaching and students simulate learning. Therefore, formal education cannot hide its alienation from the real needs of students and society in general (*Dib, 1988*).

Today in the educational space, the concepts of non-formal and informal education are used, the definitions of which are formulated in the "UNESCO Educational Glossary" (*Osvitnii hlosarii YuNESKO*).

Non-formal education includes the acquisition of all other knowledge during a person's life. The presence of students in the classroom is not always required, since the educational activities are, for the most part, provided outside the institution. For example, doing written work or reading scientific literature, which also reduces the number of personal contacts between teachers and students. The educational process becomes flexible and adapted to the needs and interests of students.

According to Ward and co-authors, it is quite difficult to define non-formal education, since there are differences in the traditions of non-formal education in different countries. The authors note that only a systematic and holistic analysis will contribute to distinguishing between formal and informal education. According to scholars, the educational process that takes place outside educational institutions is still of little interest to specialists in the planning of educational services. Despite the above, the authors singled out two main features of informal education: the orientation of the educational process towards students, their needs and capabilities, as well as the direct benefit of the received education for the personal and professional growth of students (*Ward, Sawyer, McKinney, & Dettoni, 1974*).

Within the framework of the European Youth Knowledge Center project, experts of the Council of Europe together with the European Commission defined non-formal education as any educational activity organized outside of formal education, which complements formal education, ensuring the acquisition of the necessary skills and abilities for a socially and economically active citizen of the country. This educational activity is structured, it has an educational goal, defined time frames, and infrastructural support and occurs consciously (*Bohdzevych, Yvanova, & Nazyna, 2009*).

In the "UNESCO Educational Glossary" the following are recognized as the main principles of non-formal education: a) learning by doing, b) learning to interact, that is, learning to work in a team, to cultivate a non-judgmental attitude towards others, and to cooperate with them, despite differences; c) to learn, i.e. to develop the skills and abilities of searching and processing information, analyzing one's own experience, setting personal educational goals and applying the above in practice (*Osvitnii hlosarii YuNESKO*).

Council of Europe experts emphasized that research is the main method of non-formal education. Cognition occurs at different levels: cognitive, practical, and affective. At the cognitive level, people learn facts, establish logical connections, and make sense of theories. At the practical level, they implement solutions and train skills and abilities. The affective level of learning involves awareness of one's own emotions, norms, values, and attitudes toward certain things. Training takes place on a parity basis: both the object and the subject of the process are defined as participants in the process (*Osvitnii hlosarii YuNESKO*).

Involvement in the informal educational process offers participants the necessary experience and contributes to a better understanding of themselves and the world around them. Non-formal education responds more quickly to the new needs that arise in the participants during the learning process, as well as to the needs of the community. It is often introduced in order to guarantee the right of access to education for all. It is intended for people of any age but does not necessarily provide for a continuous path to education. In particular, these may be short-term programs and/or low-intensity programs provided in the form of short courses, workshops, trainings and seminars (*Osvitnii hlosarii YuNESKO*).

Pekar believes that it is non-formal education that offers alternative forms of learning and new content that help people adapt to the constant transformations of society. Today, one of the main tasks of non-formal education is to prepare young people and adults for independent life, since formal education does not guarantee integration in the labor market and, therefore, loses its monopoly. At the same time, informal education is often positioned with the sphere of civic education, and it is aimed at creating conditions for the formation of a democratically oriented citizen. It is informal education that forms and develops such skills and abilities that go beyond the goals of the formal education system, for example, the ability to cope with problems and stressful situations, the ability to think critically and participate in social and political processes, the ability to live in conditions of diversity and dynamic changes in society, the ability to learn, etc (*Pekar, 2011*).

Informal education is defined as a conscious, but not an institutionalized form of education. It is less organized and structured than formal and informal education. Informal education can encompass educational activities that take place in the family,

workplace, local community, and everyday life on an independent, family, or socially oriented basis (*Osvitnii hlosarii YuNESKO*).

Informal education includes such activities as, for example, visiting museums, science fairs and exhibitions, participation in scientific competitions and conferences, reading scientific texts, listening to lectures, access to mass media, Internet resources, postal communication, TV - and radio communications, computer access to information banks, etc. (*Dib, 1988*).

Usually, the international educational community believes that informal education contributes to self-actualization, self-realization, self-regulation, and self-improvement of the individual. It does not need external control, because the participants of the educational process are motivated, they know how to control themselves, plan, and organize their educational process.

Key differences distinguishing types of education from each other can be seen in the given definitions. In particular, the main difference between formal and non-formal education is that the latter is a supplement or alternative to formal education. The main difference between informal education and other types is that it is not institutionalized. There is an inextricable connection between formal, non-formal, and informal education. The defining characteristic of non-formal education is that it complements formal education and can continue continuously throughout a person's life. Informal education contributes to the self-development of the learner. In our opinion, in general, they are components of continuing professional development of specialists, social workers in particular, which strengthens personnel potential through additional professional education, helps to adapt to changing living conditions in the social environment, and ensures the satisfaction of various individual educational needs of citizens. Therefore, continuing education should be considered not as a collection of different types and forms of education, but as a continuation of basic education. According to Arkhypova, continuing education forms a single system consisting of interdependent and subordinate elements to common goals and objectives (*Arkhypova, 2017*).

It is considered that the most developed formal education in the world, which ends with certification (issuance of a diploma, certificate, etc.), and in Ukraine with an attestation (*Memorandum neperervnoi osvity Yevropeiskoho Soiuzu*). In Ukraine, the above terms are reflected in the Law of Ukraine "On Education", adopted on September 5, 2017, in particular, in Article 8 "Types of Education". The state recognizes these types of education, supports subjects of educational activity that provide relevant educational services, and encourages the acquisition of all types of education (*Pro osvitu, 2017*). In this law, formal education is defined as that obtained through educational programs by the levels of education, fields of knowledge, and specialties (professions) established by law. It provides for the achievement by the

students of education of the education standards defined by the educational standards of the corresponding level of education and the acquisition of qualifications recognized by the state.

Non-formal education is acquired through educational programs that do not provide for the awarding of state-recognized educational qualifications by the level of education but it can be completed by the awarding of professional and/or partial educational qualifications. Accordingly, informal education (self-education) is education that involves the self-organized acquisition of certain competencies by a person, in particular, during everyday activities related to professional, social, or other activities, family or leisure. Therefore, self-education is usually a conscious, planned, and self-regulated cognitive activity of an individual. It is based on motivation that helps him/her develop harmoniously, satisfy his/her cognitive interest, raise his/her professional level, or master a new profession (*Pro osvitu, 2017*).

Among the components of continuing education today, continuing professional training is distinguished, which is defined as "...the continuing creative development and improvement of each person throughout his/her life through the interaction between the knowledge acquired at the initial stages of education and the knowledge acquired at later stages, as well as the interaction between theoretical and practical knowledge, which is confirmed by competence in their further practical use. It covers formal professional and further education, provides a consistent combination of educational and professional activities in educational institutions, professional self-improvement at various stages of life" (*Zadorozhna, &Kuznetsova, 2008*).

In 1962, the 46th session of the General Conference of the International Labor Organization (ILO) adopted the "Vocational Training Recommendations". "Training is not an end in itself, but a means of developing a person's occupational capacities, due account being taken of the employment opportunities, and of enabling him to use his abilities to the greatest advantage of himself and the community; it should be designed to develop personality, particularly where young persons are concerned". (International Labor Organization).

In the document, which consists of 16 chapters, professional training is defined as a global guideline and contains principles for planning and managing the educational process at the national scale, a description of aspects of cooperation, in particular, international cooperation, information on training and pre-professional training, organization of training, methods and teaching aids, etc (*Abashkina, Avksentieva, Antoniuk, Desiatov, Korsunskaya, Kudin, Nychkalo, Pukhovska, & Romanova, 2000*).

As Coffield emphasizes, continuing professional training is also a right that any professional who has his/her own learning needs due to a lack of knowledge or experience can exercise (*Coffield, 2008*).

The consequence of continuing professional training is the acquisition of professionalism, in the field of social work in particular, which is based on responsibility. A manifestation of professional responsibility is an emotional and valuable attitude to the constant process of self-improvement and raising one's own level of professionalism in both theoretical and practical types of work (*Christiansen, & Townsend, 2010*). The specialist assumes responsibility for the formation of an emotional and valuable attitude towards the need to analyze one's own actions and the actions of others in order to further improve and increase the quality and efficiency of the provision of services, in particular, social services.

In this article, we prefer the terms "training" and "continuing professional training" as those that more accurately reflect the applied nature of the profession of "social work" and refer not only to formal educational services but also to learning at the workplace as the main postulate of the profession.

All the types of education listed above (formal, non-formal, and informal) form a chain of continuing education, which, in turn, is a component of continuing professional training, as noted by Murphy et al. (*Murphy, 2006*).

For example, the American Nurses Association describes continuing professional training as "... an active educational process that continues throughout the entire professional life of professionals and helps to develop and maintain an appropriate level of professional qualifications, expand professional practical activities and achieve career success" (*American Nurses Association, 2000*). The Royal College of Nursing in Great Britain describes continuing professional training as follows: "...it (continuing professional training) is the foundation of professional growth for all healthcare professionals; it is a mechanism that determines the quality of service delivery and development" (*Royal College of Nursing, 2007, p. 2*). It is the involvement of specialists in the process of continuing professional training, according to O'Sullivan, that contributes to increasing the level of knowledge and improving skills and abilities, which, accordingly, positively affects the provision of services (*O'Sullivan, 2004*).

Continuing professional training should be considered an integral component of a person's life when formal, additional education and self-education are combined. In Canada, for example, continuing education is considered a component of continuing professional training, it serves as an indicator of the modernization of the education industry in general (*Rusnak, 2013*). One of the definitions of continuing professional training defines it as "... a series of educational and practical activities, thanks to which workers in the sphere of provision of services in the human-to-human system

maintain and develop their knowledge, skills, and abilities throughout careers to ensure the safe and effective provision of services to clients in accordance with current legislation” (*Health and Care Professions Council, 2016*).

Therefore, professional training is both a learning process and a result or readiness for a certain type of activity, which is determined by the set of requirements for a specialist. In other words, it is the process of acquiring knowledge, abilities, and skills that form competencies as a basis for the quality performance of future professional tasks. The quality of training becomes important and in modern education is evaluated on the basis of the competency approach.

Conclusion

Therefore, continuing professional training in the field of "social work" is defined as a process of professional growth and self-improvement of social workers, the components of which are formal, informal and informal professional education; its basis is the acquisition and implementation of professional experience based on the observance of professional values of social work.

At the conceptual level, the result of continuing professional training of social workers is their integrated personal and professional readiness, which is formed by components corresponding to the content of the activity, features, and conditions of its implementation in practice.

We may conclude that, along with other professionals, social workers are participating in a fundamental shift from the old model of an initial professional qualification followed by a lifetime of professional practice, to a new model of an initial qualification followed by continuing professional training throughout a practitioner's career.

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EDUCATION SYSTEM: FOREIGN EXPERIENCE

Abstract

In modern conditions, the system of graduate higher education is an important direction of optimizing the training of a new generation of specialists.

For the effective implementation of degree education, a solution to a whole complex of tasks is necessary.

The predominant importance of knowledge in the modern world, on the one hand, and the growing demands on those who are trained by a higher school, on the other hand, increase its responsibility and importance to society. The experience of organizing higher education abroad can be useful for building professional education in Ukraine.

The peculiarities of the training of specialists determine a flexible response to changes in the structure of the education system and public life. At the same time, the training of specialists in any field is carried out in close cooperation with all sectors of professional education, such as universities, institutes and colleges.

At the current stage of development of the commonwealth, the question of developing a unified strategy in the system of professional training of various categories of specialists has arisen.

The education system, for example, for the legal profession of any country depends on the system it follows, the national policy on higher education and its requirements. There are three separate jurisdictions within the UK – England and Wales, Scotland and Northern Ireland.

All three are based upon the common system. The education systems of the three jurisdictions involve two pre-qualification stages - the Academic stage, the Vocational stage, albeit, each has its own distinctive characteristics. The most of the schools have explicit incorporation of skills in the units of the curriculum. The

education of lawyers in the USA is generally undertaken through a school program, In Australia most universities offer as an undergraduate-entry course.

The professional degree in Canada is the Bachelor of Laws. The Bar Council of India prescribes and supervises standard of education in India. Law in Italy and France is studied in a jurisprudence school, which is an entity within a larger university. The law of South America is one of the most unified in the world.

Key words: school, education, profession, system, common system, skills, an undergraduate-entry course, distinctive characteristics, professional degree.

Introduction

In modern conditions, the system of graduate higher education is an important direction of optimizing the training of a new generation of specialists, maximally meeting the educational needs of the individual and society, and differentiating professional training.

For the effective implementation of degree education, a solution to a whole complex of tasks is necessary.

The predominant importance of knowledge in the modern world, on the one hand, and the growing demands on those who are trained by a higher school, on the other hand, increase its responsibility and importance to society. The experience of organizing higher education abroad can be useful for building professional education in Ukraine.

The peculiarities of the training of specialists determine a flexible response to changes in the structure of the education system and public life. At the same time, the training of specialists in any field is carried out in close cooperation with all sectors of professional education, such as universities, institutes and colleges.

This approach fully corresponds to the modern strategy – both pan-European and national – to achieve a high level of training of specialists in all areas. At the current stage of development of the commonwealth, the question of developing a unified strategy in the system of professional training of various categories of specialists has arisen.

The fundamentals of the study

Legal education system of any country depends upon the legal system it follows, national policies with regard to higher education and requirements of the legal profession. UK is no exception in this regard. Legal education system in UK is based upon the common law system which had been developed through the judicial decisions and customary laws crystallised through the practices and tradition followed over hundreds years. Both in terms of academic quality and professional training, UK legal education system is one of the most developed legal education

systems in the contemporary world. There are three separate legal jurisdictions within the UK – England and Wales, Scotland and Northern Ireland. All three are based upon the common law system. The UK was also a member state of the European Union and subject to European law in a number of areas. Therefore, there is a strong European assimilation in UK legal education system.

The legal education system of the three jurisdictions differs in respect of both academic and practical aspects. However, the most common aspect is that the legal education systems of the three jurisdictions involve two pre-qualification stages– the Academic stage, the Vocational stage, albeit, each has its own distinctive characteristics. While the academic stage is concerned with the analysis of legal texts, concepts, doctrines and the identification of legal principles, the Vocational stage is more concentrated on skills and competencies that practising lawyers require grounding in substantive law at the academic stage followed by procedural trainings at the vocational stage.

The Academic stage usually consists of undergraduate and post graduate courses, which are offered by the most of the UK universities. The academic stage involves acquiring of a standard law degree (also known as qualifying law degree) as opposed to a ‘non-standard’ one.

The Bar Council of England and Wales and the Law Society decide which law degrees are Standard for the purpose of the term and they prepare a list to that effect for the benefit of would-be practitioners.

Postgraduate degrees do not generally fulfill the criteria of a Standard law degree. And not all undergraduate law degrees are Standard for this purpose, the undergraduate degree offered by the University of Derby. In order to be designated as a Standard law degree, according to BC/LS regulations, a law degree ‘must’ have complete curriculum on certain ‘foundation’ or ‘core’ law courses.

These include– Law of Obligations (contract & tort), Equity-Trusts, Property law, Public law (administrative and constitutional law), criminal law, Evidence, European law. These core courses must be based on UK law and not on the law of some overseas jurisdictions – as a result, almost all degrees from overseas universities are ‘non-standard’ for the purpose of BC/LS. There are some postgraduate degrees offered by University of Leeds and few other universities, which exempts its holder from concluding the academic stage– which makes it a de jure standard degree. For instance, two-year LL.M. course offered by the University of Leeds is prominent example of such de jure standard degree.

The undergraduate law degree is the most common form of entry into the legal profession.

The undergraduate course commonly leads to a Bachelor of Laws or a Bachelor of Arts, or joint honours degree. In England, LLB course runs for three years, but in

Scotland, it is usually a 4-year course. The undergraduate courses intend to give general idea about laws, legal system and legal principles to the students.

The undergraduate course may include following subjects: property (labour, employment, discrimination, environmental) law, equity, trust, consumer (competition, intellectual property, administrative, constitutional) law, law of contract, law of tort, restitution laws, tax laws, legal philosophy, legal theories, medical/health (company, criminal, international, civil, land, family, EU community, public) law, conflict of laws. However, some of these courses must be core subjects for the undergraduate course for a degree in order to be a standard one.

The postgraduate course aims at acquiring a systematic understanding of knowledge in particular area and intends to provide the students a critical reflection of current problems and new insights, and advanced scholarship in the discipline.

Postgraduate courses are more directed to specialisation in a particular field.

The postgraduate course leads to LLM, BCL (Bachelor of Civil Law – a one-year masters programme in law designed for students with common law background – offered by Oxford). MJur (Majister Juris – a one year masters programme in law designed for students with backgrounds other than in common law – offered by University of Oxford), MSt (Master of Studies – a one year postgraduate research programme in law similar to research LL.Ms-offered by Oxford), MPhil (One or two years) or PhD (called DPhil in Oxford and in a number of other universities) degree.

The LL.M. course may be either taught or research based. The most popular LL.M programmes are in the areas of international law, human rights, commercial law, trade law, European community law, environmental law etc.

Mode of study. Both undergraduate and postgraduate courses can be studied in full time or part time basis. However, part-time courses are mainly open to home/EU students only and this option is not available to the international students in most instances.

Distance Learning Programme. Most of the universities offer internal programme. However, some institutions offer distance learning or external programme for both undergraduate, postgraduate course. External programmes are available in University of London, University of Wolverhampton and some other institutions. In most of the UK institutions, academic session starts with September of the calendar year. However, some institutions also have January session.

Institutions

Legal education is carried out through both universities and colleges. However, unlike Bangladesh and other countries, both universities and colleges maintain fair degree of similarity in terms of duration of course and quality of curriculum.

However, sometimes university and college are used interchangeably and the difference seems to be more semantic than real one in particular when colleges form

the unit of university. For example, King's College, Imperial College, University College of London, College of Law are really part of London University.

Legal curriculum is formulated by institutions themselves and with the consultation of relevant professional bodies. Although universities being autonomous institutions are free to determine the syllabus and curriculum of the disciplines including law, the Bar council and Law society exercises considerable influence in formulating legal curriculum in England and Wales.

Over the years, the Bar Council and Law Societies have issued a series of joint statement indicating the necessary contents of syllabus for law courses.

Each academic year may be divided either into terms or semester depending upon the system of a university. Each academic year may have three or four term spanning 10 to 12 weeks. On the other hand, each academic year usually has two semesters. Typically a student would take four full subjects, or 8 half subjects or modules, each year. Students will also be able to select optional modules or courses dependent upon the alternatives offered by the law School. Jurisprudence or legal theory is an option offered by nearly all law schools. In UK, practice of teaching legal system of other European countries is also widespread. French, German, Italian, Spanish, Japanese laws and legal systems are also popular options. A small number of law schools teach Roman law.

The UK legal education system highly emphasises on research components as part of undergraduate course. The universities are increasingly attaching value to the learning research skills at both undergraduate and post graduate levels.

However, research components figure prominently more in postgraduate courses. In postgraduate level, the course may be offered as fully research based or partially research based when the course is taught one.

The alternative law degrees are available for non-law graduates who have first obtained an undergraduate degree in another discipline. It is known as Common Professional Examination (CPE), which is also known as the postgraduate diploma in law (PgDL). Usually it spans one year.

However, it is offered by a small number of universities. It provides tuition about the core law subjects prescribed by the professions for entry into the Vocational stage. CPE/PgDL is generally aimed at students who have their undergraduate degrees in subjects other than law, for an economics, politics or science graduate from a UK university who now wants to be trained as a lawyer. Candidates with overseas degrees are not generally eligible to enroll in CPE even with a Master degree from their home country.

However, overseas candidates are accepted only after they have obtained their postgraduate course in UK or European Universities. CPE/PgDL provides certificates of completion of the Academic Stage to candidates who wants to get enrolled at the

Vocational Stage (Bar Vocational Course or the Legal Practice Course) in order to be trained as a Barrister or Solicitor.

Learning of legal skills and clinical legal education programme are recognised as an established feature of the curriculum. Legal skills include drafting, research, interviewing, negotiation, advocacy, legal analysis and communication. Legal skills learning are incorporated in curriculum either explicitly or implicitly. The explicit incorporation is defined as where the legal skills form a definitive part of a unit of curriculum dedicated to skills.

The implicit incorporation refers to the situation where legal skill is delivered to the students as part of an overall educational process. The most of the law schools have explicit incorporation of legal skills in the units of the curriculum.

In many law schools, legal skills are imparted under Clinical legal education programme (CLEP) with a view to providing skills on lawyering process, Alternative Dispute Resolution, the public role of lawyer and professionalism. Clinical legal education programme is increasingly becoming popular in the law schools as a means of delivering practical skills. CLEP have been introduced in some UK law schools with a view to enhancing the students' learning experience and understanding of the substantive law, legal process, ethics and the role of law in society.

The clinical programme requires students to address legal skill (drafting, research, advocacy, interviewing, negotiation), transferable skills (communication, problem solving, team work, organisational, study skills, the use of new technology). Through clinical legal education programmes, students are exposed to unstructured legal problems arising from real life problems.

Clinical legal education is a model where students learn through experience or 'doing' law.

Clinical legal education is imparted in two ways: live-client model and simulated. The use of live-client clinical work aims at the exposure of students to learning by doing with real clients. It aims at imparting learning through problem solving in a real client context.

Live-client clinics can take a variety of forms, such as in-house advice centres and representation services, outreach clinics (advice & representation), community based consultancy services, legal literacy clinics (Street Law). Simulations based clinical legal education programme refer to learning process through demonstration of cases or parts of cases without real clients and based either on fictitious or real facts, but acted out as if they were real. However, the American import of CLEP has still to go a long way to be recognised as a standard curriculum in the UK law schools.

Still famous institutions like Oxford, Cambridge and most of the old law schools do not recognise CLEP. Because the main problem with such programme is that it involves live-client interactions, against which there are already a number of practice-

related laws and regulations in place. There is also the impediment of professional insurance, which is in place to ensure professional liability/responsibility of the legal advice given. Furthermore, in the UK, there are regulations– on who can provide legal advice, on who can accept legal briefs, on who can meet the clients directly, on matters of fees and remuneration, on matters of contingency fees and legal aid bills etc- based on which UK’s dichotomous (Barrister/Solicitor) legal profession is built.

These are the reasons why law schools in UK are hesitant to adopt this programme wholeheartedly. There is a strong academic logic behind this- that the aim of the law degrees in UK is not produce practising lawyers only. Their aim is also to produce legal academics, administrators, consultants, policy makers, politicians, activists, campaigners. Therefore, it is not necessary to train everyone in practical legal skills in their undergraduate days since not everyone is going to be a practicing lawyer. For specific practical legal skills, there is always the Vocational Stage of professional training which is already in place to serve the purpose.

In short, the issue of CLEP is still fighting its ground in UK and the degree of its implementation differs from one law school to another, depending on their respective teaching philosophies and strategies. Professional responsibility for lawyers is highly maintained and regulated in the UK.

In the UK, professional responsibility is monitored by the professional bodies like the bar, by the judiciaries. Teaching of legal ethics is one important part of vocational training, but it is taught in some law schools.

Analytical approach through analysis of concepts and case materials is most preferred method of study rather than descriptive system that is prevailing in Bangladesh. A critical approach to legal studies is taken by law schools such as Kent, Westminster and Keele – as opposed to the formal position of the law schools in Bangladesh. In the UK law schools, the students are asked to analyse the provisions of the law, statutes, regulation rather than memorising the provisions of law and explain the case materials in the light of given problem of practical importance.

Teaching of Law in the UK universities is influenced by two main factors – needs of legal profession, the government’s higher education policy. Teaching is conducted by lectures, seminar and simulation/role play. Student assessment is carried by exams, course work, oral presentation and continual assessment. Mooting and debates are popular methods of extra-curricular activities in law schools.

Quality Assessment. The quality of legal education in UK is maintained by the general scheme of quality assurance which is also applicable to the other disciplines.

Currently, there are several institutions and systems in the UK for quality assessment of higher education. The central agency is the Quality Assurance Agency, which oversees comparability and transparency of the university education in the whole UK. The new programme was launched in 2001 by the Agency in order to establish clear

and accurate information on the level of training, the character and the outcomes of university education. The Agency sets out benchmarks and standards of awarding degree at the different levels and it has mechanisms to inspect the UK universities.

For the quality assurance, the concerned institution is obliged to comply with these benchmarks and standards. Research Assessment Exercise, which is popularly known as RAE, is a common method of evaluating research of the UK universities.

RAE is concerned about evaluation of output of individual departments of the universities in terms of publications of academic staffs, experiments, infrastructure facilities and publications of journals and books. RAE is a four yearly process. For assessment of the quality of teaching, there is a separate system, which is known as TQA (Teaching Quality Assessment). The Institute for Learning and Teaching (ILT) provides training on teaching for prospective teachers. It offers courses for those who are interested to be employed as a teacher of a University. This is not mandatory but is often considered a plus point in the selection process, particularly for those candidates who do not have any prior teaching experience in the UK universities.

In delivering higher education and transmission of knowledge, technological support by internet facilities, intranet, video conferencing, power point presentation is increasingly used in the UK universities. Learning IT skills is now considered as necessary part of legal education.

There are two main categories of legal profession in England and Wales- barrister and solicitor. The law students, who wish to practice law, must select one of the two options for profession and apply for entry and complete the vocational stage.

The vocational stage places a strong emphasis upon the practical skills that lawyers require.

Solicitors

In England and Wales, the Law Society and the professional body representing solicitors requires those who wish to qualify to join a Legal Practice Course. If they successfully pass this, they will have to obtain a Training Contract from a solicitors' firm, which will provide them two further years training, before a successful law student is finally 'admitted as a solicitor' or entered on the Roll of Solicitors.

The Legal Practice Course (LPC) lasts one academic year. The LPC involves the compulsory study of some substantive subjects, accounts, taxation, company law, and professional conduct. The skills of interviewing, drafting, and negotiation are also studied and examined. Upon successfully completing the LPC a Trainee Solicitor enters a firm and continues on the job training for a further two years. This period includes formal training in advocacy. Thereafter all solicitors are obliged to continue compulsory professional development (CPD), which can be achieved by obtaining credit for attending accredited courses, which update legal knowledge or procedure or

otherwise inform the practice of law. In Scotland, diploma in legal practice is offered for students intending to be solicitors and advocates after completion of LLB degree.

Barristers

In England and Wales, the General Council of the Bar has franchised a one year programme and examination called Bar Vocational Course (BVC) for those wishing to become barristers. The Bar Vocational Course (BVC) was introduced in 1989 to emphasize the practicing skills required for court work. The course utilizes practical exercises for the competencies in Drafting, Research, Advocacy, Interviewing and Negotiation (DRAIN). Bar vocational course is offered by eight institutions -BPP Law School, Inns of Court, College of Law, Cardiff, School of Law (City University), Manchester Metropolitan University, University of Northumbria, Nottingham Law School (Nottingham Trent University), Bristol Institute of Legal Practice, and the University of the West England.

Different institutions have evolved their own programmes and assessment methods. However, performance assessment in the skills areas and multiple choice tests for testing detailed knowledge of procedural rules have been adopted by most, if not all, institutions. In addition to practical skills, substantive courses are also taught on criminal law, common law, and taxation, civil and criminal procedure in Bar vocational Course. Upon successfully passing the Bar exams, a student can be called to the Bar by her/his Inn of Court. All those wishing to become barristers have to join one of the four Inns of Court (Gray's Inn, Inner Temple, Middle Temple or Lincoln's Inn), which basically involves paying a membership fee and eating a number of compulsory dinners. Call to the Bar however does not entitle automatically a barrister to practice because a barrister must complete a further 12 months 'pupillage' in a group of barristers' offices or chambers of barristers in order to appear in court.

Role of Professional Bodies

The Bar council is the governing body for the barristers. The law society is the governing body for solicitors. There is separate law society for Scotland called Scottish Law Society.

The function of professional bodies includes issuing guidelines for vocational courses about the necessary qualification of the lawyers and formulating legal curriculum of the law schools.

Legal education in Britain has an interesting history, very different from that on the Continent. Until the 18th century, British universities did not offer classes in the common law.

Young men who studied law at the universities learned only civil law and were qualified to practice in the church courts or specialised courts based on civil law (such as admiralty), but not in the common law courts. Men who intended to become

barristers became members of the Inns of Court and learned the law by attending court and observing lectures and moots at the Inns.

Legal education in the United Kingdom is divided between the common law system of England and Wales and Northern Ireland that of Scotland, which uses a hybrid of common law and civil law. Dundee, Glasgow Law School & Strathclyde, in Scotland, are the only universities in the UK to offer a dual-qualifying degree. Dundee also offers a choice of either English/Northern Irish or Scots law separate LL.B. degrees.

Aberdeen offers a Law with English Law course in which Scots Law and English Law is taught. Requirements for becoming a lawyer in England and Wales and in Northern Ireland differ slightly depending on whether the individual plans to become a solicitor or barrister. All prospective lawyers must first however possess a qualifying law degree, or have completed a conversion course. A qualifying law degree in England and Wales must contain modules covering the following subject areas:

- Public law (constitutional/administrative).
- European Union law.
- Criminal law.
- Law of obligations (contract, restitution, tort).
- Property law (real property).
- Trusts and equity.

Following graduation, the paths towards qualification as a solicitor or barrister diverge.

Prospective solicitors must enroll with the Law Society of England and Wales as a student member and take a one-year course called the Legal Practice Course (LPC), usually followed by two years' apprenticeship, known as a training contract. Prospective barristers must first apply to join one of the four Inns of Court and then complete the one-year Bar Professional Training Course (BPTC), followed by a year training in a set of barristers' chambers, known as pupillage.

When the kingdoms of England and Scotland merged to form the Kingdom of Great Britain in 1707, the terms of the 1706 Treaty of Union that led to the union guaranteed that Scotland's legal system would continue, separate from that of England and Wales. Scots law is founded upon Roman or civil law, although today it has evolved into a pluralistic system, using both civil and common law. As in England and Wales, lawyers in Scotland are divided into two groups: solicitors and advocates. Solicitors are members of the Law Society of Scotland, and are only entitled to practise in the lower courts of Scotland, while advocates are members of the Faculty of Advocates and are permitted to appear in the superior High Court of

Justiciary and Court of Session. Membership of either (but only one) body can be attained either by sitting that body's professional exams, or by obtaining exemption through the award of a qualifying law degree and successful completion of the Diploma in Legal Practice. The Diploma in Legal Practice trains students on the practical elements of being a lawyer in Scotland, and consists of a broad range of compulsory modules.

After completion of the diploma, students wishing to become solicitors undertake a two-year traineeship with a law firm, before being admitted as full members of the Law Society. To become an advocate, students undertake a period of training of 21 months with a solicitor, before a further nine month unpaid traineeship with an experienced advocate, known as devilling. Scottish solicitors and advocates are entitled to practise elsewhere in the European Union, provided that they satisfy the requirements of the relevant EU directives. However, to practise elsewhere in the United Kingdom, further courses and examinations are required.

Schools of law

The following institutions offer qualifying degrees of Bachelor of Laws (LL.B.). Those offering the Diploma in Legal Practice are marked with an asterisk (*):

- University of Aberdeen School of Law*.
- Abertay University.
- Dundee Law School at the University of Dundee*.
- Edinburgh Law School at the University of Edinburgh*.
- Edinburgh Napier University.
- University of Glasgow School of Law*.
- Glasgow Caledonian University.
- Robert Gordon University*.
- University of Stirling.
- Strathclyde Law School at the University of Strathclyde*.
- Alternatives to an (initial) law degree.

In England and Wales there are also one year conversion courses known as the Common Professional Examination (CPE) or Graduate Diploma in Law (GDL), for non-law graduates as an alternative to the full-length LL.B. degree course, whilst a number of institutions also offer two-year conversion courses, usually at a lower cost with a more distinguished qualification, such as a master's degree. Scots law regulations usually require a full LL.B qualification. It is possible to complete an honours degree in any other subject, whether in Scotland or elsewhere, and subsequently undertake a qualifying accelerated two-year LL.B. (which is essentially the first two years of the honours LLB) at several universities including Aberdeen, Caledonian, Dundee, Edinburgh, Glasgow, Strathclyde and Stirling.

Future solicitors might attend one of the lesser Inns but generally learned their craft through working as a clerk in a solicitor's office. Even when the universities introduced classes in the common law (starting with Blackstone's lectures at Oxford).

It was neither customary nor required that future lawyers attend university. And those that did, continued to receive the bulk of their education through practical training. It was not until the twentieth century that legal education became based in the universities and they began to concentrate on teaching the common law. Today, most future lawyers in Britain spend three years studying law at a university, though it is possible to qualify if the initial degree is in another subject.

After receiving a B.A. or L.L.B. (the title of the degree varies from one university to another), those who intend to become solicitors spend a year studying at a law school (longer if the initial degree is not in law) before taking the qualifying exam, while those planning to become barristers attend the Inns of Court Law School. After that, both branches of the profession serve an internship of sorts before fully qualifying; depending again on the branch of the profession, they wish to enter.

If I remember correctly, when I was applying to do a post-graduate course at a British University, the undergraduate programmes consisted entirely of courses in the common law, at least in terms of required courses. Oxford had a post-graduate degree available in civil law. There were presumably optional courses in civil law and international law, but it was certainly possible to become a practicing lawyer in Britain, as in the USA, with no exposure to the law of any other jurisdiction. Today, both Cambridge and Oxford have required courses for first year students in civil law, called A Roman Introduction to Private Law at Oxford and Civil Law I at Cambridge University. At the London School of Economics, on the other hand, the required courses in the first year are all based on the common law.

Although optional courses taken in the second or third years include the law and institutions of the European Union, an introduction to civil law, and various aspects of international law.

Both Oxford and Cambridge offer undergraduates the option of the traditional three-year degree or an optional fourth year spent at a European law school studying either the law of a particular European country or the law of the European Union or international law.

Similarly, the University of Warwick offers an optional four-year degree in law in which the student can spend a year studying abroad in English at one of a number of European universities that offer English-language programmes or studying at a French or German university in the language of that country, for those with sufficient language skills to do so.

Generally, those doing the four-year degrees spend two years at their home institution, the third at a European school, and the fourth year back in the U.K.

In the USA, unlike Europe and Britain, law is taught as a post-graduate degree. Students generally attend university and receive a B.A. before beginning the three-year programme in law that leads to a Juris Doctor (J.D.) degree. There is no required course of undergraduate studies, although many students who intend to go on to law school specialise in history or political science. While the majority of American law schools are affiliated with universities, there are a number that are independent, or free standing. Having completed the J.D., American students sit for the bar exam in the state in which they choose to practice, and if they pass the exam (the pass rates vary from one state to another), they are admitted with no further education or internship required, although some states (but not all) have mandatory continuing legal education.

In the first year, all of the courses were required: contracts, torts, property, civil procedure, criminal law, and constitutional law. After that, they had choices, but the bulk of them dealt with specialised areas of American law.

Other faculty taught a variety of courses in public and private international law, the law of the European Union, and a history of Greek and Roman law, with a total of something like twenty offerings in the areas of comparative or international law.

The total does not include those domestic courses in which faculty have chosen to add a comparative perspective. In addition, the school has recently added a new required course in the first year entitled *The Regulatory State*, which is described as follows: "This course introduces students to statutes and agency decisions and the central role they play in modern government. The course covers the nature of statutes and agency regulations, how they are generated, how they are interpreted and applied. It will consider the justifications for modern regulation, the modern administrative state, the incentives that influence the behaviour of the various actors, and the legal rules that help structure the relationships among legislatures, agencies and courts."

While this class deals with domestic law, it is vastly different from the kind of course I had in law school and arguably better prepares students for the study of, among other things, modern European law. Finally, Wayne State University Law School has recently established a Programme for International Legal Studies to combine the courses, lectures, and study abroad programmes under one umbrella.

The school now has a systematic way to deal with student and faculty exchanges, fellowships for study abroad, international internships, and visiting scholars.

Similarly, the University of Michigan Law School has a Centre for International and Comparative Law, a European Legal Studies Programme, has fairly recently added a required course in Transnational Law. New York University Law School (NYU) has been known for some time for the quality of its international programs, including having a number of faculty members with affiliations at both NYU and

European law schools. The University of Buffalo Law School has a graduate programme geared toward lawyers who were educated outside the USA, with the goal of providing them with sufficient background in the law of the USA to sit for the New York bar exam after a year at Buffalo. These are just a few examples of the way, in which American law schools are increasing the study of international law and providing opportunities for foreign lawyers.

In addition to the increased number of courses in international and comparative law, almost every law school in the USA either sponsors one or more study abroad programmes during the summer or allows students to participate in study abroad programmes run by other schools and receive credits at the home school. There are programmes at many American law schools through which students can spend a year or a semester studying at a foreign law school while still receiving credit for their work at their own institution. The education of lawyers in the USA is generally undertaken through a law school program, although in some states (such as California and Virginia) applicants who have not attended law school may qualify to take the bar exam. Legal education in the USA normally proceeds along the following route:

- Undergraduate education (usually 4 years).
- Law school (usually 3 years).
- Admission to the bar (usually by taking a state's bar exam).
- Legal practice.

In the USA, in most cases, the degree awarded by American law schools is the Doctor of Jurisprudence or Juris Doctor (J.D.), a Doctoral degree, the pursuit of which students undertake only after having completed an undergraduate degree in some other field (usually a bachelor's degree).

The law school program is considered to be a professional school program and upon graduation you receive the distinct title of Doctor (although most states strictly regulate the ability of attorneys to style themselves doctor). Research degrees that are awarded include the Master of Laws (LL.M.), Doctor of Juridical Science degrees (J.S.D. or S.J.D.) and Doctor of Comparative Law (D.C.L.), are post-undergraduate and research and academic-based level degrees. In the U.S. the Legum Doctor (LL.D.) is only awarded as an honorary degree.

A number of law students apply for an optional judicial clerkship (less than 10% end up in such position), to be taken after law school and before legal practice.

Clerkships usually last one year with appellate courts, but trial level courts (including federal district court) are increasingly moving towards two-year clerkships.

Once a student has graduated from law school, he or she is expected to pursue admission to the bar in order to practice. Requirements for membership in the bar vary across the USA. In almost every state, the only way to be admitted to the bar is

to pass a (usually multi-day) written examination. Once admitted, most States require attorneys to must meet certain Continuing Legal Education (CLE) requirements. Academic degrees for non-lawyers are available at the baccalaureate and master's level. A common baccalaureate level degree is a Bachelor of Science in Legal Studies (B.S.). Academic master's degrees in legal studies are available, such as the Master of Studies (M.S.), and the Master of Professional Studies (M.P.S.). Such a degree is not required to enter a J.D. program.

Trinity College Cambridge

As in Britain, legal education in Europe is provided as an undergraduate programme, within the university setting. There are no law schools in Europe in the sense that they exist in the USA, but instead the faculty of law will be situated within a research university.

In France, the prospective lawyer studies for three years for a licence (comparable to the British or American B.A. degree), then a further two years for the Master of Law. During the first year of the Master's programme, the student specialises in a particular area of law, such as public law, private law, or international law. Then in the second year the student chooses between a work-oriented programme and a research programme. In Germany, law students spend at least four years at the university, followed by two years of internship. Two factors are working towards making European legal education more similar from one country to another.

First, pursuant to the Bologna Process, there has been an attempt to harmonise university education, including legal education, throughout Europe.

Created at a conference at the University of Bologna in 1999, there have been a series of conferences & agreements aimed at creating common educational standards throughout European universities. Initially joined by 29 countries, there are now 47 participants. The goal is to create easily understandable and transferable degrees in three-year cycles (bachelor, master, doctorate), the participating countries are currently working at complying with the standards established in Bologna and thereafter. In addition to the increasing similarity of their programmes, European universities are increasingly hospitable to students from other countries.

Maastricht University, for example, has a standard legal education, taught in Dutch, for students who are presumably preparing to practice law in the Netherlands.

However, it has a European Law School track, taught in English, that emphasises the law of the European Union and international law, rather than merely the law of one country. Although primarily aimed at students from within the European Union, it attracts others, including Americans, either as visiting students or full-time participants.

Utrecht University has two different B.A. programmes taught in English and aimed at international students, one in Utrecht and one in Middleburg.

Finally, the Erasmus Programme, which was established by the European Union in 1987, encourages exchanges for students and faculty members within Europe, by providing some funding and assuring that the work that students do at universities in countries other than their own will be recognised by their home institution.

The Erasmus Mundus Programme is similar to the Erasmus Programme but is aimed at exchanges between students at European universities and those outside the European Union.

Advanced degrees in law

Higher degrees allow for more advanced academic study. These include the Masters of Law (LLM) by coursework or research, and doctoral degrees such as the PhD or SJD. Practitioners may undertake a Masters of Law by coursework to obtain greater specialisation in an area in which they practice.

In many common law countries, a higher degree in law is common and expected for legal academics. In addition, incorporating practical skills is beneficial for practitioners seeking higher degrees to better prepare them in their respective legal area of practice. In contrast, higher degrees in law are uncommon in the USA, even within the academy.

In some countries, including the United Kingdom, Italy, Germany, Canada and some states of Australia, the final stages of vocational legal education required to qualify to practice law are carried out outside the university system. The requirements for qualification as a barrister or as a solicitor are covered in those articles.

Legal education providers in some countries offer courses which lead to a certificate or accreditation in applied legal practice or a particular specialisation.

Continuing legal education (continuing professional development) programs are informal seminars or short courses which provide legal practitioners with an opportunity to update their knowledge and skills throughout their legal career. In some jurisdictions, it is mandatory to undertake a certain amount of continuing legal education each year. Arizona State University Beus Center for Law & Society

Australia

In Australia most universities offer law as an undergraduate-entry course (LLB, 4 years), or combined degree course (e.g., BSc/LLB, BCom/LLB, BA/LLB, BE/LLB, 5–6 years). Some of these offer a three-year postgraduate Juris Doctor (JD) program. Bond University in Queensland runs three full semesters each year, teaching from mid-January to late December. This enables the Bond University Law Faculty to offer the LLB in the usual 8 semesters, but only 22/3 years. They offer a JD in two years.

The University of Technology, Sydney will from 2010 offer a 2-year accelerated JD program. In 2008, the University of Melbourne introduced the Melbourne Model,

whereby Law is only available as a graduate degree, with students having to have completed a 3-year bachelor's degree (Arts degree) before being eligible.

Students in combined degree programs would spend the first 3 years completing their first bachelor's degree together with some preliminary law subjects, and then spend the last 2–3 years completing the law degree (JD).

Alternatively, one can finish any bachelor's degree, providing their academic results are high, apply for graduate-entry into a 3-year LLB program.

Canada

The professional law degree in Canada is the Bachelor of Laws (LL.B.) or Juris Doctor (J.D.), for common law jurisdictions, and the Bachelor of Laws, Licentiate of Law or Bachelor of Civil Law for Quebec, a civil law jurisdiction. Admittance to an LL.B. or J.D. program requires at least two years of undergraduate education, although, a completed undergraduate degree is usually required. In practice, the vast majority of those who are admitted have already earned at least an undergraduate (bachelor's) degree. The change in academic nomenclature redesignating the common law degree as a J.D. rather than an LL.B., currently completed or under consideration at a number of Canadian schools, has not affected the level of instruction – because it is the same degree.

Hong Kong

In Hong Kong law can be studied as a four-year undergraduate degree Bachelor of Laws (LLB), a two-year postgraduate degree (Juris Doctor). Or the Common Professional Examination conversion course for non-law graduates. One must then pass the one-year Postgraduate Certificate in Laws (PCLL) currently offered at the University of Hong Kong (HKU), Chinese University of Hong Kong and City University of Hong Kong, before starting vocational training: a year's pupillage for barristers or a two-year training contract for solicitors. The move to a four-year LLB was recent and, in the case of HKU, was aimed at shifting some of the more theoretical aspects of the HKU PCLL into the LLB, leaving more room for practical instruction.

India

The Bar Council of India prescribes and supervises standard of legal education in India. Law degrees in India are granted and conferred in terms of the Advocates Act, 1961, which is a law passed by the Parliament both on the aspect of legal education and regulation of conduct of legal profession. Various regional universities or specialised national law universities offer Law graduate degrees through various law schools. In India law can be studied, as LL.B. (Bachelor of Laws) or B.L. (Bachelor of Law), a three-year graduate degree after completion of Bachelor's degree. Alternatively after standard 12 one can join an integrated five-year law course which provides option to avail B.A. LL.B. or B.B.A. LLB. or B.Sc. LL.B.

In India applied legal education for specific branches of law is also offered such as, Business law, Human resource and Labour laws, Property laws, Family laws, Human rights & Legal awareness, Taxation law and many more.

Italy & France

Law in Italy and France is studied in a jurisprudence school which is an entity within a larger university. Legal education can be started immediately after obtained a Diploma. Italian and French law schools are affiliated with public universities, and are thus public institutions.

As a consequence, law schools are required to admit anyone holding the baccalaureate.

However, the failure rate is extremely high (up to 70%) during the first two years of the *licenza in diritto*. There are no vast disparities in the quality of Southern European law schools.

Many schools focus on their respective city and region. The law school program is divided following the European standards for university studies (Bologna process):

- first a license of law program (*Licence de droit*): three-year period;
- then a Master of law program (*Master de droit*): two-year period;
- Ph.D. in Law (*Doctorat en droit*): three-year period (often more).

The first year of the master program (M1) is specialized : public law, private law, business law, European and international law, etc. The second year of the master of law program (M2) can be work-oriented or research oriented (the students write a substantial thesis and can apply to doctoral programs (a PhD in Law).

The second year is competitive (entry is based on the student's grades and overall score and on extracurricular activities) and generally more specialized (IP law, contract law, civil liberties). Students must pass a specific examination to enter bar school (CRFPA, *école du barreau*). They must successfully finish the first year of a Master of law (M1 or *maitrise de droit*) to be able to attend. If they succeed, then after 18 months (school, practical aspects, ethics and internship) they then take the CAPA exam and diploma (*Certificat d'Aptitude à la Profession d'Avocat*). Successful students also take the Oath in order to practice law.

Japan

The Japanese Ministry of Justice opened the University of Tokyo Faculty of Law in 1877 (changed to Imperial University in 1886). To matriculate to the University of Tokyo, students had to finish ten to fifteen years of compulsory education; acceptance was therefore available to only a small elite. The law program produced politically-dependable graduates to fill fast-track administrative positions in government, known as high civil servants (*koto bunkan*), and to serve as judges and prosecutors. Private law schools opened around 1880. These lacked the government funding given to the University of Tokyo, so the quality of education there lagged

behind. Students only had to pass an examination to matriculate to private law schools, so many of them had not completed middle school. The private law schools produced a large portion of private attorneys because their graduates were often ineligible to apply for government positions. The Imperial University Faculty of Law was given supervisory authority over many private law schools in 1887; by the 1920s, it promulgated a legal curriculum comprising six basic codes: Constitutional Law, Civil Law, Commercial Law, Civil Procedure, Criminal Law, and Criminal Procedure.

The same basic structure survived in Japanese legal education to the end of the twentieth century. Prior to the implementation of the law school system in 2004, the legal education system was driven more by examinations than by formal schooling.

The passage rate for the bar exam was historically around 3%, and nearly all those who sat for the exam took it several times. A number of specialized cram schools trained prospective lawyers for the exam, and these schools remain prevalent today.

After passing the bar exam, prospective barristers were required to train for 16 months at the Legal Research and Training Institute of the Supreme Court of Japan.

The training period has traditionally been devoted to litigation practice & virtually no training is given for other aspects of legal practice, e.g., contract drafting, legal research. During this period, the most capable trainees are selected out to become career judges; others may become prosecutors or private practitioners.

In 2004, the Japanese Diet passed a law allowing for the creation of graduate level law schools. The 2006 bar examination was first in Japanese history to require a law school degree as a prerequisite. In the past, although there has been no educational requirement, most of those who passed the examination had earned undergraduate degrees from elite Japanese universities such as the University of Tokyo, Kyoto University or Hitotsubashi University. With this new law school system came a new bar exam, with a 40–50% passage rate which is capped by a numerical quota. Applicants are now limited to taking the exam three times in a five-year period.

Despite the much higher bar passage rate with the new exam, due to the quotas, approximately half of Japanese law school graduates will never be admitted to practice.

The new system also reduced the apprenticeship period at the Legal Research and Training Institute to one year. A number of other law-related professions exist in Japan, such as patent agents (*benrishi*), tax accountants (*zeirishi*), scribes, entry to each of which is governed by a separate examination.

Korea

Legal education in Korea is driven by examination. The profession of barristers, is highly regulated, and the pass rate for the bar exam is around 5 %. Prospective attorneys who do pass the exam usually take it two or three times before passing it, and a number of specialized private educational institute exist for prospective lawyers. After passing the bar exam, prospective barristers undergo a two-year training period at the Judicial Research and Training Institute of the Supreme Court of Korea. During this period, the most capable trainees are selected out to become career judges; others may become prosecutors or private practitioners.

In 2007, the Korean government passed a law allowing for the creation of three-year law schools. According to the new law, the old system of selecting lawyers by examination will be phased out by 2013. The U.S.-style law schools will be the sole route to become a lawyer.

In February 2008, the Ministry of Education of Korea selected 25 universities to open law schools. The total enrollment for all law schools is capped at 2,000, which is a source of contention between the powerful Korea Bar Association, citizen groups and school administrators. There is an uproar among the schools which failed to get the government's approval and even among the schools that did get the approval, there is dissatisfaction due to an extremely low enrollment number.

Several law schools are permitted to enroll 40 students per year, which is far below the financially sustainable number. Beginning in 2012, passage of the Lawyer Admission Test (which is distinct from the old bar exam) will be required for qualification to practice. A number of other legal professions exist in Korea, such as patent attorneys, tax attorneys entry to each of which is governed by a separate examination.

Malaysia

As a Commonwealth country, the Malaysian legal education system is rooted from the United Kingdom. Legal qualifications offered by the local law faculties require students to have a pre-university qualification such as the Malaysian Higher School Certificate, A-Level, International Baccalaureate, Foundation Course or a Diploma. Generally, the law degree programmes in Malaysia consist of civil law subjects, but there are institutions such as The National University of Malaysia, International Islamic University Malaysia and Universiti Sultan Zainal Abidin that include Sharia or Islamic law courses as requirements for admission and graduation.

Malaysian law graduates from universities in the UK, Australia or New Zealand are allowed to practice law in Malaysia. However, they are required to obtain a Certificate of Legal Practice in Laws of Malaysia.

Philippines

Law degree programs are considered graduate programs in the Philippines. As such, admission to law schools requires the completion of a bachelor's degree, with a sufficient number of credits or units in certain subject areas. Legal education in the Philippines is regulated and supervised by the Legal Education Board, a statutorily created independent Body chaired by a retired member of the Supreme Court or of the Court of Appeals. Its first chairman is Justice Hilarion Aquino. Sitting as members of the Board are a representative of the law professors, a representative of the law deans and a representative of the Commission on Higher Education.

The membership of a student representative has been subject to continuing debate and resistance on the part of law schools. Graduation from a Philippine law school constitutes the primary eligibility requirement for the Philippine Bar Examinations, administered by the Supreme Court during the month of September every year. In order to be eligible to take the bar examinations, one must complete either of the two professional degrees: The Bachelor of Laws (LL.B.) program or the Juris Doctor (J.D.) program. Advanced degrees are offered by some law schools, but are not requirements for admission to the practice of law in the Philippines.

The degrees Master of Laws (LL.M.), Master of Legal Studies are available in only a handful of Philippine universities and colleges, among these San Beda College Graduate School of Law, the University of Santo Tomas and Ateneo de Manila University. The Doctor of Civil Law degree (DCL) is offered only by the University of Santo Tomas and the Doctor of Juridical Science (JSD) degree is offered by the San Beda College Graduate School of Law. Graduate programs in law are also regulated by the Legal Education Board. Legal education in the Philippines normally proceeds along the following route:

- Undergraduate education (usually 4 years).
- Law school (usually 4 years).
- Admission to the bar (usually by taking a Philippine bar exam).
- Legal practice and mandatory continuing legal education.

Russia & Ukraine

Law degree – jurist (often compared to an LL.M., but in fact equivalent to the degree of Specialist specific to the Soviet educational system) is awarded in Russia and Ukraine after 5 years of study at a university.

Jurist degree may also be awarded in a shorter period of time if a law student has already completed Bachelor or Specialist degree in another field of studies or has previously earned a basic law degree (comparable to Paralegal, an associate degree in U.S.) from a specialized law college.

Bachelor jurist degree (equivalent to Bachelor of Laws (LL.B.)) may be earned concurrently with another bachelor's or master's degree in some universities (comparable to a double-major).

Note that this fused, one-degree (Specialist) educational scheme has coexisted with the two-degree (bachelor's – master's) scheme since Russia & Ukraine launched their higher education reforms to bring the domestic educational systems in closer compliance with the Bologna accords.

The latest educational reforms created new system where a four-year law program is offered at the universities for earning bachelor's degree, and a five-year law program is offered for master's degree. The degree of Specialist is no longer awarded and is renamed into master's degree.

Serbia

To become a lawyer in Serbia, students must graduate from an accredited faculty of law. First-level studies last four years (eight semesters), after which it is possible to enroll in Master's degree and PhD studies programmes. To become a student of the faculty of law, a candidate must pass the admission test. The practical training for students is organized at courts of law, and local and international moot court competitions. A lawyer must pass the national bar examination to become an attorney, a judge, or a prosecutor.

In order to take the bar exam, it is only necessary to complete the 4 year studies programme and have a certain amount of work experience (i.e. as a paralegal), but most attorneys have attained the master's degree in law before passing the bar exam.

South Africa

In South Africa, the LL.B. is the universal legal qualification for admission and enrollment as an Advocate or Attorney. Since 1998, LL.B. programmes may be entered directly at the undergraduate level; at the same time, the LLB. continues to be offered postgraduate and may then be accelerated dependent on the bachelor's degree.

The programme lasts 2-4 years correspondingly (compare Australia, above).

Although not formally required for specialised practice, further training, e.g. in tax, is via postgraduate diplomas or focused, coursework-based LL.M. programmes.

Research degrees are the LL.M. and LL.D., or PhD depending on university.

The Master's dissertation reflects an ability to conduct independent research, whereas the Doctoral thesis will, in addition, constitute an original contribution to the field of law in question. A doctorate is required for positions in legal academia. Historically, the BProc. & BJuris were the legal degrees offered at the undergraduate level.

The four-year BProc qualified one to practice as an attorney, or become a prosecutor or magistrate in the lower courts, but did not allow for admission as an advocate. The three-year B.Juris was the basic requirement for prosecutors and

magistrates in the lower courts, but on its own, did not qualify one to practice as an attorney. Both offered admission to the LLB.

For admission as an attorney, one serves articles as a candidate attorney with a practicing attorney for two years, then writes a board exam set by the relevant provincial Law Society. Attorneys may additionally qualify as Notaries and Conveyancers, via the Conveyancing and Notarial Practice Examinations; those with technical or scientific training may further qualify as patent attorneys. The requirements to enter private practice as advocates (Junior Counsel) are to become members of a Bar Association by undergoing a period of training (pupilage) for one year with a practicing Advocate, and to sit an admission examination.

On the recommendation of the Bar Councils, an advocate of proven experience and skill with at least ten years experience, may be appointed by the President of South Africa as a Senior Counsel (SC; referred to as a silk). The Act regulating admission to practice law ("The Qualifications of Legal Practitioners Amendment Act of 1997") is being revised.

South American countries

The law of South America is one of the most unified in the world. All countries can be said to follow civil law systems, although recent developments in the law of Brazil suggest a move towards the stare decisis doctrine. Moreover, all countries have recently signed up to the Union of South American Nations agreement, which aims to establish a system of supra-national law along the lines of the European Union.

Sri Lanka

In order to practice law in Sri Lanka, a lawyer must be 'admitted and enrolled as an Attorney-at-Law of the Supreme Court of the Democratic Socialist Republic of Sri Lanka. To be admitted to the bar a law student must complete law exams held by the Sri Lanka Law College and undergo a six-month period of apprenticeship under a senior practicing lawyer. There are two routes taken by students.

Those who have gained a law degree, an LL.B. (which is 3-4 years long in Sri Lankan State Universities of University of Colombo, University of Jaffna, Open University of Sri Lanka and University of Peradeniya) are given direct entry to undertake law exams at the Sri Lanka Law College. Those who don't hold a law degree, could gain entrance to the Sri Lanka Law College via a competitive entrance exam to study law and prepare for the law exams.

Both groups of students must undergo a period of apprenticeship under a senior practicing lawyer who has at least 8 years of practicing experience. To become a judge one must be admitted as an Attorney-at-Law.

Conclusions and recommendations

For the effective implementation of degree education, a solution to a whole complex of tasks is necessary. First of all, it is worth developing a clearly codified

and updated list of qualifications of specialists with higher education and a list of specialties that would allow for a clear differentiation of the purpose and content of training specialists in universities in the third millennium in accordance with the requirements of state development. It is also important to speed up the development of sets of state standards for higher education, namely those that establish methodically stratified parameters of requirements for the content, scope and level of education at three levels: the state, society and a specific higher educational institution.

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SUPPORT FOR ELDERLY PEOPLE WITH DEMENTIA IN THE LIFELONG EDUCATION SYSTEM

Abstract

The rapid increase in the number of elderly people with dementia requires the development of new strategic approaches to their care, since the existing support concerns a rather narrow medical segment of treatment. In addition, caregiving is a rather burdensome task for those who perform it, problems of “social ageism”, social exclusion and a certain stigma on the part of other people is quite common. Accordingly, the systematization of modern theoretical ideas about dementia, description of its manifestations and symptoms, generalization of information about modern forms of work and features of care and support of elderly people with dementia are aimed at solving the mentioned problems. The description of the forms and methods of work in the process of care at different stages of the dementia development is an important part of the specialists’ training in the process of lifelong education. A new paradigm about the importance of creating dementia-friendly communities is formulated and problems that require more detailed scientific research in the future are identified. This actualizes the search for ways to develop the adult education system, stimulates the necessity to improve the quality of educational services, provide different categories of the population with equal access, opportunities and freedom of choice in lifelong education.

Keywords: *dementia, care, client, elderly people, elderly people with dementia,*

lifelong education, support, prevention, social worker, social work specialist.

Problem statement

The ageing of the population creates numerous problems for society, especially in modern conditions, when there is a rapid increase in cases of elderly people's dementia. About 44.4 million people in the world currently suffer from dementia, with 2/3 of them living in low- and middle-income countries. In general, doctors record about 10 million of new cases of this syndrome annually. According to Ukrainian researcher T. Slobodina, this figure is expected to increase to 82 million by 2030, and to 152 million by 2050. Doctors note that the estimated number of patients with dementia in Ukraine is already about 500,000, and this figure is expected to grow in the future. This is due to the fact that our country is an aging nation: in 2020, almost 30% of citizens are of retirement age (Slobodina, 2021).

This information is confirmed by the research of the Institute of Gerontology, which scientists claim that in recent years, loss of thinking, memory and orientation has been observed in every 10th person of retirement age (Bezrukov, 2018).

It should be stressed that the development of dementia is the main cause of disability and quite often leads to a sharp deterioration in the quality of life, as it requires additional resources for providing medical and social support not only from the state, but also from local budgets. As a rule, these are quite large expenses. For example, in 2019, people with Alzheimer's disease and other types of dementia in the United States of America, were paid about \$244 billion for care (What is Dementia, 2021).

Caring for clients with dementia is quite a burdensome task for the caregivers, especially psychologically. Currently, the prevalence of depression among caregivers of people with dementia is around 30-40%, which is significantly higher than among caregivers of clients with schizophrenia (20%) or insult (19%). The prevalence of anxiety among caregivers of people with dementia is also over 40% (Slobodina, 2021).

There is another problem defined as 'social ageism', when young people report feelings of hostility towards elderly people, especially those with dementia (Biskup, 2008).

The specifics of the dementia disease requires the involvement of many specialists and the organization of teamwork (relatives, therapists, psychiatrists, doctors of related specialties, patronage nurse, social worker). The necessary support is provided simultaneously in two directions:

- 1) prevention and treatment of various diseases that provoke dementia in the field of health care;
- 2) organization of care for people living with dementia in the social sphere.

To carry out this activity, complex systematic work with “dementors” is required, including systematic training (trainings, seminars) on patient care for both social workers and relatives and other caregivers of demented persons.

Analysis of recent research and publications

Scientific developments characterizing the development of adult education are reflected in the works of home and foreign scientists, such as: the concept of lifelong education and adult education (S. Vershlovsky, A. Vladislavlev, S. Zmeiov, A. Zyazyun, S. Honcharenko, M Gromkova, A. Darynskyi, O. Kukuev, Yu. Kulyutkin, H. Lesohina, L. Lukyanova, N. Nychkalo, V. Onushkin, V. Podobed, G. Sukhobska, I. Folvarochnyi and others); trends in the development of adult education (L. Vovk, V. Davydova, T. Desyatov, S. Kovalenko, V. Oliynyk, O. Ogienko, L. Sigaeva and others) (Arkhytova, 2012). The concept of dementia, the prevalence of its forms and clinical symptoms are described in detail in scientific literature. In particular, a number of foreign researchers: B. Browne, N. Kupeli, K. Moore, E. Sampson, N. Davies conform that dementia mainly affects the elderly, however, they do not agree that this condition is natural aging process. According to O. Kozyolkin, M. Sikorska, I. Vizir and Yu. Neryanov, the concept of “dementia” should be defined as a set of symptoms that appear gradually, not abruptly. This should be taken into account when choosing strategies to support elderly people with dementia. The medical definition of the concept of dementia and its basic characteristics are given in the works of A. Skrypnikov, K. Hrynia, and O. Pohorilka. Scientists claim that quite often dementia is accompanied by emotional and affective disorders, but the level of consciousness often remains unchanged until the terminal stage of the process.

The works of O. Romaniv and D. Chorei discuss the forms of dementia that lead to disruption of household and social functions. Scientists O. Chaban and O. Haustova came to the conclusion that due to the chronic progression of dementia, there is a significant worsening of cognitive function, which requires the professionals’ assistance. The authors also determined the possible reasons of this disease and found out that dementia can be caused by reversible or irreversible causes. Difference in the prevalence of dementia forms and Alzheimer’s disease in different regions of our country are discussed in the works of M. Fedotov, G. Panfilov, O. Tsuriko, and O. Blazhievskia.

We found out only a few studies concerning depression as a risk factor for dementia and single outcurable and incurable depression (G. Livingston, J. Huntley, A. Sommerlad, D. Ames, C. Ballard, S. Banerjee, N. Mukadam). O. Dedyukhina and O. Bilyansky indicate about the clinical manifestations of dementia. In their work, they point out that the clinical manifestations of the disease depend on the cause of its occurrence. Some scientists believe that it requires more investigations to find out

whether depressive symptoms are a real risk factor for dementia and whether treating depressive symptoms can reduce the risk of dementia (L. Middleton, K. Yaffe). R. Morgan, K. Sail, A. Snow, J. Davila, N. Fouladi, M. Kunik describe the causal model of the development of aggression among non-aggressive patients (who were diagnosed dementia for the first time).

Manifestations of aggressive behavior, vagrancy, general disorganization of the psyche are investigated by I. Mudrenko. Ukrainian researchers N. Tymoshenko and N. Romanova are studying the specifics of the activities of social work specialists with elderly people with dementia and the peculiarities of their training. The concept of “dementia” is used as a general term for persons who have memory and speech impairments, are unable to cognitively think and reflect on information, draw conclusions, etc. Thus, it is not a certain disease, but a general term that describes a rather significant list of specific diseases associated with abnormal changes in the human cerebral cortex, which affect the weakening of thinking skills and, accordingly, cognitive abilities in general.

Dementia is described in more detail in the Unified clinical protocol of primary, secondary (specialized), tertiary (highly specialized) and palliative medical care, which was adopted by the Order of the Ministry of Health of Ukraine in July 19, 2016 No. 736. In particular, this document states that “dementia” is not only a progressive, but also often an irreversible clinical syndrome, which is associated with a significant impairment of mental functions of a person” (Unified clinical protocol of primary, secondary, tertiary (highly specialized) and palliative medical assistance, 2016).

According to some dementia researchers, impairment of cognitive function is usually accompanied by a violation of control over the emotional state, as well as a negative change (degradation) of social behavior, which quite often gets complicated not only personal life, but also the life of all members of the family. Dementia is also accompanied by emotional and affective disorders, but it should be taken into account that the level of consciousness practically remains unchanged until the terminal stage of this process (Skrypnikov, Gryn & Pohorilko, 2021).

Some scientists define dementia as an acquired persistent impairment of cognitive functions due to brain damage of various etiologies, which can manifest itself in many cognitive areas (attention, memory, language, social functions) and leads to impairments in everyday life and social interaction with other people (Romaniv & Chorey, 2018).

The purpose and objectives of the article: describe the problems of elderly people living with dementia and the features of their support in the lifelong education system.

Currently, there is a necessity for systematization of modern theoretical ideas

about dementia, its signs and symptoms, generalization of information about modern forms of work and features of care and support for elderly people with dementia. The current situation looks like this problem is mostly dealt with in the field of health care, which creates a rather narrow segment for providing the necessary support.

Accordingly, the theoretical basis of this study is the phenomenological paradigm. Its focus is to familiarize with the theoretical foundations of dementia and the practical component of care and support for people with dementia as a scientific phenomenon. The research is descriptive and based on qualitative investigation, in particular, the method of analyzing scientific sources, documents, etc.

Basic presentation

The development of dementia is gradual, it is often quite difficult to determine its onset, since the symptoms can be confused with other diseases (depression, thyroid gland insufficiency, presence of a brain tumor, etc.). Therefore, its detection requires complex medical diagnostics and appropriate procedures.

Doctors note that most people with dementia can preserve their cognitive properties, but only if early detection and necessary treatment are provided. Otherwise, there will be a significant deterioration of the physical condition, which will be manifested through “impaired thinking, impaired speech, impaired orientation, personality changes, difficulties in everyday life, neglect of one’s own needs.” Non-cognitive manifestations (eg, apathy, depression, or psychosis) and behavioral disorder may occur: aggression, sleep disturbances, uncontrolled sexual behavior, etc. (Unified Clinical Protocol for Primary, Secondary, Tertiary (Highly Specialized) and Palliative Care, 2016).

Experts point out many reasons that provoke dementia, but the most common are: Alzheimer’s disease (60-80% of cases); vascular dementia (caused by microscopic bleeding and blockage of blood vessels in the brain) and mixed form (when several types of dementia are found in the brain at the same time). However, there may be other reasons, for example, related to thyroid disease, vitamin deficiency in the body, stroke; Parkinson’s disease; autoimmune diseases (multiple sclerosis, lupus erythematosus); alcoholism; tumors; chronic kidney and liver failure; Huntington’s disease at a young age; AIDS.

Scientists consider that about 30% of all manifestations of dementia among the elderly are related to potentially modifiable risk factors, including: low level of education; hearing impairment; smoking; adiposity; depression; hypodynamia; diabetes; social isolation; alcohol addiction and air pollution.

According to some researchers, the main clinical manifestations of dementia can be combined into several groups, which allows for more specific development of the necessary measures for prevention, treatment and care of people living with dementia (Koziolkin, Sikorska, Vizir & Neryanova, 2015):

– cognitive disorders: loss or significant reduction in the ability to think rationally (awareness, memorization and processing of information), as well as transference information verbally or non-verbally;

– behavioral disorders: a negative change in behavior that harms not only people with dementia, but also their social environment;

– neuropsychiatric symptoms: disorders in the emotional and affective sphere (depression, anxiety), impaired thinking (delusions) or perception of the surrounding world (hallucinations);

– neurological disorders: movement, sensory and coordination disorders;

– functional disorders: reduced adaptation to social conditions, loss of independence, need for care, etc.

The diagnostic criteria for dementia are defined in a special WHO Clinical Protocol called ICD-10, which states the following:

– memory impairment (verbal or non-verbal), which manifests itself in the inability to remember new information;

– cognitive disorders that appear against the background of clear consciousness;

– change for the worse reasoning and thinking processes (planning, perception of received information, etc.);

– violation of self-control over the emotional sphere;

– changes in social behavior.

The first manifestations of dementia can seriously worsen personal life (regardless of his age), increase the need for support and care, change their usual behavior, affect their feelings or relationships not only with their close environment, but also with other people at the place of residence or treatment.

For the purpose of early detection of dementia manifestations and its prevention, health care institutions offer the services of an ergotherapist. The main means of therapeutic influence include the organization of the self-care skills development, leisure time organization, communication development, etc.

In general, the work of an ergotherapist aims not only to prevent the development of dementia, but also to identify unsatisfied needs (of mental and physical nature), prevent mental illnesses, and improve the quality of life in general (Tymoshenko, Romanova, Oreper & Patynok, 2020).

There are different stages of dementia, which should be considered conditional, since there are no clear criteria of belonging between them, their mixed variants are quite often observed, which in general negatively affect the quality of life of the elderly. However, understanding the stage of dementia makes it much easier to start the necessary therapy or organize care.

The first stage: worsening of mental abilities and memory is observed.

However, in the case of the elderly, these signs are part of normal aging, so it is quite difficult for doctors to detect the risks of irreversible dementia.

The second stage: a mild cognitive disorder that does not allow to fully continue the ordinary way of life (difficulties with performing tasks at work, problems with orientation in space and time, memory impairment, etc.).

Stage three: mild dementia, when relationships with family members or friends are strained. There may be a problem with recognizing familiar or close people. It is at this stage that clients and their families may deny the problem, “hide” or minimize symptoms.

Fourth stage: moderate dementia, when the need for help from others (buying things or products, taking medicine, etc.) increases due to impaired self-control. People living with dementia may be disoriented about their place of residence or treatment, forget their home address or their own telephone number.

Fifth stage: moderately severe dementia, when patients forget the names of their loved ones, cannot recognize them. It is during this period that psychosis may occur (delusions and hallucinations, severe irritability, aggression and anxiety, apathy, aimless wandering).

The last stage: a severe form of dementia is observed (it is difficult for a person to move, swallow food, physiological problems). 24-hour care is required for hygienic procedures, dressing, eating, etc. (<https://eludementsusega.ru/деменция/>).

The degrees of severity of dementia: *mild, moderate and severe*. should be separately noted about.

With *mild dementia*, complex types of human activity are impaired: work, social activity, hobbies. At home, such a patient is quite adapted, self-care is not impaired, has a sufficient level of independence and only occasionally requires help of others.

With *moderate dementia*, the ability to use household appliances is impaired: a kitchen stove, TV, telephone, and other things. Self-care is usually not disturbed, but patients often need being reminded about certain actions, so they can only be alone for a short time.

With *severe dementia*, the formation of permanent dependence on others is observed. Patients cannot take care of themselves, dress themselves, take food, perform hygienic procedures, etc.

Dementia affects people differently, as a rule, it depends on the course of the disease and the individual condition of the person before the disease. The selection of forms and methods of work in the process of caring for people with dementia depends on its signs and symptoms at different stages of development.

Mild stage of dementia

This stage often goes unnoticed due to the fact that it develops gradually. In order to counteract the early stages of dementia, a special role is given to preventive measures

with the use of brain fitness strategies. They include: physical aerobic exercises, vascular control, special low-carbohydrate diet, use of certain antioxidants, cognitive activity, increasing of social contacts, enough sleep, correction of hearing and vision impairments, dental health, stress reduction, etc. (Slobodina, 2021).

At this stage, any type of sensory stimulation will be useful for people with dementia, and you can choose not very simple exercises:

1. *Board games* (Tanagram, puzzles, arranging by color, building words from letters, lotto, dominoes, cards). Purpose of use: increasing self-esteem, maintaining activity, supporting cognitive processes, strengthening social and emotional relationships, strengthening memory, relieving emotional tension and maintaining communication skills.

2. *Art therapy*. It is based on the ideas of famous psychotherapists Z. Freud and K. Jung. According to the theory of mental activity formulated by S. Freud, the inner "I" of a person manifests itself in a visual form each time he/she draws or sculpts something spontaneously. In general, visual arts have a lot in common with fantasies and dreams, perform a compensatory role and relieve mental tension. The central figure in the art therapy process is not a sick person, but an individual who strives for self-development and broadening his capabilities. The goal of art therapy is to improve fine motor skills and cognitive functions. Tasks of art therapy: speech stimulation; getting out of depression, improving mood and general well-being; stimulation of memories; removal of emotional tension; improving communication skills; expansion of horizons; improvement of coordination of movements, motor skills. Currently, there are many varieties of this method: dance therapy; art therapy; fairy-tale therapy; music therapy; puppet therapy; work with plastic materials – sculpting, sculpture, pottery; sand therapy; mandala therapy; phototherapy; animation therapy, etc.

3. *Cognitive exercises*:

– *Coloring pages (isotherapy)*. Many elderly people with dementia enjoy different coloring pages. To do this, you need to choose those images that best correspond to the interests of the individual, for example, some of them may like animals, some may like plants, others may like cars or masterpieces of architecture or heroes of fairy-tales. You need to try different images to find the ones that really capture and interest you. When choosing, you should also take into account the stage of the development of the disease – at a moderate stage, it is better to choose the simplest coloring pages with a minimum of details, at an early stage, use a more complex image. It should be remembered that with a person who is nervous, it is better to use chalk than watercolor, which spreads and may provoke anxiety.

– *Sculpting*. With the help of this method, a person with dementia can express the feelings and emotions, overcome certain fears and anxiety. Modeling is also very useful for stimulating fine motor skills (plasticine, clay, dough).

– *Bibliotherapy*. Reading is not just a way of organizing leisure time, it is an activity that prolongs conscious life and is an effective prevention of dementia. Specially chosen literature, as well as reading aloud, normalizes the mental state, which has a beneficial effect on cognitive processes and prevents destructive changes in the brain. This method stimulates mental processes; develops fantasy, imagination and other cognitive functions; distracts from problems; stimulates creativity; helps fight depression.

– *Puppet therapy*. It is the puppet that can evoke happy memories of parenthood, give a renewed sense of self-importance, and return the lost meaning of life. Puppet therapy is not suitable for all participants of this process. As a rule, they are more often chosen by women. It is better to offer men soft toys instead of dolls. Doll therapy can be carried out in the middle or even early stage of the disease, since in the late stage there is a high probability that it will take a long time or will not be successful at all. Clinical psychologist J. James noted a significant improvement in the behavior of people with dementia after they were given several different dolls during classes. They had the level of aggression decreased and the general emotional state improved, anxiety decreased, social activity increased, and the pronunciation of words in the process of communication improved. In some cases, it became possible to reduce the doses of medicines.

– *Dance therapy*. The goal of dance therapy is to correct motor and emotional disorders. Tasks of this method: development of psychomotor activity; broaden the range of motion; development of psychomotor abilities; lowering the level of personal anxiety; formation of a positive image of the physical “I”; improvement of psychological well-being during interaction with other people.

– *Music therapy*. Listening to music provides an opportunity to calm down at the moment of anger and aggressive behavior. It is important to find music that matches the character and culture of the person. It is also necessary to take into account individual characteristics regarding the way of listening to music (connecting headphones, listening from a mobile phone, etc.). Oliver Sacks, who studied the effects of music therapy on people with dementia, confirmed that they are capable of emotional experiences and responses.

– *Crosswords*. Crossword puzzles are recognized as a useful exercise for training memory and developing logical thinking in the process of cognitive therapy. For people with dementia, crosswords should be simple and with large cells.

– *Exercises for finger gymnastics.* Everyone knows that the human brain has two hemispheres, and women often have a more developed right hemisphere of the brain, which is responsible for emotionality, feelings and intuition. Men, as a rule, have a more developed left hemisphere, which is responsible for logic, language and rationality. That is, to improve the functioning of the two hemispheres in both men and women with dementia, it is useful to engage in finger gymnastics and exercises for the development of the fingers. Simple hand movements help to remove tension not only from the hands themselves, but also from the lips, relieve mental fatigue. They are able to improve the pronunciation of many sounds, develop the speech apparatus, which is directly dependent on the training of the fingers.

Subject activity that promotes the development of fine motility of hands in patients with dementia: fastening and unfastening buttons; shoe lacing; lacing on special frames; stringing rings on a braid; mosaic game; sorting mosaics by cells; a game with constructors; sorting through cereals, different grains (for example, separating beans from peas (Timoshenko, Romanova, Oreper & Patynok, 2020).

Moderate stage of dementia development

At this stage, there is a need for daily assistance, as it is already difficult for a person with dementia to look after themselves, prepare food, sometimes need help using the toilet or organizing meals. Most often, they cannot remember their address, phone number; are confused about the days of the week; often cannot understand where they are, even if it is their own room. At this stage, such people already do little with their hands, so additional stimulation of fine motor skills is necessary. At the same time, complex tasks are no longer within their power, as most household functions are inaccessible: washing dishes, cleaning, ironing, cooking. At this stage, it is important to stimulate cognitive activity and give an opportunity to occupy hands.

During this period, the question often arises: what to do with such a person so that he maintains a positive or at least a neutral mood, without aggression and apathy. Experts advise encouraging them to do simple but useful things:

– *washing fruits and vegetables.* It is a simple, pleasant procedure that stimulates the senses through contact with water and the touch of vegetables and fruits, a towel to wipe them; to ensure that this operation is safe, it is recommended to do it away from the water tap, so as not to turn on the hot water. It is also recommended to mix different fruits or vegetables and encourage them to put them in separate containers after washing. It helps to strengthen the sense of belonging to their family life, stimulates the senses and cognitive abilities.

– *baking simple cookies.* Touching dough can evoke pleasant feelings and memories in people with dementia. In addition, kneading a small amount of dough with your hands is useful for training fine motor skills. Molding and baking cookies

creates a pleasant product that can be tasted, which is an additional way to stimulate the sense of taste. The smell of the kitchen is also important, because it can also stimulate the appetite. It should not be forgotten that people with dementia tend to take objects and things around them in their mouths. Therefore, you should not engage in this type of activity with patients who suffer from swallowing problems.

– *wiping cutlery, sorting and organizing them.* This procedure can help support cognitive abilities and, at the same time, provide a pleasant feeling of participation in household chores. It is very important to observe the client's activities in order to control this process: to entrust the sorting of tablespoons and teaspoons (which can be dangerous) or to entrust the sorting of non-sharp forks and knives.

– *folding laundry.* This type of activity requires cognitive skills and manual work. It can be done sitting down and is therefore completely safe. Depending on the person's capabilities, simple mathematical exercises can be included in the daily routine, but on the condition that it is pleasant and does not cause stress. For example: you can offer to count socks, arrange them according to color scheme or count the number of kitchen and bath towels. During this activity, it is important to avoid criticism or statements that cause feelings of failure or helplessness (Tymoshenko, Romanova, Oreper & Patynok, 2020).

Severe stage of dementia

At this stage of dementia, it is important to choose those activities that are acceptable in performance and do not cause resistance on the part of demented persons. This is due to the development of almost complete dependence on others, which provokes indifference. Memory impairment becomes significant, and physical signs and symptoms become more obvious. Such people lose the ability to respond to others, to converse and control their body (reflexes are impaired, muscles become stiff, swallowing is impaired).

At this stage, we can only talk about the following types of care:

– *walks in the open air.* Can be accompanied by various activities: searching for certain herbs or bright plants; observing people and transport, animals, etc. You can also combine a walk in the fresh air with actions that stimulate taste: eat fruit, ice cream, drink coffee or another tasty drink, etc.

– *watching television programs.* Sometimes watching television programs makes elderly people with dementia angry. After all, they are no longer interested in programs based on conversation, and they can no longer follow the course of events in entertainment programs. For this reason, it is recommended to choose (from different TV channels) suitable programs that the sick person will like. For example, some people really like to watch: programs about nature or animals; sports programs: figure skating, which is accompanied by pleasant music and can be a source of pleasant emotions; channels that broadcast classical music or some other music, etc.

– *breeding or caring for plants in the apartment/house.* Involving people with dementia in growing plants, watering flowers or cleaning up fallen leaves can bring satisfaction and a sense of joy from a job well done. It is recommended to choose care for bright flowers, if they are green plants, then it is better that they have colored leaves or they can be aromatic spicy herbs.

– *joint viewing of family albums.* This is one of the subsidiary methods of work, which is aimed at returning pleasant memories and stimulating memory (but it is better to use it only for those persons who are at a mild and moderate stage of dementia) (Timoshenko, Romanova, Oreper & Patynok, 2020).

These recommendations are important when organizing the training of relatives and professionals involved in the process of providing care services, they can be included in various types of training and professional development courses of social workers in the process of lifelong education.

It should be noted that state institutions (local centers of social services) work to support people with dementia, which, if necessary, provide appropriate social services, in particular, care services. A whole package of relevant legal documents has been developed, which regulates the relevant provisions, standards and requirements for this activity (see the list of references). However, we have not found any studies on monitoring and evaluating the quality of this service.

When providing a care service, one of the tasks of caregivers/professionals is to create a comfortable and safe environment for a person living with dementia. The apartment in which she lives must be cleared of unnecessary things and leave only their minimum amount for ease of movement. Remove everything that can cause a negative reaction, for example, a mirror. This also applies to objects that can injure both physically and mentally.

Currently, quite a lot of research has been conducted on the effect of color and light on the human psyche, which often contradict each other. However, experts have formulated some general rules regarding the use of colors in the space where a person with dementia lives. The most desirable colors for their perception are red, green and blue. Blue and green are considered to be calming colors, especially green. In addition, both colors visually increase the size of the room. Also, blue color lowers blood pressure, and green slows down the activity of the central nervous system, providing a sedative effect on a sick person. In addition, red color activates the waves emitted by the brain and subjectively increases the temperature of the room. The pink color significantly reduces the level of aggressiveness, to which a person with dementia is quite often inclined due to the malfunctioning of certain areas of the brain.

Another issue that requires special attention from the caregivers concerns the safety of staying in the apartment/house to avoid unwanted injuries. For this, it is

extremely important to highlight the edges and corners of furniture with a contrasting color, as well as paths between rooms and other obstacles so as not to accidentally trip. It is the contrasting color that will be an alarm signal for a person. Besides, it is recommended to color switches, sockets, handrails, fixed as aids for moving around the apartment. It is especially important that the bathroom and toilet doors and the toilet seat are highlighted in the room, as white color usually does not contrast with the walls and other fixtures, and to help the person with dementia there until they start to do it by themselves. It is important that the caretaker, taking them to these places, choose the same route.

– *Ensuring the safety of an elderly person living with dementia on walks.*

When walking together outside, the carer should constantly point the person to the landmarks of their daily route (for example, a particularly large tree, a bench, a familiar shop, etc.). Drawing attention to these elements, and even writing them down in a notebook, can help a person with dementia when they go to the hospital, the store, etc. on their own. It is important for family members to know these permanent pathways. In more complex stages of the disease, this information can help to find a person who left the house, even if he left without a specific purpose (usually people choose permanent ways).

– *Communication and choice of activities to preserve practical skills.* One simple rule of thumb when communicating with people living with dementia is to always try to engage them in something that might spark their interest or curiosity. It is a long way, because it is necessary to look together for what you like, what gives their life a purpose or meaning, constantly try to interest a person's attention. It is important that the tasks given to them are simple, because complex ones can cause worsening of their state.

When choosing kinds of activities, it is important to understand that the development of the disease affects the quality of communication channels: the essence of words is lost a few minutes after they were uttered, at the same time, the information that comes to the patient through the senses (smell, taste, hearing, sight and touch) can be stored a little longer. In this case, experts advise using simple cognitive abilities that are still preserved (for example, sorting and selecting a pair of shoes) and training them during the day. It is possible to maintain the acquired practical skills through routine activities, but care should be taken to observe the necessary safety rules.

Food. Quite often, relatives caring for an elderly person living with dementia complain about their lack of appetite or reluctance to eat. The reason for such behavior is related to the nature of the disease. However, there are some techniques that help to successfully feed a sick person. To begin with, it should be remembered that the cause of poor appetite can occur as a result of disorders in the brain that

reduce the ability to smell and respond to taste stimuli. Therefore, one of the common ways to solve this problem is to have a person with dementia in the kitchen while preparing food. The smells during cooking are more saturated than the food on the plate, which may well be a convincing motive to eat something, even just a little. If such a person has agreed to eat, it is better to offer food in small portions, as large portions can cause fear and rejection. You also need to approach the selection of food with care. As a rule, it is best if it is a menu of favorite dishes or similar in taste and smell. Simple food, without fancy and extravagance, as well as food that is eaten with the hands, can also be a good solution. For an elderly person living with end-stage dementia, the recommendations will be slightly different, as swallowing difficulties arise during this period. Therefore, food should be mashed or jelly-like (Tymoshenko, Romanova, Oreper & Patynok, 2020).

Basic recommendations for organizing meals for an elderly person living with dementia: cut food into small pieces to avoid choking; transfer to puree and liquid/jelly food; to constantly remind that you should eat slowly; make sure that the food is not too hot or too cold (in the later stages, the person does not feel hot / cold); allow to eat with hands; involve in cooking, if there is no such opportunity, then jointly discuss all stages of preparation and serving of a specific menu; when choosing dishes for feeding, it is better to choose contrasting options, for example, plates of blue and red colors, etc.

– *Clothes.* Clothes for each person are one of the important ways of self-expression. In the process of development of dementia, personality disintegrates, it becomes more and more difficult for the patient to choose clothes, and a little later - to dress himself. More and more often they need help, delicate and appropriate to the problems she faced. Persistent interference with dressing process by the caregiver may suppress the dementia patient's initiative and lead to an earlier loss of independence. Therefore, it is desirable to allow them to participate in the choice of clothes for as long as possible: when going for a walk, for rest or sleep, as well as when shopping.

As the disease progresses, the main criteria in choosing clothes should become practicality and comfort. The best choice for a dementia patient's wardrobe is practical clothing with elements that make it easier to get dressed: a zippered collar, an elastic waistband, a Velcro or button fastener. This fully applies to shoes as well: avoid shoes with laces, replacing them, for example, with shoes that are held in place by rubber bands or Velcro.

When providing assistance in dressing, the patient should be given the right to choose, ask what he likes better and encourage him to make their own decision. Of course, this should be done without zeal or certain "fanaticism". Do not offer too many options, as this can cause various difficulties. Ensure that the chosen options are comfortable and appropriate for the season (not too cold or warm). With serious

cognitive disorders, the patient loses the ability to communicate normally and cannot tell about the discomfort caused by uncomfortable or too warm clothes.

If the clothes chosen by the patient do not pose a health hazard, it is hardly necessary to object to his choice, even if the outfit does not look the best. Of course, it is difficult to come to terms with the fact that a person goes to bed in a hat or wears a down jacket in the summer. But such “oddities” should not become the cause of conflicts or strained relations between the caregiver and the person with dementia.

– *Creating a friendly and comfortable environment.* Such a task for the caregiver is very important, because, achieving a positive attitude of the dementia patient towards various activities at home, elements of cooperation are formed. By supporting his/her choice, you can gain trust. It is very important in such cases to compliment the patient on his appearance, to give him the opportunity to be proud of his clothes. The patient should start dressing up beforehand to avoid haste and the nervousness. The calmer and more comfortable the situation, the easier it is for them to feel confident in their abilities and cope with various challenges. In some cases, if the patient does not show a desire to perform the actions expected of him, it is easier not to insist on their performance, but to wait for a more favorable moment.

To create a comfortable environment, you should pay attention to the following things:

– in the room where a person with dementia lives and gets dressed, the temperature should be comfortable (many elderly people may feel cold while their close people feel completely comfortable);

– before getting dressed, you should ask if they want to go to the lavatory first;

– if there is a certain rule in the dressing procedure, it is better to follow it.

Alternatively, clothes should be folded in the order they will dress it up the next day. If there are difficulties, you can give a hint or simply give the clothes in the order in which it should be put on. In some cases the patient needs more detailed step-by-step instructions;

– tactfully correct mistakes (sometimes you can laugh together, but not at the patient, but at the situation or result);

– provide clothing boxes with special signs or paper cards indicating the type of clothing stored in them;

– store clothes in sets;

– often a patient with dementia does not want to undress, even when going to bed, or refuses to change clothes; therefore, you should control how often the patient changes clothes and make him/her do it regularly;

– different situations can be used to change clothes, for example, when the patient undresses or is in the bathroom;

- sometimes a convincing argument may be a reference to the fact that guests are revisiting him/her, so they need to look good;
- you can tell the patient that it is interesting to see if new clothes fit him;
- it is often more practical to wear several thin items of clothing, rather than one thick one (by removing one or two items, you can create a comfortable temperature for the patient);
- the colors of clothes in the wardrobe of a patient with dementia should also not be chosen at random (it is recommended to choose familiar or favourite colours for him) (Tymoshenko, Romanova, Oreper & Patynok, 2020).

Thus, the given recommendations indicate that the organization of care and support for elderly people with dementia consists of two consecutive stages: firstly, an assessment of a person's health and establishment of a medical diagnosis, and only after that – an assessment of needs (medical, cognitive, psychological, cultural and social) to organize care and support. In order to ensure high-quality care, not only caregivers from among their family members, but also social workers or other professionals who may be involved in this process should be trained according to these recommendations.

Another important aspect that needs special attention from society concerns the stigmatization of people living with dementia. Quite often there are cases when they are called people with “senile dementia”, although the gradual worsening of mental abilities is a normal stage of aging for everyone.

Currently, in the expert environment, the question of creating dementia-friendly communities, which is related to ensuring quality life at all stages of dementia development, is increasingly being raised. It should be noted that the World Health Organization (hereinafter – WHO) and the Alzheimer's Disease International (hereinafter – ADI) came forward with this initiative back in 2012, which jointly developed approaches to normalize the lives of people with dementia in society (World Health Organization, 2021).

In general, the term “dementia-friendly community” is defined as a community united by territorial or cultural principles or common interests. Such a community takes steps to engage people with dementia and their relatives in active living and maintain a sufficient level of social well-being (Alzheimer's Disease International, 2016).

So far, it can be stated that the first programs to create dementia-friendly communities have been launched. For example, the “Dementia Friends” program, which was created by members of the American Alzheimer's Society in 2013, is quite well-known. Its basis is not only the formation of a tolerant attitude towards people with dementia, but also the involvement of public organizations in informing and educating the population about dementia and its features .

Another important document aimed at developing dementia-friendly public initiatives is the WHO Global Action Plan 2017-2025 for the Dementia Response (World Health Organization, 2017). Its importance is evidenced by the fact that 79 WHO member states and 34 other organizations that are involved into the dementia problem took part in this document development. This plan includes a number of measures that are related to the Convention of Rights of Persons with Disabilities, which significantly increases the opportunities to engage and provide the necessary support to people with dementia with a disability status directly in their place of residence.

According to scientists, the main principles for dementia-friendly communities are participation in the process of implementing the initiative, intersectoral interaction, coordination of public decisions, sustainability and accessibility to the suggested activities. Access to community services and resources, organization of care and support not only for people living with dementia, but also for their family members are important success factors.

In Ukraine there are several organizations that work in this direction: “JewishHesed“BneiAzriel” Foundation, which implements the project “Formation of a Dementia-Friendly Community” and the “Nezabutni” Fund for Helping People with Dementia, which provides them with access to the necessary services and implements measures to reduce the level of stigmatization.

If relatives are unable to care for people with dementia, there is an alternative to staying in private nursing homes for the elderly. The network of such institutions “Villa Dobra” is actively working in Ukraine and is an example of involvement in the provision of necessary care on the part of business.

It is important to note that this network provides services to bedridden dementia patients who require around-the-clock care, changing diapers, swaddling cloths or clothing. To do this work at home, you should receive special training, since this process is quite difficult to implement. Therefore, the development of private boarding houses is a good example of creating a friendly environment for people living with dementia.

Conclusions and prospects for further research

According to the principle of participation, people with dementia and their relatives should be involved in discussing their needs and possible ways of solving their problems and planning services. However, we have not found out any information of this nature, which indicates that there is a significant gap in the given problem participation in our country. At the same time, the scientific study of this situation may become the basis for the further involvement of people with dementia and their relatives in the process of discussing the quality of the services provided and developing relevant strategies at the state level.

The organization of multisectoral interaction requires a separate study, since we found not only charitable foundations from the public sector, but also private boarding houses from the business sphere, which are already functioning in many regions of our country. Such a situation requires the development of a joint plan of action, especially for responding to emergency situations, as well as for the distribution of functional roles in working with people living with dementia.

In the future, we consider it necessary to investigate the activities of boarding houses and agencies in more detail, not only before planning assistance, but also before studying and training in order to share experiences and raise awareness about dementia.

In the case of social institutions, it is advisable to plan actions to increase the accessibility of the physical environment, as well as to improve the provision of services to people with dementia by taking into account the needs of mental health, supporting human abilities, conducting activities for socialization, training staff on communication with people with dementia, etc.

In general, providing assistance to elderly people with dementia requires the unification of various stakeholder groups and the organization of intersectoral interaction with the mandatory involvement of caregivers and those who provide the necessary support, as well as the organization of lifelong education in this area.

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**PROFESSIONAL TRAINING OF PRESERVICE SPECIALISTS IN THE
SOCIAL AND ECONOMIC SPHERE AT HIGHER EDUCATION
INSTITUTIONS AS THE COMPONENT FOR SUCCESSFUL PRACTICAL
WORK**

Abstract

The detailed analysis results of educational, psychological and sociological studies revealed the professional work peculiarities of social and economic sphere representatives, social workers, in particular, and the scientific principles of social work developed into a regular profession. The scientific essence of social work content, professional activity, and a social worker has been defined. The current level of social work and practical activity as a branch of science has been identified.

Social work background as a professional activity, as well as its scientific genesis in Ukraine, has been described. The main contemporary approaches to social work have been analysed. The social welfare system in social workers' practical activity has been specified.

Theoretical and practical components for preservice social and economic specialists' training, social workers, in particular, at higher education institutions, have been disclosed. Influence factors for professional activity readiness formation at higher education institutions through the education environment have been investigated. Technology components for theoretical training and relationships peculiarities with students' environment have been found.

Keywords: social and economic sphere, social work, preservice social worker, professional activity, professional social work, professional training, educational environment, social and cultural environment, higher education institution.

Introduction

Beginning in the 1990s and the first decade of the 21st century became a significant milestone for Ukrainian society and pedagogy. That period was characterised by the total demolition of the social, economic and political spheres and market relations development. The character and forms of social relationships noticeably changed. Most citizens lost their former social status, personal growth and social development perspectives. These lead to the social pressure increase. Complex social and economic as well as political challenges are occurring in Ukraine at the current stage, causing difficulties that are impossible to manage without organised individual social support. That is why the importance of social work as a specific human-oriented activity has increased. At the same time, the issue of dynamic training of highly qualified personnel in the social and economic sphere, social workers whose professional activity is related to interacting with other people or a social group, became urgent. Consequently, the social work theoretical model as a scientific field became a focus.

Dramatic changes in economic norms and values, and consequently in social ones, also caused the need for design, reconstruction and renovation of the system for social and economic as well as social and pedagogical professionals training. In the 21st century, education's primary aim has been the development of a preservice professional individual. He or she should be able to create a social background for various client categories to realise the purposes through independent life.

Indeed, professional activity practical goal realisation requires social workers' personal growth starting at higher education institutions. Social work became an independent professional activity in the social labour division regarding people's material and spiritual needs growth. Accordingly, the activity development was accompanied by the professional and personal formation of its structure, the social work specialist' one, in particular.

The fundamentals of the study

The scientific interest in concept changes in social workers' training has recently increased. A significant contribution to the study was made by: Bekh V., Ievtukh M., Zhmyr V., Kapska A., Kryvokon N., Lukashevych M., Popovych H., S. Kharchenko and other Ukrainian scientists. The noticeable process of scientific knowledge growth has been traced through social education theory and practice.

The study of modern trends in the modernisation of social workers' higher education in different countries makes it possible to determine the most important ones:

- social workers' University training promotion, which increases the quality of their education and the prestige of this profession in society;
- multilevel and variable character of education (courses, degrees – Bachelor,

Master, postgraduate degrees, and postgraduate education), which allows anyone to determine their opportunities and interests while obtaining and choosing the proper study option;

- social and cultural component advancement in the social worker's professional education content since his activities take place in different societies, within a variety of nations and cultures;

- university and post-university education integration, fundamental improvement of the social education content, flexibility and variability of forms and types of education.

In addition, today, the leading idea of the professional education organisation at higher education institutions is recognising its multilevel nature. This approach enables the preservice specialist to master various educational levels within a short professional training cycle. It corresponds to the objective features of the economic, social, and cultural situation in the country and the world. On the one hand, the preservice social worker's multilevel professional education meets the students' requests in designing their educational strategy, including the choice of content and level of education he acquires. On the other hand, it meets the requirements of the developing education system. It makes it possible to use the educational process to develop the preservice social worker's personality. Understanding the ideas of multilevel social education in theory and practice has intensified higher education institutions' attempts to update the content of educational technologies, allowing them to optimise and qualitatively improve social staff training.

At the same time, the beginning of the 21st century proved the insufficient development of the organisational and methodological foundations of multilevel social workers' training. As graduates' status of various educational levels has yet to be identified, the State Branch Standard of Ukraine in Social Work has yet to be implemented at all higher education institutions. Innovative activity within the framework of multilevel education is complicated due to the imperfection of the current financial and economic mechanism (State Branch Standard in Education, 2019).

Since the leading function of education in the philosophy of education is defined as the function of managing the specialist's personal and professional development, it is worth making the ideas of modern education a valuable core of social workers' professional consciousness and the way of implementation in preservice professional activity. In other words, social workers' training in the light of contemporary views should be subordinated to reflexive and personal, professional and significant development of a social worker. While participating in this process, the preservice social worker changes the role from a professional training object to its subject.

Individual self-development in professional activity assumes that the

corresponding qualities are being developed only while breaking the limits of own activity with the purpose of its analysis, evaluation and other design. Becoming a professional involves personal self-development throughout one's life, and expertise is a human existential characteristic, a significant type of individuality formation (Doroshenko T., 2016).

The philosophy of education expansion has recently contributed to the cultural and civilisational approach development. Based on the demands of society, scientists have determined that in most countries, the cultural and civilisational approach is dominant in the content of educational and social practice. This approach recognises the equivalence and interchangeability among different world cultures. In our opinion, the ideas of the cultural and civilisational approach are significant because they contribute to the reproduction of ethnic and cultural self-identification through new generations' education.

The supporters of the social and cultural approach, first of all, pay attention to the problem of the educational environment as a social and cultural issue (Bekh V., 2002),(Ziaziun I., 2000). Within this approach, optimising the educational environment's functioning involves including all its components, including the participants, social and cultural values, which students have to master, the organisation of components in the educational process, and means of educational activity.

The academician Hessen S. pointed out the cultural influence on education and emphasised that education is a form of individual culture. The purpose of education is to involve the individual in cultural resources. Thus, we can say the educational environment is a system of influences and conditions for a personality formation according to a given pattern, as well as opportunities for his/her development, which are available in the social, spatial, and subject environment. It allows us to talk about the potential of the educational environment. Thus, Ziaziun I. names several directions of the educational influence on the academic environment: administrative, social and cultural, educational and individual, and personal correspondently (Ziaziun I., 2000). As we can see, the educational process is one of the essential components of the educational environment. At the same time, it is a subordinate issue to the social and cultural components.

Considering that the professional training of social workers appears as a complex, social, dynamic, self-organised system, it should be noted that the common goal of functioning and management unites all elements. Systemic and forming elements, subjects and objects enter into specific educational and professional relations. The professional training system changes and is restructured depending on which elements this system affects. This system, in turn, balances the optimal ratio of goal and content, content and result, goal and methods of its achievement, and individual-

to-individual relations.

As we know, the features of the preservice social worker's activity and modern requirements for the level of his/her professional readiness have been identified. The social worker's training for multifunctional activities must be developed as a model with a clearly expressed social focus. In modern higher education pedagogy, there are several social and didactic professionally oriented training models for preservice social workers. It should be mentioned that scientific and practical research has been conducted in several directions. The adoption by the Ministry of Education and Science of Ukraine of a decision to introduce multilevel education contributed to the introduction of additional specialities and educational programs aiming at preservice social workers' competence development. This trend has been set in all leading higher education institutions in Ukraine, where social workers' training is being conducted. There is no doubt that the mentioned models of practical training are alternatives towards formal structures, which have long regulated the traditional educational process.

As the researchers note and the experience proves, there is an immediate need to train a social worker to have additional specialities and specialisations. In particular, the social and cultural sphere can be defined as an integrative and multifunctional activity, one of the social work components. Its purpose is the organisation of intelligent and meaningful leisure for people, their cultural needs, satisfaction and development, the creation of the conditions for each potential fulfilment, his/her abilities revealing, self-improvement and amateur creativity development. It can also be about the work with foster families, imprisoned people communication, people having functional limitations, homeless children, women who have experienced violence, and others. For this purpose, special theoretical and practical courses have already been introduced, which expand students' knowledge and skills regarding diagnosing and correcting specific violations, and deviations while acquiring special skills in terms of individual and group work.

However, such courses should consider the specific features of a particular educational activity. It means that first, we train a social worker and then create the appropriate background for mastering an additional speciality or specialisation.

Relevance of the topic

Considering that social work function is a sophisticated issue, it is necessary to define the place and role of social work in a society that is being transformed and switched from social policy to practical actions aimed at people's benefit. At the same time, there is the need to give a scientific basis for several categories reflecting social work's various aspects, such as subject, object, principles and methods, content, and structure.

The new social work scientific paradigm formation stage in Ukraine began in the

1990s. One of the main factors that stimulated the dynamic development of the new industry was the adoption of the Resolution by the Cabinet of Ministers of Ukraine and the Law of Ukraine “On Social Work”. These allow us to conclude that such a profession as a social worker was established, and a new speciality in higher education institutions was introduced. These specialities encouraged the development of scientific ideas while interacting with the practical issues solutions in the social sphere, new social infrastructure creation, and new disciplines of scientific status identification in higher education institutions. According to one of the Ukrainian researchers in the history of social work, Popovych H., the solution to these issues started with studying the Western European and American social work experience (Popovych H., 2004). As we know, Popovych H. was one of the participants and co-authors of the social work scientific base creation and development in Ukraine. He observed how social work gradually moved from empiricism to a worthy scientific level, with a sufficiently defined unique theoretical and methodological base.

Regarding the content and structure of social work, we emphasise that it is an independent and complicated activity. On the one hand, we can conclude from the generally accepted philosophical and psychological interpretation of the suggested activity. On the other hand, we consider the specific factors characterising the object we are studying.

Mainly, we share the philosophical definition by Bech V. who considers social activity as a way of existence and development of a human and a society, and as a comprehensive process of the surrounding natural and social reality transformation, including the social activity itself with its needs, goals and tasks (Bekh V., 2002). Among the main features of the activity, the author points out purposefulness, transformative and creative character, objectivity, determination by social conditions, activities exchange, and communication among individuals.

Statement of the problem

The beginning of professional personnel training for the social sphere coincided with the period of professional social education transformation. At that time, the paradigm “social order — specialist training” was replaced by a new one — “social needs — social and educational services”, when alternative educational institutions and educational programs appeared instead of typical higher education institutions.

Having given a detailed analysis of the conceptual foundations and the distinctiveness of the modern education developmental trends, we think it essential to give special attention to one of its most important directions — social education.

Today, Ukraine's education system enables young people to get a degree in the social sphere. In particular, they can obtain the following academic degrees as Bachelor and Master, mentioned in the documents on higher education: the Law “On Higher Education” and the “National Doctrine of Education Development”. It means

that the training of a specialist for the social sphere is supposed to be carried out within the two options of higher professional education programmes. At the same time, under the recommendations of the Bologna process (2003) and the development of the State Branch Standard for the speciality “Social work” (State Branch Standard of the Specialty “Social Work”, 2019), preservice social workers training was held within the two-level system. It required some correction of both the curriculum and number of credits, and the social education content itself.

The study of the peculiarities of social workers’ training in many universities of Ukraine (Kyiv, Cherkasy, Ternopil, Chernihiv, Luhansk) made it possible to identify that, on the one hand, the multilevel system of social workers’ training meets the students' requests for designing their educational strategy. It includes the choice of the content and academic level to acquire. Furthermore, on the other hand, such training satisfies the needs of the social sphere, allowing the educational process at higher education institutions to develop the preservice social worker’s personality. Moreover, a positive factor in this situation is that multilevel social education has been based on a person-oriented education system approved by the Academy of Pedagogy of Ukraine (1995). Since then, the implementation of a large-scale experiment to introduce a multilevel system into higher education institutions has been done. The above experiment proved that higher education institutions' activity in updating academic content and the latest technologies have significantly intensified, which made it possible to optimise and qualitatively improve personnel training for the social sphere.

Analysis of recent studies and publications

In recent years, in Ukraine, some studies have been conducted. They revealed common theoretical approaches to training specialists in the social and economic field in higher education institutions (Bila O., Bodrov V., Bondarenko O., Homoniuk O., Kononko O., Melnychuk I., Nychkalo N., Polishchuk V., Rudenko L., Sannikova O., and others).

In the study, we use the systematic approach while professional training, which in practice considers various aspects of various methodological approaches. Thus, a culture and civilisation approach have been identified within the expansion of educational issues. This approach recognises the equality and interchangeability of different world cultures and social and cultural systems in general. The idea of such an approach is vital for us because it contributes to reproducing ethnic and cultural self-identification by teaching Ukraine's young citizens.

One more contemporary approach is gaining in popularity nowadays. It is the social and cultural approach. It supposes that the educational environment is considered a social and cultural surrounding (Bekh V., 2002), (Kapska A., 2004). One more Ukrainian researcher Ziaziun I. also analyses the social and cultural aspects

of the educational environment (Ziaziun I.,2000). He identifies several aspects of the educational environment: administrative, social and cultural, academic and disciplinary, and personal. Micro-society is a social and cultural environment where students' education and training coincide with our ideas on their components.

Moreover, finally, if we talk about the professional training of a social worker as a complex, social, dynamic, self-organising system, then we can only do with its analysis from the standpoint of a systematic approach. Within this approach, the forming elements are revealed and enter into specific educational and professional relations under the goals of the professional training of a specific specialist (Ziaziun I.,2000), (Karpenko O., 2009). Due to this, person-to-person relations in the professional training system are primarily determined by the nature of the training process at a higher education institution, the personal characteristics of teachers and students, their values, attitudes, interests, needs and those social and educational backgrounds created for their formation and development.

Practice proves that changes in the professional training system, its restructuring and adaptation occur depending on which external and internal factors influence specific system elements.

The development of Ukrainian science, in particular, the application of an action's approach to culture, allows considering it as a process (creative activity), as an expression of value orientations or the subjective essence of the person himself. Today, the interest in the various aspects development of the professional culture of a social worker has significantly increased. Undoubtedly, the professional culture of a social worker covers the subjective and personal form of his/her existence. Moreover, the first of them characterises the achievements of a social worker in the field of professional knowledge and technologies with their application, and the second characterises the development of the personality of a specialist, his/her spiritual wealth, depth of knowledge, values that guide him/her throughout professional activities.

The idea of a social and pedagogical approach is closely related to the multidimensional professional concept of social worker training. (Myhovysh I., Kapska A., PolishchukV. and others). Considering the professional training of a social worker through a social and pedagogical approach, we talk about the measure and way of an individual's creative potential fulfilment. It aims at the assimilation of social and cultural reality and the creation of social values to increase its potential for the benefit of society.

Considering social work's content and structure, we should emphasise its independent multifaceted type of activity. At the same time, we proceed, on the one hand, from the generally accepted philosophical and psychological interpretation of the activity. On the other hand, we consider the specific features and factors

characterising the object we are studying. We mostly share the philosophical definition of activity as a way of existence and development of society and humans, a comprehensive process of transformation of the surrounding natural and social reality, including itself according to needs, goals and tasks (Bekh V., 2002). Among the main signs of activity, the author names purposefulness, transformative and creative character, objectivity, determinism by social conditions, exchange of activities, and communication of individuals. At the same time, the researcher Kapska A. investigates the morphology of activity and singles out its following types: transformative, values-oriented, and communicative. In addition, the scientist names the main activity elements: a subject that directs its activity to an object or other subjects; the object to which this activity is directed, manifested in the subject's communicative interaction with others.

The psychological foundation of the activity is quite convincingly revealed in the works by Leontiev O., where the author considers actions as processes dependent on perceived needs and goals. Moreover, its characteristics reveal the psychological and social reasons for the frequent mismatch between the activity's social and personal meanings. The structure of human activity is presented, which includes particular types of activity according to the criterion of the motives that stimulate them, as well as active processes that are subject to realised goals. Such individual activity components form a macrostructure (Karpenko O., 2005). The theory of personality activity in psychological terms is investigated in the works of Bekh V. (Bekh V., 2002). We share the opinion that the activity has a multilevel character. First, it is an integrated activity, a system of programs, operations and means of producing material and social values. Second, it is a separate action, which includes the goal, the motives for its outline and the method of achievement. Finally, macro-movements, thanks to the program's embodiment and construction, actions are built, and micromovements from which macro movements are created (Bekh V., 2002).

Purpose of the article is to reveal the aspects of the beginning and development of professional social work, disclose and summarise the circumstances for the development of social work as a professional activity, determine the contradictions and identify the components of preservice social workers' professional training at higher education institutions.

Methodology and the research methods

Several scientists, such as Bekh V., Zimnia I., Kapska A., and others, pay attention to the characteristic features of specific methods for social work. Based on different visions of the methodology essence, we focus specifically on the features of the method. Social and economic methods include all available means by which social work specialists influence the material, moral, family, national and other social interests and clients' needs. In particular, social and economic methods of influence

include in-kind and monetary assistance, client's moral encouragement, benefits establishment, patronage implementation, social support, and household services assistance.

Administrative methods of social work are considered in the context of the management aspect of the activities organisation, the structure of social services and other social institutions. The implementation of this group of methods is possible only on the condition of the availability and validity of regulatory and legal documents.

Organisational methods establish the rights, powers, duties, and responsibilities of each link in the management bodies of social institutions and organisations; allow for effective intervention, clarification and resolution of irregular tasks. The main methods of this group include regulation (as a method of organisational influence), norming (relations that serve as guidelines in the activities of a social worker) and instruction (a method of organising the most tolerant social influence).

Pedagogical methods include methods of consciousness formation, which aim to form certain concepts, assessments, judgments, and an individual's worldview. They are the following:

- persuasion method as a way of influencing the rational sphere of the individual with the help of logically constructed information in order to strengthen or change the views and attitudes and influence object evaluations;
- suggestion method as a way of influencing a person based on an uncritical perception of information by the influence object.

An essential difference between suggestion and persuasion is its focus not on the logic and reason of the individual, his ability to think and reflect, but on the person's emotions and his/her willingness to receive ready instructions for action. The method of example is a method of education based on the conscious reproduction of specific ways of behaviour by an individual.

Organising activities are considered methods of consolidation, formation of positive experience, personal behaviour, relationships, actions and deeds. The most typical methods of organising activities can be delegation, social learning and consolidation of positive experiences.

Activity stimulation methods aim to stimulate individuals to improve or change their behaviour and develop motivation for socially approved methods and types of activities. Among the methods of stimulation, it is appropriate to name: methods of positive reinforcement, methods of negative reinforcement, and methods of competition.

Methods of self-education contribute to the conscious change of a person's personality following social requirements and a personal plan of self-improvement. This group includes methods of self-assessment, self-organisation, self-control, and

self-correction.

Psychological methods in social work are used to diagnose the characteristics of individuals and groups in order to organise psychotherapeutic and psychological corrective work based on the obtained results. This group of methods includes testing, psychological and social dramas, social and psychological training and therapy (family therapy, play and art therapy).

Sociological methods are used in social work mainly to collect information on some social issues and determine people's attitudes towards them. We refer to this group of methods: observation, surveys, interviews (including in the context of a focus group), questionnaires, biography method and document analysis.

In recent years of the social work practice active deployment, the “peer-to-peer” method can also be attributed to the methods of purely social work. It is a way of providing and distributing reliable information through trustful communication between people within organised (actions, pieces of training) and informal social work (spontaneous communication), which specially trained people, mainly volunteers, conduct.

Presentation of the leading research material

The concept of the “social and economic sphere” as an interconnected complex of social interactions is interpreted through the organisation, management, research and correction of social relations at all public levels. The researcher Korchova O. emphasises that the spectrum of the social and economic sphere covers the solution of tactical problems. These issues are related to socialisation activities as well as theoretical development and practical implementation of technologies for regulating social relations at different levels of social interaction in the conditions of various social processes (Korchova O., 2005).

The leading group of specialists of the social and economic profile includes the professions of managers in education, social pedagogue, practical psychologist, and educator. The social and economic group of professionals of specialists and partners at educational institutions consists of social services specialists for children and youth, inspectors of guardianship and care authorities, teachers at comprehensive education institutions, and social workers.

It should be noted that the process of readiness formation for the professional activity of a preservice social worker is carried out at the initial stage as an educational and research process, which gradually develops into professional activity. At the initial stage of education, a student becomes a participant in the content search of the professional activity, which is determined from a holistic approach standpoint. While recognising the nominative aspect of the activity, students can identify the fundamental functions of the multifaceted professional activity of a social worker. Then, professionalism is formed by finding ways to transform the generalised

professional activity by isolating its operational structure and designing the content of a specific professional activity.

A social worker's professional training also occurs in higher education institutions. Undoubtedly, this is training, but training for the mastery of professional activities. Therefore, the only correct way of becoming a professional will be to create such pedagogical conditions to gradually transfer educational and cognitive activity into cognitive and professional activity under the guidance of a teacher, in natural conditions of professional activity in different societies and with different categories of clients. Moreover, the level of professional readiness of future social workers depends on how this process will be organised. Nevertheless, as O. Leontiev noted, it is essential to determine the type of “dominant activity” that determines the success of a purposeful educational process.

In this process, the principle of agreement which ensures the merging of separate knowledge into a particular system constantly stimulates the development of knowledge and methods of activity in specific types of activity. Training, as a process responsible for the readiness formation of preservice social workers' professional activity, develops and forms professional consciousness only when cognitive activity is carried out on the border of professional, i.e. cognitive actions and are correlated with professionally oriented actions. In addition, the multifaceted cognitive process ensures the formation of an entire social worker's personality and his complete perception of professional activity.

The essence of social work technologies is a reflection of society's social, historical, economic and cultural values and traditions. The technology of social work embodies not only the social influence of those who design and use it but also humanistic guidelines and significant values of an individual's life.

Correspondently, the ability to use a variety of social work technologies should be developed in vocational schools. It requires identifying optimal social and educational technologies necessary for the preservice social workers' professionalism formation.

Recently, the term “technology” has been widely used in all spheres of human activity and is quite noticeably established in the social and spiritual spheres. As we have a wide range of applications, it is actively used in the concept of “social technology”. At the same time, the term “technology” is widely used in contemporary scientific, social and pedagogical practices. While tracing the multifaceted approaches to “technology”, it is worth observing their different orientations in solving global state problems such as demographic, social and historical, political, and international. We also should mind the optimisation of internal processes and phenomena of modern society – management, intellectual, professional, including educational, as well as processes of development and self-development of an

individual.

After having analysed the research matter of domestic and foreign scientists, we found that such technologies are widely used: social, informational, economic, pedagogical, management, psychological, diagnostics of states, phenomena, processes, technologies of political power, populism, success and career. However, surprisingly, the concept “technology”, which is used quite often and, at first glance, is quite familiar and understandable, when trying to give it a concrete definition causes noticeable difficulties. It is explained by the concept of “technology”, which is multifaceted and used in various fields, making it quite challenging to define unambiguously. So, it is necessary to single out the most significant and specific features. Based on the concept that “technology” should be approached as a syncretic phenomenon, it can be perceived as a dynamic process, a synthesis of material and spiritual values created by man, as a historical product and process of human activity (Plashchova V., 2000).

It is worth emphasising that “technology” is a generic concept and belongs to those categories in different eras since technology has existed as long as humanity. Moreover, “the environment for a human being of today is a world of technology” (Kapska A., 2004).

It is of significant importance for science that technology increasingly acquires a universal meaning, which reflects the level of development of society, the civility of relations between people, the level of development of a person himself, his way of life, customs, and traditions.

The essence of the term “technology” was first explained by Bekhman I. in 1772 and was related to the production process. Today, there are three main approaches to the interpretation of this concept: 1) technique and technology are identified as similar concepts; 2) technique and technology are entirely different phenomena; 3) “technology” is a specific synthesis of material and social influence.

According to the American scientist Parsons T., the modern term “technology” coincides with the term technique (Polishchuk V., 2003). The author characterises the technology more specifically, emphasising that it is “a way of implementing a complex process by dismembering it into a system of research interrelated procedures and operations that are performed unambiguously” (Myhovich I., 2003).

However, the origin of the term, which combines two words, “techno” (art, skill, skill) and “logos” (science, teaching), allows us to talk about a rather broad interpretation of technology as a science of skill, an art of practical activity. The understanding of the concept became the reason for the gradual expansion of the scope of this term in various fields of knowledge and professional activity, particularly in pedagogy.

Within the research process, we focus on the typology of social technologies as

an optimal system of means of influence and activation of a person's mastery of a set of knowledge, norms and values. It allows us to distinguish among technologies and their features, precisely those that can contribute to the pedagogical technologies' fulfilment.

Thus, we must justify social technologies as a component of professional readiness. It is a kind of formula for action for every student who has to do social work or who has to know "how to do".

While revealing the essence of pedagogical technologies, social technologies followed them on their way to becoming. In the field of material production, the concept of technology has been established since the 18th century. These centuries-old traditions have not caused any doubts among researchers that the technologisation of the social sphere, meaning "social technology" or "technologies of social work", was not established immediately.

There is still no unified understanding of the term "social technology" in scientific research. We attempted to isolate from the existing interpretations the characteristic positions of scientists regarding the essence of social technologies.

Thus, researcher Popovych H. emphasises that in a broad sense, "all means of regulating the life activities of human collectives, communities, reflected in the relevant value and normative systems and social institutions, can be characterised as social technology" (Popovych H., 2004).

Researcher Vitkovska O. considers the essence of social technology in a slightly different way. She believes that these are "methods, means, operations of step-by-step achievement of goals as a result of skillfully, skillfully (technologically) organised activities of people, as well as a mechanism for combining knowledge with the conditions for their implementation" (Vitkovska O., 2004).

Closer to the essence of the concept is Zaitsev O. who notes its peculiarity, which emphasises that "social technology represents a set of knowledge about methods and means of organising social processes, these actions themselves develop a new way of achieving the goal" (Karpenko O., 2005).

In the context of multifaceted approaches, we follow the ideas of social technology as a kind of algorithm, a procedure for "taking action in various spheres of social practice in management, education, research work, artistic creativity" (Kapska A., 2004).

In our opinion, the essence of social technology in the closest connection with practice is convincingly revealed by Polishchuk V., who sees in it "the most rational way of social action to transfer the social system from one qualitative state to another in order to achieve a social result" (Polishchuk V., 2003).

So, the considered approaches allow us to assert that social technology can be revealed as a system of identifying, revealing and using the potential of the social

system with the aim of its optimal functioning with the help of methods and techniques of social influence. We regard social influence as the interaction of individuals, social groups, institutions or joint action in realising clients' interests.

At the same time, the large number of definitions of social technologies undoubtedly indicates the complexity of the technologisation of social processes in the organisation of social systems or human life activities, and the formation of its definitions is in a state of development.

Practice proves that any professional activity has unique technologies, such as pedagogy, art, and engineering. Moreover, the creative techniques are limitless and diverse in each of them, so it is only sometimes possible to talk about a standard or template here.

However, although there are no ready-made recipes for technologies today, there is no doubt that certain principles and techniques exist in every field of activity.

It is not by chance that social technology is often identified with an algorithm. On an intuitive level, it is perceived as a set of rules offering a sequence of actions that lead to an inevitable result. However, in its classical sense, the algorithm implies a more noticeable measure of certainty than the social practice itself. In defining the essence of social technology, we are impressed by the fact that it is characterised as one of the specialised modern forms of activity. In contrast, more general mechanisms of activity development determine technology development.

Undoubtedly, one can agree with the opinion of scientists that activity is a broader category than technology. However, technology is a more concrete, specific category since it is associated with several unique modern mechanisms for developing activity and tracking its effectiveness in terms of civilisation, control and management of development, and attention to the technical side of things.

The essence of social technology is as if the canvas is woven by a person who recorded his creative abilities. As for a social worker, as a professional who participates in the general labour process, he is motivated by its final social product. While speaking about creating social and pedagogical conditions for students' mastery of social technologies, it is necessary to emphasise some aspects that must be taken into account when modelling student learning.

In order to identify the specific features of social technologies and their use in a higher school's social and pedagogical process, we took as a basis the reasoning of some scientists regarding the typology of social technologies (Kapska A., Markova M., Kharchenko S.). It allows us to assert that all scientists tend to classify social technologies as:

- types of application (research, innovation, advisory, socialisation, diagnostic);
- fields of application (production, educational, medical, information, management);
- mechanisms of action (organisational, economic, psychological, pedagogical, legal);

-level of application (national, critical and social, individual specific).

The specified indicators oblige teachers of higher education institutions to outline the features of social technologies clearly. Such features dictate the obligation to consider them during the social and pedagogical process at the university. Moreover, students master the skills of developing social projects and select adequate social and pedagogical technologies for their implementation.

Taking into account the specific features of a pedagogical science and pedagogical activity in the education of students, many scientists singled out the peculiarities of pedagogical technology. However, there is also a noticeable difference in their interpretation. Thus, Abramov V., defining pedagogical technology, takes into account, first of all, the primary meaning of technology: “science of art”, while expanding its meaning as “the ability of a teacher to create conditions for the self-development of an individual” (Abramov V., 1993).

Academician Plashchov V. more widely reveals the content of pedagogical technology, emphasising that it is “a natural set of various methods of pedagogical influence as a person's natural harmonious behaviour in the modern cultural context, at the level of high spirituality and psychological understanding of the situation” (Plashchov V., 2000).

Makarenko A. introduced the term “educational technology” into pedagogy. However, this interpretation was not widely used. Nevertheless, the famous pedagogue understood technology as a system of knowledge necessary for an educator to implement a science-based strategy, tactics and education process (Plashchov V., 2000).

According to Burlaka Y., “pedagogical technology is a minimally abstracted description of reality, as it should be under pedagogical principles” (Karpenko O., 2007). The statement that pedagogical technology is a project of a specific pedagogical system implemented in practice resonates with our positions (Karpenko O., 2007). As a result, pedagogical technology is nothing more than a set of methods of pedagogical interaction that guarantee the solution for pedagogical tasks.

Of course, this definition consists of the interpretation of several concepts. Moreover, it is worth emphasising that “any pedagogical technology involves a certain set of methods, operations, procedures, actions, methods, techniques, individual steps, implementation, the use of which occurs according to logic, in a certain sequence, interconnection, that is, according to a set of methods” (Karpenko O., 2007).

Let us consider pedagogical technology as a set, the interaction of methods in solving pedagogical tasks. When solving them, it is possible to consider the expediency of interaction between a teacher and a student. Moreover, Kapska

A. emphasises that such use of methods in their interaction is determined by many factors: individual and gender characteristics of the teacher and pupils; the teacher's possession of pedagogical equipment; the content of the pedagogical process; changing the types of activities; psychophysiological and emotional states of the teacher and pupil; situation; the uniqueness of the pedagogical process (Kapska A., 2004).

Thus, the generalisation of the above-mentioned definitions and individual interpretations of the concepts of technology, social and pedagogical technology allows us to accept as a working version the following definition of the concept: pedagogical technology is a set of methods (methods, techniques, operations) of social and pedagogical interaction, which promote the activation of interest, needs and development of students in the process of solving pedagogical tasks and foresee a positive result of this process with the personality of the student. A peculiar algorithm of social and pedagogical technology, according to the definition of the academic dictionary of the Ukrainian language, is an indication of the “sequence of the unfolding of the step-by-step process, action” (Kapska A., 2004).

In our opinion, this type of algorithm making allows a teacher of a higher school to design an educational process, foresee in it not only stages but also optimal methods of interaction at each stage and solve individual tasks, which in their entirety contribute to the achievement of the desired result.

Furthermore, it allows us to implement the primary function of social and pedagogical technology to carry out personality development in specific conditions and situations.

Thus, as a separate component within the educational process, pedagogical technology reflects all its main characteristics: completeness, sequence, and interaction.

We fully agree with the opinions of scientists (Yevtukh M., Zvereva I., Leontiev O., Furman A.), who claim that any human activity is necessarily algorithmic. Therefore, both activity and technology can be considered identical concepts.

In general, the activity depends on the specific situation. It includes the goal meaning what must be achieved and for what purpose, and the action – how it can be achieved. It is known that every activity ends with the realisation of the goal, with obtaining the predicted result. This result mainly contains “the spiritual product of the individual's activity, emotional, intellectual, the material to harmonise all living things on earth” (Myhovych I., 2003).

Thus, the concept of “activity” is the central element during the analysis of social and pedagogical technology. It allows us to talk about a slightly more refined interpretation of social technologies: in a broad sense, by social technologies, we

understand activities related to organisation and changes in other activities. It is necessary to develop “a complex of methods, procedures, and rules that are offered to specific specialists to improve their work” (Popovych H., 2004).

According to the scientist in social work, Polishchuk V., we consider social work a particular type of practical activity. So, the content of social technologies can be interpreted, first of all, as a set of techniques, methods and influences of state, public and private organisations, specialists and volunteers aimed at providing social assistance, support, and protection to all people, especially vulnerable categories of the population (Polishchuk V., 2003).

Finally, an essential point in working with students is the formation of their ability to distinguish between the categories of “social technologies” and “technologies of social work”. Suppose scientists who study the problems of sociology emphasise that social technologies are a system of knowledge about the optimal ways of transforming and regulating social relations and processes in the life of people. In that case, researchers of the problem of social work as a professional activity (Myhovych I., Polishchuk V. and others) emphasise that the technology of social work is one of the branches of social technologies focused on social service, assistance and support of citizens who are in difficult life situations.

Moreover, this prompted us to introduce into a particular system block the essential technologies of social work, which formed the basis of the development of a model of the technological process of training future social workers.

Such essential technologies can be called the technologies: social expertise and diagnostics; social adaptation, rehabilitation, prevention and correction; social care, guardianship and patronage; education and information; innovative technologies. Each of the specified technologies became a separate block in the education of students adequately to the goal and social and pedagogical conditions of the development of professionalism.

Therefore, the term “social technology” is a generic concept that unites all technologies related to social relations, everyday life, and people's spiritual life. This approach is justified. Moreover, it is already widely used in social work. In particular, its essence is reflected in the educational course Technology of Social Work, which the State Industry Standard includes in the list of all educational institutions of Ukraine, where specialists in the social sphere are being trained.

From this, scientists consider the technology of social work as a process of transformation of the subject of activity: people, social problems, needs, and information. It depends on the actual historical situation, determined by the level of social development of society, such as economic, political, and spiritual spheres, as well as the level of development of the methodology of scientific knowledge and only then is a predetermined, receptive product of activity obtained.

Concerning the social protection of the population, according to Vitkovska O., this means that only a competent, that is, a technologically organised system can ensure the complete development of a person and the entire society as a whole (Vitkovska O., 2004).

It allows us to assert that the preservice social worker must possess an instrumental system of influence, which results from purposeful human activity and is used to solve problem situations.

At the same time, it is crucial that during the social and pedagogical process, the student realises that the content of the activity, the purpose of the interaction with the client, is the system and creativity factor of social work technology. The formation in students the ability to master the technologies of social work is closely related to mastering its methodical and instrumental base, with the processes of social work professional enhancement.

So, social work technology is an ordered collection of forms, methods, ways of influence and rational distribution of activities into stages with defined goals. It occurs to select the most effective ways to solve problems related to the social, material and psychological well-being of various clients.

However, training preservice social workers is a complex, multifaceted process. We need to reveal the essence of these technologies to successfully solve the problem of professionalisation of the educational process in higher education.

In particular, before a student should be included in the formation of professional skills, he should understand the content of social work as a phenomenon, as a process. The analysis of various scientific approaches made it possible to determine the content of social work, which includes three main aspects:

- 1) assisting an individual or a group of persons who find themselves in a difficult life situation through support, counselling, rehabilitation, patronage and the use of other types of social services;
- 2) the actualisation of the self-help potential of persons who find themselves in a difficult life situation;
- 3) purposeful influence on the formation and implementation of social and economic policy at all levels, from regional to state.

It must provide a social and healthy environment for living accommodations and human activity, creating a support system for people in difficult circumstances.

The first two aspects are manifested at the micro level, and the third is at the macro level of social work.

Today, there are many definitions of the essence of the phenomenon of social work.

The US National Association of Social Workers emphasises that social work is “the professional activity of assisting individuals, groups, and communities,

enhancing or revitalising their capacity for social functioning, and creating receptive social conditions to achieve these goals” (Zhmyr V., 1987).

Today, we reveal social work in two planes: in a broad sense, it is the influence of public professionals on the social organisation of society through the formation and implementation of social policy aimed at creating favourable conditions for human life.

In a narrow sense, this is a professional activity carried out by a professionally trained specialist and assistants. This activity aims to assist a person, family, or group of persons who have found themselves in difficult situations. It provides information, counselling, in-kind or financial assistance, provision of social adaptation, care, service, and pedagogical and psychological support.

It is worth paying attention to the disclosure of the essence of social work given by Popovych H. (Popovych H., 2004). She mainly focuses on such an aspect as self-help, including it in general – help in the system of social and cultural and psychosocial interactions and relations of various subjects.

Ukrainian scientists Kapska A., Myhovych I., Popovych H. and others think “social work” means the professional activity of organisations, groups and individuals. It assists in the implementation of socialisation to individuals or groups of people in cases where, due to the lack of appropriate conditions or personal defects in society, their socialisation is difficult, suspended or takes the opposite direction as unsocialisation.

The last definition is somewhat controversial since, in social work, the first place does not help in socialisation. However, it helps determine self-worth, socially significant behaviour, the manifestation of social activity, and “finding” oneself and one's place. It allows us to express the possibility of the functioning of another definition of the meaning of “social work”. We understand it as a social, philosophical, psychological, and pedagogical phenomenon that incorporates the multifaceted nature of any personality and the professional activity of a specialist in the social sphere. It is an integrated management activity aimed at changing the conditions for the functioning and development of processes to achieve their optimal compliance with the interests and needs of individuals, groups, and society.

In order to optimally form students' understanding of the content of social work and preparation for it, it is necessary to pay attention to the use of effective pedagogical technologies in this case.

However, for a complete idea of pedagogical technologies, which we will consider during the experimental work, it is advisable to consider its possible functions in the educational process. As a result of the analysis of this concept, the most successful is the definition of the functions of pedagogical technologies presented by the scientist Kashliev S., which allowed us to transform them into social

work.

1. The organisational and operational function includes the organisation of the teacher's activities; student organisation (creation of conditions); organisation of subject-object interaction; organisation of activities by the student himself.

2. The prognostic function reflects participants' prediction of the course of the pedagogical process and its possible results. It also models interaction and forecasts the level of development between the object and subject while implementing pedagogical technology.

3. The communicative function involves the communicative activity among objects, subjects, and participants in the educational process. It also supposes the information exchange between them, creating conditions of mutual understanding among the participants within the educational process.

4. The reflective function provides awareness between the teacher and the student, and oneself in a situation that is created, fixing the state and causes of personality development.

5. The developmental function consists in creating conditions for the development of the object of study; in providing means of self-development for both teachers and students.

We base on the content of a social worker's defined functions and consider the specified features of the functions of pedagogical technologies. So, we have the opportunity to determine the philosophy and strategy of the educational process, specific methods, tactics of pedagogical action and the logic of the technologisation. It is demonstrated in fig. 1.

Therefore, we assume that one of the conditions for the effective interaction of various technologies and the pedagogy of social work technology (meaning their in-depth use to form students' professionalism) requires the teacher to observe a specific sequence in the learning process:

- a) acquaintance with the technologies of social work at the stage of preparation;
- b) their application and adaptation at the stage of practical work with students;
- c) their understanding by the teacher and students and introduction of their elements of technology to solve specific goals;
- d) development of own social and pedagogical technologies by the teacher and author's technologies of social work by the student.

Moreover, all technologies can be tested in practical activities: by the teacher – in the educational process, by students – in various types of practical activities (for example, in business games, oral journals, defence of social projects, press conferences, modelling of specific programs) and various types of practices (professional-oriented, organizational and educational, internship, production and pre-diploma).

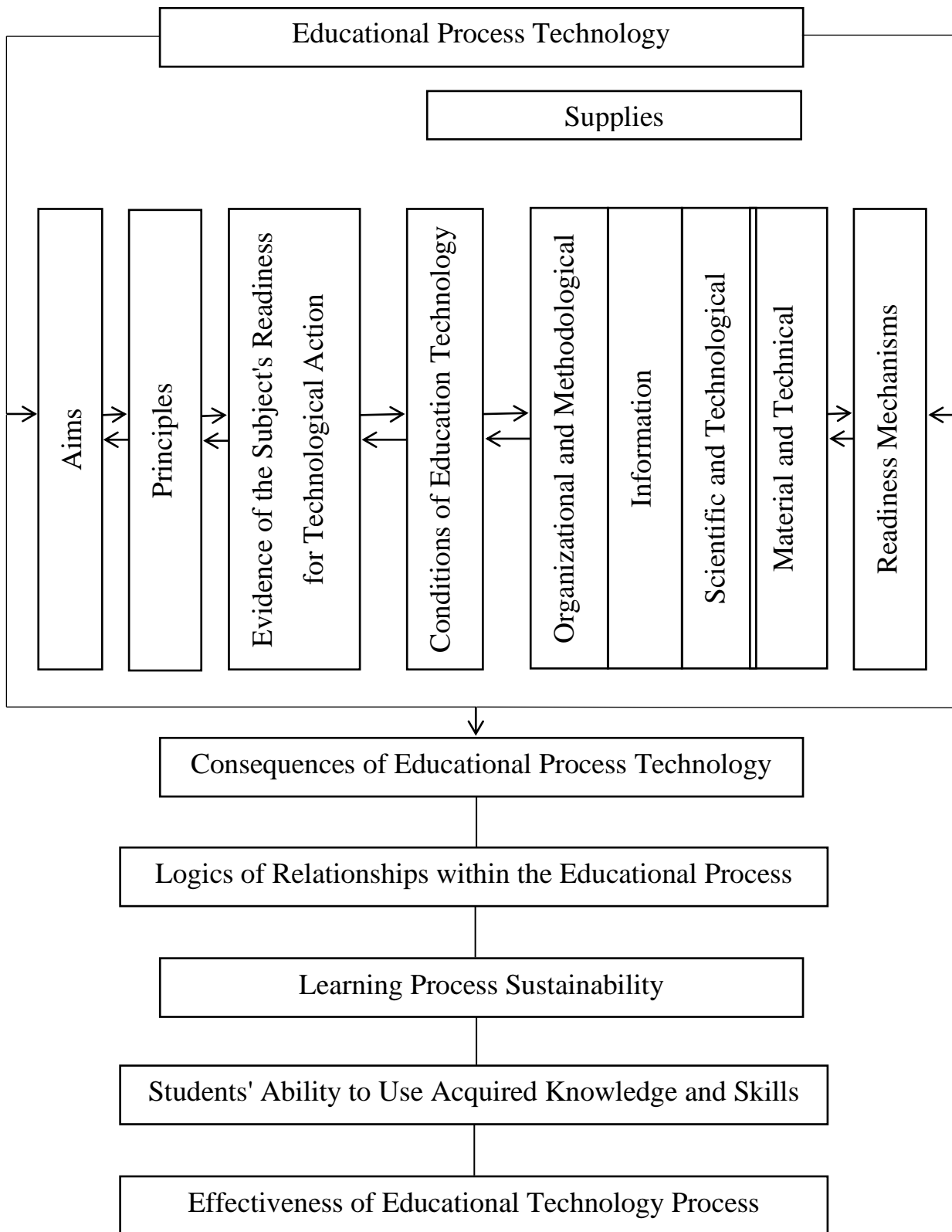


Fig. 1. The Logics of Social and Pedagogical Technologisation within the Educational Process.

Focusing attention on the combination of social and pedagogical technologies used in teachers' training universities and social work technologies that a student should possess, the teacher purposefully creates favourable conditions that ensure the high efficiency of these technologies. We consider it necessary to outline the

typology of requirements for social and pedagogical technologies that enhance the assimilation of social work technologies:

- compliance with the gender-age characteristics of the participants in the pedagogical process;
- compliance of the pedagogical situation with the content of specific technology of social work;
- compliance with the needs and interests of future social workers;
- activity-based nature of education;
- adequacy to the goals and objectives of student development;
- relationship with the social and cultural and educational environment;
- availability of opportunities to develop the professional and creative potential of students;
- compliance with the principles of organisation and conduct of the pedagogical process and social work in natural conditions.

If we talk about the formation of psychological readiness at its highest level, then it is manifested in the professional and pedagogical orientation of the graduate's personality. Its components are the preservice social worker's conscious needs for knowledge, social work theory and technology, creative thinking, the ability to increase positive motivation regarding the life activities organization, forming an attitude towards the professional recommendations and their practical application and knowledge and skills acquisition.

We can confidently state that within such approach the essence of a specialist's psychological readiness for activity simultaneously includes a positive attitude towards the work in the social sphere, various types of professional activity, individual needs and interests. They are the motives for this activity, relevant skills and professionally significant qualities.

Taking into account that the criterion for professional training effectiveness is "the individual efficiency in social, mental, spiritual, ethical, and others spheres. Thus, we have an example of reaching the maximum possible effectiveness of the educational process" (Karpenko O., 2005). When determining the deep purpose of education, we must also take into account the fact that psychological readiness is a peculiar aspect of reflecting quality training.

However, a person (we are talking about a social worker), who has been given the right by the society to provide social services and assess the degree of their assimilation, must also be internally motivated for complex, and multifaceted work. Therefore, we consider it necessary to synchronize all the efforts of teachers and psychologists in the process of social worker's professional readiness formation in higher education institution. Under such conditions, any type of professional development can be understood as a continuous process at higher education

institution in the form of as a constructive dialogue between a teacher and a student, a comparison and mutual complementation of various educational disciplines, as well as a prognostic vision of a highly qualified specialist.

The psychological interpretation of the interaction of social and pedagogical and psychological training is to understand the process of developing a person's ability to master another person's world, the internal and external content of life through the system of education, psychological science, that is through the awareness of the essence of universal human problems.

In connection with the need to focus on the psychological readiness of the social worker as a professional, educational work in higher education is structured with the aim to create the environment surrounding the student (at the university, in practice locations). It is constructed in such a way that it becomes possible to include him / her in all aspects of society life, which contributes to his / her openness, awareness, sociability, and professional orientation.

It, without a doubt, requires the use of psychological technologies and methods in working with students, which are able to strengthen their motivational readiness for practical activities. A number of professional activity concepts and methodological approaches to its study have been developed in psychology by Abulkhanova-Slavskaya K., Bekh V. and others.

Other scientists in their works emphasize on the active role of a person who transforms not only subject activity, but also himself. Thus, Doroshenko T., considers subjectivity as an individual quality that characterizes a person's purposefulness and determines the awareness of the need for one's own activity as the basis of an active attitude towards the world and one's place in it. The researcher also notes that subjectivity determines the need for self-awareness as an active person who strives for active activity, for the improvement of himself and the world (Doroshenko T., 2016).

The topic of revealing in a person his active creative nature is reflected in many studies of domestic and foreign psychologists. In addition, in the scientific literature, the suggested psychological aspect of students' professional training can be traced, the essence of which is to strengthen the motivational attitude of a preservice specialist (Doroshshchenko T., 2016); (Kapska A., 2003); (Myhovykh A., 2004). The importance of motivation for achieving success in activities and positive results is emphasized by many authors, in particular, we determined that "potential results of activity are a reproduction of the abilities and motivation of a specialist" (Karpenko O., 2007). The lack of purposeful motivation can lead to activity results decrease, dissatisfaction with it, inadequacy of one's own self-esteem, excessive psychological stress, which, accordingly, can slow down the individual's desire for self-improvement and self-realization (Doroshenko T., 20220). In our opinion, internal

motivation is more inherent in the professional activity of a social worker. And this, in turn, manifests itself among students at higher education institutions due to their internal attitude towards this profession. Awareness of this fact allows preservice social workers to be oriented for their work significance. One of the main means of developing internal motivation to social work is motivation through the understanding of the work itself. For instance, systematic deepening of students into the content of social work, expansion of functional work skills, increasing independence during professional practice. At the same time, an important factor in the formation of students' internal motivation is the success recognition by each of the education process participant while performing of a certain task, assignment, type of activity or specific social project component.

In addition, within the professional training process, the active students' involvement into the social projects implementation and decision-making, contribute to the formation of a sense of belonging, identification, and positive motivation. This allows us to talk about student motivation in a functional sense, which acts as a goal of the management system of education. It increases the stimulation of the learning process as a means of achieving the goal in the social worker's professional activity. However, in the educational process, stimulation as a means of achieving positive results is an effective means only if several conditions are taken into account. First, we should consider students' needs, values, interests and motivation. Second, the stimulation should contribute to the formation of internal motivation both at the level of interest in the process and at the level of learning outcomes. Third, we should bear in mind that thoughtless, mechanical application of ineffective incentives weakens motivation. The decisive importance in working with students is given to psychological conditions and a clear definition to realistic and prospective educational goals, tasks, time limits for their implementation, problem solving strategies in the educational environment at a higher school. University teachers while training students for professional activity in the social sphere should strive through the positive results of preservice specialists' activity to eliminate undesirable behaviour of university graduates and to strengthen the desired level of professionalism with the help of various types of reinforcement of their motivation and social learning.

In the domestic and foreign literature, there is a number of works in which the pedagogical and psychological aspects of individual professional development at the student age are disclosed (Ziaziun I., 2000); (Karpenko O., 2005). Undoubtedly, the defined qualities do not manifest themselves all at once. In addition, their formation and improvement require a long time, although even if the problem is solved positively, the weak psychological side of the student's training for social work is often observed. Therefore, we propose to deepen the content aspect of the

psychological training of higher school graduates both at the bachelor's level and at the specialist or master's levels.

Successful formation of professional and personal qualities of a preservice social worker is quite possible if the emphasis is shifted from external pedagogical management to self-management of this process. This can be done only at the level of subject-subject relations, which mediate the social and technological approach in student education. At the same time, this involves mutual adaptation of the student's personality to the educational and social environment of the pedagogical university. We understand the concept of subject to subject interaction as one of the essential characteristics of the educational process, which involves the direct or indirect influence of subjects on each other, which stimulates their mutual connection in the context of communication. In the case of psychologically justified interaction, the student represents a certain personal integrity, therefore the ability of the student to target self-organization, to fulfill the role of the subject of the relevant activity in the future is especially important (Doroshenko T., 2016).

In this case, we are talking about quite noticeable flexibility of both subjects of the pedagogical process. However, if we talk about a student's adaptation to a new social environment at higher education institution, then he / she has a fairly high rate of entry into it, in contrast to the less pronounced flexibility of the higher education institution itself in relation to the student. Practice proves that while studying, a student can repeatedly change his / her interests, needs and parameters of interaction with an educational institution, which may sometimes not react to certain changes in the life of an individual or react, but only partially.

Therefore, in order to talk about the two-way interaction of the subjects of the pedagogical process, it is necessary to create such an educational social environment, which, according to its structure and variability of methods and forms of influence on the individual, would allow choosing adequate forms of work and actively influencing the educational environment of higher education institutions. This approach to solving the problem, in our opinion, requires the implementation of some measures:

a) strengthening the content and quality of social and humanitarian component training of the preservice social worker, which can be carried out at the expense of humanitarian disciplines, enhancing their social significance and creating new courses based on interdisciplinary relationships, which serves as a new impetus in the development of a comfortable social environment of higher education institutions;

b) creation of a technological social and pedagogical structure at the Institute of Social Work and Management through the democratization of the structure, social and educational institutions, vocational guidance center, youth center, public self-government bodies, and others.

Without a doubt, each of the named components needs some explanation. According to the State Branch Standard of the Ministry of Education and Culture of Ukraine for the speciality “Social Work”, the social and humanitarian cycle of disciplines is defined as a basic component of higher education (State Branch Standard of the Speciality “Social Work”, 2019). To a certain extent, this accounts for about 22.6% of the hours of the total educational load, the rest of the time, approximately 77.4%, is devoted to the training of a specific specialist, and therefore, his preparation for professional activity. Based on this distribution of study time, it can be predicted that the social training of a specialist should be equally responsible for both the graduating departments (they provide professionally-oriented and professional-practical training) and other humanities departments of the university, including social and organizational psychology, management, social pedagogy, philosophy, history of Ukraine, and others.

In our opinion, the social and humanitarian cycle plays a rather important role in the training of a specialist in the social sphere, as it allows training not a narrow-profile specialist in the social sphere, but a professional with broad erudition and professional knowledge. Such a vision of the educational process regarding the training of a specific specialist in the social sphere prompts the search for opportunities to expand the socio-educational space for self-realization and self-development of each individual in the conditions of a higher school. This will undoubtedly contribute to the development of the ability of the graduate, a preservice social worker, to freely engage in various types of activities, corporate activities, adequate career promotion.

Analyzing the results of research by domestic scientists (Arkhipova S., 2002);(Ziaziun I., 2000); (Kapska A., 2004) as well as the practical experience of social worker’s training in foreign higher education institutions, we discovered that the cycle of social and humanitarian disciplines was improved and productively correlated with other cycles such as natural and scientific and professional and practical. However, the experience of organizing the educational process over the past ten years allows us to say that it is still too early to talk about achievements in terms of their content training as a sufficiently completed, perfect process. During the comparative analysis of students’ answers (283) and teachers’ responds (24), it was found that 93.7% of the interviewed teachers are satisfied with both the courses content and the possible improvement prospect. The students' answers are somewhat different, in particular, only 51.6 % of respondents are satisfied with the named courses in terms of content and technology.

It can be assumed that the students’ expert evaluation, at least to a certain extent, speaks about the intellectual comfort within the educational environment, and that affects their intellectual and emotional state while doing a specific educational

course. At the same time, one cannot ignore some of the students' complaints about the lack of such a social environment in which they could self-develop and self-improve, constantly realize their needs. Students see in the concept of comfortable environment a unity of conditions, features, means that promote growth, strengths manifestation and weaknesses improvement, freedom of choice not only to select conditions, but also individual aspects of education.

The student's need to create a comfortable social environment at the university ranks among others in one of the first places, since the proper educational, scientific, and educational social environment is the basis on which the self-realization of the individual and its self-improvement actively introduces.

Considering the content of the professional activity of a social worker as a system of purposeful manifestation of professional skills for the achievement of a specifically defined goal, we perceive the essence of tasks through the client's activity and behaviour, and not through the social worker's activity. Therefore, the goals of professional activity in the social sphere are manifested in changes, shifts, development of a person, his ideas, understanding of the situation, his practical abilities and skills acquired in purposeful activities.

As for the definition of the pedagogical goals for preservice social worker's professional training, the transformation of social work goals into a system of educational tasks plays a special role in their specification. Moreover, the initial principles and mechanisms of goal setting in the educational process are determined mainly by the ratio of acquired knowledge, abilities and skills, on the one hand, and development, personality formation, on the other.

Thus, the formation of students' ability to carry out one or another type of activity is manifested due to the presence of specific professional skills. The manifestation of professional skills is the final result of purposeful management of the formation of the social worker's professional activity, which is carried out due to the transition from the general to the specific, from theory and analytics to methods.

If we speak about the social worker's professional readiness for activity, we believe that it is better to talk about personality traits, which can be judged by the following criteria: according to the success manifestation while mastering the profession and according to the degree of person's satisfaction with his work. This indicator of readiness reflects a set of psychological and physiological characteristics of a person, necessary and sufficient for him to achieve socially acceptable work.

So, the proposed vision of social and pedagogical technologies reflects the modern idea on the process of organizing the preservice social workers' professional training as a large-scale, integrative process from the standpoint of pedagogical science and practice. In the pedagogical sense, both groups of technologies, together with the outlined requirements for them, are instrumental and have an applied nature.

At the same time, they represent a kind of theoretical foundation on which it is planned to build a system of students' professional training for social work.

Conclusions and recommendations

The active process improving the system of social professional education of Ukraine will be successful under one condition. It should highlight such social and pedagogical conditions in higher education that would not only change the educational space, but would enable to change fast the strategy and tactics of a new era specialist training for a new way of thinking and improve the main trends in the development of technologies for preservice specialists' training for the social sphere. Preservice social worker's professional training to deal with different categories of the population is a complex, multifaceted, current problem in contemporary conditions of education development. We do not reject the traditional system of training specialists of various profiles. However, the creation of a new educational environment, new potential approaches to the educational process organization in higher education institutions, the latest technologies that meet the basic requirements of the Bologna process. Moreover, the effective implementation takes place, to a certain extent, in new social and pedagogical conditions, which are reflected in scientific justification and development models of training students for professional activity. Optimizing the functioning of the educational environment as a social and cultural environment involves the comprehensive inclusion of social and cultural values. This understanding of educational activity allows transforming the traditional forms of student education into a wide field of social and cultural environment and social phenomena, into the vital activity of the social microenvironment, which generally contributes to self-determination, self-correction and self-affirmation of students in terms of their professional readiness. The theoretical analysis of existing pedagogical, philosophical, sociological and psychological approaches to determining the personality structure of a social worker and the study of the work experience of a higher school make it possible to reveal the content and structure of social work, its subject and his professional, psychological and personal qualities, which are reflected in the conceptual model of professional activities of a social worker.

Perceiving the social worker as an active subject who implements the strategy and tactics of the social and cultural policy of the state, his own strategy of actions and behavior, we made the assumption that the formation of professional and individual personality qualities should be considered a priority in the process of students mastering professional activities.

In addition, we came to the conclusion that it is in professional activity that a person reveals his sides most fully both as an individual and as a professional.

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DIGITALIZATION OF UNIVERSITIES

Abstract

The universities are facing many challenges nowadays. On one hand stays the question, how to attract the most talented students, on the other how to recruit and keep academic staff. One of the ways to deal with these arising challenges is through branding the corporate image of the universities as Yordanova, 2022 discusses. The corporate identity of the university becomes crucial as a way to differentiate between each other especially in the dynamically changing business environment. The unexpected pandemic situation not only surprised all educational institutions, but has become an outstanding factor for their survival and competitiveness. The present chapter draws attention on digitalization as a way to respond and to adapt to the pandemic situation. What is more, it presents author's view on factors, affecting on the level of digitalization of universities. Best practices of universities implementing digitalizations are also discussed.

Keywords: digitalization, digital tools, digital environment, online platforms

Introduction

Universities as all educational institutions are striving to be more attractive for talented students as well to provide excellent working environment for their academic and administrative staff as most important stakeholders they have. Thus, the outstanding quality provided by the university becomes a tool for the corporate image they have in the society.

The decreasing number of the population in Bulgaria and high level of migrants among young people are another obstacle affecting on the level of submission of students. Thus, the competition among all universities has become extremely severe due to lack of enough potential students to enter them and huge opportunities where to study. In this regard, the use of digital technologies is a way to be different and preferred by potential students. Digitalization is a factor leading to the success of universities.

The present chapter addresses on the topic of digitalization and how it affects on universities. In this regard, factors forming the digitalization are presented as well as

practices of some universities that proved to be successful.

Main body

Digitalization includes all digital technologies used by institutions to be user friendly and easy to operate by customers. When it comes to universities, it includes interfaces that students use to contact universities, all services that are provided in electronic format. It is a crucial factor as it makes university more attractive by generation Z, that is technologically oriented.

The factors leading to digitalization are discussed by Yordanova, 2022. Some of the factors are related by the level of access of the population to Internet. There is a specific indicator to define the level of digitalization on country level (DESI), representing a set of several indicators:

- The first indicator is the existing infrastructure to connect to Internet for each country;

- The second indicator is referred as the human capital expressed in the level of digital skills in country among its population.

- The use of the Internet and the purposes for its use by households is the next indicator.

- How implemented are the new technologies is the next factor.

- The level of digital public services are the last factor.

According to dateportal, the internet users in Bulgaria were 5,35 million for January 2022.

The good tendency is that there is very high level of Internet penetration among population - 78,0 %. There has been also a rise of Internet users in Bulgaria for the last 2 years with 4,6 %.

As we see from the figures below, Bulgaria is on leading positions regarding the level of connectivity among its Internet users. As for the access that households have to Internet, data is presented in table 1.

Table 1 Internet access of households in Bulgaria

HOUSEHOLDS WITH INTERNET ACCESS	
(Per cent)	
	2022
Total	87.3
By statistical region	
Severozapaden	83.1
Severen tsentralen	85.6
Severoiztochen	85.4
Yugoiztochen	84.9
Yugozapaden	90.5
Yuzhen tsentralen	88.6
By residence	

HOUSEHOLDS WITH INTERNET ACCESS (Per cent)	
	2022
Town	88.8
Village	82.4
By household type	
Households without children	84.4
Households with children	96.0

Source: nsi.bg

It becomes clear from table 1, that 87,3 % of the population have an Internet access. The higher is the percent of households with children having Internet access- 96,0 of all compared to 84,4 % of the households without children with access to the global network.

As for the degree of connectivity it lags behind other EU countries, Bulgaria is not taking the leader's position for the development of broadband networks in Bulgaria. As for fixed broadband network coverage, it provides 95% of household internet access, compared to (97% in the EU), with coverage in rural areas well below the EU average (60% of households compared to 91 % in the EU). Next Generation Access Network (GNA) coverage is 72% of households, similar to the EU average, but only 3% in rural areas (Digital Strategy, 2025). As for the frequency in the usage of Internet, data is presented in table 2.

Regarding the access to Internet, there are many devices used as it is seen from table 2

Table 2 Access to Internet from different devices

DEVICES USED BY INDIVIDUALS TO ACCESS THE INTERNET (Per cent)	
Devices	2021
Desktop computer	25.6
Laptop	30.7
Tablet	10.8
Mobile phone (or smart phone)	71.8
Other devices (e.g. smart TV, smart speakers, game console, e-book reader, smart watch)	6.0

Source: Nsi.bg

According to EU data, Bulgaria occupies 26th place out of the 27 EU member states in the European Commission's index of the penetration of digital technologies in the economy and society (DESI) for 2022. In general, our country is growing in terms of of Bulgaria's DESI indicator by 9% on average annually for the last five years.

Table 3 Use of Internet for individuals in Bulgaria

Total	79.0
By statistical region	
Severozapaden	74.2
Severen tsentralen	78.7
Severoiztochen	79.1
Yugoiztochen	74.4
Yugozapaden	85.0
Yuzhen tsentralen	75.7
By sex	
Male	79.9
Female	78.0
By education	
Basic education or lower	60.5
Upper secondary education	79.9
Tertiary education	94.2
By age	
16-24	95.1
25-34	93.6
35-44	90.0
45-54	86.4
55-64	71.8
65-74	41.0
By activity	
Employed	91.7
Unemployed	70.8
Students (inactive)	98.9
Other inactive	52.8

Source: <https://www.nsi.bg/en/content/2814/individuals-regularly-using-internet>

The data show that 79, 0 % of all individuals in Bulgaria use it regularly. Bulgarians with upper secondary education use it 79,9 % whereas people with tertiary education use it very extensively- 94,2 %. When it comes to age, the highest level of use is among the young population from 25 to 34 years old. Employed people are very active in Internet- 91,7 % compared to the unemployes-70,8 %.

When it comes for the reasons to use Internet, they are various (see table 4)

As it is obvious from table 4, the main reason to use Internet is to communicate either by making phone calls through its mobile application for Internet- 67, 3 % of the users or for social networks- 60,3 % of the population. Internet is also used as a search info instrument by 60 % of the population as well as for reading online news, magazines by 50,9 % of the population in Bulgaria.

Table 4 Reasons to use Internet by individuals according to nsi.bg

INDIVIDUALS USING THE INTERNET FOR PRIVATE PURPOSES (PER CENT)	
Purposes 2022	
Communication	
Sending / receiving e-mails	42.8
Making calls (including video calls) over the internet, for example, via Skype, Messenger, WhatsApp, Facetime, Viber, Snapchat, Zoom, MS Teams, Webex	67.3
Participating in social networks (creating user profile, posting messages or other contributions to Facebook, Twitter, Instagram, Snapchat, etc.)	63.4
Using instant messaging, i.e. exchanging messages, for example, via Skype, Messenger, WhatsApp, Viber, Snapchat, Discord	61.5
Access to information	
Finding information about goods or services	60.2
Reading online news sites / newspapers / news magazines	50.9
Civic and political participation	
Expressing opinions on civic or political issues on websites or in social media (e.g. Facebook, Twitter, Instagram, YouTube)	16.8
Taking part in online consultations or voting to define civic or political issues (e.g. urban planning, signing a petition)	7.6

Source: nsi.bg

Another reasons to use Internet are summarized in table 5.

Table 5 Reasons to use Internet according to nsi.bg

Entertainment	
Listening to music (e.g. web radio, music streaming) or downloading music	41.6
Watching internet streamed TV (live or catch-up) from TV broadcasters	23.0
Watching Video on Demand from commercial services (e.g. Voyo, Netflix, HBO GO, Amazon Prime Video, Apple TV)	8.4
Watching video content from sharing services (e.g. YouTube, Vbox7)	27.5
Playing or downloading games	15.4
Listening to podcasts or downloading podcasts	5.3
eHealth	
Seeking health-related information	39.1
Making an appointment with a practitioner via a website or app)	11.2
Accessing personal health records online	16.1
Using other health services via a website or app instead of having to go to the hospital or visit a doctor	3.3
Other on-line services	
Selling of goods or services via a website or app (e.g. eBay, Facebook Marketplace)	9.9
Internet banking (including mobile banking)	22.4

Source: nsi.bg

The digitalization is affected also by the level of digital skills that the

population has. According to table below, the main digital skills are mainly basic.

Table 6 Digital skills of individuals

INDIVIDUALS HAVING DIGITAL SKILLS (Per cent)	
Copying or moving files between folders, devices or on the cloud	39.1
Downloading or installing software or apps	25.0
Changing settings of software, app or device	18.8
Using word processing software	27.9
Creating files incorporating several elements, e.g. text, picture, table, chart, animation, sound	20.0
Using spreadsheet software	14.4
Editing photos, video or audio files	18.6
Writing code in a programming language	1.1

Source: <https://www.nsi.bg/en/content/2826/individuals-having-digital-skills>

As it is clear, the main skills are related to performing basic activities, such as copying and moving files - 39,1 % or using word processing software - 27,9 %. As for more specialized digital skills such as writing code in a programming language, only 1,1 % of respondents can do it. Regarding the digital skills, Bulgaria's score is lower – 32,6 % to that of EU average of 45.7%. At the same time, about 40 % of the Bulgarian population possess minimal digital skills, expressed in copying and moving files, 27.9% know how to use word processing software. As for skills that are more in-depth such as editing photos, video files, as well as creating files incl. Sound, graphics, animation, there are far fewer people who can do it (Yordanova, 2022).

Table 7 Internet use for learning activities

INDIVIDUALS USING THE INTERNET FOR LEARNING ACTIVITIES (Per cent)	
Activities	2022
Doing an online course	7.6
Using online learning material other than a complete online course	7.5
Communicating with educators or learners using audio or video online tools	6.6

Source: nsi.bg

As it is obvious from table 7, the main reason for using Internet by individuals is for doing an online course-7,6 % and for use of online learning material by 7,5 % of the respondents. It becomes clear that Internet is used mainly for communicating rather than as a learning environment.

If we have a close look at universities, not all of them have been prepared for the online teaching due to the pandemic situation. Some of the universities have been prepared in advance by offering distance learning courses for their students- VFU,

UNWE-Sofia, TU-Varna. With the advent of new technologies, universities can provide not only access to its electronic resources such as online libraries, but also full online service to the students.

The library directory in Bulgaria gives full information regarding universities providing online libraries to the students and academic staff. There are several online libraries in Bulgaria:

- American University in Bulgaria
- Bulgarian Academy of Sciences
- Bulgarian National Library
- Medical University of Sofia
- Sofia City Library
- Sofia University “St. Kliment Ohridski”
- Medical University of Varna
- P. R. Slavejkov Regional Public Library- Varna
- Regional Library “Hristo Botev”-Vratsa

As we can see, there are few universities offering such service, only 4 of all Bulgarian universities are registered as online. Some of them provide chat opportunities to use and ask for a professional consultation form a librarian as the nbu.bg does.

The most popular online platforms in Bulgarian universities are:

- Vedomo, applied in Sofia University working together with the asynchronous platform, Sofia University. This gives opportunity of SU to deliver online distance-education programmes, by mixing synchronous with asynchronous teaching. It functions in the following way as lecturers upload pre-made learning materials for self-preparation or additional learning resources in their online courses using their asynchronous platform. In the VEDAMO virtual classroom in real time there are online sessions no matter where are the students physically positioned. Besides this, the platform provides access to the archive recordings of all online sessions. This allows for better monitoring of the students’ progress (<https://www.vedamo.com/success-story/sofia-university>).
- Moodle is one of the most popular online educational platform, giving access to students and academic staff by its possibility to customize learning environments and computer-supported learning projects. It is used by VFU, VU, VUM and many others during the pandemic (Yordanova, 2022).
- ELearn is the online platform used by University of economics – Varna. It provides opportunity to meet online in real time and to conduct exams also online. On one side, the platform is synchronous. It has a database with exam questions and each student receives different mixture of exam questions.

When the pandemic started, not all universities can adapt so fast due to lost of resources and technical staff to develop and support such online platforms. Most of them chose mixed approach in the form of a hybrid learning. It proved to be good opportunity due to the high number of contaminated students, in which there is on-site and virtual training, was quite successfully combined for the individuals who are in isolation (Velkova & Kovacheva, 2021).

Other universities have switched entirely to online learning through virtual classrooms using free applications such as Google classroom. According to research data at the European level, blended learning is the most used method and is offered and used mostly in Northern (92%) and Western Europe (85%) (Velkova & Kovacheva, 2021).

There are best practices in some universities, i.e. VUM-Varna, UNSS-Sofia, which not only provide online access to the collection of many publishing houses as part of their library databases. In terms of digitalization, students also have access to different services they need for their education such as student status, online exams in real time through an electronic platform, to study materials, chat platform to communicate either with administrative staff in the universities or with their colleagues by using specific online platform.

For example, VUM provides very good dec-system, an electronic platform where students can find all learning materials such as presentations, video or audio files. It also gives access to results of exams for students. Once the exam passes, the lecturer uploads results and they can see it in real time. The platform also provides options to chat with colleagues which is an excellent opportunity for new comers and during pandemic situation too.

UE-Varna present also very good example of digitalization through the eLearn platform suitable to upload lectures, but also used for conducting online exams in real time. The students also can apply online to be recruited and to receive funding for their excellent academic studies. The electronic platforms save time and provide opportunities for better service and personalization.

During the National Round Table "IT Innovations in Higher Education", the opportunities for digitization and good practices of Bulgarian universities were presented. One of the leaders in the digitization of education presented its Web Student digital platform, developed by IT specialists at IU-Varna, as well as the possibilities for servicing the current student situation in a completely digital environment (Yordanova, 2022).

During the discussions, representatives of the academic community and business agreed to define how digital each of their universities is as well to apply for funding to recruit most talented IT specialists as these platforms need support (varnanovini.bg). To sum up, digitalization of education is inevitable. It provides excellent

opportunities for administrative staff and students as well. On one hand, the work of administration is simplified and the quality of service they provide is better. On the other hand, students can easily find all needed information related to their status, schedule and be informed faster.

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